

Review of Christchurch International Airport's pricing decisions and expected performance (July 2017 – June 2022)

Draft report – Summary and analysis under section 53B(2) of the Commerce Act 1986

Date: 19 July 2018



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Executive Summary

- X1 Christchurch International Airport Limited (Christchurch Airport) is one of three international airports subject to information disclosure regulation under Part 4 of the Commerce Act 1986 (Act).
- X2 Christchurch Airport has reset its prices for the period 1 July 2017 to 30 June 2022, after consulting with airlines. This is known as Christchurch Airport's third price setting event (PSE3).
- X3 We have reviewed Christchurch Airport's pricing decisions and expected performance for the PSE3 period, with a focus on its expected profitability and pricing efficiency.
- X4 This draft report contains our analysis and draft conclusions on whether Christchurch Airport's pricing decisions and expected performance are likely to promote the long-term benefit of consumers (consistent with Part 4 of the Act).
- X5 This draft report is intended to provide greater understanding of Christchurch Airport's performance. It has been published under section 53B(2)(b) of the Act, which requires us to publish a summary and analysis of information disclosed by Christchurch Airport about its price setting event.

Draft conclusions

- X6 In our view, Christchurch Airport is not targeting excessive profits on the majority of its regulated services over the PSE3 period.
- X7 We consider that Christchurch Airport's target return over the PSE3 period on its 'priced services' is reasonable. Priced services are regulated services that apply standard pricing terms and are consulted on with 'substantial' customers (at least) every five years. Priced services represented about 85% of Christchurch Airport's total regulated asset base (RAB) in 2017.
- X8 On the evidence provided, we are not satisfied that Christchurch Airport's profits over PSE3 on its 'other regulated services' are not excessive. These services are priced under individual contracts that have a variety of lengths and start dates, which do not necessarily align with the five-year pricing period. These services represented about 15% of the total RAB in 2017.
- X9 We do not consider that Christchurch Airport has sufficiently justified its expected returns on these other regulated services. However, we consider it may be more appropriate to assess these target returns over a longer period of time, rather than over a given five-year pricing period. This is because there are a wide range of factors that can affect the prices under the contracts that apply to these services.
- X10 We outline our reasons for this below and invite stakeholders to provide feedback on this point.

Christchurch Airport is targeting a return of 6.65% on its total regulated asset base

X11 Christchurch Airport is expecting a return on its total RAB of 6.65%. Its associated revenue is \$421.6m over PSE3 in present value terms.¹ This comprises of its expected returns on two groups of regulated airport services.

X11.1 Christchurch Airport is targeting a 6.44% return on its priced services.² These services include the use of airfield runways and taxiways, air-bridges and baggage handling services.

X11.2 Christchurch Airport expects to earn a 7.87% return on its other regulated services. These services may include terminal lounges, and facilities and services for the operation of customs, immigration, quarantine checks, security and Police services, refuelling of aircraft, and storage of freight.

Christchurch Airport's target return on its priced services is reasonable

X12 We consider that Christchurch Airport's target return on its priced services of 6.44% is reasonable. This is based on our view that Christchurch Airport has sufficiently justified a cost of capital of 6.47% over the PSE3 period to reflect its higher cost of debt estimate.

X13 A cost of capital of 6.47% is above the 6.41% benchmark cost of capital estimate determined under our Input Methodologies. This difference reflects Christchurch Airport's estimate for the debt premium, which is based on Christchurch Airport's actual credit rating of BBB+ (compared to our benchmark of A-).

X14 We consider that Christchurch Airport has provided legitimate reasons to apply a different debt premium to our benchmark debt premium. In our view, using a debt premium estimate of 1.84% is reasonable and appears to be consistent with prudent levels of debt financing.³

Some flexibility is appropriate when assessing target returns on other regulated services

X15 On the evidence provided, we are not satisfied that Christchurch Airport's profits on its other regulated services are not excessive. These services are priced through contractual arrangements with individual customers.

X16 We estimate this to result in Christchurch Airport earning about \$6m (or 1.5%) of revenue above that consistent with a reasonable return of 6.47%.

¹ 'Present value' is 1 July 2017, the start of the PSE3 period.

² Christchurch Airport's own estimate of its cost of capital – incorporating its higher debt premium and higher asset beta estimate – is 6.82%. This differs to its target return of 6.44% on its priced services. Christchurch Airport has explained that this difference primarily arises because it is providing concessions on expenditure to incentivise new airline routes.

³ We do not, however, think Christchurch Airport has provided legitimate reasons to depart from our benchmark asset beta and from our benchmark cost of capital on that basis. In our view, Christchurch Airport has not sufficiently explained its asset beta of 0.65 (0.05 higher than our benchmark). As a result, we do not consider that Christchurch Airport's own cost of capital estimate of 6.82% has been sufficiently justified.

- X17 These contracts are affected by a range of factors, which make it difficult to determine whether returns on these contracts – over a given five-year pricing period – are appropriate. In particular:
- X17.1 Market conditions when the contracts were signed (eg, level of interest rates at the time).
 - X17.2 The degree to which rent reviews or break clauses within a contract can adjust original pricing arrangements and make an assessment against a cost of capital of 6.47% more or less appropriate.
 - X17.3 The environment in which any contracts were signed (eg, the degree to which airports use their market power when negotiating longer-term agreements, or whether there are feasible alternatives to the contract, such as a standard pricing contract).
 - X17.4 How the existing contracts that Christchurch airport has with its customers match-up with its current target returns for other regulated services.
- X18 Christchurch Airport suggests it is more appropriate to assess the expected returns on these contracts based on the interest rate environment at the time the contracts were agreed. Christchurch Airport has estimated that the risk-free rate component of a cost of capital more consistent with the date and term of their contracts, in effect over PSE3, would be over 2% (ie, 200 basis points) above what was assumed in our benchmark cost of capital estimate.
- X19 We accept that these contracts have varying lengths and start dates and may be subject to market conditions (eg, interest rate expectations) that do not necessarily align with the market conditions applicable to the five-year PSE3 period.
- X20 However, we do not consider that the evidence provided by Christchurch Airports on interest rates is sufficient to justify the higher returns over the PSE3 period, given that many additional factors could affect the appropriateness of expected returns under these contracts.
- X21 In particular, Christchurch Airport notes that many of these contracts are subject to market rent reviews.⁴ The existence of these reviews is likely to provide a mechanism which helps, at least to some degree, align the price paid by the customer over time with current market conditions (including the level of interest rates).
- X22 The existence of market rent reviews provides a reason why the return targeted by Christchurch Airport should potentially be more consistent with our benchmark cost of capital, which is based on more recent interest rates, rather than a return based on the interest rates in effect at the time the contracts were agreed.

⁴ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), Appendix C, page 6.

- X23 Overall, we acknowledge that these contracts are affected by a range of factors, which make it difficult to determine whether returns on these contracts – over a given five-year pricing period – are appropriate.
- X24 We do not wish to discourage commercial agreements (particularly longer-term contracts) between parties when the contract provides mutual benefits and the airport’s market power has not unduly affected the terms of the contract. However, there can be limited competition in relation to the airport’s supply of other regulated services, which limits customers’ bargaining position.
- X25 Nonetheless, we do not know the extent of alternative options available to customers of these contracts and whether it is feasible for customers to move to a standardised pricing arrangement (based on the five-year pricing period) with the airport.
- X26 Given the range of factors that could affect the appropriateness of returns on other regulated services, we consider it is appropriate to apply some flexibility in our assessment of these services and consider it may be better to assess returns on these services over a longer period of time. We intend to monitor the returns on other regulated services over the longer-term and the proportion of revenue captured under these services.
- X27 We invite feedback from stakeholders on this view, and how we should consider returns on longer-term negotiated contracts.
- X28 In particular, we are interested in:
- X28.1 whether greater flexibility is appropriate for assessing the expected returns on other regulated services;
 - X28.2 how we can ensure that we apply a consistent approach over time - for example, if the expected return on other regulated services is below our benchmark cost of capital, we would want to ensure this lower return is not offset by a higher return on priced services (including in the event that the expected return on the total RAB is below our benchmark cost of capital); and
 - X28.1 how we ensure our approach does not incentivise or disincentivise the use of negotiated contracts when it is not in the long-term interests of consumers to do so.
- X29 The approach we take to assessing longer-term negotiated contracts will affect our review of other regulated airports’ price setting events, including our final assessment of Auckland Airport’s expected profits over PSE3.
- X30 We wish to highlight that the approach we take, including any information and evidence we require to apply our approach, should be proportionate to the size of the risk presented by these other regulated services.

- X31 An airport's ability to earn excessive profits on these services is moderated by the fact that these services represent a relatively small proportion of the RAB at any one time; any excessive profits on priced services are likely to represent greater harm to consumers over the long-term.

No significant concerns with forecasts affecting Christchurch Airport's expected returns

- X32 Overall, we do not have any significant concerns with Christchurch Airport's forecasts underpinning its expected returns. This includes Christchurch Airport's forecast asset values, demand, operating expenditure, and capital expenditure. Accordingly, we have used Christchurch Airport's forecasts as a basis for assessing its expected profitability.
- X33 We also gave consideration to whether Christchurch Airport has incentives to invest appropriately, efficiently and at a quality standard that reflects consumer demands.
- X34 Christchurch Airport is forecasting to spend \$82m in capital expenditure over PSE3, representing close to 16% of its total RAB in 2017. This largely represents 'business as usual' expenditure and will result in a smaller RAB in real terms (as it is outweighed by depreciation).
- X35 Our review of Christchurch Airport's historic expenditure compared to forecast capital spend over PSE3 does not provide evidence of planned under-investment or over-investment or bias. Nor do we see evidence of a strategy to gain from delaying projects or setting forecasts that are more likely to overstate rather than understate actual expenditure.

Christchurch Airport is seeking to better distribute capacity among its existing facilities

- X36 Submitters suggest that overall, Christchurch Airport is operating within capacity. Passenger numbers have been picking up over the last few years following the Canterbury earthquakes and subsequent aftershocks. In 2017, passenger numbers sat at 6.6m. This compares to 2013, where passenger numbers sat at 5.5m after reducing from 6.0m in 2010 (an 8.3% decline).
- X37 Christchurch Airport has planned investment and operational changes to better manage current and future demand. Christchurch Airport suggests that capacity could be better distributed between the regional terminal, which is at times over-capacity, and the international terminal, which is under-utilised.
- X38 In particular, Christchurch Airport plans to spend \$10.4m reconfiguring its integrated terminal – its single largest capital expenditure project. The airport suggests this investment will make better use of the potential flexibility and efficiencies captured in its integrated terminal. Christchurch Airport could have provided more information to alleviate airlines' concerns about the project's lack of specificity.
- X39 If successful, this approach, which seeks to leverage off existing efficiencies, is preferable to incurring substantial capital expenditure in a specific area approaching capacity, while other facilities remain under-utilised.

X40 In line with this, Christchurch Airport appears to have set prices with a view to encourage airlines to use spaces of the terminal that are under-utilised. This was done as part of a relatively significant overhaul of its charging structure, compared to PSE2.

Christchurch Airport has made significant changes to its pricing structure

- X41 Over PSE3, Christchurch Airport is charging passenger aircraft based on the number of passengers (not seats) in a departing aircraft, irrespective of other factors that were applicable in PSE2, such as the aircraft's weight or point of origin or destination.
- X42 By the end of PSE3, the international and domestic (non-regional) per-passenger charge will be equivalent. Previously, international passengers paid more than all domestic passengers. In addition, eliminating weight-based charges means that smaller aircraft are worse off (attracting higher charges) and larger aircraft are better off (attracting lower charges).
- X43 Overall, Christchurch Airport's new charging structure does not raise significant efficiency concerns. Per-passenger charges are simple to understand, transparent and are likely to reduce airlines exposure to demand risk.
- X44 Christchurch Airport appears to have set its per-passenger charges with a view to:
- X44.1 remove incentives on airline customers to alter fleet mix in ways that did not reflect the airport's forward-looking costs; and
 - X44.2 send price signals about the relative capacity constraints facing its regional and international terminals.
- X45 This is likely to encourage changes in usage patterns across the different terminals, ie, move passengers from the more congested regional terminal to the less congested integrated terminal. Improved allocation of demand is likely to be efficient if it lowers future costs across the different terminals.
- X46 We also consider that Christchurch Airport's pricing methodology is unlikely to result in cross-subsidisation between operators of different aircraft.⁵
- X47 In our view, Christchurch Airport's new charging structure could represent an improvement in efficiency compared to PSE2. However, this is difficult to predict and will be somewhat dependant on whether the airport seeks to maintain this charging arrangement over the long-term. Price stability and predictability are important for airlines' ability to plan and invest over the long-term where airlines are also undertaking risky investments, such as in new aircraft.

⁵ Christchurch Airport's per-passenger charges are likely to cover the incremental costs, and not exceed standalone cost, of servicing different types of aircraft. Covering incremental costs is sufficient to ensure there is no cross-subsidy. The stand-alone costs test can also be relevant to whether a cross-subsidy exists where a firm's profits are constrained.

- X48 Given that much of the airport's costs are fixed in nature and only moderately affected by the type of aircraft, we would expect airports' charging structures to remain relatively stable over the long-term. Where significant changes are proposed, we encourage airports to provide robust evidence regarding the efficiency benefits and to have regard to the benefits of price stability and predictability over the long-term.
- X49 Christchurch Airport does not expect its new price structure to materially affect overall demand. Consistent with this, its forecast demand was not affected by changes to its price structure. This appears to be a plausible outcome, but potentially inconsistent with some of the airport's statements. For example, Christchurch Airport suggests it was essential to phase in regional price increases (combined with phased in international price decreases) to maintain its original demand forecasts.
- X50 More broadly, we think that Christchurch Airport could have been more transparent about its intentions behind its charging structure, and the relevant impacts on different customer groups, in its PSE3 disclosure.
- X51 Our understanding and views on Christchurch Airport's charging structure was shaped by material provided by the airport after consultation closed. This material is now publicly available but was not available to interested parties throughout our consultation process. Including this information in the PSE3 disclosure would have allowed us and other interested parties to better understand, and engage with, Christchurch Airport's performance and pricing efficiency.

Next steps

- X52 We invite you to provide your views on our draft conclusions and supporting analysis in this draft report by 16 August 2018. Cross submissions are due by 6 September 2018.
- X53 We are also reviewing Auckland Airport's pricing decisions and expected performance for the period 1 July 2017 to 30 June 2022. Our draft report on this can be found [here](#).
- X54 By 23 August 2018, we invite cross submissions on our assessment of Auckland Airport's cost of capital in light of our assessment of Christchurch Airport's expected returns relative to our benchmark cost of capital.
- X55 We intend to publish our final reports on Auckland and Christchurch Airport's PSE3 pricing decisions and expected performance in October 2018.

Chapter 1 Introduction

Purpose of this draft report

1. This report contains our draft conclusions about Christchurch International Airport Limited's (Christchurch Airport) pricing decisions and expected performance for the period 1 July 2017 to 30 June 2022.
2. Christchurch Airport is one of three international airports subject to information disclosure regulation under Part 4 of the Commerce Act 1986 (Act).
3. We are publishing this draft report under section 53B(2)(b) of the Act, which requires us to publish a summary and analysis of information disclosed by Christchurch Airport, including information about its price setting event.⁶
4. The conclusions and analysis in this draft report take into account the submissions we received on this review, in response to our *Process and Issues paper* published on 20 October 2017.⁷

Structure of this chapter

5. This chapter discusses:
 - 5.1 the context for this draft report;
 - 5.2 the focus of our review, including consideration of stakeholder views;
 - 5.3 our approach to assessing expected performance in this review;
 - 5.4 the information we have used to assess expected performance in this review;
 - 5.5 the structure of the remaining document; and
 - 5.6 the next steps, including how you can provide your views on this draft report.

Context for this draft report

Christchurch Airport has reset its prices

6. In June 2017, Christchurch Airport reset its prices for the period 1 July 2017 to 30 June 2022 after consulting with airlines. Christchurch Airport refers to this as its third price setting event (PSE3).
7. Christchurch Airport has been subject to information disclosure regulation under the Act since 2011, but has been consulting with airlines on proposed price changes before this under the Airport Authorities Act 1966 (AAA).

⁶ Christchurch Airport is required to publicly disclose information about its price setting event in accordance with the *Airport Services Information Disclosure Determination 2010*.

⁷ The *Process and Issues paper* and all submissions received on it can be found at: <http://www.comcom.govt.nz/regulated-industries/airports/airports-information-disclosure-summary-and-analysis/price-setting-event-3-pse3-for-auckland-and-christchurch/>.

8. Under the AAA, airports can set prices as they see fit, but must consult with airlines prior to fixing or altering charges and within at least five years after fixing or altering charges.⁸ This means that airports reset prices at least every five years.
9. In this document, we refer to Christchurch Airport's first and second price setting events as 'PSE1' and 'PSE2' (PSE1 relates to the pricing period 1 July 2007 to 30 June 2012 and PSE2 relates to the pricing period 1 July 2012 to 30 June 2017).⁹

Christchurch Airport has publicly disclosed information about its pricing decisions

10. In August 2017, Christchurch Airport publicly disclosed information about its pricing decisions over the PSE3 period.
11. After a price setting event, the three airports subject to information disclosure regulation – Auckland, Wellington and Christchurch International Airports¹⁰ - must publicly disclose information relating to its forecast total revenue requirement for its regulated services.¹¹
12. Although not the subject of this draft report, each regulated airport must also annually publish historical information relating to its financial position in relation to specified airport services and the quality of those services.¹²
13. **Table 1.1** below outlines the regulated services which are the subject of Christchurch Airport's PSE3 disclosure and this report.¹³ These regulated services can be grouped into two categories.
 - 13.1 'Priced services' are those regulated services for which standardised prices are set for the five-year pricing period, after consultation with substantial customers. Priced services represent the majority of Christchurch Airport's RAB (about 84.5% in 2017).¹⁴
 - 13.2 'Other regulated services' – representing about 15.5% of Christchurch Airport's RAB – are those regulated services which are priced through contractual arrangements with individual customers, rather than

⁸ Specifically, section 4B of the Airport Authorities Act 1966 requires airports to consult with "substantial customers", the meaning of which is set out in section 2A of the AAA.

⁹ The implementation of Christchurch Airport's prices relating to the PSE2 period was delayed to December 2012 due to the Canterbury earthquakes. This means that PSE2 effectively lasted four and a half years rather than five years.

¹⁰ See section 56A of the Act.

¹¹ Under section 53B(1)(a) of the Act, every supplier of goods or services subject to information disclosure regulation must publicly disclose information in accordance with the information disclosure requirements set out in the relevant section 52P determination. The relevant determination for airports is the *Airport Services Information Disclosure Determination 2010*, as amended.

¹² *Airport Services Information Disclosure Determination 2010* NZCC 29, clause 2.3 and 2.4.

¹³ These regulated services are defined in section 56(1) of the Act and in more detail in section 2 of the AAA.

¹⁴ 'Priced services' form the 'pricing asset base' in the *Airport Services Information Disclosure Determination 2010*.

standardised terms. These contracts have a variety of lengths and start dates, which are not necessarily aligned with the five-year pricing period.¹⁵

Table 1.1 Regulated airport services

<i>Priced services typically include</i>	<i>Other regulated services typically include</i>
<ul style="list-style-type: none"> airfield landing facilities and services, such as the provision and maintenance of airfields, runways and taxiways. airfield parking facilities and services. specified passenger terminal activities such as passenger seating areas, thoroughfares, and air-bridges. 	<ul style="list-style-type: none"> aircraft and freight activities – facilities and services that help maintain aircraft and the handling of freight transport by aircrafts. This could include facilities and services for the refuelling of aircraft, flight catering, waste disposal, and the storing of freight. other specified passenger terminal activities, which may include facilities and services for the operation of customs, immigration, quarantine checks, security and Police services, terminal lounges, and collection facilities for duty free.

14. Christchurch Airport also offers services which are not regulated under Part 4 of the Act and are outside the scope of this draft report. Examples of these services may include: the space for retail outlets in the terminals (duty-free stores, speciality stores, news and book stores, and food and beverage outlets), access for taxis and public transport, car parks and car rental tenancies and property leases.

We must publish a summary and analysis of Christchurch Airport’s disclosed information

15. We are publishing this draft report under section 53B(2)(b) of the Act, which requires us to publish summary and analysis of the publicly disclosed information as soon as practicable. This is for the purpose of promoting greater understanding of Christchurch Airport’s performance, its relative performance, and the changes in performance over time.
16. To promote greater understanding of Christchurch Airport’s performance, this report contains our analysis and draft conclusions on Christchurch Airport’s pricing decisions and expected performance over the PSE3 period. Where appropriate, we compare this forecast performance to Christchurch Airport’s past performance, and compare Christchurch Airport’s past performance to that of other airports.

Previous review of Christchurch Airport’s performance and pricing decisions

17. In 2013, we reviewed Christchurch Airport’s performance and pricing decisions for the 2013-17 pricing period (PSE2) and aspects of its actual performance over the

¹⁵ Under section 4B of the AAA, the airport is required to consult substantial customers in respect of charges on all regulated services within five years. This requirement encompasses ‘other regulated services’ priced under individual contractual arrangements. Nonetheless, the airport is not required to consult with a substantial customer who has consented in writing (and not withdrawn that consent) to not being consulted about a specific charge.

2008-12 pricing period (PSE1).¹⁶ This was part of a wider review on the effectiveness of information disclosure regulation under section 56G of the Act.¹⁷

Focus of our review

18. We have focused our review of Christchurch Airport’s pricing decisions and expected performance for the PSE3 period on the following aspects of Christchurch Airport’s performance.
 - 18.1 Expected profitability: is Christchurch Airport limited in its ability to extract excessive profits?
 - 18.2 Pricing efficiency: are the prices set by Christchurch Airport likely to promote efficiency?
19. We have assessed whether these aspects of Christchurch Airport’s performance are likely to promote outcomes that are in the long-term benefit of consumers and are consistent with the outcomes sought in the purpose of Part 4 of the Act. This is because under section 53A of the Act, the purpose of information disclosure regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 of the Act is being met.
20. The purpose of Part 4 as set out in section 52A(1) of the Act is to:

promote the long-term benefit of consumers in [regulated markets] by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services:

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and*
- (b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and*
- (c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and*
- (d) are limited in their ability to extract excessive profits.*

¹⁶ A forward-looking review of Christchurch Airport’s pricing decisions for PSE1 was not carried out because information disclosure regulation came into effect in 2011 part way through the PSE1 period, which commenced on 1 July 2007.

¹⁷ Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014). This one-off review was reported to the Ministers of Commerce and Transport. We also provided section 56G reports in relation to the regulated airport services provided by Wellington and Auckland Airports. These section 56G reports can be found at: <http://www.comcom.govt.nz/regulated-industries/airports/section-56g-reports/>.

21. Our focus on expected profitability and pricing efficiency do not necessarily cover all outcomes reflected in the Part 4 purpose statement.
22. Investment efficiency is not a key focus of this review as it was in our review of Auckland Airport's pricing decisions and expected performance. Unlike Auckland Airport, Christchurch Airport is not proposing significant capital expenditure investment in PSE3 Airport. Nonetheless, we have given due consideration to the reasonableness of Christchurch Airport's capital expenditure forecasts and the impact these forecasts are likely to have on expected profitability, as we have done for other forecasts, including operating expenditure and demand.
23. As with our review of Auckland Airport, we have not explicitly considered Christchurch Airport's incentives to innovate (section 52A(1)(a)) or its sharing of efficiency gains (section 52A(1)(c)), and have only undertaken limited analysis on efficiency improvements and service quality (section 52A(1)(b)). This reflects the nature of the forward-looking information provided in Christchurch Airport's PSE3 disclosure, which is the subject of this review.
24. As PSE disclosures contain forward-looking information, they provide the most detail about expected profitability, prices and forecast operating and capital expenditure. PSE disclosures do not provide much information about the appropriateness of airports' level of innovation and quality of services, or whether the operational expenditure and investment is efficient. The historical information disclosed annually by airports provides better insight into these areas of performance, but are not the subject of this review.

Stakeholders' views on the focus of this review

25. In response to our *Process and Issues paper*, stakeholders commented on our proposed scope of our review of Christchurch and Auckland Airport's pricing decisions and expected performance over the PSE3 period.
26. The New Zealand Airports Association (NZ Airports) considered that our focus for this review "appropriately reflects the nature and content of the price setting disclosures"¹⁸ while noting that assessing each limb of the Part 4 purpose statement is an ongoing task, and cannot reasonably be completed by a snapshot assessment of each price setting event disclosure.¹⁹ This view was supported by both Auckland Airport and Christchurch Airport.²⁰
27. On the other hand, Air New Zealand stated that excluding innovation, quality, and efficiency from this review ignores a number of the limbs of the purpose of Part 4,

¹⁸ NZ Airports Association "Cross submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (12 December 2017), paragraph 10a.

¹⁹ NZ Airports Association "Cross submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (12 December 2017), paragraph 11c.

²⁰ Auckland Airport "Section 53B review of Auckland Airport's price setting event: Cross-submission on process issues" (12 December 2017), page 1. Christchurch Airport "CIAL Cross submission on process, timing and changes to proposed section 53B process" (12 December 2017), page 1.

and suggests that this exclusion would set a precedent which would permanently weaken the regulatory regime.²¹

28. The Board of Airline Representatives New Zealand Incorporated (BARNZ) argued that innovation, quality and efficiency are areas of performance that most directly affect consumers.²² BARNZ considered that it is difficult to conclude that a pricing decision is in the long-term interests of consumers without considering all aspects of performance.²³
29. Related to this, Air New Zealand, BARNZ and Qantas argued that this review should cover airports' annual ex-post information disclosures.²⁴ Air New Zealand remarked that it is not clear whether such a review will occur and BARNZ noted that such a review is "well overdue."²⁵
30. BARNZ also raised concern that Christchurch Airport's capital expenditure plans were not within the proposed focus of our review. In BARNZ's view, it is important to review and scrutinise all capital expenditure by regulated airports to reduce scope for airports to undertake unnecessary expenditure. BARNZ noted that while Christchurch Airport's capital expenditure plan is much smaller than Auckland's, it is still material and includes controversial projects.²⁶

Our response

31. The performance indicators of innovation, service quality, and efficiency are not the focus of this review, and are better assessed as part of a review of ex-post annual disclosures. Nonetheless, these performance indicators are considered in our analysis to the extent that Christchurch Airport's PSE3 disclosure provided relevant insight into these aspects of performance, especially in the context of analysing expected profitability and pricing efficiency.
32. As noted above, we have given due consideration to the reasonableness of Christchurch Airport's capital expenditure forecasts and the impact these forecasts

²¹ Air New Zealand "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraphs 4 and 10.

²² BARNZ "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 19.

²³ BARNZ "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 24.

²⁴ Air New Zealand "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 5. BARNZ "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 26. Qantas "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), page 2.

²⁵ Air New Zealand "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 6. BARNZ "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (30 November 2017), paragraph 4.

²⁶ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), paragraph 16.

are likely to have on the airport's expected profitability over PSE3. In this context, we have also considered whether the forecast capital expenditure is likely to provide services at a quality which consumers want in the future.

33. We consider the review we have undertaken with respect to capital expenditure is appropriate and commensurate to the size and risks associated with Christchurch Airport's capital expenditure plans.
34. We have also considered how Christchurch Airport's change in pricing structure may contribute to improving the efficient use of its assets over the long-term and higher quality services in the future.
35. We have also taken account of relevant historical information in Christchurch Airport's annual disclosures when comparing the airport's performance over time, such as its operating and capital expenditure and demand growth.
36. We consider it preferable to commence an ex-post analysis of airports' performance against a complete five-year pricing period for all three regulated airports (Auckland, Wellington and Christchurch). This provides more historic information to meaningfully understand relative performance, assess trends, and the changes in performance over time.
37. We have complete information relating to Auckland and Christchurch Airports' historical performance for the five-year pricing period over 2013-17 (PSE2). We expect to have this information in relation to Wellington Airport in mid-2019, once it completes its first five-year pricing period (since information disclosure regulation came into effect).²⁷ We consider it best to commence an ex-post analysis of airports' performance after this has occurred, rather than prior, so that our analysis pertains to all three regulated airports.²⁸
38. We do not agree with Air New Zealand that our focus on particular aspects of performance for this review sets a precedent for subsequent reviews.²⁹ The scope of future reviews will be based on the relevant circumstances and relevant information disclosed at the time.
39. Furthermore, the Act does not require us to undertake analysis on all aspects of performance in relation to a particular information disclosure. As indicated, our summary and analysis, under section 53B(2)(b) of the Act, is undertaken to promote

²⁷ We do not have complete information relating to airports' historical performance over the PSE1 period (FY2008-FY2012), which commenced prior to the introduction of information disclosure regulation in 2011. In addition, Wellington Airport brought forward its third price setting event. As a result, Wellington Airport has not completed a full five-year pricing period since information disclosure regulation began.

²⁸ Prior to undertaking this ex-post analysis, we also intend to amend backward looking information disclosure requirements so that historical information can be more effectively compared to forecasts. This is to align with the recent amendments to the forward looking information that airports must disclose.

²⁹ Our view was shared by the NZ Airports Association. See NZ Airports Association "Cross submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (12 December 2017), paragraph 17.

greater understanding about the performance of each airport, their relative performance, and changes in performance over time. We consider that our focus for this review on expected profitability and pricing efficiency, and our analysis on other areas of performance, including the reasonableness of capital expenditure, operating expenditure, and demand forecasts, contributes to this purpose.

Approach to assessing expected performance in this review

40. We have assessed whether Christchurch Airport's pricing decisions and expected performance over PSE3 is consistent with the outcomes that are in the long-term benefit of consumers, as reflected in the purpose of Part 4 of the Act.
41. We outline the broad approach to this assessment below. There are some differences in the specific approaches taken to assessing each performance area. We outline these specific approaches in the relevant sections throughout this draft report.

Input methodologies provide a benchmark for assessing expected performance

42. Our Input Methodologies (IMs) for regulated airport services provide a benchmark for assessing whether the Part 4 purpose is being promoted, notably in regards to profitability.
43. IMs represent our best assessment of how certain building blocks – cost allocation, asset valuation, the treatment of taxation, and the cost of capital – should be specified to promote the setting of revenue targets consistent with the Part 4 purpose. These building blocks are inputs into the airport's profitability. Therefore, IMs are most relevant to our assessment of whether Christchurch Airport is limited in its ability to extract excessive profits.
44. IMs are intended to promote certainty about the rules and processes applying to information disclosure regulation. Airports are not required to apply the IMs in setting their prices but must disclose information consistent with the IMs for information disclosure purposes.

We consider reasons for departure from our Input Methodologies

45. Our IMs provide an appropriate benchmark for assessing expected performance. However, they do not necessarily provide the only legitimate benchmark for assessing expected performance against the purpose of Part 4 of the Act.
46. If the airport's forecasts are not fully aligned with our IMs, we do not assume the Part 4 purpose is not being promoted. We consider the extent to which the airport's approach is different to our IMs, reasons for such differences, and the impact this has on expected performance. We then determine whether we are satisfied that the evidence provides legitimate reasons for the difference from our benchmark value, in light of the Part 4 purpose. Ultimately, we consider whether a difference from our benchmark value is promoting the long-term benefit of consumers.

47. In this review, we consider reasons for Christchurch Airport’s cost of capital being higher than our benchmark cost of capital.

We consider what we might expect to find in a workably competitive market where Input Methodologies are not available

48. Our analysis considers whether the airport’s conduct and decisions are consistent with those in a workably competitive market. This includes decisions regarding the sharing and managing of risk between itself and its customers and decisions about the relative prices charged to different customers (ie, the pricing structure).
49. This is most relevant to our analysis of Christchurch Airport’s pricing efficiency, where IMs are less prescriptive and less relevant than they are in relation to our analysis of the airport’s profitability. Instead, information disclosed on price setting methodologies, as part of the information disclosure requirements, is particularly important for helping interested parties understand and form a view on the efficiency of prices.
50. To assess this, we have been largely reliant on submissions received from interested parties about the airport’s conduct throughout its consultation process and the level of agreement among stakeholders regarding the outcomes of that process.

We take into account relevant context, analysis and decisions we have made

51. Our approach to assessing Christchurch Airport’s pricing decisions and expected performance over PSE3 is consistent with the framework we applied in our draft report of Auckland Airport’s pricing decisions and expected performance over PSE3.³⁰ That review of Auckland Airport sought consistency with our review of Auckland Airport’s PSE2 disclosure.
52. Similarly, in this review we have sought consistency with the framework we applied in our review of Christchurch Airport’s PSE2 disclosure, except where there is a good reason for departure (for example, to reflect changes to our IMs following our 2016 review).
53. We have also considered how the airport’s forecast performance over the PSE3 period compares to its historical performance, and reasons for over- and under-performance in the past.

We previously reviewed Christchurch Airport’s PSE2 disclosure

54. Our review of Christchurch Airport’s PSE2 disclosure was undertaken as part of a wider review on the effectiveness of information disclosure regulation.³¹ This one-off review was required under section 56G of the Act and differs to this draft report,

³⁰ Commerce Commission “Review of Auckland International Airport’s pricing decisions and expected performance (July 2017 – June 2022)” (26 April 2018).

³¹ This one-off review was reported to the Ministers of Commerce and Transport. We provided section 56G reports in relation to the regulated airport services provided by Wellington and Christchurch Airports as well. These section 56G reports can be found at: <http://www.comcom.govt.nz/regulated-industries/airports/section-56g-reports/>.

which is carried out under section 53B of the Act and seeks to provide a better understanding about particular areas of Christchurch Airport's expected performance.

55. In our section 56G report on Christchurch Airport, we stated that our overall impression was that information disclosure regulation has had little influence over Christchurch Airport's behaviour. In that report, we concluded that:³²
- 55.1 information disclosure was effective in promoting incentives to innovate and to provide services at a quality that reflects consumer demand;
 - 55.2 information disclosure had not been effective in limiting expected excessive profits over the 20-year pricing period on which Christchurch Airport's prices for PSE2 were based;³³
 - 55.3 Christchurch Airport had not provided sufficient information to allow interested persons to assess its expected profitability performance and its price setting disclosure did not fully or transparently reflect its pricing approach;
 - 55.4 information disclosure had not been as effective in promoting pricing efficiency as we would have expected; and
 - 55.5 we were unable to conclude whether information disclosure had been effective in other areas (operating expenditure efficiency, efficient investment and the sharing of efficiency gains), given the limited time series of data available.

Information we have used to assess expected performance in this review

56. We have prepared this draft report after considering all submissions and cross submissions received to date on our *Process and Issues paper*, which initiated this review.
57. We have relied on the following information as part of our review:
- 57.1 information disclosed by Christchurch Airport under Part 4 of the Act, including its PSE3 disclosure and historical information to the extent relevant;³⁴
 - 57.2 material provided to date by stakeholders as part of the consultation process for this review;³⁵

³² Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), paragraphs X2 – X9.

³³ We assessed Christchurch Airport's price setting conduct over the 20-year period because Christchurch Airport explained that its PSE2 charges represented the beginning of the recovery of the costs over the 20-year economic lifetime of its integrated terminal project.

³⁴ See <http://www.christchurchairport.co.nz/en/about-us/corporate-information/regulatory-disclosures/>.

- 57.3 information we requested from Christchurch Airport to clarify aspects of its PSE3 disclosure and submissions on our consultation process, following the close of consultation;³⁶ and
- 57.4 information made available by Christchurch Airport that is not required to be disclosed under Part 4 of the Act (for example, we relied on Christchurch Airport’s pricing model to assess its profitability).

We have not limited our consideration of information in this review but have had regard to the information available at the time of the price setting event

58. In response to our *Process and Issues paper*, NZ Airports asked that this review focus on the information available at the time of the price setting event. It stated that the review should not provide a forum for consulting participants to raise new concerns or put forward new evidence or arguments that were not put to the airports during the consultation process.³⁷ This view was supported by Auckland Airport.³⁸ Christchurch Airport did not provide a view.
59. BARNZ submitted that the Commission should consider all relevant information provided to it as part of the review consultation process. BARNZ considered that limiting our review to information available at the time prices were set would reduce our ability to review the decisions and create substantial procedural and practical difficulties.³⁹
60. We agree with BARNZ that we can consider all relevant information provided to us as part of the review consultation process. We have flexibility in how we carry out our analysis, provided we are doing so for the purpose of promoting greater understanding of Christchurch Airport’s performance, as per section 53B(2)(b) of the Act. We have not limited our review to consider only information that was available at the time that prices were set.
61. Nevertheless, when assessing the reasonableness of decisions made by Christchurch Airport during their price setting event, we have given consideration to the information that was available to them at that time.

Structure of this document

62. **Chapter 2** contains our analysis and draft conclusions on whether Christchurch Airport will be limited in its ability to extract excessive profits. This chapter focuses on whether Christchurch Airport has sufficiently justified its target returns.

³⁵ See <http://www.comcom.govt.nz/regulated-industries/airports/airports-information-disclosure-summary-and-analysis/price-setting-event-3-pse3-for-auckland-and-christchurch/>.

³⁶ See <http://www.comcom.govt.nz/regulated-industries/airports/airports-information-disclosure-summary-and-analysis/price-setting-event-3-pse3-for-auckland-and-christchurch/>.

³⁷ NZ Airports Association “Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services” (30 November 2017), paragraph 5.

³⁸ Auckland Airport “Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services” (30 November 2017), page 5.

³⁹ BARNZ “Cross-submission on the Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper – process, timing and scope” (12 December 2017), paragraph 17.

63. **Chapter 3** contains our analysis and draft conclusions on the extent to which Christchurch Airport has incentives to set prices that are likely to promote efficiency. This chapter focuses on the extent to which Christchurch Airport's pricing methodology reflects efficient pricing principles (eg, prices should have regard to consumers' demand responsiveness).
64. We have also included attachments to support our analysis.
- 64.1 **Attachment A** contains our assessment of Christchurch Airport's cost of capital. This supports our analysis and draft conclusions in **Chapter 2**.
- 64.2 **Attachment B** contains our assessment of forecasts affecting Christchurch Airport's returns, including its asset values, forecast demand, forecast operating expenditure, and forecast capital expenditure. This supports our analysis and draft conclusions in **Chapter 2**. This attachment also considers:
- 64.2.1 whether Christchurch Airport has incentives to improve its operating efficiency and provide services at a quality that reflects consumer demands; and
- 64.2.2 whether Christchurch Airport has incentives to invest appropriately, efficiently and at a quality standard that reflects consumer demands.
- 64.3 **Attachment C** describes our methodology for assessing of Christchurch Airport's expected profitability, discussed in **Chapter 2**.
- 64.4 **Attachment D** discusses how effective recent amendments to the IM and ID Determinations have been in improving the transparency of Christchurch Airport's expected profitability.

Next steps

65. We invite you to provide your views on our draft conclusions and supporting analysis in this draft report by 16 August 2018. Cross submissions are due by 6 September 2018.
66. We are also reviewing Auckland Airport's pricing decisions and expected performance for the period 1 July 2017 to 30 June 2022 Our draft report on this can be found [here](#).
67. By 23 August 2018, we invite cross submissions on our assessment of Auckland Airport's cost of capital in light of our assessment of Christchurch Airport's expected returns relative to our benchmark cost of capital.
68. We intend to publish our final reports on Auckland and Christchurch Airport's PSE3 pricing decisions and expected performance in October 2018.

Chapter 2 Expected profitability: is Christchurch Airport limited in its ability to extract excessive profits?

Purpose

69. This chapter contains our analysis and draft conclusions on whether Christchurch Airport is limited in its ability to extract excessive profits (section 52A(1)(d) of the Act).
70. This chapter focuses on whether Christchurch Airport's target returns, and associated profit, over the PSE3 period have been sufficiently justified such that it is likely to be in the long-term interest of consumers.
71. Our analysis and draft conclusions on forecasts underpinning Christchurch Airport's expected returns and profitability are discussed in **Attachment B**. These forecasts include asset values, demand forecasts, operating expenditure forecasts, and capital expenditure forecasts.

Draft conclusions

72. In our view, Christchurch Airport is not targeting excessive profits on the services that it has set prices for over a five-year period.
73. We consider Christchurch Airport's target return over PSE3 on its 'priced services' is reasonable. Priced services are regulated services that apply standard pricing terms and are consulted on with 'substantial' customers (at least) every five years. Priced services represented about 85% of Christchurch Airport's total RAB in 2017.
74. On the evidence provided, we are not satisfied that Christchurch Airport's profits over the PSE3 period on its 'other regulated services' are not excessive. These services are priced under individual contracts that have a variety of lengths and start dates, which do not necessarily align with the five-year pricing period. These services represented about 15% of the total RAB in 2017.
75. We do not consider that Christchurch Airport has sufficiently justified its expected returns on its other regulated services. However, we consider it may be more appropriate to assess these target returns over a longer period of time, rather than over a given five-year pricing period. This is because there are a wide range of factors – such as market conditions, rent reviews and break clauses – that can affect the prices under the contracts that apply to these services.
76. We intend to take a proportionate approach to monitoring the returns on other regulated services over the longer-term and the proportion of revenue captured under these services, which tends to be small. We invite feedback from stakeholders on this view.

Our approach to assessing Christchurch Airport's expected returns

77. In considering whether we expect Christchurch Airport to earn excessive profits, we have not considered Christchurch Airport's historic performance over PSE1 or PSE2. Instead, we have used our mid-point cost of capital provided for in our IMs as a benchmark against which to measure expected performance:
- 77.1 We have estimated Christchurch Airport's expected returns over PSE3 using an internal rate of return (IRR) calculation. The IRR allows us to assess the airport's expected returns across the remaining lifetime of the assets used in supplying regulated airport services during the PSE3 period.
 - 77.2 We have calculated the return we expect Christchurch Airport to earn over the PSE3 period, based on the prices it has set, its forecast passenger volumes and aircraft movements, and its forecast costs.
 - 77.3 In establishing our estimate of the airport's expected return, we carefully reviewed the reasons why Christchurch Airport used different parameters or approaches from those set out in the ID requirements. With the exception of Christchurch Airport's higher target return, Christchurch Airport's parameters were consistent with our IMs.
 - 77.4 We have compared Christchurch Airport's expected return to our estimate of the cost of capital that would be expected for airport businesses with similar risk at the time prices were set. This is our mid-point WACC estimate of 6.41%.⁴⁰
78. **Attachment C** outlines our methodology for this profitability assessment in more detail.

We assess Christchurch Airport's expected returns against our benchmark cost of capital

79. Our approach of comparing Christchurch Airport's expected returns to our mid-point WACC estimate is consistent with our 2016 input methodology (IM) review. In the IM review, we changed our approach to disclosing WACC, due to two main problems with the previous framework:⁴¹
- 79.1 the upper limit of our WACC range had become the de facto benchmark when assessing airport profitability; and
 - 79.2 there was limited and weak rationale for using the 75th percentile as the upper limit of the WACC percentile range.
80. Given airports are not subject to price-quality path regulation, it is not necessary to specify a particular WACC percentile estimate. This is in contrast to electricity lines

⁴⁰ This can be found at: Commerce Commission "Cost of capital determination for information disclosure year 2018 for electricity distribution services and specified airport services (March year-end disclosure year)" (28 April 2017).

⁴¹ Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), paragraph X4.

and gas pipelines, where we specify the 67th percentile WACC estimate for price-quality path regulation.

81. We decided to remove the WACC range, and instead publish only the mid-point WACC and a standard error so that any required percentile can be calculated. We also required airports to provide evidence to explain the difference between its target return and our mid-point WACC estimate.
82. We noted that this approach:⁴²
 - 82.1 enables flexibility in assessing the acceptability of airport returns, and will reduce the focus of any assessment on the upper limit of the range; and
 - 82.2 will provide flexibility to enable any assessment to take into account different contextual factors affecting an airport's required return expectations, or the expectations of a particular project.
83. Within this framework, we accept there may be legitimate reasons for an airport to target a different return to our mid-point WACC estimate and we require airports to provide evidence to explain such differences.⁴³
84. Christchurch Airport has provided reasons for targeting returns above our mid-point WACC estimate, which we have considered. This is discussed in this chapter; further discussion in relation to the airport's own estimate of its cost of capital can be found in **Attachment A**.

We assess Christchurch Airport's forecasts affecting its expected returns

85. We have considered the appropriateness of Christchurch Airport's forecasts underpinning its expected returns. This includes Christchurch Airport's forecast asset values, demand, operating expenditure, and capital expenditure. We summarise our views on these forecasts in this chapter. **Attachment B** discusses our analysis and draft conclusions on these forecasts in more depth.
86. Overall, we do not have any significant concerns with Christchurch Airport's forecasts underpinning its expected returns and consider Christchurch Airport's forecast cash flows are suitable for the cash flows used in our IRR calculation. Accordingly, we have used Christchurch Airport's forecasts as a basis for assessing its expected profitability.

Analysis on Christchurch Airport's target return on its regulated asset base

87. Consistent with information disclosed by Christchurch Airport, our own analysis indicates that Christchurch Airport's expected return on its RAB is 6.65% for PSE3 and beyond (ie, from 1 July 2017 over the remaining life of the assets). This expected return is greater than our mid-point WACC estimate of 6.41%.

⁴² Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), page 3.

⁴³ *Airport Services Information Disclosure Determination 2010* NZCC 29, clause 2.5(1)(i).

88. In this instance, we consider that Christchurch Airport has sufficiently justified a cost of capital of 6.47% over the PSE3 period to reflect its higher cost of debt estimate. We discuss this in more detail in **Attachment A**.
89. These returns are compared in **Table 2.1** below.

Table 2.1 Summary of key returns

Key returns	Target return	WACC percentile
Our benchmark mid-point cost of capital under the IMs	6.41%	50 th
A reasonable cost of capital reflecting Christchurch Airport's higher debt premium	6.47%	52nd
Christchurch Airport's target return on its total RAB	6.65%	57th
This comprises of:		
Christchurch Airport's target return on its priced services (below its estimated WACC of 6.82% primarily due to concessions for incentive expenditure)	6.44%	51 st
Christchurch Airport's expected return on its other regulated assets	7.87%	84 th

Value and impact of returns expected to be earned by Christchurch Airport

90. A return of 6.47% equates to our mid-point WACC estimate of 6.41% plus an additional six basis points. This difference reflects that Christchurch Airport has applied a higher debt premium than our benchmark, based on Christchurch Airport's actual credit rating of BBB+ (compared to our benchmark of A-).
91. In our view, Christchurch Airport has provided legitimate reasons to depart from our benchmark debt premium and use a debt premium estimate of 1.84%, which is reasonable and appears to be consistent with prudent levels of debt financing.
92. As such, we consider that Christchurch Airport has sufficiently justified the associated cost of capital of 6.47% over the PSE3 period to reflect its higher cost of debt estimate. This is shown above in **Table 2.1** as a reasonable cost of capital.
93. We estimate that Christchurch Airport's target revenue, associated with its target return of 6.65%, is \$421.6m over PSE3 in present value terms.⁴⁴ This target revenue is:⁴⁵

⁴⁴ 'Present value' is 1 July 2017, the start of the PSE3 period. This is calculated using a cost of capital of 6.47% as the discount rate.

⁴⁵ This is based on our estimate of the difference between the revenues expected to be generated by Christchurch Airport over PSE3 and the revenues required to recover a return of 6.47% and 6.41% (using mid-year cash flows). We have estimated the total per passenger impact over the 5 year period by using total passenger volumes (this includes domestic, international and transit and transfer passengers).

- 93.1 \$6.1m above the \$415.6m revenue that would be consistent with a cost of capital of 6.47%, which translates to an additional \$4.4m in profits (after accounting for tax); and
 - 93.2 \$7.6m above the \$414.7m revenue that would be consistent with our mid-point WACC of 6.41%, which translates to an additional \$5.4m in profits (after accounting for tax).
94. As shown in **Table 2.1**, Christchurch Airport’s expected return on its RAB of 6.65% is a weighted average of:
- 94.1 its target return on its priced services of 6.44%; and
 - 94.2 its expected return on its other regulated services of 7.87%.
95. Christchurch Airport’s expected return on its RAB of 6.65% is 18 basis points above a reasonable cost of capital of 6.47% over the PSE3 period. This difference is driven by the airport’s expected returns on its other regulated services of 7.87%.
96. We consider the reasonableness of Christchurch Airport’s expected return on these two groups of services in the sections below.

Christchurch Airport’s target return on its priced services

Christchurch Airport’s target return on its priced services differs to its estimated WACC

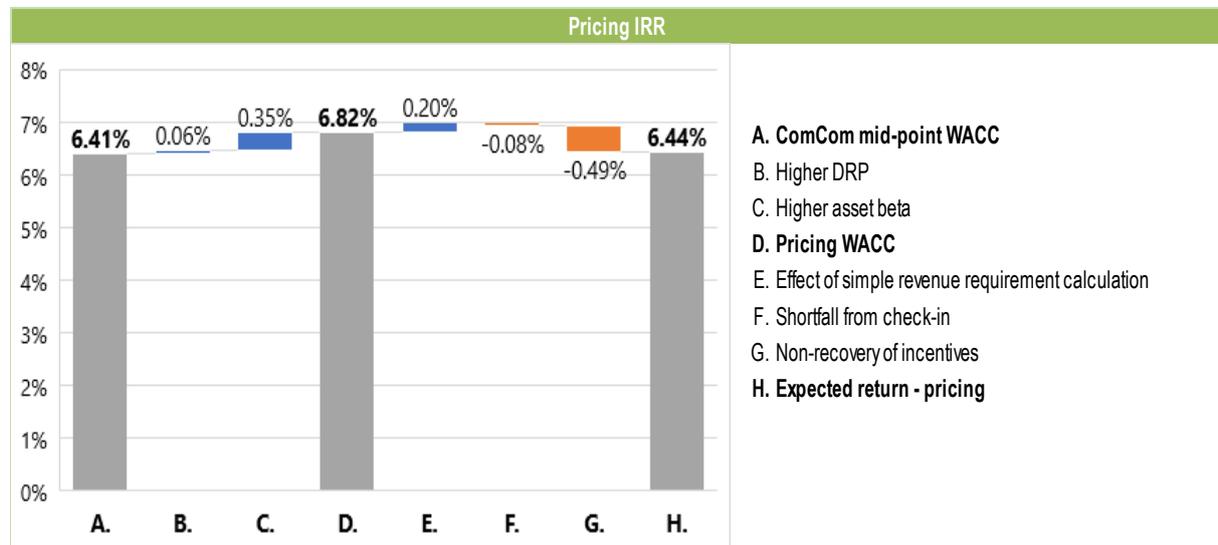
97. Unlike Auckland Airport, Christchurch Airport’s target return on its priced services does not match its estimated cost of capital.
98. Christchurch Airport’s own estimate of its cost of capital – incorporating its higher debt premium and higher asset beta estimate – is 6.82%. This differs to its target return of 6.44% on its priced services. Christchurch Airport has explained that this difference primarily arises because it is providing concessions on expenditure to incentivise new airline routes.
99. Christchurch Airport submitted that:⁴⁶

The principal focus of the Commission (and interested parties) should be on [Christchurch Airport’s] expected return over the period, rather than the WACC that was estimated and applied when setting the prices for priced services. [Christchurch Airport’s] expected returns are the most direct measurement of its profitability, and are materially lower than [its] estimate of its cost of capital, in large part due to concessions that have been provided to airlines in order to encourage additional services to be established and maintained.

⁴⁶ Christchurch Airport “Cross-submission on issues and questions raised in the Commission’s process and issues paper on the review of Auckland and Christchurch Airports’ third price setting events for airport services” (19 December 2017), paragraph 12.1.

100. **Figure 2.1** shows the relative impact of the factors contributing to the difference between our mid-point WACC estimate of 6.41% and Christchurch Airport's target return on its priced services of 6.44%.

Figure 2.1 Factors affecting Christchurch Airport's pricing IRR relative to the benchmark mid-point cost of capital⁴⁷



101. **Figure 2.1** illustrates that the factors contributing to the 38 basis point difference between Christchurch Airport's estimated cost of capital (6.82%) and its expected return on its priced services (6.44%) are:⁴⁸

- 101.1 the simplified building block approach (0.20%) - the calculation of the annual cost of service in the pricing model assumed most cash flows happen at the end of the year and does not include the timing factors (intra-period cash flows) introduced as part of the IM review;
- 101.2 check-in charges (-0.08%) - Christchurch Airport brought check-in charges into its priced services in PSE3 (these were previously provided to each airline under separate agreements). However, the airport expects revenue from check-in activities to be lower than the revenue requirement because it must honour existing contracts; and
- 101.3 incentives (-0.49%) - these are bilateral arrangements with airlines that agree rebates (or similar) to encourage the establishment of new services or capacity. These were not taken into account when determining prices (either in the opex or revenue forecast) but were included in the forecast opex for

⁴⁷ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), page 2.

⁴⁸ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), page 2-4.

disclosure purposes.⁴⁹

Our view on Christchurch Airport's target return on its priced services

102. Our assessment of whether Christchurch Airport is limited in its ability to extract excessive profits focuses on Christchurch Airport's expected returns, rather than its estimated cost of capital.
103. Nonetheless, we also require an appropriate benchmark cost of capital to assess Christchurch Airport's profitability. See **Attachment A** for our analysis on this.
104. Overall, our view on Christchurch Airport's estimated cost of capital is as follows.
- 104.1 We consider Christchurch Airport has provided legitimate reasons to apply its own debt premium estimate of 1.84%, which differs to our benchmark debt premium. As a result, we consider that Christchurch Airport has sufficiently justified a cost of capital of 6.47% over the PSE3 period to reflect its higher cost of debt estimate.
- 104.2 We do not, however, think Christchurch Airport has provided legitimate reasons to depart from our benchmark asset beta and from our benchmark cost of capital on that basis. In our view, Christchurch Airport has not sufficiently explained its asset beta of 0.65 (0.05 higher than our benchmark). As a result, we do not consider that Christchurch Airport's own cost of capital estimate of 6.82% has been sufficiently justified.
105. **Figure 2.1** illustrates that Christchurch Airport's return of 6.44% on its priced services is below 6.47% - a cost of capital that we think Christchurch Airport has sufficiently justified over the PSE3 period.

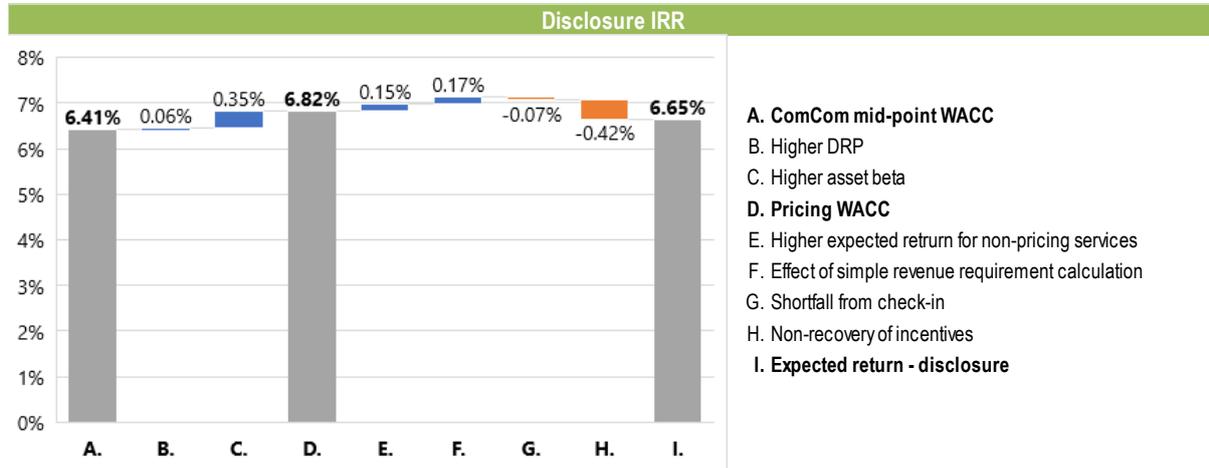
Christchurch Airport's expected return on its other regulated services

106. Christchurch Airport's expected return on its other regulated service over PSE3 is 7.87%.
107. We estimate this to result in Christchurch Airport earning about \$6m (or 1.5%) of revenue above that consistent with a reasonable return of 6.47%.
108. Unlike priced services, other regulated services are priced under individual contracts that have a variety of lengths and start dates, which do not necessarily align with the five-year pricing period. These services represent about 15% of the total RAB and may include terminal lounges, and facilities and services for the operation of customs, immigration, quarantine checks, security and Police services, refuelling of aircraft, and storage of freight.

⁴⁹ We note that Christchurch Airport has incorporated forecast incentives in its demand forecasts used for pricing. Therefore we consider it is appropriate to take into account the cost of incentives when assessing Christchurch Airport's expected returns.

109. **Figure 2.2** shows that Christchurch Airport's IRR on its RAB over PSE3 is about 15 basis points higher due to its expected return on its other regulated services.

Figure 2.2 Factors affecting Christchurch Airport's total RAB IRR relative to the benchmark mid-point cost of capital⁵⁰



Christchurch Airport's explanation for differences in returns on priced and other regulated services

110. Christchurch Airport submitted that prices for its other regulated services:

110.1 are set through negotiated commercial agreements that take into account the nature of the specific non-priced services;⁵¹

110.2 normally relate to a contract for a lease over a building or land, and often have a long-term and customers often have options, such as commercial alternatives;⁵² and

110.3 typically have prices agreed at a different time (and potentially a different interest rate environment), and for a different time period, compared to priced services.⁵³

111. Overall, Christchurch Airport suggests that these arrangements differ to priced services, which apply standardised charges at each price setting event (ie, expected to remain in place for five years). This explanation is similar to Auckland Airport's

⁵⁰ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), page 2.

⁵¹ Christchurch Airport "Submission the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events" (28 November 2017), paragraph 22.

⁵² Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 58.

⁵³ Christchurch Airport "Submission the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events" (28 November 2017), paragraph 22.

explanation for its difference in returns on priced services and other regulated services.⁵⁴

112. Christchurch Airport submits that in light of this difference, substantial caution is required when interpreting the expected returns on other regulated services. It suggests that our principal focus should be on the profitability of the priced services, reflecting that it is these services that were reviewed and re-determined as part of the price setting event.⁵⁵
113. Christchurch Airport provided us further information after the close of our consultation on its contracts for other regulated services. It submitted that the average term of the contracts for other regulated services is materially longer than the five-year pricing periods that apply to priced services (between 16 and 26 years on average, depending on how customers' options for extension are treated). It also notes that these agreements are, on average, somewhat dated – with the average execution or commencement date approximately nine years prior to the commencement of PSE3 (ie, contracts which commenced in the year 2008 on average).⁵⁶
114. Christchurch Airport suggests that it is more appropriate to assess the expected returns on these contracts based on the interest rate environment at the time the contracts were agreed.⁵⁷ Christchurch Airport has estimated that the risk-free rate component of a WACC more consistent with the date and term of their contracts, in effect over PSE3, would be more than 2% (ie, 200 basis points) above what was assumed in our mid-point WACC estimate.⁵⁸

Some flexibility is appropriate when assessing target returns on other regulated services

115. We accept that other regulated services are priced under contracts that have varying lengths and start dates. These contracts may be subject to market conditions (eg, interest rate expectations) that do not necessarily align with the market conditions applicable to the five-year PSE3 period.
116. However, we do not consider that the evidence provided by Christchurch Airports on interest rates is sufficient to justify the higher expected returns over the PSE3 period, given that many additional factors could affect the appropriateness of expected returns under these contracts.

⁵⁴ Commerce Commission "Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022)" (26 April 2018), paragraphs 111-114.

⁵⁵ Christchurch Airport "Submission the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events" (28 November 2017), paragraphs 20-22.

⁵⁶ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 59.

⁵⁷ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), Appendix C, page 6.

⁵⁸ Christchurch Airport "Submission the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events" (28 November 2017), paragraph 59.

117. As a result, we are not satisfied that Christchurch Airport's profits over PSE3 on its other regulated services are not excessive.
118. Nonetheless, we recognise that these contracts are affected by a range of factors, which make it difficult to determine whether returns on these contracts – over a given five-year pricing period – are appropriate. In particular:
- 118.1 market conditions when the contracts were signed (eg, level of interest rates at the time);
 - 118.2 the degree to which rent reviews or break clauses within a contract can adjust original pricing arrangements and make an assessment against a cost of capital of 6.47% more or less appropriate;
 - 118.3 the environment in which any contracts were signed (eg, the degree to which airports use their market power when negotiating longer-term agreements, or whether there are feasible alternatives to the contract, such as a standard pricing contract); and
 - 118.4 how the existing contracts that Christchurch airport has with its customers match-up with its current target returns for other regulated services.
119. Christchurch Airport notes that many of these contracts are subject to market rent reviews.⁵⁹ The existence of these reviews is likely to provide a mechanism which helps, at least to some degree, align the price paid by the customer over time with current market conditions (including the level of interest rates).
120. The existence of market rent reviews provides a reason why the return targeted by Christchurch Airport should potentially be more consistent with our benchmark WACC, which is based on more recent interest rates, rather than a return based on the interest rates in effect at the time the contracts were agreed.
121. Overall, we acknowledge that these contracts are affected by a range of factors, which make it difficult to determine whether returns on these contracts – over a given five-year pricing period – are appropriate.
122. We do not wish to discourage commercial agreements (particularly longer-term contracts) between parties when the contract provides mutual benefits and the airport's market power has not unduly affected the terms of the contract. However, there can be limited competition in relation to the airport's supply of other regulated services, which limits customers' bargaining position.
123. Nonetheless, we do not know the extent of alternative options available to customers of these contracts and whether it is feasible for customers to move to a standardised pricing arrangement (based on the five-year pricing period) with the airport.

⁵⁹ Christchurch International Airport Limited "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (7 June 2018), Appendix B.

124. Given the range of factors that could affect the appropriateness of returns on other regulated services, we consider it is appropriate to apply some flexibility in our assessment of these services and consider it may be better to assess returns on these services over a longer period of time. We intend to monitor the returns on other regulated services over the longer-term and the proportion of revenue captured under these services.

We invite feedback on our approach to assessing other regulated services

125. We invite feedback from stakeholders on this view, and how we should consider returns on longer-term negotiated contracts.
126. In particular, we are interested in:
- 126.1 whether greater flexibility is appropriate for assessing the expected returns on other regulated services;
 - 126.2 how we can ensure that we apply a consistent approach over time - for example, if the expected return on other regulated services is below our benchmark WACC, we would want to ensure this lower return is not offset by a higher return on priced services (including in the event that the expected return on the total RAB is below our benchmark WACC);
 - 126.3 how we ensure our approach does not incentivise or disincentivise the use of negotiated contracts when it is not in the long-term interests of consumers to do so.
127. The approach we take to assessing longer-term negotiated contracts will affect our review of other regulated airports' price setting events, including our final assessment of Auckland Airport's expected profits over PSE3.
128. We wish to highlight that the approach we take, including any information and evidence we require to apply our approach, should be proportionate to the size of the risk presented by these other regulated services. An airport's ability to earn excessive profits on these services is moderated by the fact that these services represent a relatively small proportion of the RAB at any one time; any excessive profits on priced service are likely to represent greater harm to consumers over the long-term.

Chapter 3 Pricing efficiency: are the prices set by Christchurch Airport likely to promote efficiency?

Purpose

129. This chapter contains our analysis and draft conclusions on the extent to which Christchurch Airport has incentives to set prices that are likely to promote efficiency (section 52A(1)(b) of the Act).
130. This chapter focuses on whether Christchurch Airport's pricing methodology is likely to result in prices which raise efficiency concerns.

Draft conclusions

131. Over PSE3, Christchurch Airport is charging passenger aircraft based on the number of passengers (not seats) in a departing aircraft, irrespective of other factors that were applicable in PSE2, such as the aircraft's weight or point of origin or destination.
132. By the end of PSE3, the international and domestic (non-regional) per-passenger charge will be equivalent. Previously, international passengers paid more than all domestic passengers. In addition, eliminating weight-based charges means that smaller aircraft are worse off (attracting higher charges) and larger aircraft are better off (attracting lower charges).
133. Overall, Christchurch Airport's new charging structure does not raise significant efficiency concerns. Per-passenger charges are simple to understand, transparent and are likely to reduce airlines exposure to demand risk.
134. Christchurch Airport appears to have set its per-passenger charges with a view to:
 - 134.1 remove incentives on airline customers to alter fleet mix in ways that did not reflect the airport's forward-looking costs; and
 - 134.2 send price signals about the relative capacity constraints facing its regional and international terminals.
135. This is likely to encourage changes in usage patterns across the different terminals, ie, move passengers from the more congested regional terminal to the less congested integrated terminal. Improved allocation of demand is likely to be efficient if it lowers future costs across the different terminals.

136. We also consider that Christchurch Airport's pricing methodology is unlikely to result in cross-subsidisation between operators of different aircraft.⁶⁰
137. In our view, Christchurch Airport's new charging structure could represent an improvement in efficiency compared to PSE2. However, this is difficult to predict and will be somewhat dependant on whether the airport seeks to maintain this charging arrangement over the long-term. Price stability and predictability are important for airlines' ability to plan and invest over the long-term where airlines are also undertaking risky investments, such as in new aircraft.
138. Given that much of the airport's costs are fixed in nature and only moderately affected by the type of aircraft, we would expect airports' charging structures to remain relatively stable over the long-term. Where significant changes are proposed, we encourage airports to provide robust evidence regarding the efficiency benefits and to have regard to the benefits of price stability and predictability over the long-term.
139. Christchurch Airport does not expect its new price structure to materially affect overall demand. Consistent with this, its forecast demand was not affected by changes to its price structure. This appears to be a plausible outcome, but potentially inconsistent with some of the airport's statements. For example, Christchurch Airport suggests it was essential to phase in regional price increases (combined with phased in international price decreases) to maintain its original demand forecasts.
140. More broadly, we think that Christchurch Airport could have been more transparent about its intentions behind its charging structure in its PSE3 disclosure, and the relevant impacts on different customer groups.
141. Our understanding and views on Christchurch Airport's charging structure was shaped by material provided by the airport after consultation closed and not available to interested parties through our consultation process. This material is now publicly available. However, including this information in the PSE3 disclosure would have allowed us and other interested parties to better understand, and engage with, Christchurch Airport's performance and pricing efficiency, through our consultation process.

Christchurch Airport is required to disclose information about its pricing methodology

142. We expect information disclosure to help incentivise airports to engage with airlines transparently on the purpose and intended outcomes of their charging structure.

⁶⁰ Christchurch Airport's per-passenger charges are likely to cover the incremental costs, and not exceed the stand-alone cost, of servicing different types of aircraft. Covering incremental costs is sufficient to ensure there is no cross-subsidy. The stand-alone costs test can also be relevant to whether a cross-subsidy exists where a firm's profits are constrained.

143. Under information disclosure regulation, Christchurch Airport is required to publicly disclose an overview of its pricing methodology used to set prices at each price setting event.⁶¹ This includes providing:⁶²
- 143.1 a summary of its pricing methodology;
 - 143.2 to the extent related to the price setting event (ie, related to services which apply standardised charges), a description of: charged services, the methodology used to allocate costs to particular charged services and significant changes to prices for charged services, including any rebalancing of prices, compared with equivalent services provided during the previous pricing period; and
 - 143.3 an explanation of the extent to which the airport considers that the application of its pricing methodology will lead to efficient prices, including whether there are any cross-subsidies.
144. We expect the disclosure of this information to help people:
- 144.1 understand how Christchurch Airport’s prices reflect underlying costs and customer demand;
 - 144.2 assess whether Christchurch Airport’s charging structure allows costs to be recovered in the most efficient way; and
 - 144.3 assess whether Christchurch Airport’s charging structure provides for cross-subsidisation, either between different users of a particular service, or between users of different services.

Our approach to assessing Christchurch Airport’s pricing methodology

145. Section 52A(1)(b) states that one of the Part 4 purposes is to promote outcomes consistent with outcomes in workably competitive markets such that regulated suppliers “have incentives to improve efficiency.”
146. Our analysis focuses on whether Christchurch Airport’s charging structure is likely to result in prices that raise efficiency concerns. The airport’s charging structure should be conducive to:
- 146.1 minimising the cost of serving airfield customers, subject to customers’ quality preferences (productive efficiency);

⁶¹ ‘Pricing methodology’ is defined under *Airport Services Information Disclosure Amendments Determination 2017* [2017] NZCC 36, clause 1.4(3) as the methodology or methodologies used by an airport to set standard prices, including all material assumptions, pricing principles, models, estimates, calculations and processes used as part of a price setting event.

⁶² For the complete list of required information relating to the pricing methodology, see *Airport Services Information Disclosure Determination 2010* NZCC 29, clause 2.5(3).

- 146.2 ensuring prices reflect opportunity cost, including allocating the airport's services to their highest value use in situations of scarcity (ie, congestion at the airport) (allocative efficiency); and
- 146.3 sending appropriate price signals to airfield customers about the cost of forthcoming investment (or divestment) in the airfield or terminal, and in order to avoid over- or under- investment (dynamic efficiency).
147. We assess whether Christchurch Airport's charging structure is conducive to the above efficiency principles by considering the following objectives.⁶³ This is consistent with our approach in the section 56G review.
- 147.1 Prices should be subsidy free.⁶⁴
- 147.2 Prices should have regard to consumers' demand responsiveness.
- 147.3 Where a good or service is scarce, the price should ensure that the good or service is consumed by those that value it the most.
- 147.4 Prices should enable consumers to make price-quality trade-offs or non-standard arrangements for services, where practical, to reflect cost and relative value placed on services.
- 147.5 The development of prices should be transparent, and promote price stability and certainty for consumers, where demanded.

Summary of Christchurch Airport's charging structure for PSE3

148. Christchurch Airport has made significant changes to its pricing structure over the PSE3 period (FY18-FY22), compared to the PSE2 period (FY13 – FY17). Over PSE3, Christchurch Airport has set charges based on the number of passengers (not seats) in a departing aircraft, except in the case of non-passenger aircraft. This compares to PSE2, where it used a combination of fixed charges and variable charges linked to the weight of the aircraft, and number of seats and passengers in an aircraft. These changes are illustrated in **Table 3.1** below.

⁶³ For example, see Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (31 July 2013), paragraph D15.

⁶⁴ Subsidy free prices are generally a necessary but not sufficient condition for efficient pricing.

Table 3.1 Summary of Christchurch Airport’s charging structure for the PSE3 period

Charged services	PSE3 charge applicable to airlines	How charge compares to PSE2
Airfield services – including runways, taxiways, and repairs and maintenance	<ul style="list-style-type: none"> Per arriving or departing passenger (not per seat).⁶⁵ 	<ul style="list-style-type: none"> A fixed charge and a variable charge in proportion to the weight (MCTOW) of the departing aircraft.⁶⁶
Terminal services – including baggage handling, air-bridges, and queueing areas	<ul style="list-style-type: none"> Per arriving or departing passenger. Lower charges apply to ‘regional services’ (predominantly domestic excluding Wellington and Auckland). 	<ul style="list-style-type: none"> For international services: per departing seat and per arriving and departing passenger. For domestic services: per departing seat. Lower charges apply to services using turbo-prop aircraft.
Check-in hall services	<ul style="list-style-type: none"> Per departing passenger (under \$0.70). 	<ul style="list-style-type: none"> Charges applied under commercial arrangements with individual airlines.
Check-in counter services	<ul style="list-style-type: none"> Per departing passenger (under \$0.50).⁶⁷ 	

Terminal charges for ‘regional services’

149. **Table 3.1** shows that over PSE3, Christchurch Airport will apply a lower terminal charge to passengers travelling on ‘regional services’. ‘Regional services’ are defined by Christchurch Airport as those services which are not: international services, travelling to or from Wellington or Auckland, or using the first floor integrated terminal. **Table 3.1** also shows that in PSE2, this lower terminal charge applied to passengers travelling on a turbo-prop aircraft.
150. This lower terminal charge arises in part because these ‘regional’ (or ‘turbo-prop’) services are assumed to use the regional lounge, and charged for that under a commercial contract with Air New Zealand. It is our understanding that this commercial contract remains in place and unchanged since PSE2.
151. We understand that a portion of Air New Zealand flights between Christchurch and Wellington used turbo-prop aircraft over PSE2 (and therefore used the regional lounge, which is suited to smaller turbo-prop aircraft). Services travelling to or from Wellington do not fall into the definition of ‘regional services’ under the new charging structure. As a result, some of Air New Zealand’s turbo-prop services will shift to a more expensive terminal charge category (‘non-regional’ services) that

⁶⁵ Non-passenger aircraft are charged in proportion to the weight (‘maximum certified takeoff weight’ or MCTOW) of the arriving or departing aircraft.

⁶⁶ Over PSE2, one of two fixed charges applied to an aircraft, depending on the aircraft’s weight.

⁶⁷ This charge does not apply to passengers using check-in facilities under which individual commercial arrangements apply (eg, Air New Zealand’s kiosk area).

assumes they do not use the regional lounge. This is a point of contention between Christchurch Airport and Air New Zealand, and is discussed further in this chapter.

Impacts on different airport users

152. **Table 3.2** below shows that Christchurch Airport's change in prices to different groups is expected to result in:

- 152.1 international airlines benefitting from lower prices;
- 152.2 (non-regional) domestic airlines paying slightly more compared to PSE2, and the same amount (per passenger) as international airlines by the end of PSE3; and
- 152.3 domestic airlines withstanding higher prices, particularly those domestic services defined as regional services and the portion of Air New Zealand turbo-prop flights shifting from 'regional' charges to 'non-regional' charges.

Table 3.2 Impacts of price changes on different groups (per passenger)⁶⁸

Average charge per passenger ⁶⁹				
		FY17 (PSE2 final year) ⁷⁰	FY18 (PSE3 – first year)	FY22 (PSE3 – final year)
International services	<i>Airfield</i>	\$7.80	\$4.75	\$5.13
	<i>Terminal</i>	\$13.15	\$8.01	\$7.66
	Total	\$20.95	\$12.76	\$12.79
(Non-regional) domestic services	<i>Airfield</i>	\$5.41	\$4.75	\$5.13
	<i>Terminal</i>	\$4.84	\$7.10	\$7.66
	Total	\$10.25	\$11.85	\$12.79
Regional domestic services	<i>Airfield</i>	\$4.26	\$4.75	\$5.13
	<i>Terminal</i>	\$2.00	\$2.14	\$3.49
	Total	\$6.26	\$6.89	\$8.62

Christchurch Airport's rationale for changing its charging structure

153. Christchurch Airport stated in its PSE3 disclosure that:⁷¹

⁶⁸ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), page 12.

⁶⁹ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), page 29; Christchurch Airport "Additional information for the Commerce Commission" (7 June 2018), page 11.

⁷⁰ Christchurch Airport "Annual information Disclosure Year Ended 30 June 2017" (30 November 2017), schedule 17, page 48.

⁷¹ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), paragraph 43-45.

“[its] primary goal is increasing the productivity and efficient use of its existing assets. Accordingly, [it has] proposed setting its PSE3 prices on a per passenger basis [where feasible] ... per passenger prices allow [it] to increase and incentivise flexible and efficient use of its airfield and terminal. They also increase simplicity of prices and align [its interests with] airlines interests”.

154. Following the close of submissions on our *Process and Issues paper*, we requested further information from Christchurch Airport, including on the reasoning behind its charging structure. In response, Christchurch Airport noted the following as key considerations for adopting its per-passenger charges.⁷²

- 154.1 Promoting productivity gains by encouraging assets to be used in a way that minimises forward-looking costs:

“[In PSE2], international terminal charges were substantially higher, and yet this part of the terminal has spare capacity. The new joint terminal charge is more consistent with the plans for the terminal to become increasingly integrated / flexible. That is, [Christchurch Airport] views the terminal as an asset where specific areas cannot be said to be associated with any particular type of traffic, but rather as an asset that jointly provides all services and where any latent capacity is available to be deployed where it is most needed.”

- 154.2 Reducing its risk exposure from airline’s decisions: avoiding differential charges that create perverse incentives for behavioural change:

“[In PSE2], airfield charges [which were linked to aircraft weight] per passenger were much higher for larger aircraft, disproportionate to the cost impact, and the structure of check-in charges encouraged airlines to change check-in practices, unrelated to cost. The new per passenger basis is likely to be the least susceptible to providing perverse incentives.”

- 154.3 Reducing complexity: creating conditions that are more conducive to the entry of new airlines and the creation of new services and routes:

“Previous charges for an airline bringing a passenger were a mixture of: aircraft weight (landing), fixed per aircraft (landing), per seat (terminal), per hour (check-in). The new charging basis - per passenger - is the simplest for airlines to understand and implement (and for [Christchurch Airport] to market).”

Overview of stakeholders’ views

155. Christchurch Airport notes that during its consultation with airlines, BARNZ and Qantas strongly supported the charging structure, while Air New Zealand did not.⁷³

156. BARNZ considers the simplicity of the charging structure to assist in aligning the interests of airlines with the airport to increase the numbers of passengers through Christchurch Airport, while being clear on the costs to airlines of doing so.⁷⁴

⁷² Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), pages 11-12.

⁷³ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), page 13.

⁷⁴ BARNZ "Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper" (28 November 2017), table 4, row 24.

157. On the other hand, Air New Zealand states that it has major concerns with the pricing structure adopted by Christchurch Airport, considering it to represent a fundamental departure from efficient pricing principles.⁷⁵
158. Air New Zealand advised the airport that the proposed increase in airfield and terminal charges for regional passengers was significant and could adversely impact regional passenger numbers.⁷⁶
159. Air New Zealand's concern was likely to reflect the combined impact to Air New Zealand of:
- 159.1 the price increase for regional services that was initially proposed (increasing to \$7.53 rather than \$6.89 in 2018, as per **Table 3.2**); and
 - 159.2 its turbo-prop services between Wellington and Christchurch being charged the price applicable to non-regional services when they had previously been charged the price applicable to regional services, which assumes use of the Regional Lounge (see **Table 3.2**).
160. In response to Air New Zealand's feedback, Christchurch Airport introduced a 'transitional path' where terminal charges increase gradually for regional services from FY17 until they reach the long-term price at the end of the PSE3 period (FY22). To offset this reduction in forecast revenue, Christchurch Airport mirrored this transitional path for international services, with gradual reductions in terminal charges for international services over the forecast period (rather than the previously proposed step change reduction).⁷⁷ The effect of this transitional path is illustrated in **Table 3.2** above.

Prices should be subsidy free

161. To be subsidy free, prices should be equal to or greater than the cost of producing an additional service (incremental costs), and less than or equal to the cost that would have occurred if the supplier solely undertook that activity (stand-alone costs).⁷⁸

We previously concluded that Christchurch Airport's pricing methodology over PSE2 was unlikely to result in cross-subsidisation

162. During our section 56G review, we concluded that "Christchurch Airport's pricing methodology is unlikely to result in cross-subsidisation, and the evidence suggests its

⁷⁵ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraph 90.

⁷⁶ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), paragraph 54-55.

⁷⁷ Ibid.

⁷⁸ This means considering whether a customer (or group of customers) contributes at least the cost of continuing to serve them but no more than the cost of being served on a stand-alone basis at an alternative (hypothetical) airport. See Commerce Commission "Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper" December 2010, paragraph 7.2.5 for further discussion on this issue.

pricing methodology better reflects the principle of being subsidy free relative to PSE1.”⁷⁹ This conclusion recognised.⁸⁰

162.1 Christchurch Airport’s view that the introduction of a fixed charge per aircraft departure was designed to address concerns about previous cross-subsidisation between aircrafts (turbo-prop aircraft subsidised by jet aircraft); and

162.2 that Christchurch Airport had further limited the likelihood of cross-subsidisation occurring in PSE2 by introducing charges for children who were previously not charged.

How do per-passenger airfield charges compare to fixed and weight-based charges?

163. In BARNZ’s view, per-passenger airfield charges avoids arbitrary distinctions between different aircraft (turbo-prop, domestic jet and international jet) that are not based on technical, operating or economic grounds.⁸¹

164. Contrary to this view, Air New Zealand suggests that per-passenger charges:

164.1 ignore the significant sunk costs in infrastructure, resulting in some user groups paying for infrastructure they neither require nor use;⁸² and

164.2 favour larger wide-body operators at the expense of smaller operators and therefore does not leave airlines free to innovate in choosing and changing their fleets, as was suggested by Christchurch Airport.⁸³

165. Air New Zealand maintains that the investment required for larger, heavier aircraft significantly exceeds that required for smaller aircraft. It advises that this is because the base strength and dimensions of core assets (runways, taxiways and apron areas) are affected by the size and weight of aircraft using those assets. As an example of this, Air New Zealand notes that Christchurch Airport spent \$15.3 million upgrading runway shoulders in FY16, which would not be required for turbo-prop aircraft.⁸⁴

166. Air New Zealand’s main concern appears to be that under per-passenger charges, smaller turbo-prop aircraft may be charged above the costs the airport would incur if it were to serve only turbo-prop aircraft (ie, above its stand-alone costs).

⁷⁹ Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014), paragraph D17.

⁸⁰ Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014), paragraph D18-D19.

⁸¹ BARNZ “Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper” (28 November 2017), table 4, row 24.

⁸² Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 91.

⁸³ Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 101-102.

⁸⁴ Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 93.

167. In support of this, Air New Zealand cites:

167.1 analysis that Christchurch Airport undertook during PSE2 (informed by advice from BECA), which indicated that if Christchurch Airport only served turbo-prop aircraft, the airfield would cost 33 percent of the then current configuration;⁸⁵ and

167.2 ICAO⁸⁶ policies which recommend the use of weight-based methodologies for landing charges because they “reflect how wear and use of airport-provided facilities tend to increase as the weight of aircraft increases.”⁸⁷

168. Similarly, BARNZ suggests the per-passenger charge may not fully reflect the additional costs created by larger aircraft. However, BARNZ considers this to be a trade-off with the simplicity benefits of a per-passenger charge – a trade-off it is comfortable with.⁸⁸

169. On the other hand, Christchurch Airport suggests that per-passenger charges do not create cross-subsidisation between operators of different sized aircraft. It states that:⁸⁹

“Airlines’ fleet decisions have little effect on [our] forward-looking costs. There is only a minimal difference in the cost caused by different types of aircraft when using [the] airfield, reflecting the fact that the vast majority of the airfield cost being recovered comprises costs that are common (like land) or are “sunk” costs (such as the existing sealed surfaces). As such, any cost-reflective pricing differences that would occur as a result of aircraft-specific airfield pricing would not meaningfully impact airlines’ incentives. In this context, [our] price structure is efficient as it avoids influencing airlines’ fleet decisions in circumstances where doing so is not justified by changes to cost (and [our] price structure is also transparent and simple).”

⁸⁵ This assumes runways would be shorter and narrower with less pavement thickness, and less taxiways and parking areas would be required, and annual maintenance costs would be less. Air New Zealand also states that Christchurch Airport’s per-passenger pricing approach results in a cost per landed tonne for turbo-prop aircraft of around \$20 per tonne (in FY18) compared to around \$9 (per landed tonne) for wide-body aircraft. Air New Zealand considers this to be grossly inappropriate given the operational requirements of the smaller aircraft. Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 98-99.

⁸⁶ International Civil Aviation Organisation, a UN specialised agency established to manage the administration and governance of the Convention on International Civil Aviation.

⁸⁷ Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 94.

⁸⁸ BARNZ “Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper” (28 November 2017), page 24-25.

⁸⁹ Christchurch Airport “Submission on process and issues paper on the review of Auckland and Christchurch Airports’ third price setting event” (28 November 2017), paragraph 63.1.

170. Christchurch Airport supports this view with analysis by Incenta, which suggests that:⁹⁰
- “a substantial portion of the asset-related cost base is completely unaffected by the type and level of aircraft use in any particular period (namely, the land estate, security fences and airfield infrastructure assets). In addition, much of the cost associated with pavement-related assets is irreversible, with only the quantum of ongoing pavement maintenance able to be influenced by the type and level of aircraft usage ... [at the time of Christchurch Airport’s initial pricing proposal in November 2016] the forecast pavement maintenance expenditure was forecast to amount to approximately 14 per cent of the total airfield revenue requirement over PSE3 and 11 per cent over the long term.”
171. Incenta illustrates that under PSE2 charges, the average per-passenger charge for wide-body jets is at least \$8 more than for turbo-prop jets, while less than a \$1 differential can be justified on the basis of the aircrafts’ respective contributions to forward-looking costs.⁹¹
172. Incenta also responds specifically to the BECA advice, cited by Air New Zealand. Incenta undertook analysis based on the assumptions adopted in BECA’s advice about the stand-alone costs of an airfield that served only turbo-prop aircraft. This analysis supported the view that the proposed per-passenger airfield charge to a turbo-prop is above the incremental costs and below the stand-alone cost of providing a turbo-prop only airfield – with a reasonable margin (this was also the case for jet aircraft).⁹²
173. Incenta’s analysis estimates the average charges for turbo-prop, narrow body jet and wide-body jets under the previous and new charging structure. The new charging structure greatly reduces the extent of differences in charges but maintains the order. Turbo-props will remain the cheapest and wide-body jets the most expensive. The analysis is carried out on 80% and 70% load factors and could materially vary with lower load factors. Incenta makes the point that because the reduction in the variation of charges between aircraft is a better reflection of forward-looking costs, it will also provide better price signals for airlines’ choice of aircraft.

Draft conclusion

174. Based on the evidence provided, we consider that Christchurch Airport’s pricing methodology is unlikely to result in cross-subsidisation between operators of different aircraft.
175. That is, Christchurch Airport’s per-passenger airfield charges are likely to recover an aircraft’s contribution to costs. We consider that Christchurch Airport’s per-

⁹⁰ Christchurch Airport "PSE3 airline consultation material – Annex A: Incenta response to Air New Zealand comments, 7 April 2017" (28 November 2017), page 5.

⁹¹ Christchurch Airport "PSE3 airline consultation material – Annex A: Incenta response to Air New Zealand comments, 7 April 2017" (28 November 2017), page 7.

⁹² Incenta suggests there are aspects of BECA’s assumptions that could be open to question or were not well justified in available material, but notes that the possible biases created by this operate in both directions and the net effect is unclear. Christchurch Airport "PSE3 airline consultation material – Annex A: Incenta response to Air New Zealand comments, 7 April 2017" (28 November 2017), page 9.

passenger charges are likely to cover the incremental costs, and not exceed the stand-alone costs, of servicing different types of aircraft.⁹³

176. It is appropriate to consider an aircraft's contributions to forward-looking costs, as Christchurch Airport has done. This allows an assessment of whether prices are likely to provide efficient usage signals by reflecting the aircraft's contribution to the future infrastructure costs of the airport. An aircraft's contribution to these costs is influenced by an airline's own investment decisions and its use of the airport's infrastructure (eg, if airlines' investment in larger aircraft prompts the airport to invest more in infrastructure sooner, this will increase the airport's forward-looking costs).

The 'transitional path' to gradually increase prices for regional services

177. BARNZ notes Christchurch Airport's decision to "smooth" a price increase for domestic (regional) passengers has set international passenger charges for PSE3 above where they would otherwise be. It states that while this cross-subsidy is expected to end by FY22, it is not desirable.⁹⁴
178. Christchurch Airport disagrees with BARNZ's assertion that its price smoothing adjustment will cause international traffic to cross-subsidise other passengers. Christchurch Airport states that the adjusted prices for international passengers remain well below the stand-alone cost of serving these passengers (ie, below the upper bound of the subsidy-free range).⁹⁵
179. Based on this information, we do not consider the price 'smoothing' raises cross-subsidisation concerns.

Where a good or service is scarce, the price should ensure that the good or service is consumed by those that value it the most

180. Scarcity at airports may arise through congestion at facilities, and a lack of capacity where required. Where a service is scarce and demand for the service exceeds supply, prices can promote allocative efficiency by reflecting the opportunity costs of consuming the service.
181. Below we consider whether Christchurch Airport's pricing structure is likely to allocate congested or scarce services efficiently to manage competing demands for limited capacity and resources, for example by setting lower prices to offload demand to an under-utilised area of the airport or an under-utilised time of day (and higher prices for areas approaching capacity). This may promote both allocative and

⁹³ Covering incremental costs is sufficient to ensure there is no cross-subsidy. The stand-alone costs test can also be relevant to whether a cross-subsidy exists where a firm's profits are constrained.

⁹⁴ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 6.

⁹⁵ Christchurch Airport "Cross-submission on issues and questions raised in the Commission's process and issues paper on the review of Auckland and Christchurch Airports' third price setting event for airport services" (19 December 2017), paragraph 56.

dynamic efficiency by improving quality of services, reducing costs of a given service, or delaying investment.

Over PSE3, Christchurch Airport is seeking to better distribute capacity among its existing assets

182. Across all of the airport’s land and buildings, Christchurch Airport appears to be operating within capacity. We note in particular that the completion of the integrated terminal coincided with a reduction in passenger numbers as a result of the Canterbury earthquakes and subsequent aftershocks. Passenger numbers reduced steadily from 6.0m in 2010 to 5.5m in 2013 (-8.3%) and are starting to pick up now – in 2017, passenger numbers sat at 6.6m.⁹⁶
183. Nonetheless, in response to our request for further information, Christchurch Airport suggests that capacity could be better distributed among its terminal space. Specifically, the airport states that its investment in the integrated terminal (which opened in 2013):⁹⁷
- “created a facility that can operate as one flexible and integrated terminal by placing a new terminal building and integrated check-in and baggage handling facilities in between **an existing regional lounge that is at times over-capacity and an international terminal that is currently under-capacity**” (emphasis added).
184. This appears consistent with BARNZ’s understanding that:
- 184.1 it is not aware of significant capacity constraints within the integrated terminal, which is arguably larger than necessary for current passenger volumes;⁹⁸ and
- 184.2 there are capacity constraints in the domestic regional departures area.⁹⁹
185. To manage future passenger growth, Christchurch Airport plans to spend \$10.4m reconfiguring its terminal (making physical changes to walls, security areas, and passenger facilities).¹⁰⁰ These physical changes are intended to more effectively facilitate aircraft to flexibly switch between domestic and international services through the use of the integrated terminal’s “swing” gates and lounges.
186. Christchurch Airport suggests that this investment is to make better use of the flexibility and efficiencies captured in the current integrated terminal, rather than

⁹⁶ Christchurch Airport “Specified Airport Services Annual Information Disclosure” 2010 to 2017.

⁹⁷ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), paragraph 50.

⁹⁸ BARNZ “BARNZ assessment of CIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 16.

⁹⁹ BARNZ “BARNZ assessment of CIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 4.

¹⁰⁰ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), paragraph 51.

incurring substantial capital expenditure in a specific area approaching capacity when other parts of its facilities are under-utilised.¹⁰¹

187. This suggests Christchurch Airport considers there are future efficiency gains to be made from improving the management of capacity flows between the regional and international terminals, and is investing and making operational changes to achieve this. The possible benefits of this investment are somewhat dependant on the price signals encouraging airlines to use spaces of the terminal that are under-utilised.
188. In line with this objective, it appears that Christchurch Airport has sought to increase the relative price of the regional terminal, compared to the international and domestic jet terminal. It has done this subject to the constraint of a long-term contract it has with Air New Zealand regarding charges for use of the regional lounge (a significant part of terminal services for regional passengers). This appears to have been done in the following ways:
- 188.1 Christchurch Airport has increased the relative price of using the regional terminal and reduced the relative price of using the integrated terminal. Specifically, charges for regional services – the sole users of the regional terminal - are increasing from \$6.26 in FY17 to \$8.62 in FY22 per passenger, while charges for ‘international’ services – the main users of the under-utilised part of the integrated terminal – are decreasing from \$20.95 in FY17 to \$12.79 in FY22 per passenger. By FY22, all users of the integrated terminal (international and ‘non-regional’ domestic services) will be charged the same price.
- 188.2 Christchurch Airport has sought to further incentivise some of Air New Zealand’s turbo-prop services, currently using the regional terminal, to use the integrated terminal.
- 188.2.1 It has done this by specifying that flights between Wellington and Christchurch are charged a ‘non-regional’ terminal price (which assumes they use the integrated terminal, rather than the regional terminal).
- 188.2.2 BARNZ calculates that as a result, charges for these aircraft will increase by about 110% per flight.¹⁰²
- 188.2.3 It is now of no monetary benefit for Air New Zealand to continue using the regional terminal for turbo-prop flights between Wellington and Christchurch. This specific change in charge is a point of contention between Christchurch Airport and Air New Zealand, and relates to a commercial contract between the two parties. This is discussed below.

¹⁰¹ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 51.

¹⁰² BARNZ "Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper" (28 November 2017), page 24.

Terminal charges for some Wellington - Christchurch flights have increased

189. Air New Zealand considers that as a result of classifying flights between Wellington and Christchurch as 'non-regional', some of its flights between Christchurch and Wellington will be charged for using the integrated terminal, even though they may continue to use the regional lounge.¹⁰³
190. This change is a point of contention:
- 190.1 Christchurch Airport submits that this new charging arrangement reflects the specific regional lounge agreement between itself and Air New Zealand.¹⁰⁴
- 190.2 Air New Zealand disagrees with Christchurch Airport's characterisation of the arrangements, and considers that:¹⁰⁵
- "[Christchurch Airport] is deliberately targeting Air New Zealand's strategy to serve the Christchurch-Wellington market in a sustainable and responsive manner through increasing the number of turbo-prop services which are better suited to the operating conditions and allow [Air New Zealand] to provide greater frequency."
191. We are not privy to the regional lounge commercial agreement between Christchurch Airport and Air New Zealand and so are unable to confirm whether classifying flights between Wellington and Christchurch as 'non-regional' (and charging them as if they use the integrated terminal) is consistent with the terms of that commercial agreement.
192. We do note however, that it seems likely that when entering into the regional lounge contract, Christchurch Airport underestimated the ability for the beneficiary of that contract to modify its fleet so as to maximise its use of the regional terminal and associated 'locked in' price. Consistent with this premise, Christchurch Airport states in its annual disclosures over the PSE2 period that Air New Zealand has used a higher proportion of turbo-prop aircraft compared with jet aircraft to that originally forecast for domestic markets. This is cited as a contributing factor to Christchurch Airport not recovering its forecast revenue over the forecast period.¹⁰⁶
193. This suggests that the change in treatment of Wellington-Christchurch flights may reduce the profitability of Air New Zealand's previous investment in turbo-prop aircraft (which may have occurred based on its understanding of the previous charging structure). This is an example of less stability and predictability of prices, which is important for airlines' ability to plan and invest. However, this change in

¹⁰³ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraph 110.

¹⁰⁴ Christchurch Airport "Cross-submission on issues and questions raised in the Commission's process and issues paper on the review of Auckland and Christchurch Airports' third price setting event for airport services" (19 December 2017), paragraph 58.

¹⁰⁵ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraph 112.

¹⁰⁶ For example, see: Christchurch Airport "Specified Airport Services Annual Information Disclosure for the year ending 2016" (no date), page 3.

treatment of Wellington-Christchurch flights may be more efficient overall, sending better price signals to users of the regional terminal.

Comparing per-passenger to per-seat charges

194. It may be that per-passenger charges send potentially poorer price signals about the scarcity of resources relative to a seat-based charge. This is because two identical aircraft, using identical resources at the airfield, could be charged materially differently if one is carrying significantly less passengers. The impacts of this on airlines' landing decisions are likely to be relatively minor. We expect airlines have other incentives that discourage them from landing aircraft with few passengers (eg, recovering its own costs, such as fuel) and therefore do not expect this pricing change alone to materially incentivise aircraft operators to land with few passengers.
195. We note that compared to a per-seat charge, a per-passenger charge is potentially more directed at:
- 195.1 addressing capacity constraints, which may exist at gates in handling the volume of passengers in the domestic regional departure area; and
 - 195.2 encouraging more marginal flights to a terminal with spare capacity (eg, airline may add capacity to a route or less likely to remove capacity from a route that provided only marginal benefit if it is charged in a way that better matches fluctuations in its own revenue).

Draft conclusion

196. Overall, we consider that Christchurch Airport appears to have set prices with a view to send price signals about the relative capacity constraints facing its regional and integrated terminals. This is likely to encourage more passengers to use less congested services, resulting in lower future costs across the different terminals.
197. This approach is consistent with the airport's stated focus on improving the management of the distribution of current and future demand growth between its terminals, which is underpinned by planned investment and operational changes.
198. This view was shaped by material provided by Christchurch Airport after consultation closed and not available to interested parties through our consultation process. In our view, Christchurch Airport did not clearly explain in its PSE3 disclosure how its pricing structure is consistent with (or relates to) encouraging airlines to use spaces of the terminal that are under-utilised. Instead, it made broad statements that its charging structure seeks to increase the productivity and efficient use of its existing resources.
199. We think that Christchurch Airport should have been more transparent about these intentions in its PSE3 disclosure. This would allow us and other interested parties to better understand, and engage with, Christchurch Airport's performance and the efficiency of its prices, through our consultation process.

200. This conclusion compares to our findings in our section 56G review, at the time the integrated terminal opened, where we concluded that:¹⁰⁷

“although Christchurch Airport's prices are unlikely to result in more efficient use of scarce resources at Christchurch Airport relative to PSE1, this does not appear to be a concern. This is because identified capacity constraints are expected to be managed through additional investment and operational changes.”

Prices should have regard to consumers’ demand responsiveness

201. In an industry with high fixed costs, such as airports, prices based on efficient incremental costs would under-recover the required revenues. Where this occurs, a possible efficient outcome is to make up any shortfall by differentiating prices according to consumers' demand responsiveness, in line with Ramsey Pricing (to the extent practicable).
202. Applying Ramsey Pricing means that fixed costs are recovered by allocating those costs more heavily toward those who are relatively price insensitive (inelastic demand). This means those users least sensitive to price increases pay the highest mark-ups and those users most price sensitive pay the lowest mark-ups. This works to minimise the extent to which efficient use is deterred.¹⁰⁸
203. For differentiated ‘Ramsey’ prices to be efficient, the differentiated prices should increase output relative to a common price for all consumers.
204. Demand characteristics may be inferred to some degree from the aircraft weight and route characteristics of different flights.

Christchurch Airport does not appear to have considered customers’ relative demand responsiveness

205. While Christchurch Airport has changed its charging structure considerably compared to PSE2, it submitted that airports have “no ability or incentive to increase revenue through price structure.”¹⁰⁹
206. Christchurch Airport emphasises its indifference to consumers’ demand responsiveness by stating:¹¹⁰

¹⁰⁷ Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014), paragraph D23.

¹⁰⁸ Specifically, under Ramsey Pricing, the price for each user (or group of users) would be set by adding a percentage mark-up on marginal cost, with the size of the mark-up being inversely proportional to the price elasticity of demand of that user or group of users. The mark-ups are scaled up until revenues cover costs.

¹⁰⁹ Christchurch Airport “Cross-submission on issues and questions raised in the Commission's process and issues paper on the review of Auckland and Christchurch Airports' third price setting event for airport services” (19 December 2017), paragraph 53.

¹¹⁰ Christchurch Airport “Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event” (28 November 2017), paragraph 47.

“Importantly, [our] price structure is set on a per passenger basis and ensures that [we] remain indifferent to the type of demand – which types of aircraft airlines use, load factors and numbers of aircraft, **and whether passengers are traveling to/from international or domestic locations.**”
(emphasis added)

207. These statements indicate that Christchurch Airport:
- 207.1 is not particularly incentivised to consider how its pricing structure may affect overall output (as it considers that pricing structure does not affect its expected revenue or profit); and
- 207.2 has not determined its charging structure with the intention of raising overall demand by increasing relative prices for the least price sensitive and decreasing relative prices for the most price sensitive.
208. Christchurch Airport notes that its charging structure was advised to its independent demand forecast expert (Three Consulting), who considered the new charging structure did not materially impact on passenger demand forecasts.¹¹¹
209. Despite this view, Christchurch Airport introduced a ‘transitional path’, to see domestic prices increase more gradually (and international prices decrease more gradually) over the PSE3 period. Christchurch Airport describes this transitional path as a decision that “was seen as an essential measure to maintain the original demand forecast in light of airline feedback”.¹¹² This appears somewhat at odds with its view that its charging structure does not materially impact on passenger demand.
210. Christchurch Airport makes statements to indicate it considers that international and domestic passengers may respond to price changes differently, but that it is difficult to say who is more price sensitive and the extent of this. It also suggests that it did not seek to raise overall demand by charging the most price sensitive customers less (and vice versa). In particular, we note the following views from the airport.
- 210.1 Christchurch Airport notes that prices went up for regional services, and indicates that airport charges are likely to be the largest share of airfares for these services, suggesting a larger potential demand response.¹¹³ It caveats this view by pointing out that Air New Zealand has a monopoly on these regional routes so it is difficult to predict the extent to which price increases will be passed through. We note that Auckland Airport also supports the view that domestic passengers are more price sensitive than international passengers.¹¹⁴

¹¹¹ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 67.

¹¹² Ibid.

¹¹³ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 70.

¹¹⁴ Auckland Airport "Price Setting Disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), page 71. As noted in our Draft Report on Auckland Airport’s pricing decisions and expected performance, Auckland Airport’s view appears to be

210.2 Christchurch Airport notes that prices went down materially for international passengers and suggests airport charges are likely to be a smaller share of their total ticket price (ie, indicating international flights to be less price sensitive).¹¹⁵

210.3 Christchurch Airport also states:

“[it did not] expect or intend [for its changes in price structure] to impact on overall demand, but on the way a given level of demand used [its] facilities. Rather, to the extent that [Christchurch Airport] expected the new structure could cause a behavioural response, it was for the airlines to bring the same passengers to Christchurch in a different manner (for example, more Wellington passengers arriving jets and fewer by turbo-props, or possibly more international passengers arriving directly into Christchurch rather than via another New Zealand airport).”¹¹⁶

211. BARNZ has argued that domestic demand is usually less price sensitive than international demand.¹¹⁷ BARNZ expects that the significant reductions in charges to international airlines should result in increased international services being offered to Christchurch Airport. BARNZ further notes that it is not clear how much these demand effects from price changes have been built into Christchurch Airport’s demand forecasts.¹¹⁸

Draft conclusion

212. Christchurch Airport does not expect its new price structure to materially affect overall demand. Consistent with this, its forecast demand was not affected by changes to its price structure. This appears to be a plausible outcome, but potentially inconsistent with some of the airport’s statements. For example, Christchurch Airport suggesting it was essential to phase in regional price increases (combined with phased in international price decreases) to maintain its original demand forecasts.

Prices should enable price-quality trade-offs

213. Consumers may demand different levels of quality or quantity of service, for which they are willing to pay different prices. Where practical, consumers should therefore be able to make price-quality trade-offs. This may include the use of non-standard contracts or commercial agreements for individual consumers.

supported by a 2007 report on air travel demand elasticities, which found that fare elasticities on short-haul routes were generally higher than long-haul routes. See: Commerce Commission “Review of Auckland International Airport’s pricing decisions and expected performance (July 2017 – June 2022) - Draft report” (26 April 2018), paragraph 288.

¹¹⁵ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), paragraph 71.

¹¹⁶ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), paragraph 9.

¹¹⁷ BARNZ “BARNZ assessment of AIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 7.

¹¹⁸ BARNZ “Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper” (28 November 2017), table 4, row 25.

214. During the section 56G review, we concluded that the price-quality trade-offs in Christchurch Airport's pricing methodology were appropriate. This reflected evidence that:
- 214.1 Christchurch Airport enabled consumers to make price-quality trade-offs through commercial arrangements and individual contracts;
 - 214.2 and airlines had not raised any concerns about their ability to make price-quality trade-offs through the standard charges set at Christchurch Airport for the PSE2 period.

Price-quality trade-offs are not a strong feature of the PSE3 pricing structure

215. Christchurch Airport's pricing structure for PSE3 does not allow for explicit price-quality trade-offs (eg, explicit charges for air-bridge or walking access).
216. Christchurch Airport has introduced standardised prices for check-in services (see **Table 3.1**), but indicates that individual commercial agreements still exist for these services.
217. BARNZ notes that because Christchurch Airport's prices are set on a per-passenger basis, they do not particularly provide for airlines to make price-quality trade-offs. BARNZ states it has no information about how open the airport is to discussing price-quality trade-offs with individual airlines, and indicated there were not service level agreements in place with the airport.¹¹⁹¹²⁰
218. During the section 56G review we identified some examples of consumers making price-quality trade-offs through agreements for the use of specific assets including negotiating long-term contracts for the use of ground power assets by domestic aircraft, and specific commercial arrangements for dedicated check-in counters.
219. We are unclear about the availability of customised agreements, which may facilitate airlines making price-quality trade-offs. As such, we are interested in understanding the extent to which these individual arrangements are still available to airlines.

The development of prices should be transparent, and promote price stability and certainty for consumers, where demanded

220. During the section 56G review, we concluded that the development of Christchurch Airport's pricing methodology for PSE2 promotes appropriate price stability and certainty for stakeholders. However, we considered that the development of the PSE2 pricing methodology by Christchurch Airport had not been fully transparent.¹²¹

¹¹⁹ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 7.

¹²⁰ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 2.

¹²¹ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), paragraph D33.

Christchurch Airport's pricing structure is simple

221. A key benefit of the adopted per-passenger prices is their simplicity. Christchurch Airport states that during its consultation with airlines, BARNZ considered per-passenger pricing to be “well founded” and “simple”, with the simplicity “aligning the interests of airlines with the airport.” Qantas Group agreed that it “improved transparency and simplicity in charging mechanisms.”¹²²

Christchurch Airport sought to provide transparency about its pricing

222. BARNZ acknowledged that the airport consults with its substantial customers and provides a detailed model showing how the prices are derived from input costs and other assumptions. It then noted that the price development process may not be transparent to stakeholders other than substantial customers.¹²³
223. Based on the information provided and stakeholders' views, Christchurch Airport appears to have engaged considerably with its customers regarding its significant changes to its pricing structure. In particular, the simplicity of per-passenger prices helps provide transparency to airlines about their respective charges. We also acknowledge that the airport's pricing methodology includes a more transparent tilted annuity depreciation method, compared to the implied depreciation method it applied over PSE2. BARNZ considers that the tilted annuity approach is reasonable.¹²⁴
224. Nonetheless, we also consider that Christchurch Airport could have more clearly explained its intentions behind its significant change in its charging structure in its PSE3 disclosure, to help interested parties understand its performance, including the efficiency of its prices.

Risk sharing, certainty and price stability over the long-term

225. BARNZ and Christchurch Airport consider that the move to per-passenger charges help align the airport's interests (and risks) with that of airlines in regard to passenger growth.¹²⁵ BARNZ considers this arrangement makes clear to airlines the associated costs.¹²⁶
226. In other words, the per-passenger charge – as opposed to a per-seat charge and/or fixed charges – increases the degree to which changes in airlines' costs now move in proportion to changes in airlines' revenues. This helps reduce airlines' profit volatility

¹²² Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 61.3.

¹²³ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 7.

¹²⁴ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), pages 6-7.

¹²⁵ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), page 24. Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 61.2.

¹²⁶ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), page 24.

and means the upside and downside demand risk affects the airport's profits more directly than previously.

227. On the other hand, the charging structure is now independent of aircraft weight. This represents the removal of risk to the airport that aircraft will be 'downgraded'. Christchurch Airport indicates in its annual disclosure that after it had set its forecast, airlines have modified their fleets significantly from what had been expected during pricing consultation, with airlines increasing the number of turbo-prop aircraft used and decreasing the number of jet aircraft. As turbo-prop aircraft previously fell in a lower charging weight group, this resulted in reduced revenue for the airport compared to its expectations.¹²⁷
228. It is difficult to conclude how this change in charging structure has impacted the airport's exposure to risk. Overall, per-passenger charging appears to reduce risk to airlines. However, we note that large changes to an airport's pricing structure can create significant fluctuations in individual customers' charges when prices are reset (ignoring any changes in the overall revenue collected). Price stability is important for airlines' ability to plan and invest over the long-term where airlines are also making risky investments based on expectations about future costs, such as in new aircraft.
229. We acknowledge that in response to Air New Zealand's feedback, Christchurch Airport reduced price fluctuations by allowing some domestic charges to transition to the new (higher) price more gradually over the period.
230. Given that much of the airport's costs are fixed in nature and only moderately affected by the type of aircraft, we would expect airports' charging structures to remain relatively stable over the long-term. Where significant changes are proposed, we encourage airports to provide robust evidence regarding the efficiency benefits and to have regard to price stability over the long-term.

¹²⁷ Christchurch Airport "Specified Airport Services Annual Information Disclosure for the year ending 2017" (no date), page 5.

Attachment A Our assessment of Christchurch Airport's cost of capital

Purpose

- A1 This attachment contains our analysis and draft conclusions on whether Christchurch Airport has sufficiently justified its cost of capital of 6.82%.
- A2 This attachment does not assess Christchurch Airport's expected returns of 6.65%, which are discussed in **Chapter 2**. However, the analysis in this attachment determines that Christchurch Airport has sufficiently justified a cost of capital of 6.47%, which is used in our assessment of expected returns in **Chapter 2**.

Structure of this attachment

- A3 This attachment sets out our:
 - A3.1 framework for assessing Christchurch Airport's target return, taking into account the relevant context of the IM review undertaken in 2016 and the previous section 56G reports; and
 - A3.2 assessment of Christchurch Airport's target return, focusing on the reasons it has provided for adopting a higher cost of equity and cost of debt than our benchmark values.

Framework for assessing Christchurch Airport's estimated cost of capital

- A4 This section outlines our approach to assessing Christchurch Airport's estimate of its cost of capital in this review. This approach differs from the section 56G reviews, reflecting changes to the IMs made in 2016. It is consistent with the approach taken in our draft report on Auckland Airport.¹²⁸
- A5 This section discusses:
 - A5.1 our past approach in the section 56G reviews, where we primarily focused on the 75th percentile WACC estimate;
 - A5.2 the changes made in the IM review, which led to us now publishing only a mid-point WACC estimate and associated standard error;
 - A5.3 our mid-point WACC estimate for airports as at 1 April 2017, which is a key reference point for this review; and
 - A5.4 our approach for assessing Christchurch Airport's estimate of its cost of capital in this review, in light of the changes made in the IM review.

¹²⁸ Commerce Commission "Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022)" (26 April 2018), Attachment A.

Our approach in the section 56G reports primarily focused on the 75th percentile

- A6 We considered a range from mid-point to 75th percentile when assessing airport profitability in the section 56G reports. We noted that:¹²⁹
- A6.1 the mid-point (50th percentile) was the appropriate starting point;
 - A6.2 the 75th percentile was also considered to allow for the uncertainty of estimating the true cost of capital, in light of the potential asymmetric consequences of estimation error on pricing and investment; and
 - A6.3 the low end of the range (the 25th percentile) was not relevant when considering whether airports were targeting excessive profits.
- A7 Any supplier-specific adjustments to our benchmark cost of capital were rejected in the section 56G reports. We made the following points.¹³⁰
- A7.1 The purpose of IMs is to promote certainty in the rules and assumptions to assess performance. This certainty would be undermined by ad hoc adjustments.
 - A7.2 A supplier which sets prices based on a higher estimate of cost of capital than the actual cost at which capital is available in an industry cannot expect consumers to pay these higher prices.
 - A7.3 Although individual airports are subject to company-specific risks, investors can diversify these away. The cost of capital reflects risks which investors cannot diversify away.
- A8 This approach reflected our original IM Determination in 2010, where we decided to use a WACC range from the 25th to the 75th percentile. We also decided that service-specific (ie, industry-wide), rather than supplier-specific, WACC estimates would be used.¹³¹
- A8.1 We noted that leverage, debt premium and beta could potentially be considered on a supplier-specific basis.
 - A8.2 However, we considered each of these parameters individually and concluded that service-specific estimates would be more appropriate for each of them.

¹²⁹ For example, see: Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport Section 56G of the Commerce Act 1986” (8 February 2013), paragraphs F26-F50.

¹³⁰ For example, see: Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport Section 56G of the Commerce Act 1986” (8 February 2013), paragraphs F45-F50.

¹³¹ Commerce Commission “Input methodologies (airport services): Reasons paper” (December 2010), paragraph E2.82.

- A9 In the section 56G reports the upper limit of our WACC range (the 75th percentile) effectively became the key benchmark when assessing airport profitability. This was also the percentile that was used when setting price-quality paths for energy businesses at that time.

We now only publish a mid-point WACC following the IM review

- A10 In the 2016 IM review we decided to change our approach, due to two main problems with the previous framework:¹³²
- A10.1 the upper limit of our WACC range had become the de facto benchmark when assessing airport profitability; and
 - A10.2 there was limited and weak rationale for using the 75th percentile as the upper limit of the WACC percentile range.
- A11 We decided to remove the WACC range, and instead publish only the mid-point WACC and a standard error so that any required percentile can be calculated. We noted that this approach:¹³³
- A11.1 enables flexibility in assessing the acceptability of airport returns, and will reduce the focus of any assessment on the upper limit of the range; and
 - A11.2 will provide flexibility to enable any assessment to take into account different contextual factors affecting an airport's required return expectations, or the expectations of a particular project.
- A12 Given airports are not subject to price-quality path regulation, it is not necessary to specify a particular WACC percentile estimate. This is in contrast to electricity lines and gas pipelines, where we specify the 67th percentile WACC estimate for price-quality path regulation.

Our mid-point WACC estimate for airports as at 1 April 2017

- A13 When considering Christchurch Airport's estimate of its cost of capital for this review, the key reference point is our mid-point WACC estimate for airports as at 1 April 2017. This was our most recently available WACC estimate for airports at the time Christchurch Airport set its prices for PSE3.
- A14 The parameter values used to calculate our airports WACC estimate as at 1 April 2017 are shown in **Table A1** below.¹³⁴

¹³² Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), paragraph X4.

¹³³ Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), page 3.

¹³⁴ *Cost of capital determination for information disclosure year 2018 for electricity distribution services and specified airport services (March year-end disclosure year) [2017] NZCC 7, table 7, page 11.*

Table A1 Parameters used to calculate our airports WACC estimate as at 1 April 2017¹³⁵

Parameter	5 year estimate
Risk-free rate	2.76%
Average debt premium (A-)	1.45%
Leverage	19%
Asset beta	0.60
Equity beta	0.74
Tax adjusted market risk premium	7.0%
Average corporate tax rate	28%
Average investor tax rate	28%
Debt issuance costs	0.20%
Cost of debt	4.41%
Cost of equity	7.17%
Standard error of WACC	0.0146
Mid-point vanilla WACC	6.64%
Mid-point post-tax WACC	6.41%

Our proposed framework for assessing Christchurch Airport's estimated cost of capital

- A15 We have developed a framework for assessing Christchurch Airport's estimate of its cost of capital in this review, taking into account the relevant context of the section 56G reviews, and the changes made during the IM review in 2016.
- A16 Our high-level framework for assessing Christchurch Airport's cost of capital, including the key factors we have considered, is set out below.

¹³⁵ The cost of debt is calculated as the risk-free rate + debt premium + debt issuance costs. The cost of equity is calculated as the risk-free rate × (1 - investor tax rate) + the equity beta × the tax adjustment market risk premium. The mid-point vanilla WACC is calculated as the cost of equity × (1 - leverage) + the cost of debt × leverage.

Departure from mid-point: Is the airport’s estimate of its WACC different to our mid-point WACC estimate?

- The mid-point WACC represents our starting point when assessing returns for profitability analysis, but we accept that there may be legitimate reasons for an airport to target returns that are different to our mid-point WACC estimate.¹³⁶
- If the airport has departed from our mid-point WACC estimate, what are each of the parameter values used? Has the airport applied an uplift to its mid-point cost of capital (for example, due to asymmetric risks), and if so, what adjustment is made?

Legitimate reasons for departure in relation to each WACC parameter: For each WACC parameter (including any overall WACC uplift), what is the explanation for departing from our IM-based estimate?

- What evidence is provided to support the departure? (For example, is there support from academic articles or other regulatory decisions?). Note: the onus is on airports to provide evidence/sufficient reasoning on any relevant factors.¹³⁷
- Has the airport considered consistency with its past pricing decisions (ie, has it applied the same logic consistently over time, or considered the trade-off between short-term fluctuations in parameter values vs predictability)?
- Are we satisfied that the evidence provides legitimate reasons for the departure from our benchmark value, in light of the Part 4 purpose (particularly the section 52A(1)(d) requirement to limit the ability of airports to earn excessive profits)?¹³⁸
- **If we are not satisfied there are legitimate reasons, then the airport-specific adjustment to that parameter is unjustified.**

¹³⁶ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 87.

¹³⁷ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 99.

¹³⁸ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 87 and 94.

Legitimate reasons for the *size* of departure in relation to each WACC parameter: Is the quantum of the adjustment to each parameter (including any overall WACC uplift) justified?

- What evidence is provided to support the quantum? (For example, quantitative analysis demonstrating firm-specific difference from our benchmark value, evidence from academic articles, or other regulatory decisions?). Note: the onus is on airports to provide evidence/sufficient reasoning on any relevant factors.¹³⁹
- Are there counter-arguments (or other off-setting considerations) which would reduce the size of the adjustment made by the airport? (For example, consider whether arguments made by the other regulated New Zealand airports would work in the opposite direction for the specific airport in question).
- Is the evidence/reasoning sufficient to support the value of the adjustment made to our benchmark value considering the Part 4 purpose (particularly the section 52A(1)(d) requirement to limit the ability of airports to earn excessive profits)?
- **If the evidence/reasoning is not sufficient, then we consider the airport-specific adjustment to that parameter is unjustified.**

Legitimate reasons for departure in relation to overall WACC: Is the airport's overall estimate of its WACC (combining each of the individual parameter values) reasonable?

- Are there any additional factors relevant to the airport's overall WACC (for example, off-setting considerations regarding other parameters)?
- **If each of the individual parameter adjustments are acceptable, and there are no other off-setting considerations, then we consider that airports have legitimate reasons to target above our mid-point WACC estimate.**
- **However, if there are some adjustments we consider not sufficiently justified (or there are other off-setting considerations), then the airport's cost of capital is unjustified.**

The role of our mid-point WACC estimate and the appropriate evidentiary burden

A17 NZ Airports submitted that we will need to carefully present our analysis to ensure that we do not reinforce incorrect perceptions that the regulatory mid-point WACC is a bright line benchmark.¹⁴⁰

A18 NZ Airports also suggested that it is not possible for each and every element of WACC or targeted returns to be rigorously established by empirical evidence. It stated that, ultimately, reasonable judgement informed by available evidence is required.¹⁴¹

¹³⁹ Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), paragraph 99.

¹⁴⁰ NZ Airports Association "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraph 10.

¹⁴¹ NZ Airports Association "Submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services" (28 November 2017), paragraph 37.

A19 We agree with NZ Airports that our mid-point WACC estimate is not a bright line. We explicitly stated in the IM review that we consider there may be legitimate reasons for an airport to target returns that are different to our mid-point WACC estimate. However, we also noted that:¹⁴²

...the key consideration for us when assessing the appropriateness of an airport targeting returns above the mid-point estimate is the extent to which it promotes the long-term benefit of consumers. Any reasoning for setting a targeted return above the mid-point needs to consider this purpose.

...

...the airports will be required to provide information and evidence to explain those reasons to interested parties. This explanation will then be considered in light of the s 52A(1)(d) requirement to limit the ability of airports, as regulated suppliers, to earn excessive profits.

...

We also expect greater explanation, reasoning and evidence to be required as any divergence from the mid-point increases. Such reasoning and evidence should be specific to the circumstances of the airport or specific project at the time of the estimate. Relying on generic arguments concerning other airports or other time periods will not be considered sufficient, in our view.

A20 As noted in the IM review, section 52T(1)(a)(i) requires the IMs relating to a particular good or service to include an IM for the cost of capital. Airports do not have to apply the cost of capital established under the cost of capital IM for airports (section 53F(1)). However, we can use the cost of capital IM to “monitor and analyse” information made available by regulated suppliers (section 53F(2)(a)).¹⁴³

A21 As also noted in the IM review, we consider that our mid-point WACC represents our starting point when assessing airports’ profitability, but we will also consider whether each airport has legitimate reasons for targeting a different return to our mid-point estimate.¹⁴⁴

A22 We do not intend to necessarily determine an alternative, company-specific, WACC estimate for an airport if we consider it has legitimate reasons for targeting a different return to our mid-point estimate. Instead, we consider it appropriate to base our profitability assessment on our mid-point WACC, but allow for any legitimate differences between the individual airport’s WACC and our benchmark WACC when reaching our conclusions on profitability.

A23 We agree with NZ Airports that a degree of judgement is required when determining target returns, however we consider that this judgement needs to be supported by evidence. As indicated in the quotes at paragraph A19 above, the onus is on airports to provide sufficient evidence to support any judgement calls they have made, in light of the Part 4 purpose statement.

¹⁴² Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraphs 59, 94, and 132.

¹⁴³ Commerce Commission “Input methodologies review decisions Topic paper 5: Airports profitability assessment” (20 December 2016), paragraph 52.

¹⁴⁴ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 87.

The significance of dual till in assessing cost of capital and target returns

- A24 Air New Zealand submitted that airports can earn significant revenue from unregulated complementary activities, and this should be recognised when determining an appropriate return from aeronautical activities. It noted that considering aeronautical returns in isolation from overall airport returns is an artificial construct, and does not reflect the practice of markets which will be assessing airport performance on the basis of total returns (and making investment decisions accordingly).¹⁴⁵
- A25 We agree with Air New Zealand that the dual till approach can be relevant when assessing target returns. For example, we stated in the IM review that we consider that the case for providing an uplift above our mid-point estimate to mitigate the risk of under-investment is significantly weaker for airports than for energy businesses. In particular, we noted that airports:¹⁴⁶
- A25.1 are subject to a dual till structure (whereby they can earn significant amounts of revenue from unregulated complementary activities) – this means that aeronautical investments are likely to take place even in instances when the regulated return is too low if the difference can be made up from complementary unregulated revenue streams;
 - A25.2 have regular consultations with a small number of engaged customers – this engagement protects against under-investment because airlines can identify investment that they are willing to pay for (which is likely to be the majority of efficient investment in regulated airport services); and
 - A25.3 there could be other regulatory requirements (such as safety) that result in an investment being made.
- A26 Although complementary revenue streams are unregulated, they can directly impact incentives to invest in regulated services. Therefore, we noted in the IM review that:¹⁴⁷
- When we are assessing airports under the ID regime and considering whether it is in the long-term interest of consumers to increase returns above the mid-point WACC, it is highly relevant that we understand the actual risk of under-investment.
- A27 Consequently, we agree with Air New Zealand that we should recognise the reality that airports are dual till when assessing their cost of capital and target returns.

¹⁴⁵ Air New Zealand “Response to the Process and Issues Paper: Auckland and Christchurch Airports’ third price setting events (July 2017-June 2022)” (28 November 2017), paragraph 20.

¹⁴⁶ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 139.

¹⁴⁷ Commerce Commission “Input methodologies review decisions – Topic paper 6: WACC percentile for airports” (20 December 2016), paragraph 145.

Consistency in approach between airports and over time

- A28 BARNZ is concerned that the regulatory framework is producing a situation where each airport finds its own reason to justify an uplift, but those reasons are not consistent over time or with each other.¹⁴⁸
- A29 We agree that it is important to consider consistency between airports' rationale for estimates of their cost of capital. As indicated in our framework above, we intend to consider whether each airport has applied consistent logic over time, and whether there are any off-setting considerations which would reduce airports' WACC estimates. This includes considering arguments other airports have made when estimating their WACC.

Assessment of Christchurch Airport's cost of capital

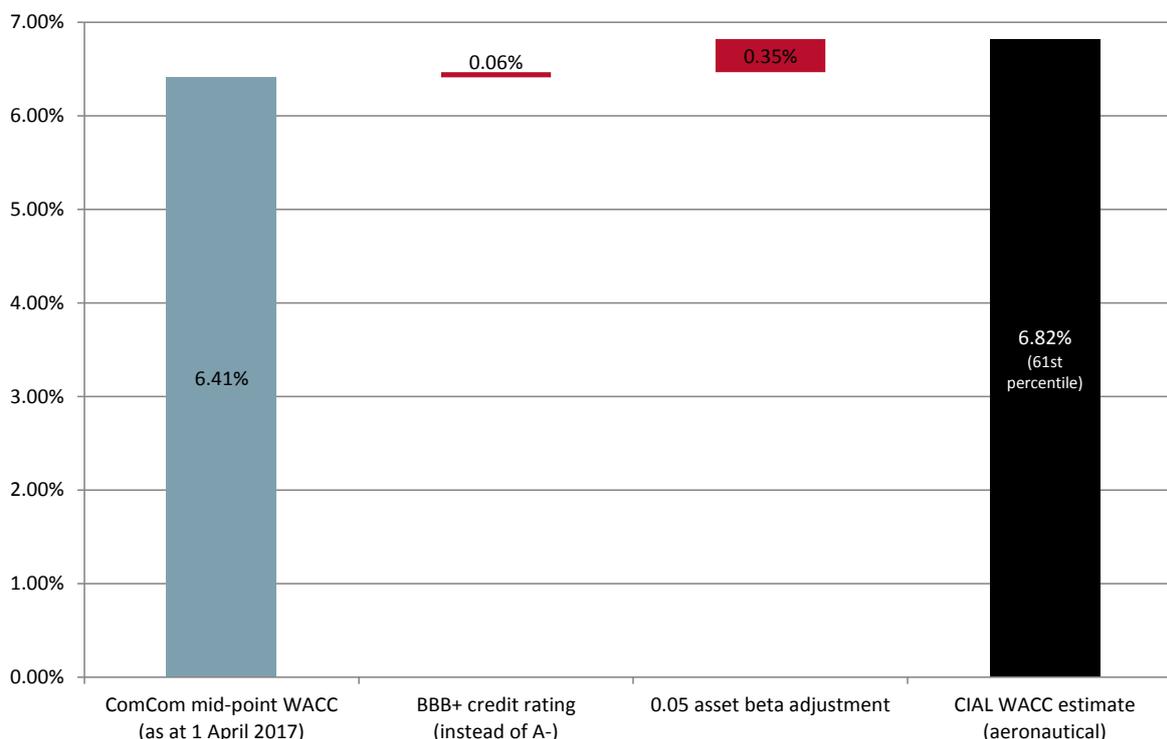
Christchurch Airport's estimated WACC for priced services is 6.82%

- A30 Christchurch Airport estimates that its cost of capital for priced activities (priced services) is 6.82%, which is equivalent to the 61st percentile of our WACC range (estimated as at 1 April 2017).
- A31 When estimating its cost of capital, Christchurch Airport has used our inputs for all WACC parameters except asset beta and credit rating. Christchurch Airport has used:
- A31.1 an asset beta of 0.65, which is 0.05 higher than our benchmark; and
 - A31.2 a debt premium of 1.84% based on its actual credit rating of BBB+, rather than our benchmark of 1.45% based on an A- credit rating.¹⁴⁹
- A32 The materiality of Christchurch Airport's adjustments is demonstrated in **Figure A1** below.

¹⁴⁸ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), table 4, row 18.

¹⁴⁹ We note that our normal practice has been to round the estimate of equity beta (within the WACC calculation) to two decimal places. For example, the equity beta is set at 0.74 for airports in the Input Methodologies. Applying this rounding approach with an asset beta of 0.65 and a debt premium of 1.84% results in a slightly different WACC estimate of 6.80% (compared to the 6.82% estimated by Christchurch).

Figure A1 Waterfall chart showing the difference between our mid-point WACC and Christchurch Airport’s estimated WACC



A33 The sections below discuss Christchurch Airport’s approach to asset beta and debt premium in more detail.

Our assessment of Christchurch Airport’s approach to asset beta

A34 This section discusses Christchurch Airport’s decision to use an asset beta of 0.65, rather than our estimate of 0.60. Christchurch Airport gives two main reasons for its 0.05 asset beta uplift.¹⁵⁰

A34.1 A greater exposure to holiday/leisure travellers is expected to result in greater systematic risk relative to the other New Zealand airports. Christchurch Airport noted that it applied a 0.05 upwards adjustment in PSE2 for this reason.

A34.2 Proxy analysis undertaken by Incenta to assess systematic risk at airports in the Commission’s sample suggests that Christchurch Airport has a materially greater degree of systematic risk than the “average airport” in the Commission’s sample.

A35 Our view is that Christchurch Airport’s asset beta has not been sufficiently justified. We consider that both Christchurch Airport’s leisure-travel rationale and Incenta’s proxy analysis do not provide sufficient justification for a higher asset beta.

¹⁵⁰ Christchurch Airport “Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (14 August 2017), paragraph 112.

A36 Incenta’s analysis, and our views regarding Christchurch Airport’s rationale for its asset beta uplift, are discussed in more detail below.

Summary of Incenta’s analysis regarding Christchurch Airport’s exposure to systematic risk

Incenta’s proxy analysis tests whether Christchurch Airport’s beta is higher than comparators

- A37 In its initial pricing proposal, Christchurch Airport stated that “[c]omparisons of [Christchurch Airport] with the other airports in the Commission’s sample is difficult because reliable and comparable qualitative data on the nature of the different airports’ traffic is not available”.¹⁵¹
- A38 In light of perceived difficulties in comparing Christchurch Airport’s proportion of leisure travellers with the companies in our comparator sample, Christchurch Airport asked Incenta to advise “as to whether there is a reliable empirical basis for comparing the level of systematic risk of [Christchurch Airport] to the average airport in the Commission’s sample”.¹⁵²
- A39 Incenta used proxy analysis to compare Christchurch Airport’s beta to the rest of the companies in the comparator sample, and concluded that this supports a 0.05 uplift. Incenta noted that:¹⁵³
- A39.1 as Christchurch Airport is not a listed business, its asset beta cannot be estimated directly from financial market data (and therefore, a direct comparison of Christchurch Airport’s asset beta to the companies in the comparator sample is not possible);
 - A39.2 it is not possible to compare the relative passenger mix across the airports in the sample, because reliable and consistent information on such matters across all of the airports is unavailable; but
 - A39.3 it is possible to infer the relativity between Christchurch Airport’s asset beta and the average airport in the sample by estimating a proxy for systematic risk.
- A40 Incenta’s proxy analysis involved regression analysis of changes in passenger volumes against changes in real GDP. Incenta pooled data on percentage changes in GDP and passenger volumes for the sample of 26 comparator companies, spanning 2005-2015. This was then compared to data for Christchurch Airport for 1987-2015.¹⁵⁴

¹⁵¹ Christchurch International Airport Limited “Proposal for the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (16 November 2016), paragraph 173.

¹⁵² Christchurch International Airport Limited “Proposal for the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (16 November 2016), paragraph 173.

¹⁵³ Incenta “Depreciation, allocation of implied depreciation and asset beta – Report for Christchurch International Airport Limited” (November 2016), page 25.

¹⁵⁴ Incenta “Depreciation, allocation of implied depreciation and asset beta – Report for Christchurch International Airport Limited” (November 2016), page 24-28.

- A40.1 Incenta found that Christchurch Airport's proxy beta (0.92-1.08) is 40-60% higher than the average airport (0.67), depending on whether certain years are excluded.
- A40.2 Incenta noted that a 0.05 increment to the asset beta amounts to less than 10% above the Commission's estimate. Incenta stated that this would "only require the relative accounting betas to account for between 14% and 22% of total beta risk", which it considers to be plausible.
- A41 When reaching its conclusions, Incenta does not assume any specific factor is the underlying driver of Christchurch Airport's higher exposure to systematic risk. Specifically, Incenta noted that its analysis "does not rely upon assumptions about the factors that may cause differences in systematic risk (i.e., the question of whether greater leisure-based travel causes more systematic risk)".¹⁵⁵

Dr Small raised several concerns regarding Incenta's analysis

- A42 Dr John Small (for BARNZ) raised concerns regarding Incenta's analysis across three reports. Dr Small's reports refer to three primary areas of concern.¹⁵⁶
- A42.1 **Approach to estimating a proxy beta.** The use of growth rates in passenger numbers and real GDP (rather than levels) is problematic. Incenta's analysis ignores relationships between flow variables and stock variables.
- A42.2 **Period of analysis.** The very large difference in sample periods between Incenta's Christchurch Airport proxy beta and the benchmark sample should be justified. If there is no sufficient justification, consistent sample periods should be used.
- A42.3 **Statistical significance.** The estimated accounting beta for Christchurch Airport is not statistically significantly different from the sample. Incenta's claim that it is "practically impossible" to estimate asset betas with conventional levels of statistical significance is unsupported by evidence.
- A43 Regarding the statistical significance of Incenta's results, Dr Small stated:¹⁵⁷

Incenta is actively seeking to differentiate its client's risk from the benchmark sample *by using statistical analysis*. In this context, it is not clear why normal statistical standards should not apply. If Incenta has chosen to use a different evidential approach to try to identify CIAL's level of systematic risk, this matter would not have arisen. [Christchurch Airport] cannot both rely on statistical analysis to produce its results and then defend its findings by arguing that statistical analysis cannot be relied on.

¹⁵⁵ Incenta "Depreciation, allocation of implied depreciation and asset beta – Report for Christchurch International Airport Limited" (November 2016), page 25.

¹⁵⁶ John Small "Comments on ChCh Airport's PSE3 Proposal" (1 February 2017); John Small "Comments on Incenta's WACC Analysis for ChCh Airport" (23 March 2017); and John Small "Further Comments on Incenta's WACC Analysis for ChCh Airport" (4 May 2017).

¹⁵⁷ John Small "Further Comments on Incenta's WACC Analysis for ChCh Airport" (4 May 2017), paragraph 16(b).

A44 Incenta's response to the issues raised by Dr Small is discussed below.

Incenta's response to Dr Small's concerns

A45 Incenta revisited its analysis in response to Dr Small's first two reports, but its conclusions remained unchanged.¹⁵⁸ Incenta's results table, after considering Dr Small's comments, is shown in **Table A2** below.

Table A2 Incenta's empirical estimates of accounting betas

	[1]	[2]	[3]	[4]	[5]
	Asset beta sample	Asset beta sample + CIAL	Asset beta sample + CIAL + dummy variable for CIAL	CIAL stand-alone (since 2006)	CIAL stand-alone (since 1987)
Accounting beta	0.67	0.68	0.68	1.54	1.08
Standard error	0.09	0.09	0.09	0.70	0.54
p-value	0%	0%	0%	6%	5%
CIAL dummy variable			-0.82		
Standard error			0.95		
p-value			39%		
Intercept	0.04	0.04	0.04	-0.02	0.01
Standard error	0.01	0.01	0.01	0.02	0.02
p-value	0%	0%	0%	40%	57%

A46 When analysing these results, Incenta suggested that comparing Christchurch Airport's stand-alone beta since 1987 (equation 5) with the asset beta sample (equation 1) is most relevant. Incenta concluded that:¹⁵⁹

...the comparison of the accounting beta for the asset beta sample with the stand-alone estimate of the [Christchurch Airport] accounting beta (measured over the longest period) provides evidence to a reasonable standard from which to conclude that [Christchurch Airport] is likely to have a greater systematic risk than what is reflected in an asset beta that is obtained as an average of the asset beta sample.

A47 In addition, Incenta made the following points in response to the issues raised by Dr Small.¹⁶⁰

A47.1 Accounting beta estimates that focus on the relationship between the (discrete) rate of growth of passenger numbers and GDP will mimic most closely the process of asset beta estimation, as well as overcoming likely empirical issues with testing the relationship between levels in these variables. Incenta noted that "a regression between the *levels* is likely to produce a very strong, but spurious, relationship arising from the fact that both passenger numbers and GDP have an underlying time trend".¹⁶¹

¹⁵⁸ The issues raised by Dr Small in his first two reports (dated 1 February 2017 and 23 March 2017) were consistent with those expressed in his final report, as summarised in paragraph A42 above.

¹⁵⁹ Incenta "Empirical evidence for an asset beta differential: response to Dr. Small" (8 April 2017), page 6.

¹⁶⁰ Incenta "Empirical evidence for an asset beta differential: response to Dr. Small" (8 April 2017), page 1-2.

¹⁶¹ Incenta "Empirical evidence for an asset beta differential: response to Dr. Small" (8 April 2017), page 3.

- A47.2 Use of the longest available period for estimation of the Christchurch Airport accounting beta is appropriate in order to maximise its reliability and robustness.
- A47.3 Although the analysis does not provide evidence to a conventional level of statistical significance that Christchurch Airport's asset beta is higher than the comparator companies, this standard is not appropriate given:
- A47.3.1 it is not practically achievable in the context of asset beta estimation;
 - A47.3.2 the process through which the Commission's asset beta was derived (and most notably the adjustment of 0.05 for non-aeronautical activities) did not comply with such a standard; and
 - A47.3.3 as the proposition being tested in the current context relates to the WACC, erroneously rejecting a correct proposition (ie, that the true WACC is higher than the Commission's benchmark) may have consequences for the effect on investment incentives and hence this risk is not costless.

We consider Christchurch Airport's asset beta has not been sufficiently justified

There is insufficient evidence to support Christchurch Airport's leisure-travel rationale

- A48 We consider that there is insufficient evidence to support Christchurch Airport using a higher asset beta based on a greater exposure to leisure travellers.
- A49 Conceptually, we agree that the proportion of leisure-based travellers could be expected to affect an airport's asset beta. This is because leisure-travel has a relatively high income elasticity of demand (ie, it is more akin to a luxury service).
- A50 Other things being equal, businesses which produce services with a high income elasticity of demand would generally be expected to have higher asset betas (and vice versa). Dr Lally has previously advised that:¹⁶²

Firms producing products with low income elasticity of demand (necessities) should have lower sensitivity to real GNP shocks than firms producing products with high income elasticity of demand (luxuries), because demand for their product will be less sensitive to real GNP shocks. Rosenberg and Guy (1976b, Table 2) document statistically significant differences in industry betas after allowing for various firm specific characteristics, and these differences accord with intuition about the income elasticities of demand. For example energy suppliers have particularly low betas whilst travel and recreation are particularly high.

- A51 At the time of the section 56G review, Christchurch Airport provided data suggesting that it has a higher proportion of leisure-based travellers than Auckland and Wellington Airports. As shown in **Table A3** below, data for the 12 months to 30 June 2011 indicated that approximately 84% of Christchurch Airport's visitors were

¹⁶² Martin Lally "The cost of capital for the airfield activities of New Zealand's international airports" (June 2001), page 370.

leisure-based. Auckland Airport and Wellington Airport had leisure-based visitors of 75% and 73%, respectively.

Table A3 Relative passenger mix at Christchurch, Auckland and Wellington Airports¹⁶³

New Zealand Airports – Purpose of visit - 12 mths to 30 June 2011			
<i>Purpose of Visit</i>	<i>Christchurch</i>	<i>Auckland</i>	<i>Wellington</i>
Holiday/vacation	55%	42%	31%
Visiting friends and family	29%	33%	42%
Subtotal leisure	84%	75%	73%
Business	8%	13%	16%
Conference / Education/ other	8%	12%	11%
TOTAL	100%	100%	100%

A52 Christchurch Airport’s advisor at the time, PwC, also referred to regulatory decisions from Australia and the UK where the proportion of discretionary leisure traffic had been considered. Specifically, PwC noted that:¹⁶⁴

A52.1 in 2001, the Australian Competition and Consumer Commission (ACCC) provided Launceston Airport a beta of 0.80 with a debt beta of 0.13 (equivalent to a beta of 0.71 with a zero debt beta), based on traffic analysis showing a higher proportion of discretionary passengers relative to other Australian airports; and

A52.2 the UK Civil Aviation Authority applied an asset beta to Stansted that is 0.09 and 0.14 higher than Gatwick and Heathrow, respectively, to reflect its higher proportion of charter group travel.

A53 However, no evidence was presented regarding the proportion of leisure-based travellers at Christchurch Airport relative to the companies in our asset beta comparator sample. We consider that our asset beta sample is the key point of comparison, given our benchmark asset beta of 0.60 is based on the average of the sample.

A54 Consequently, we rejected Christchurch Airport’s leisure-travel rationale in the section 56G review. We noted that:¹⁶⁵

¹⁶³ Christchurch Airport “Price setting disclosure in accordance with clause 2.5 of the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010” (19 December 2012), Table 7, page 28.

¹⁶⁴ PwC “Opinion on the regulatory weighted average cost of capital for Christchurch International Airport” (6 March 2012), page 9.

¹⁶⁵ Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport: Section 56G of the Commerce Act 1986” (13 February 2014), paragraph F131.

- A54.1 no evidence was provided to show that the proportion of leisure-based travellers for Christchurch Airport is materially different to the sample of comparator airports used to estimate asset beta in the IMs;
- A54.2 even if Christchurch Airport has a materially higher proportion of leisure-based travellers than the sample of comparator airports, it is not clear that the asset beta should be increased. In the IMs reasons paper we stated that “[i]n the context of information disclosure for Airports, the Commission considers a service or Airport-specific asset/equity beta to be more appropriate as making supplier-specific estimates is not practical or necessary, and would require even greater judgement than making service specific estimates”; and
- A54.3 ad hoc adjustments to the asset beta specified in the IMs would undermine the certainty intended by setting the IMs.
- A55 In the context of PSE3, no additional evidence has been provided regarding the proportion of leisure-based travellers for Christchurch Airport, or the companies in our asset beta comparator sample. As noted in paragraphs A37 and A39.2 above, Christchurch Airport and Incenta stated they were unable to find reliable data to enable comparisons with the sample.¹⁶⁶
- A56 In addition, no updated evidence has been provided comparing Christchurch Airport’s proportion of leisure travellers with Auckland and Wellington Airport. The only data currently before us was for the 12 months to 30 June 2011 (see **Table A3** above). Travel patterns during this period were likely to have been influenced by the Canterbury earthquakes, so it is not clear whether this data is representative of Christchurch Airport’s proportion of leisure travellers in recent years.
- A57 More generally, the relative proportions of *international* and *domestic* leisure travellers may be relevant when considering an airport’s exposure to systematic risk. This distinction does not appear to have been explored by Christchurch Airport. For example, we note that:
- A57.1 the value to an airport of international leisure travellers is likely to be greater than domestic leisure travellers; however
- A57.2 the correlation between changes in international arrivals at an airport and changes in the national stock market is likely to be lower than for domestic arrivals.

¹⁶⁶ As described in paragraphs A37 to A41 above, this led to Incenta undertaking proxy analysis which does not rely on assumptions about the underlying factors leading to differences in exposure to systematic risk between companies.

- A58 This distinction between international and domestic travellers and their relative impact on systematic risk is explored in the ACCC's 2001 pricing decision for Sydney Airport, referenced by Incenta.¹⁶⁷
- A59 The ACCC report suggests that changes to national income have the least impact on international (foreign) leisure travellers and the most impact on domestic leisure travellers (whether travelling domestically or internationally). The impact on business travellers (whether international or domestic) lies somewhere in between these two categories.¹⁶⁸
- A60 In this context, assessing the percentage of business and leisure travellers without reference to whether they are international or domestic travellers provides limited information. It does not provide further understanding on how the split of passengers affects Christchurch Airport's exposure to systematic risk, and consequently their asset beta.
- A61 Given that no new evidence has been presented, and no information has been provided on the breakdown between domestic travellers and international travellers, our view remains that there is insufficient evidence to depart from our benchmark asset beta due to the proportion of leisure-based passengers at Christchurch Airport. Our views regarding Incenta's proxy analysis, which does not rely on the leisure-travel rationale, are discussed below.

We consider Incenta's analysis is not sufficient to justify Christchurch Airport's asset beta

- A62 We also consider that Incenta's proxy analysis is not sufficient to justify Christchurch Airport's asset beta of 0.65.
- A63 We acknowledge the practical difficulties in comparing Christchurch Airport's exposure to systematic risk to the companies in our asset beta comparator sample, particularly given:
- A63.1 Christchurch Airport is not publicly listed, so standard beta estimates are not available (therefore, Incenta has used proxies);
 - A63.2 beta estimates for an individual company tend to be unreliable (given beta estimates are 'noisy'); and
 - A63.3 it may be difficult to obtain reliable data across the 26 companies in our comparator sample (particularly detailed statistics regarding the breakdown of passenger volumes).
- A64 However, we are concerned that Incenta appears to rely almost exclusively on statistical analysis to support its recommended asset beta, despite noting that its work "...does not provide evidence to a conventional level of statistical

¹⁶⁷ Incenta "Depreciation, allocation of implied depreciation and asset beta – Report for Christchurch International Airport Limited" (November 2016), page 26.

¹⁶⁸ ACCC "Sydney Airports Corporation Ltd: Aeronautical pricing proposal – Decision" (May 2001), page 186-187.

significance...”.¹⁶⁹ Incenta has not provided clear justification regarding the underlying factor (or factors) it expects to cause Christchurch Airport to have a greater exposure to systematic risk relative to the average of our comparator sample.

- A65 Although Incenta refers to the proportion of leisure-based travellers at Christchurch Airport, no new evidence has been presented to support this specific factor as being a driver of relatively high exposure to systematic risk at the airport. Rather, Incenta notes that its analysis “does not rely upon assumptions about the factors that may cause differences in systematic risk”.¹⁷⁰
- A66 Incenta has argued that a requirement for proof to conventional levels of statistical significance would be “inconsistent with the manner in which the airport asset betas were determined in the first place”. It referred specifically to the 0.05 downwards adjustment we made to account for the difference between regulated aeronautical activities and unregulated activities, noting that there was “very little direct evidence for the adjustment, and instead this decision largely reflected a judgement of the Commission or other commentators”.¹⁷¹
- A67 The difficulties in determining specific adjustments to asset beta (particularly for individual airports) through statistical methods are well known. When applying an adjustment to the asset beta for airports set out in the IMs, we considered the underlying reasons for adjusting the asset beta determined for the comparator sample to make it consistent with the risk faced by the regulated element of major New Zealand airports. The subsequent adjustment was not overturned for by the High Court, despite being challenged in the IMs merits appeals.¹⁷²
- A68 The lack of a specific reasoning for the adjustment proposed by Incenta means that it should be seen in a different context. As noted by Dr Small, “Incenta is actively seeking to differentiate its client’s risk from the benchmark sample *by using statistical analysis*. In this context, it is not clear why normal statistical standards should not apply”.¹⁷³
- A69 We also have additional reservations about Incenta’s proxy analysis.
- A69.1 Incenta has used a different GDP measure for New Zealand than the rest of the countries in the comparator sample, for reasons that are unclear. Specifically, Incenta uses a (seasonally adjusted) central government consumption expenditure-based measure of GDP for New Zealand.¹⁷⁴ For

¹⁶⁹ Incenta “Empirical evidence for an asset beta differential: response to Dr. Small” (8 April 2017), page 2.

¹⁷⁰ Incenta “Depreciation, allocation of implied depreciation and asset beta – Report for Christchurch International Airport Limited” (November 2016), page 25.

¹⁷¹ Incenta “Empirical evidence for an asset beta differential: response to Dr. Small” (8 April 2017), page 6.

¹⁷² *Wellington International Airport Ltd and others v Commerce Commission* [2013] NZHC 3289 (11 December 2013), paragraphs 1554-1555 and 1559-1560.

¹⁷³ John Small “Further comments on Incenta’s WACC analysis for ChCh Airport” (4 May 2017), paragraph 16

¹⁷⁴ Data provided by Incenta shows that it used data sourced from Bloomberg for “NZNTCGSC Index”. This index is described in Bloomberg as “New Zealand GDP Central Govt Final Consumption Expenditure Chain Volume SA”.

the other countries in its analysis, Incenta uses the annual year-on-year percentage change in real GDP.

A69.2 Regardless, it is not clear to us that regressing percentage changes in passenger volumes against percentage changes in GDP is the best available proxy for Christchurch Airport's beta. We have reservations about Incenta's exclusive reliance on this. We think measures of earnings could be expected to reflect an airport's returns more closely than passenger numbers, though we accept that there are also limitations of using earnings-based proxies to estimate accounting betas. We note that Incenta tested earnings-based proxies for airport cash flows (including accounting profit), but found it difficult to find a statistical relationship.¹⁷⁵ As with any analysis of this type, there is a risk that the use of different data can result in different conclusions. Therefore a clear rationale for the underlying reasoning behind specific data sets is important to provide confidence in the analysis.

A69.3 In contrast to conventional beta estimates, Incenta's proxy analysis appears to fail to capture expectations of *future* returns. Conventional beta estimates effectively compare the expectations of all future returns for one company against the expectations of all future returns for all companies in the market.¹⁷⁶ The relationship between short-term changes in passenger numbers and short-term changes in real GDP seems relatively immaterial in that assessment.¹⁷⁷

A70 We have produced a revised version of Incenta's results using GDP data for New Zealand that is consistent with the other countries in Incenta's analysis.¹⁷⁸ The results are shown in **Table A4** below.¹⁷⁹ Although the stand-alone accounting beta for Christchurch Airport (since 1987) increases (and has a lower p-value) than in Incenta's results, other changes suggest relativity between Christchurch Airport and the sample may not be robust. In particular:

A70.1 The coefficient on the Christchurch Airport dummy variable (in equation 3) suggests that an increase in GDP is associated with a reduction in passenger

¹⁷⁶ Conventional betas are measured by regressing changes in a firm's share price against changes in the market index. This effectively involves regressing the future value of all cash flows of the firm into perpetuity (discounted back) against the future value of all cash flows of every firm in the market into perpetuity (discounted).

¹⁷⁷ A similar point was made by John Small who outlined how the Incenta Analysis implicitly assumed "short-term (i.e. annual) variation in one (of many) relevant flow variables is a reliable indicator of the long-term expectations that affect market prices and (through those prices) returns to equity holders" John Small "Further Comments on Incenta's WACC Analysis for ChCh Airport" (4 May 2017), paragraphs 4-7.

¹⁷⁸ The Bloomberg index we have used for New Zealand is "EHGDNZY Index", which is described as "New Zealand Real GDP (Annual YoY %)". This index appears to be consistent with that used by Incenta for the other countries included in its analysis.

¹⁷⁹ For consistency, we have presented the results in the same format as Incenta (as shown in **Table A2** above).

volumes for Christchurch Airport.¹⁸⁰ This result is statistically significant at the 10% level (the p-value is 9.6%) when the alternative GDP data is used for New Zealand.

- A70.2 Christchurch Airport's stand-alone accounting beta (since 2006) reduces significantly, from 1.54 to 0.18. However, the p-value increases from 6% to 87%, so this result is statistically insignificant.

Table A4 Revised regression results using alternative GDP data for New Zealand

	[1]	[2]	[3]	[4]	[5]
	Asset beta sample	Asset beta sample + CIAL	Asset beta sample + CIAL + dummy variable for CIAL	CIAL stand-alone (since 2006)	CIAL stand-alone (since 1987)
Accounting beta	0.66	0.67	0.66	0.18	1.43
Standard error	0.09	0.09	0.09	1.04	0.54
p-value	0%	0%	0%	87%	0%
CIAL dummy variable			-1.54		
Standard error			0.92		
p-value			10%		
Intercept	0.04	0.04	0.04	0.01	-0.01
Standard error	0.01	0.01	0.01	0.03	0.01
p-value	0%	0%	0%	74%	47%

- A71 Incenta's statistical analysis would be more valid if there was a clear hypothesis regarding the underlying factor (or factors) expected to lead to a higher beta at Christchurch Airport, supported by evidence. If the primary driver is the proportion of leisure-based travellers (as suggested in Christchurch Airport's pricing disclosure), we would expect to see additional evidence to support this.
- A72 Further, as noted in paragraphs A28 to A29 above, we consider that consistency in approach over time (and between airports) is important. It is possible that similar analysis for future PSEs (or other regulated airports) could result in an accounting beta that is lower than the average of our comparator companies. In this event, we would again be concerned about simply accepting the results of statistical analysis alone, in the absence of sound supporting evidence regarding the underlying factor(s) expected to drive the difference.
- A73 Further information that could potentially be useful to help determine the appropriateness of a 0.05 increase in asset beta for Christchurch Airport includes:
- A73.1 Evidence regarding the conceptual link between the passenger profile at an airport and asset beta. For example, this may include relevant academic articles, or references to recent overseas regulatory decisions.

¹⁸⁰ The "CIAL dummy variable" in Incenta's analysis is an interaction variable, where a dummy variable for Christchurch Airport (CIAL = 1, non-CIAL = 0) is multiplied by the percentage change in GDP. The results in **Table 4** above suggest that, for Christchurch Airport, a 1% increase in GDP is associated with a 0.88% reduction in passengers (ie 0.66 – 1.54). However, for the overall sample (excluding Christchurch Airport), a 1% increase in GDP is associated with a 0.66% increase in passengers.

- A73.2 Updated evidence regarding the proportion of leisure-based travellers at Christchurch Airport (including the distinction between international and domestic travellers), relative to other New Zealand airports.
- A73.3 To the extent possible, a comparison of the passenger profile at Christchurch Airport, relative to the companies in our asset beta comparator sample.
- A73.4 Evidence to support the magnitude of the adjustment to Christchurch Airport's asset beta. For example, have overseas regulatory made similar adjustments based on the passenger profile at an airport?

Our assessment of Christchurch Airport's approach to debt premium

- A74 This section discusses Christchurch Airport's decision to use a debt premium of 1.84%, rather than our estimate of 1.45% (as at 1 April 2017).

Christchurch Airport has used its actual credit rating when determining its debt premium

- A75 Christchurch Airport has used a debt premium of 1.84%, based on its actual credit rating of BBB+. This is compared to our debt premium estimate of 1.45%, which is based on an A- credit rating.
- A76 Christchurch Airport considers a BBB+ credit rating is more relevant to its specific circumstances because:¹⁸¹
 - A76.1 BBB+ is consistent with its "stand-alone" credit profile (ie, excluding the effect of government ownership); and
 - A76.2 it is the stand-alone credit profile that is relevant to the estimation of WACC for pricing purposes (to avoid including an element of government subsidy).
- A77 In its pricing disclosure, Christchurch Airport noted that although its actual credit rating is BBB+, its stand-alone credit rating (excluding the effect of government ownership) is BBB. However, Christchurch Airport stated that:¹⁸²
 - A77.1 its credit rating metrics currently support a stand-alone rating of BBB+, so there is potential for its stand-alone rating to be raised (as concerns previously expressed by the rating agency about a potential for increase in debt or the need to pay special dividends are assuaged); and
 - A77.2 its actual credit rating (incorporating the effect of government ownership) consequently has the potential to be raised to A-.

¹⁸¹ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), paragraph 112.

¹⁸² Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), page 26, footnote 13.

We consider Christchurch Airport's debt premium is reasonable

A78 Our view is that Christchurch Airport's debt premium of 1.84% is reasonable, given:

- A78.1 it is based on its actual credit rating of BBB+ and appears to reflect a prudent level of debt financing; and
- A78.2 the value of the debt premium reflects our estimate for electricity distribution businesses (EDBs).

We consider Christchurch Airport has legitimate reasons to depart from our benchmark debt premium

A79 Our estimated debt premium for airports is based on a benchmark long-term credit rating of A-. The debt premium used by Christchurch Airport, on the other hand, reflects its actual credit rating of BBB+.

A80 In general, we have concerns regarding the incentives associated with using a supplier's actual credit rating when estimating its debt premium in the regulatory context. In our 2010 IMs reasons paper we noted that we specify a notional benchmark credit rating because "if suppliers' actual credit ratings were used, they would have an incentive to increase gearing with adverse implications for consumers".¹⁸³

A81 We noted that excessive levels of debt are not in the long-term interests of consumers, because there are potentially significant costs and risks to consumers if a supplier becomes financially distressed. For example, a supplier in financial distress may curtail maintenance spending or reduce or defer efficient investment in network assets. This, in turn, may adversely affect the quality and reliability of service experienced by consumers.¹⁸⁴

A82 However, in this case we note that:

A82.1 Christchurch Airport's actual credit rating of BBB+ is still an adequate investment grade rating, and is sufficiently high to ensure there is an adequate buffer against the possibility that economic downturns or shocks can lead to financial distress (while providing some flexibility over the level of gearing and the choice of debt instruments);¹⁸⁵

A82.2 Christchurch Airport's credit rating appears to be consistent with a prudent level of debt financing. In its pricing disclosure, Christchurch Airport stated that its gearing "is not substantially higher than the Commission's benchmark", noting that its current gearing (expressed as debt / (debt +

¹⁸³ Commerce Commission "Input methodologies (airport services): Reasons paper" (December 2010), paragraph 6.3.22.

¹⁸⁴ Commerce Commission "Input methodologies (airport services): Reasons paper" (December 2010), paragraph 6.3.21.

¹⁸⁵ Commerce Commission "Input methodologies (airport services): Reasons paper" (December 2010), paragraph 6.3.23

equity)) based on book value is just under 30%, and its gearing based on commercial enterprise value would be approximately 21%;¹⁸⁶ and

A82.3 BBB+ is consistent with the benchmark credit rating we use for regulated electricity lines and gas pipelines businesses.

A83 In the IMs judgment, the High Court noted that if differences between our benchmark credit rating and an airport's actual credit rating lead to a material underestimation, this can be addressed through the information disclosure regime. The High Court stated:¹⁸⁷

The Commission's judgement that A- was the appropriate comparator long-term credit rating can be seen as reflecting the current ratings of two of the three Airports, and being not inconsistent with the approaches of other regulators. If, in [Wellington Airport's] case, the use of the A- comparator actually results in a material underestimation, in the ID regime applicable to the Airports, commentary by [Wellington Airport] may address that.

A84 At the time of the original IMs, both Auckland and Christchurch Airport had an A- long-term credit rating, but Wellington Airport had a BBB+ rating. Christchurch Airport's actual credit rating was subsequently downgraded by Standard and Poor's from A- to BBB+, in December 2012.

The size of departure from our benchmark debt premium is reasonable

A85 In terms of the size of departure from our benchmark debt premium, we consider that the BBB+ credit rating of 1.84% used by Christchurch Airport is reasonable. This is our debt premium estimate for EDBs as at 1 April 2017.¹⁸⁸

A86 The observed debt premiums on bonds issued by Christchurch Airport appear to be broadly consistent with our recent BBB+ debt premium estimates. This suggests our BBB+ debt premium for EDBs is likely to be suitable for Christchurch Airport. Three examples of recent debt premium estimates are provided below.¹⁸⁹

A86.1 As at 1 March 2017, we determined a BBB+ debt premium for gas pipeline businesses of 1.65% (for a five-year term to maturity). For the same period, the observed debt premium on Christchurch Airport's bond (with a remaining term of 5.1 years) was 1.71%.¹⁹⁰

¹⁸⁶ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), footnote 14, page 26.

¹⁸⁷ *Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC* (11 December 2013), paragraph 1307.

¹⁸⁸ *Cost of capital determination for information disclosure year 2018 for electricity distribution services and specified airport services (March year-end disclosure year) [2017] NZCC 7* (28 April 2017).

¹⁸⁹ We note that Christchurch Airport recently announced a new offer of up to NZ\$75m of 6 year, unsecured, unsubordinated, fixed rate bonds maturing on 24 May 2024. Christchurch Airport "NZX announcement – Christchurch International Airport Limited Lodges Product Disclosure Statement for Retail Bond Offer" (4 May 2018).

¹⁹⁰ *Revised cost of capital determination for gas distribution and gas transmission businesses' default price-quality paths [2017] NZCC 13* (24 May 2017), Table 3, page 10.

A86.2 As at 1 September 2017, we determined a BBB+ debt premium for EDBs of 1.63% (for a five-year term). The observed debt premium on Christchurch Airport's bond (with a remaining term of 4.6 years) was also 1.63%.¹⁹¹

Consistency with our draft report for Auckland Airport

- A87 As discussed above, we consider that Christchurch Airport's debt premium of 1.84% is reasonable – particularly given that it reflects its actual credit rating of BBB+.
- A88 This differs from the situation with Auckland Airport. Auckland Airport's actual credit rating is A-, which is the same as the notional credit rating we use when estimating our benchmark debt premium for airports.
- A89 Given that Auckland Airport's actual credit rating is the same as our benchmark, we consider there is no case for a supplier-specific adjustment due to differences in credit rating.

Our assessment of Christchurch Airport's cost of capital

A90 This section discusses:

- A90.1 whether there are any additional factors relevant to Christchurch Airport's cost of capital; and
- A90.2 our overall view regarding Christchurch Airport's cost of capital.

Are there any additional factors relevant to Christchurch Airport's cost of capital?

- A91 For consistency with our draft report on Auckland Airport, we have also considered whether Christchurch Airport's degree of operating leverage should affect its asset beta. Auckland Airport's main reason for adopting a target return higher than our mid-point WACC was that it expects its operating leverage to increase over the PSE3 period, due to its large capital expenditure programme.¹⁹²
- A92 Christchurch Airport's historical operating leverage appears to be similar to the average of the companies in our asset beta comparator sample. Based on data in Christchurch Airport's annual reports, we estimate that:¹⁹³
- A92.1 for FY2017, Christchurch Airport had a degree of operating leverage of 1.55, which is below the mean (2.11) and slightly below the median (1.57) of the comparator sample; and

¹⁹¹ *Cost of capital determination for disclosure year 2019 – Electricity distribution businesses and Wellington International Airport* [2018] NZCC 7, Table 5, page 6.

¹⁹² Commerce Commission "Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022)" (26 April 2018), paragraphs X13-X15.

¹⁹³ We estimated operating leverage from Christchurch Airport's Annual Financial Statements. We also used Bloomberg's approach of excluding operating leverage estimates in which the change in revenue and the change in EBIT are not the same sign.

A92.2 when averaging across FY2013-FY2017, Christchurch Airport has a degree of operating leverage of 2.23, which is below the mean (3.47) and above median (1.91) of the comparator sample.

A93 Incenta also estimated of operating leverage for Christchurch Airport using both the 'Bloomberg standard measure of operating leverage' and 'Operating leverage based on underlying earnings' including estimates that excluded a small number of very large values (outliers).¹⁹⁴ It found that:

Under the Bloomberg measure of operating leverage, CIAL's operating leverage is very close to (and slightly above) the median for the sample, but below the mean

– When outliers (as we have defined them) are excluded, CIAL's place in the order remains the same, but its operating leverage becomes closer to the mean

With operating leverage defined in terms of underlying EBIT, CIAL's operating leverage exceeds the median of the asset beta sample and is only marginally below the sample mean

– And, under this measure, if outliers (as we have defined them) are excluded, then CIAL's operating leverage is above the mean for the asset beta sample.

A94 We consider the results provide no evidence to suggest that Christchurch Airport's operating leverage is materially different from the average of the comparator sample. We also note that, unlike Auckland Airport, Christchurch Airport does not have large capital expenditure programme planned over the PSE3 period. Therefore, Christchurch Airport's operating leverage is expected to not change significantly over the period.

A95 Therefore, we consider there is no strong reason to consider an adjustment to Christchurch Airport's asset beta based on its degree of operating leverage.

Our draft conclusion regarding Christchurch Airport's cost of capital

A96 Our view is that Christchurch Airport's estimate of its cost of capital of 6.82% has not been sufficiently justified.

A97 In our view, Christchurch Airport has not sufficiently explained its asset beta of 0.65. Based on the evidence before us, we consider that both Christchurch Airport's leisure-travel rationale and Incenta's proxy analysis do not provide sufficient justification for a higher asset beta.

A98 However, we consider that a debt premium of up to 1.84% is reasonable for Christchurch Airport. This is because a debt premium of 1.84% reflects Christchurch Airport's actual credit rating of BBB+, rather than our benchmark of A-. This appears to be consistent with prudent levels of debt financing.

¹⁹⁴ Incenta (For Christchurch Airport) "Christchurch International Airport Limited: Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), Appendix C – Operating leverage of CIAL.

A99 We have allowed for the difference between Christchurch Airport's debt premium and our benchmark value in our assessment of the airport's expected returns in **Chapter 2**. As a result, we consider Christchurch Airport has sufficiently justified a cost of capital of 6.47%. This is our mid-point of 6.41% plus an additional six basis points to reflect the higher debt premium.¹⁹⁵

¹⁹⁵ As shown in **Figure A1** above, using a BBB+ credit rating of 1.84% instead of our A- benchmark of 1.45% increases our mid-point WACC estimate by six basis points.

Attachment B Our assessment of forecasts affecting Christchurch Airport's expected returns

Purpose

- B1 This attachment contains our analysis and draft conclusions on Christchurch Airport's values and forecasts affecting its profitability. This includes its forecast asset values, demand, operating expenditure, and capital expenditure.
- B2 This analysis influences our assessment of whether Christchurch Airport is limited in its ability to extract excessive profits over the PSE3 period (section 52A(1)(d) of the Act). This is discussed in **Chapter 2**.
- B3 Our analysis on forecast operating efficiency also considers whether Christchurch Airport has incentives to improve its operating efficiency and provide services at a quality that reflects consumer demands (section 52A(1)(b) of the Act).
- B4 Our analysis on forecast capital expenditure also considers whether Christchurch Airport has incentives to invest appropriately, efficiently and at a quality standard that reflects consumer demands (sections 52A(1)(a) and (b) of the Act).

Draft conclusions

- B5 Overall, we consider that Christchurch Airport's opening and closing (forecast) investment values, forecast demand, operating expenditure, and capital expenditure are not unreasonable.
- B6 These forecasts do not raise concern that the airport would be expected to extract excessive profits. Accordingly, we have used these values and forecasts as a basis for assessing Christchurch Airport's expected profitability.

Christchurch Airport's approach to disclosing its asset values appears reasonable

- B7 We consider that Christchurch Airport's opening and closing (forecast) investment values are appropriate to use as a basis for profitability analysis because:
 - B7.1 Christchurch Airport's approach to disclosing its asset values appears reasonable and is consistent with our IM and ID Determinations; and
 - B7.2 Christchurch Airport's disclosure of its carry forward adjustment is consistent with IM and ID Determinations.

Forecast demand is not unreasonable

- B8 Based on submissions received, we consider that Christchurch Airport's overall demand forecast for PSE3 is unlikely to result in excessive profits.
- B9 Christchurch Airport has used expert advice, and its demand forecast does not appear unreasonable given Christchurch Airport's knowledge at the time prices were set.

Forecast operating expenditure is not unreasonable

- B10 Christchurch Airport's PSE3 opex forecast does not appear unreasonable relative to historic levels.
- B11 Christchurch Airport's historical opex performance provides context for its PSE3 forecast and does not necessarily indicate that the starting point for the PSE3 forecast is unreasonable.

Forecast capital expenditure is not unreasonable

- B12 In our view, Christchurch Airport's capital expenditure (capex) forecasts do not raise concerns that it would be expected to extract excessive profits.
- B13 Airlines generally support most of Christchurch Airport's capex projects included in the pricing decision and note that the level of investment is modest over PSE3.
- B14 Christchurch Airport appears willing to respond to customer concerns and resolve issues quickly. Submitters have noted examples of the airport responding to identified concerns.
- B15 Our review of Christchurch Airport's historic expenditure compared to forecast capex over PSE3 does not provide evidence of planned under-investment or over-investment or bias. Nor do we see evidence of a strategy to gain from delaying projects or setting forecasts that are more likely to overstate rather than understate actual expenditure.
- B16 We understand that the airlines have concerns about the airport's inclusion of \$10.4m for terminal redevelopment, particularly about the lack of specificity provided about the project. However, given the airport has indicated that a key focus of PSE3 is to improve the flexibility of its integrated terminal, it would be expected that some degree of investment would be necessary to achieve this, and this level of expenditure does not appear unreasonable.
- B17 Christchurch Airport may have been able to better mitigate risk and airlines' concerns that actual capex may differ from forecasts through a risk allocation adjustment. However, we have not seen evidence to suggest that the risk of outcomes being different to forecasts is likely to be in the airport's favour. In this instance, the absence of a risk allocation adjustment is not a significant concern affecting our assessment of Christchurch Airport's profitability.

Structure of this attachment

- B18 This attachment contains our analysis on Christchurch Airport's:
- B18.1 opening and closing investment values, including the reasonableness of the airport's disclosed asset values and carry forward adjustments;
 - B18.2 demand forecasts over the PSE3 period;
 - B18.3 operating expenditure forecasts over the PSE3 period; and

B18.4 capital expenditure forecasts over the PSE3 period.

Opening and closing investment values

Disclosure changes following the Input Methodology review

- B19 The IM review introduced a requirement for airports to disclose a forward-looking IRR for the current pricing period in the price setting event disclosure requirements. The IRR calculation includes an estimate of the opening and closing investment value.
- B20 In its forward-looking IRR calculation, Christchurch Airport's opening investment value for PSE3 reflects the initial capital to be recovered. It comprises of two items:
- B20.1 the IM-compliant closing RAB from the ex-post disclosure of the year preceding the start of the current price setting event or an equivalent estimate,¹⁹⁶ and
 - B20.2 any adjustments reflecting decisions made in previous price setting periods that have an impact on charges for the current pricing period.
- B21 The inclusion of these adjustments helps achieve consistency between the opening investment value and the forecast cash flows that are used in a forward-looking IRR calculation. Christchurch Airport has included a carry forward adjustment, which is discussed below.
- B22 In its forward-looking IRR calculation, Christchurch Airport's forecast closing investment value reflects the remaining capital to be recovered. It comprises of two parts:
- B22.1 the forecast closing asset base used when setting prices, reflecting the airport's assumed time profile of capital recovery; and
 - B22.2 any adjustments reflecting decisions made by the airport that affect charges for the current and future price setting events that are not already reflected in the forecast closing asset base. This helps to derive a forecast closing investment value that is a good reflection of the remaining capital to be recovered.
- B23 As part of the IM review, we stated that provided the opening and forecast closing investment values are determined in the manner discussed above, the forward-looking IRR of the current pricing event effectively links past and future pricing periods together. This allows for a profitability assessment that is a good reflection of

¹⁹⁶ Given that the 2017 closing RAB value (the year which precedes the start of PSE3) will not be available until after the PSE3 disclosure, the ID Determination requires the Airport to use the closing RAB value from the most recent ex-post disclosure (in this case, 2016) rolled forward to the first day of the PSE3 period. See: Commerce Commission "Input methodologies review decisions Topic paper 5: Airports profitability assessment" (20 December 2016), footnote 158, page 97.

an airport's pricing intent.¹⁹⁷

Asset values

B24 This section considers the appropriateness of Christchurch Airport's approach to valuing its RAB, and ultimately whether its RAB is an appropriate baseline to assess profitability against.

Christchurch Airport's approach to valuing its priced assets

B25 In setting prices for PSE3, Christchurch Airport has reflected its expected return of capital (depreciation) of its integrated terminal over time (initially low cost recovery, then increasing over time as utilisation of the terminal increases) by adopting a tilted annuity approach to depreciation. This is instead of using the CPI-increasing price path to achieve this depreciation profile. Christchurch Airport considers this to be more transparent and robust, and results in similar outcomes to its use of the CPI-increasing price path that it applied over PSE2.

B26 In response to concerns raised by us and other stakeholders, Christchurch Airport is no longer setting prices based on a "levelised" (CPI-increasing) price path over a 20-year period. This approach was adopted in PSE2 to reflect the 20-year life cycle of Christchurch Airport's investment in the integrated terminal. Specifically, this approach resulted in commercially based prices for PSE2, and a 'levelised constant real price' path for the remaining 15 years.

B27 We noted the following in our section 56G report about the use of the 20-year levelised price path:¹⁹⁸

"Christchurch Airport's reason for wanting to establish a levelised price path over multiple price setting periods is understandable. The commissioning of the new integrated terminal will result in a significant increase in the value of Christchurch Airport's asset base, at a time when the expected utilisation of the terminal will be relatively low."

B28 However we also raised some concerns about the manner in which Christchurch Airport's methodology had been implemented through its disclosure.¹⁹⁹

"... sufficient information is not available to interested persons to assess Christchurch Airport's expected profitability performance, because its price setting disclosure does not fully or transparently reflect its pricing approach ... Nonetheless, we certainly welcome Christchurch Airport's intention to make its pricing approach more transparent in future and also the airlines' positive response to engaging in that process."

¹⁹⁷ Commerce Commission "Input Methodologies review decisions Topic paper 5: Airports profitability assessment" (20 December 2016), pages 44–47.

¹⁹⁸ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), paragraph E 13.

¹⁹⁹ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), paragraph E8 and 11.

Christchurch Airport has valued its priced assets consistent with our IM and ID Determinations

- B29 Christchurch Airport’s disclosure of its asset valuation is consistent with IM and ID requirements for airports. This includes applying its tilted annuity depreciation method, consistent with the high-level principles when disclosing non-standard depreciation profiles. These principles were included as part of the IM review in 2016 to help improve interested persons’ understanding about non-standard approaches to depreciation, such as the tilted annuity approach adopted by Christchurch Airport.²⁰⁰ This means that:
- B29.1 Christchurch Airport’s non-standard depreciation methodology is NPV neutral.²⁰¹
 - B29.2 Christchurch Airport has explained how the time profile of capital recovery implied by its price setting methodology is consistent with the long-term benefit of consumers.²⁰²
 - B29.3 Christchurch Airport’s decision to use non-standard depreciation was made ex-ante at the time prices were set. We expect Christchurch Airport to continue to reflect this non-standard depreciation methodology in its annual disclosures.²⁰³
 - B29.4 Christchurch Airport has explained how its expected time profile of capital recovery reflects its expected utilisation priced assets and is consistent with the long-term benefit of consumers.²⁰⁴

Land revaluations

- B30 Christchurch Airport has not revalued its land assets for PSE3. The airport’s land valuation forecasts are based on its disclosures for 2016, which have been rolled forward to determine an opening land asset value for PSE3 using an updated forecast of inflation for 2017. This opening value has then been projected over PSE3 using forecast CPI.²⁰⁵
- B31 Christchurch Airport notes that it chose not to revalue any assets in PSE3 (with land only revalued for CPI), and Christchurch Airport’s substantial customers did not

²⁰⁰ Commerce Commission “Input methodologies review decisions Topic paper 5: Airports profitability assessment” (20 December 2016), paragraph 274

²⁰¹ Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraph 101–102, and 106.2.

²⁰² Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraph 100-101, and 105-106.

²⁰³ Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraph 106.3

²⁰⁴ Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraphs 100-101.

²⁰⁵ Christchurch Airport “Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event - Attachment - PSE3 airline consultation material” (28 November 2017), attachment 1, Initial Proposal – 16 November 2016, paragraph 109.

comment on that choice or suggest an alternative approach.²⁰⁶

- B32 We note that during our section 56G review for Christchurch Airport, we considered Christchurch Airport's most recent land valuation (from 2012) to be consistent with the IMs.²⁰⁷ This land valuation forms the basis of the CPI-based land valuation disclosed for PSE3.

Other regulated assets

- B33 Other regulated assets include assets associated with those activities not covered by the standard prices. This includes aircraft, freight, leased tenancies and collection facilities for duty free). Charges for these activities are set through agreements with individual customers.
- B34 While these assets do not form part of the price setting consultation, they are included in the total RAB. Therefore, we are interested in the way they have been valued and disclosed.
- B35 As with PSE2, Christchurch Airport has applied a standard depreciation approach to other regulated assets. Other regulated assets were disclosed at carrying value and indexed over the forecast period to provide opening PSE3 asset values. This is consistent with the IMs.

Asset allocation between priced and other regulated assets

- B36 Christchurch Airport considers that its asset values provide an appropriate basis for assessing its expected returns. Christchurch Airport has sought to align, where possible, its asset values used to set standardised prices and the asset values that are disclosed annually.
- B37 BARNZ states that it has not identified any issues of concern with the asset values provided by Christchurch Airport. However, given the materiality of the asset values to target returns, it considers that it would be useful for the Commission to review the asset values used.²⁰⁸
- B38 Christchurch Airport states that its substantial customers raised no concerns with its general approach to align its priced asset base with its RAB. However, it notes that some concerns were raised about the allocation of specific parts of its RAB.²⁰⁹ The implication of these concerns is that some customers consider they are contributing to the cost of services that they do not use.

²⁰⁶ Christchurch Airport "Submission the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events" (28 November 2017), paragraph 38.

²⁰⁷ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), paragraph F87.

²⁰⁸ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), table 4 row 20.

²⁰⁹ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), paragraph 73.

- B39 Air New Zealand is concerned that Christchurch Airport's approach to align its pricing asset base with its disclosed asset base means assets are included in the pricing asset base that are not used to provide priced services. This includes the 'Antarctic Apron,' which Air New Zealand considers should be allocated to other regulated services (specifically, aircraft and freight activity).²¹⁰ Air New Zealand suggests that including the 'Antarctic Apron' in the pricing asset base masks the return that Christchurch Airport is targeting on its pricing assets.²¹¹
- B40 Christchurch Airport responds to this by stating that it has included the relevant assets in its RAB and allocated these, 100 percent, to pricing services. It considers this aligns its disclosed asset base with the pricing asset base and best creates a transparent asset base. It also considers that this approach aligns with our process in assessing its returns.²¹²
- B41 The extent to which the Antarctic Apron is used for the provision of priced services is unclear – Christchurch Airport's explanation is focused on aligning the asset bases and does not comment on whether this reflects actual experience. We note that allocation decisions between pricing and other regulated asset bases do not affect the total return Christchurch Airport is targeting on its RAB, but will impact the relative returns on the priced and other regulated services.

Draft Conclusion: Christchurch Airport's approach to disclosing its asset values appears reasonable

- B42 Overall, we consider Christchurch Airport's disclosed asset values are appropriate and have used these as the basis for our profitability analysis. Accordingly, we have not made any adjustments to Christchurch Airport's disclosed asset values as part of our profitability assessment in **Chapter 2**.

Opening and closing carry forward adjustments to asset values

- B43 During the IM review, we considered how to transparently reflect that an airport's pricing decision in one period could impact on a future price setting period.
- B44 We introduced a carry forward mechanism in the ID requirements that allowed an airport to recognise commitments made in a prior pricing period that would impact the prices of another pricing period (eg, risk allocated adjustments).
- B45 The introduction of the carry forward mechanism was intended to provide greater transparency around the targeted profitability of airports and to improve the ability of interested persons to assess if airports are targeting excessive profits.

²¹⁰ The 'Antarctic Apron' refers to the airport's new freight apron and apron adjacent to Gates 32 to 35.

²¹¹ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraphs 76-77.

²¹² Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), paragraphs 74-75.

Christchurch Airport's approach to the carry forward adjustments

- B46 Christchurch Airport has made carry forward adjustments to its opening and closing RAB in its PSE3 disclosure. These adjustments have been made to reflect a permanent difference in the value of the assets disclosed by the airport through information disclosure and the value of the assets that the airport has used to set prices.
- B47 The adjustments are required because Christchurch Airport was unable to give effect to its non-standard depreciation methodology in the way it had intended when it set prices for PSE2, because doing so would have breached the cost allocation IMs. As a result, the disclosed asset values under ID do not appropriately reflect the value split between pricing and non-pricing assets.²¹³
- B48 The impact of this adjustment is to increase the opening value for the total asset base by 1.5% (from \$524.4m to \$532.2m).
- B49 The calculation of the value of Christchurch Airport's carry forward adjustment to the RAB has been reviewed by Deloitte. This review was carried out in response to requests made by stakeholders through Christchurch Airport's pricing consultation process.²¹⁴

Stakeholder views

- B50 Christchurch Airport submitted that its substantial customers provided no feedback on the adjustment following the Deloitte audit.²¹⁵
- B51 BARNZ submits that it has not identified any problems with this adjustment, but a check by the Commission would be of value.²¹⁶

Draft conclusion

- B52 Christchurch Airport's carry forward adjustment is consistent with the IM and ID requirements. While this adjustment does not allocate risk, it is an appropriate use of the mechanism to account for ongoing differences between the disclosed asset values and those used for price setting. This allows the opening and closing investment values to better reflect the present value of the expected remaining cash flows from the assets.
- B53 Accordingly, we have not made any adjustment to Christchurch Airport's disclosed opening and closing carry forward values as part of our profitability assessment in **Chapter 2**.

²¹³ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraphs 77-80.

²¹⁴ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 84.

²¹⁵ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 85.

²¹⁶ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), Table 4 row 20.

- B54 Christchurch Airport has not proposed other carry forward mechanisms to adjust the default risk allocation between itself and airlines for the current pricing period. This means the airport will bear all of the risks, or rewards, if outcomes differ to forecasts over the pricing period. Consideration of the potential use of risk allocation adjustments in relation to demand forecasts and capex forecasts is included in this attachment.

Demand forecasts

- B55 This section considers whether Christchurch Airport's demand forecasts for the PSE3 period are reasonable, based on the information available at the time prices were set. Demand forecasts directly impact the reasonableness of the airport's forecast revenues, and therefore influence our assessment of whether the airport is limited in its ability to extract excessive profits.

Regulatory disclosure requirements

- B56 Under information disclosure regulation, airports are required to report on demand forecasts used to calculate the total revenue requirement over the five-year pricing period. This includes:
- B56.1 annual and busy hour forecasts of international and domestic passenger arrivals and departures;
 - B56.2 international transit and transfer passengers (as applicable); and
 - B56.3 aircraft runway movements by busy hour, busy day and financial year, expressed in total maximum certified take-off weight (MCTOW) and number of aircraft.
- B57 Airports are also required to provide an additional five years of forecast passenger, aircraft numbers and MCTOW demand.

Differences between forecast demand and actual demand impact profitability

- B58 An airport's demand forecasts are a key determinant of the prices it sets, and through this, are a key determinant of its actual profits. This is because prices are set by assuming a volume forecast for each charged service. Prices (combined with the volume forecast) set to recover only the Airport's target revenue forecast are consistent with not targeting excessive profits.

Demand may vary from forecast due to factors in and outside airports' and airlines' control

- B59 Christchurch Airport may have an incentive to under-forecast the demand used to derive its prices so as to earn higher profits. If volumes are then higher than assumed, Christchurch Airport will receive higher total revenue and likely higher returns.
- B60 Notwithstanding this, actual volumes will likely vary from forecast volumes due to factors outside the Airport's control, such as international policy and economic growth. These variations may be positive or negative. Actual volumes may also

exceed forecast volumes due to Christchurch Airport's efforts in attracting additional passengers and aircraft over the PSE3 period.

- B61 NZ Airports commented that "the Commission fails to note that airlines have an incentive to be optimistic in their forecasts to minimise prices"²¹⁷, while noting that "the Commission should be very cautious about reopening the demand forecasts used by airports when they have been developed by airports and rigorously tested with independent experts and airlines."²¹⁸
- B62 We maintain that airports may have an incentive to under-forecast their demand forecasts to earn higher profit than forecast. We also acknowledge that airlines may have a counter incentive to over-forecast demand, or to be less forthcoming about prospective reductions in services, to benefit from lower prices. More broadly, we consider that there are forecasting risks that arise from factors beyond both airlines' and airports' control.

Demand forecasts over PSE2 were relatively close to overall actual demand

- B63 Christchurch Airport has experienced average annual growth of 3.4% over PSE2. This is greater than its forecast growth rate of 2.3% at the time when it set prices for PSE2.
- B64 Christchurch Airport experienced greater growth in domestic passengers than international passengers. Domestic passenger growth outperformed Christchurch Airport's PSE2 forecasts, growing on average at 3.5% per annum (compared to forecast growth of 1.8%). International passengers grew at 3.1% per annum over PSE2 compared to forecast growth of 3.7%. Christchurch Airport's demand forecasts for PSE2 were heavily influenced by the expected timing of the recovery from the 2010 and 2011 Christchurch earthquakes.

Christchurch Airport's approach to forecasting demand

- B65 Demand forecasts are an important component when determining an airport's expected returns as they are a key driver of the actual revenue that the airport will earn over PSE3 based on the prices set. Where airports are able to outperform projections, they are able to earn returns that are greater than the target return.
- B66 Christchurch Airport engaged Three Consulting to provide independent passenger demand forecasts for PSE3. Three Consulting's demand forecasts took into account the Ministry of Business, Innovation and Employment passenger forecasts, airline fleet predictions, immigration data, consensus outbound growth rates and GDP growth predictions among other metrics.²¹⁹

²¹⁷ NZ Airports Association "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (28 November 2017), paragraph 46.

²¹⁸ NZ Airports Association "Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services" (28 November 2017), paragraph 45.

²¹⁹ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), schedule 20.

- B67 According to Three Consulting, passenger numbers at Christchurch Airport are expected to continue to grow over this period with forecast average annual demand growth of 3.1% for international passengers and 2.6% for domestic passengers.²²⁰
- B68 In its price setting event disclosure, Christchurch Airport indicated that stakeholders were generally supportive of its approach to forecasting demand. However, there were some concerns raised during consultation about whether the international passenger growth forecast was conservative.²²¹

Demand growth projected over PSE3

- B69 Christchurch Airport is forecasting average annual growth of 2.6% in domestic passenger and 3.1% in international passengers over PSE3.²²² This represents a slowdown in demand growth compared to the PSE2 period where average annual growth was 3.5% in domestic passengers and 3.1% in international passengers.

Some airlines have suggested that there is some conservatism in international passenger forecasts

- B70 BARNZ submitted that Christchurch Airport's international passenger growth forecasts may be unduly conservative. BARNZ considers Christchurch Airport's assumption – that the proportion of New Zealand's international air travel visiting Christchurch will remain constant over PSE3 – is unlikely. This is on the basis that the airport's demand forecasting consultants (Three Consulting) consider there is pent-up demand in Christchurch and consider passenger volumes in Christchurch have not reached pre-earthquake proportions.²²³
- B71 Similarly, Qantas' view is that Christchurch Airport's international passenger targets are understated, given the current growth rates both at Christchurch Airport, and in New Zealand more generally.²²⁴
- B72 On the other hand, Air New Zealand indicated it was generally comfortable with Christchurch Airport's forecast international passenger growth.²²⁵

²²⁰ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event - Attachment - PSE3 airline consultation material" (28 November 2017), CIAL PSE3 Revised Pricing Proposal – 10 April 2017, paragraphs 169-170.

²²¹ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 123.

²²² Christchurch Airport set these forecasts prior to the end of FY17. Actual international passengers in 2017 were approximately 2% higher than it forecast and actual domestic passengers in 2017, 0.3% higher than forecast. Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event – attachment - PSE3 airline consultation material" (28 November 2017), CIAL PSE3 Revised Pricing Proposal – 10 April 2017, paragraphs 169-170.

²²³ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 13.

²²⁴ Qantas "Review of Auckland and Christchurch Airports' third price setting events – Qantas Group feedback to the Process and issues paper" (28 November 2017), page 2.

²²⁵ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event - Attachment - PSE3 airline consultation material" (28 November 2017), Initial Proposal – responses – 7 February 2017, page 10.

- B73 Christchurch Airport submits that its international passenger numbers have grown particularly fast over the last three years due to earthquake recovery. The airport notes that by the end of PSE3, it expects international passenger growth will trend closer to the national average with no material impact on its current market share.²²⁶
- B74 Christchurch Airport considers that it is unreasonable to expect it to recover its relative share of international demand from other New Zealand airports over PSE3.²²⁷
- B75 Christchurch Airport suggests that South Island tourism growth will be shared with other airports due to:²²⁸
- B75.1 Auckland Airport acting as an international hub facilitating domestic transfers to South Island locations; and
 - B75.2 Queenstown Airport providing direct routes from Australia.
- B76 Christchurch Airport has also noted that it will not earn additional revenue on a one-for-one basis where there has been additional passenger growth above forecast. This is because a portion of the passenger growth is subject to pricing incentives.²²⁹

Our view

- B77 Christchurch Airport is forecasting for PSE3 average annual growth of 2.6% in domestic passenger and 3.1% in international passengers. This is slightly lower but not inconsistent with its average annual growth in international and domestic passengers over PSE2 of 3.1% and 3.5% respectively.
- B78 There are a number of reasons why it may be reasonable to expect Christchurch Airport's demand growth to be lower in PSE3 than in PSE2.
- B78.1 It is likely that over PSE2 the easiest demand growth to recapture was recovered following the earthquake and from now on, attracting additional demand will be relatively more difficult.
 - B78.2 It may not be reasonable to assume Christchurch Airport will recover its pre-earthquake share of international travel to New Zealand airports over PSE3. This is because since the Canterbury earthquakes, Auckland Airport has taken a greater role as an international hub facilitating domestic transfers to South Island locations, and Queenstown Airport is now providing direct routes from Australia.

²²⁶ By comparison, Auckland Airport is forecasting 4.1% annual PSE3 growth in international passengers against Christchurch Airport's forecast of 3.2%.

²²⁷ Christchurch Airport "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraphs 28-31.

²²⁸ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event - Attachment - PSE3 airline consultation material" (28 November 2017), CIAL PSE3 Revised Pricing Proposal – 10 April 2017, paragraph 176.

²²⁹ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 34.

B78.3 A potential reduction in international demand growth across New Zealand is due to a range of factors. For example, Auckland Airport notes that it is forecasting lower demand growth over PSE3 compared to PSE2 due to a number of factors (some of which are also relevant to Christchurch Airport), including:²³⁰

B78.3.1 “one-off” type events occurring in PSE2 (eg, Jetstar expansion) which are unlikely to be repeated;

B78.3.2 inbound visitor growth rates have peaked and are now declining; and

B78.3.3 airline capacity additions have slowed due to less favourable conditions.

B79 We also note that Christchurch Airport’s additional revenues from higher than forecast demand growth is mitigated due to additional spending on incentives. This effectively constrains Christchurch Airport’s ability to profit from under forecasting demand.

Impacts on demand forecast from change in Christchurch Airport’s price structure

B80 BARNZ notes that Christchurch Airport has reduced its charges to international airlines by 45% on average from FY17 to FY18 and the terminal price per passenger will decline further over PSE3. It submits that this should stimulate demand over PSE3 relative to the other New Zealand international airports.²³¹

B81 Qantas believes that the significant (~45%) reduction in the terminal price per passenger from FY17 to FY18 will stimulate demand specifically at Christchurch Airport, relative to comparable airports in New Zealand.²³²

B82 The airport’s pricing methodology has resulted in significantly reduced charges for international passengers over PSE3. Christchurch Airport advised its expert consultant Three Consulting of the changes made to its pricing structure, and requested that they review whether the changes would affect its demand forecasts. Three Consulting considered this and noted that Christchurch Airport’s change in pricing strategy would not materially affect demand forecasts.²³³

B83 To forecast demand Christchurch Airport’s expert consultant Three Consulting used airline scheduling forecasts for the years they were available as the best evidence of likely volumes in the near term, and for the years beyond that to extrapolate

²³⁰ Auckland Airport “Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services” (28 November 2017), page 15.

²³¹ BARNZ “Submission on process and issues paper on the review of Auckland and Christchurch Airports third prices setting for airport services” (28 November 2017), page 24.

²³² Qantas “Review of Auckland and Christchurch Airports’ third price setting events – Qantas Group feedback to the Process and issues paper” (28 November 2017), page 2.

²³³ Christchurch Airport “Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022” (28 June 2018), paragraph 67.

forecasts based on macro variables. It considered that the changes in charging structure would not be a significant factor in airlines scheduling decisions.²³⁴

- B84 Christchurch Airport submits that although prices went down materially for international passengers, airport charges are likely to be a smaller share of their total ticket price. Christchurch Airport also notes that where there are additional international flights at the expense of domestic flights (ie, direct rather than through the Auckland Airport hub) there is little effect on its revenue.²³⁵

Our view

- B85 In response to feedback from airlines, Christchurch Airport introduced a transitional price path. This means that any potential demand responses to the pricing structure changes will be somewhat reduced in the early years of PSE3 given that changes in terminal charges are being gradually introduced.

Risk sharing of demand forecasts

- B86 Air New Zealand proposed a risk sharing mechanism to address concerns regarding the accuracy of passenger forecasts. It noted that Christchurch Airport rejected this approach, instead indicating its preference to establish headline prices and develop bespoke arrangements with individual airlines. Air New Zealand considers this demonstrates Christchurch Airport is using the regulatory pricing regime to disguise a 'divide and conquer' strategy, to benefit the airport.²³⁶
- B87 Christchurch Airport states that it remains confident in its demand forecasts and that therefore there is no need for risk sharing arrangements. It also notes that so far in PSE3, demand is tracking very closely to Christchurch Airport's forecasts.²³⁷
- B88 Christchurch Airport also states that given demand risks are shared between Christchurch Airport and a variety of airlines with different circumstances and associated risks, Christchurch Airport is clearly best placed to manage demand risk.²³⁸
- B89 Christchurch Airport notes that the pricing incentives included in its PSE3 disclosures reflect the rebates forecast under agreements in place at the end of PSE2, as well as an assumption that one of those agreements will be extended in substantially similar form.²³⁹

²³⁴ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraphs 2-4.

²³⁵ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 71.

²³⁶ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraph 81 and 85.

²³⁷ Christchurch Airport "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraph 44.

²³⁸ Ibid.

²³⁹ Christchurch Airport "Additional material on the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (28 June 2018), paragraph 20.

Our view

- B90 Further details on Air New Zealand’s proposed risk sharing mechanism were not provided. However, we note that, depending on the specifics, a mechanism which allows existing airlines to benefit from any upside risk may not incentivise the Airport to proactively attract new air services (which would provide competition to the existing airlines) for the benefit of consumers.
- B91 We agree that Christchurch Airport may be better placed to manage demand risks, however we also note that future demand levels are not entirely within the airport’s control because demand is determined to an extent by both the airlines and the airport.
- B92 We note Christchurch Airport has absorbed the cost of incentives under existing contracts but allowed for the effect of currently forecast incentive spend on its forecasts of demand. This is to the benefit of airlines who gain from (without paying for) potentially lower unit costs as a result of higher demand. We also note that any additional incentive spending above that forecast for PSE3 will not be included in the cost base and will therefore be spent entirely at Christchurch Airport’s risk.
- B93 Generally, we consider that some sharing of risk for volumes associated with route development activities is appropriate. This is because the route development activities may increase demand relative to a situation where these activities were not undertaken. Airlines may subsequently benefit from lower unit costs resulting from these increased volumes and economies of scale over the long-term.

Conclusion on the reasonableness of the demand forecasts

- B94 We note that future demand levels are not entirely within the airport’s control and we therefore expect actuals to be different to forecast. We note that Christchurch Airport has used expert advice, and that its forecast does not appear unreasonable given Christchurch Airport’s knowledge at the time prices were set.
- B95 There are a number of reasons why it may be reasonable to expect Christchurch Airport’s demand growth to be lower in PSE3 than in PSE2. We also note that to the extent that PSE3 international demand was under forecast, the ability for this to contribute to Christchurch Airport’s revenue would be limited by factors such as:
- B95.1 International demand represents only approximately 25% of overall demand. Therefore, any under forecasting of international demand will have a relatively small impact on the accuracy of the overall demand forecast.
- B95.2 Christchurch Airport’s incentive spending mitigates the amount of additional revenues it earns from higher than forecast demand growth.
- B95.3 Christchurch Airport introduced a transitional price path. This means that any potential demand responses to the pricing structure changes will be somewhat reduced in the early years of PSE3 given that changes in terminal charges are being gradually introduced.

- B96 We also note that Christchurch Airport has been responsive to feedback from airlines, in particular it has:
- B96.1 reviewed its forecasts, and made an amendment to its initial domestic demand forecast; and
 - B96.2 adjusted the rate of change to its new price structure for regional and international passengers.

Operating expenditure forecasts

- B97 This section considers whether Christchurch Airport's operating expenditure (opex) forecasts for the PSE3 period are reasonable, based on the information available at the time prices were set. Similar to demand forecasts, operating expenditure forecasts influence our assessment of whether the Airport is limited in its ability to extract excessive profits because they are a key driver of forecast cash flows.
- B98 Consistent with section 52A(1)(b) of the Act, we have also considered whether Christchurch Airport has incentives to improve its operating efficiency and provide services at a quality that reflects consumer demands.

Incentives on Christchurch Airport to forecast its expenditure and to operate efficiently

- B99 Christchurch Airport's opex forecast influences the prices it charges customers. When actual expenditure is lower than forecast, Christchurch Airport can earn higher profits. Christchurch Airport can outperform its forecast expenditure by:
- B99.1 achieving efficiency gains: reducing opex while maintaining (or increasing) the quality and quantity of service provided or increasing the quantity or quality of service while maintaining the opex; and
 - B99.2 forecasting opex above an efficient level so as to earn higher profits by outperforming opex forecast without necessarily being efficient.
- B100 Over time, the public disclosure of information on historic and forecast opex can provide transparency about whether Christchurch Airport has over-forecast opex for the purpose of price setting and its performance relative to other suppliers. The availability of this information potentially increases the countervailing power of consumers at Christchurch Airport.
- B101 Forecast operating and capital expenditure are significant parameters for the determination of the expected return for airports. There may be an incentive for airports to project expenditure such that there is a greater likelihood of expenditure being below forecast than above forecast. We note the existence of such an incentive does not mean that airports will necessarily act on that incentive.

How Christchurch Airport has forecast operating expenditure

B102 Christchurch Airport forecast its PSE3 operating costs by:

B102.1 starting with its budgeted FY18 and FY19 opex;

B102.2 increasing those costs in aggregate cost buckets for FY20 to FY22 at a pre-set rate (usually CPI); and

B102.3 excluding promotion and airline incentives.

B103 Christchurch Airport has derived its prices on the basis of recovering the operating expenditure allocated to the priced services, with the exception of the certain incentive costs. Christchurch Airport has, as a commercial concession, absorbed the cost of incentives under existing contracts. The expected impacts on demand growth from this incentive spend are included in its demand forecasts.²⁴⁰

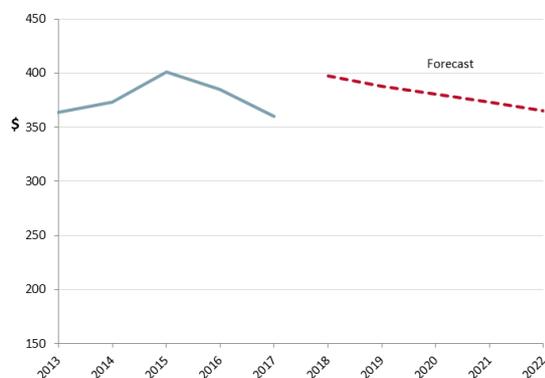
Forecast trends in unit opex

B104 The forecast trend in unit opex at Christchurch Airport, relative to actuals for PSE2, is shown in **Figures B1 and B2**. We consider opex per passenger and opex per aircraft are appropriate measures of Christchurch Airport's unit opex as they are likely to reflect some of the drivers of Christchurch Airport's variable costs.

Figure B1 Unit opex over 2013 - 2017²⁴¹



Figure B2 Forecast unit opex over 2018 - 2022



* Please note that the y-axis of these figures does not start at 0.

Opex per passenger

B105 **Figure B1** shows that over PSE3, Christchurch Airport's real opex per passenger is forecast to decrease across PSE3.

²⁴⁰ Christchurch Airport "Disclosure relating to the reset of aeronautical prices for the period 1 July 2017 to 30 June 2022" (14 August 2017), page 27.

²⁴¹ The figures in this graph are adjusted into real terms, and assume no incentive expenditure.

B106 Over the whole PSE3 period, real opex per passenger is forecast to be \$4.89. This compares to \$5.66 over the 2013-2017 (PSE2) period.

Opex per aircraft movement

B107 **Figure B2** shows that opex per aircraft movement is forecast to increase in 2018 (driven by slightly higher forecast opex and fewer forecast movements in that year), but then reduce across the remainder of PSE3. By 2022, forecast opex per aircraft unit is forecast to decrease to \$365.04, slightly up from \$359.77 in 2017.

B108 Over the whole PSE3 period, opex per aircraft movement is forecast to be \$380.47 this compares to \$376.37 over the 2013-2017 (PSE2) period.

Airlines consider the starting point for the opex forecast is inefficiently high

B109 Airlines have raised concerns that the forecast starts from a historically high base.

Opex per passenger

B110 BARNZ submits that no efficiency gains appear to have been achieved in the previous pricing period, and that opex efficiency worsened over PSE2. It also notes that as PSE3 starting prices were based on Christchurch Airport's actual expenditure, this means that the inefficiencies incurred over PSE2 are now included in PSE3 prices, pushing up costs for passengers.²⁴²

B111 Airlines are concerned about Christchurch Airport's expenditure efficiency. Christchurch Airport's opex per passenger grew by more than 50% over PSE2 and is now the highest of the major NZ airports. This increase has been driven by increasing expenditure in the category "asset management and airport operations."²⁴³

B112 BARNZ considers that the bulk of these cost increases have come from expenditure on the new terminal. BARNZ notes that it would have expected a new and improved asset to drive operating expenditure down rather than up, as maintenance costs should be reduced.²⁴⁴

B113 BARNZ submits that Christchurch Airport overspent its PSE2 opex forecasts by \$26m in the years FY13-FY16. This meant opex was 22.5% above forecast for those years. The majority of the overspend (\$22m) was in the asset management and airport operations category. BARNZ notes that part of that overspend is because certain activities are included in disclosed opex but were excluded from pricing when PSE2 charges were set (eg, airport promotions / incentives for new routes), however it is not clear how much of the overspend is due to these factors.²⁴⁵

²⁴² BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 20.

²⁴³ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), Table 4 row 23.

²⁴⁴ Ibid.

²⁴⁵ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 14.

B114 BARNZ understands that Christchurch Airport has experienced large and un-forecast increases in rates and insurance costs during PSE2, and also unexpected airfield security costs. However, BARNZ is not aware of what proportion of the increased operating expenditure over PSE2 is explained by these factors.

B115 Air New Zealand submits that it shares BARNZ's concerns.

Airport's view

B116 Christchurch Airport submits that its new terminal is significantly larger than, and different to, its previous terminal, and consequently has a different opex footprint. This change has been coupled with increases in costs that are out of Christchurch Airport's control (e.g. rates, insurance and Civil Aviation Authority (CAA) requirements, as explained during consultation).²⁴⁶

B117 The airport also notes that its PSE3 opex is based on its actual and budgeted costs, specific to the circumstances of the Airport.²⁴⁷

B118 Christchurch Airport argues that while opex considered on a per-passenger basis is one available measurement, it should not be considered as a proxy for performance, as it focuses only on the total opex amount and demand (which experienced a downward step change in PSE2) rather than actual efficiency. It also notes that efficiency is the better metric for performance, as assessed by considering costs in their full context with regard to actual efficiency outcomes (e.g. quality of service, innovation and customer satisfaction).²⁴⁸

Our response to airlines' concerns

B119 We have focused our analysis on whether there is evidence to suggest the starting point for the PSE3 forecast may be unreasonable, by exploring:

B119.1 how Christchurch Airport's actual opex compares to its opex forecasts over PSE2 and PSE3, and the reasons for any differences; and

B119.2 how Christchurch Airport's opex compares to other airports.

How Christchurch Airport's historical opex compares to its opex forecasts

B120 Actual opex per passenger and per movement were consistently higher than forecast over PSE2 as shown in **Figures B3 and B4**.

²⁴⁶ Christchurch Airport "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraph 33.

²⁴⁷ Ibid

²⁴⁸ Ibid.

Figure B3 Forecast and actual opex per passenger (2013 – 17)

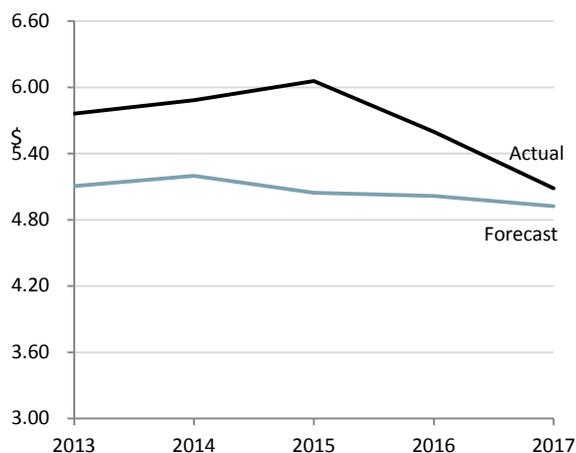
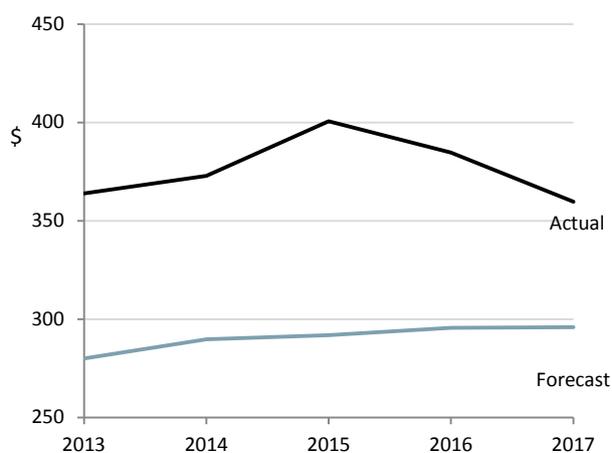


Figure B4 Forecast and actual opex per aircraft movement (2013 – 17)



* Please note that the y-axis of these figures does not start at 0.

B121 Christchurch Airport's actual nominal opex expenditure across PSE2 excluding incentive expenditure was \$166.7m actual against a forecast of \$145.4m, a difference of 21.3m or 14.6%.²⁴⁹

B122 Christchurch Airport attributes this additional expenditure to:

- B122.1 promotions and incentives to specific airlines or route destinations that were excluded from the forecast used for pricing after consultation with airline customers;²⁵⁰
- B122.2 insurance and rate increases being greater than forecast;
- B122.3 a CAA ruling that labour costs for airfield security gates are an airport cost rather than an aviation security cost. The resulting charge was a cost that commenced in 2013 and was not included in Christchurch Airport's forecast;
- B122.4 other costs including maintenance, cleaning and personnel costs;
- B122.5 increased emergency service personnel costs are now incurred, in line with the Task and Resource Analysis carried out to ensure compliance with CAA guidelines; and
- B122.6 a change in approach for how a lease termination cost should be recovered.²⁵¹

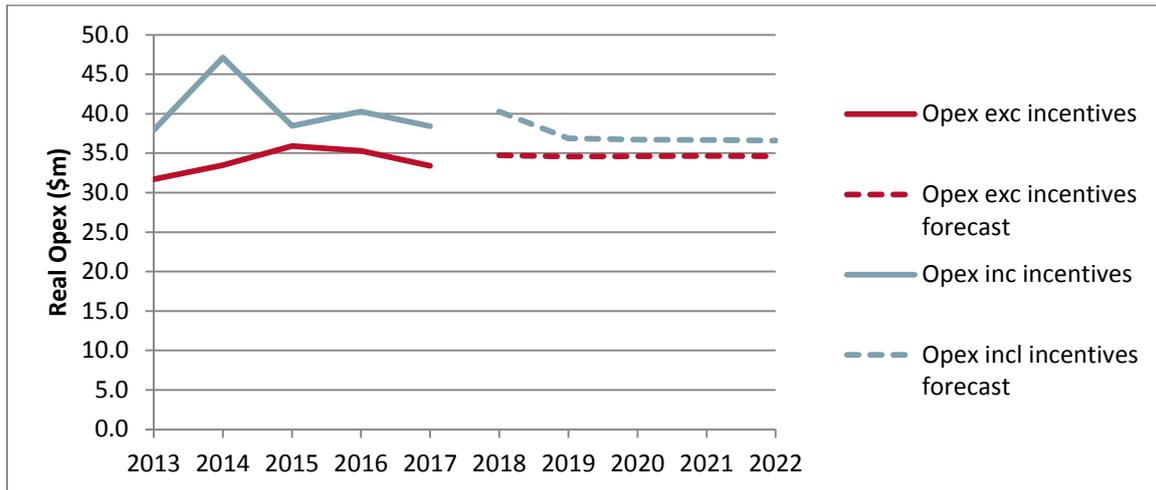
²⁴⁹ Please note that Christchurch Airport's disclosed actual opex across this period was \$179m. This differs from the \$166.7m figure noted above because it includes 12.4m of incentive expenditure across 2015-17. This has not been included in this comparison because Christchurch Airport's forecast operating expenditure does not include these incentives.

²⁵⁰ Note we have removed incentive expenditure from actual opex in this comparison against forecast opex, therefore this argument is no longer relevant.

Actual and forecast opex with and without incentive expenditure

B123 As noted above Christchurch Airport has indicated that it has not included promotion and airline incentives expenditure in its forecast. To provide a more accurate comparison between actual and forecast numbers we have therefore removed promotion and airline incentives expenditure from actual opex over PSE2.

Figure B5 Actual opex for PSE2 and forecast opex for PSE3



B124 **Figure B5** shows a slight increase in opex (with and without incentives) between FY17 and FY18. Opex including incentives increases in FY18 but then reduces below historic levels over the remainder of PSE3. This reflects the significant reduction in forecast incentives expenditure in PSE3 relative to PSE2 (\$14.0m in PSE3 versus \$32.4m in PSE2). Opex excluding incentives slightly increases in FY18 and then remains flat across the remainder of PSE3. Christchurch has noted that they have used budgeted FY18 and FY19 opex as the basis for estimating PSE3 opex.

How Christchurch Airport’s opex compares to other airports

B125 Airlines’ submissions have not suggested an alternative PSE3 forecast for total opex or particular operating expenditure items. Airlines’ submissions have queried whether differences between Christchurch Airport’s opex and that of other airports are reasonable.

Airlines’ views on how Christchurch Airport’s opex compares to other airports

B126 BARNZ provides several observations comparing Christchurch Airport’s operating expenditure to that of other NZ airports.

²⁵¹ Christchurch Airport “Specified Airport Services Annual Information Disclosure for the year ending 2017” (no date), page 6.

- B126.1 Christchurch Airport's asset maintenance opex as percentage of RAB is similar to Wellington Airport and much lower than at Auckland Airport.²⁵²
- B126.2 Christchurch Airport's corporate overheads opex per passenger is between that of Auckland Airport and Wellington Airport.²⁵³
- B126.3 Christchurch Airport's asset management and airport operations opex per passenger is the highest of the three airports and has grown significantly over PSE2 – this has been the category driving the increase in Christchurch Airport's total opex per passenger.²⁵⁴
- B126.4 Christchurch Airport has seen significant increases in both airfield opex per MCTOW landed (especially in FY15) and terminal opex per passenger (especially in FY13). It now has the highest airfield opex per MCTOW and is not far below Auckland Airport's terminal opex per passenger.²⁵⁵
- B126.5 Christchurch Airport has similar average remuneration and benefits costs per FTE to Wellington Airport, but much lower costs than Auckland Airport.²⁵⁶
- B127 BARNZ also notes that it appears that operating costs per passenger in Australian airports have also been growing significantly.²⁵⁷

The Airport's view on how its opex compares to other airports

- B128 Christchurch Airport argues that it is inappropriate to draw substantive conclusions from benchmarking opex per passenger against other New Zealand airports. Christchurch Airport and the other airports are clearly not comparable; they differ significantly in terms of size, terminal configurations, demand, relative passenger splits (international/domestic) and stages within their capital investment cycles.

Conclusion

- B129 As noted by BARNZ, certain measures of Christchurch Airport's opex performance indicate poorer performance compared to other New Zealand airports. However, these discrepancies in airports' performance have existed over PSE1 – PSE2 and have not changed remarkably to raise significant concern. We also acknowledge that differences in airports' passenger mix may contribute to differences in unit opex performance.

²⁵² BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 11.

²⁵³ Ibid.

²⁵⁴ Ibid.

²⁵⁵ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 12.

²⁵⁶ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 13.

²⁵⁷ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 14.

- B130 Christchurch Airport's PSE3 opex forecast does not appear unreasonable relative to historic levels which provide context for its PSE3 forecast and does not necessarily indicate that the starting point for the PSE3 forecast is unreasonable.
- B131 We note that the higher management and operations expenditure were almost the entire source of variance between actual opex and forecast opex over PSE2. This increase in management and operations expenditure is not unexpected given that at the start of PSE2 Christchurch Airport had just completed its new integrated terminal, which required a different operating expenditure 'footprint' while experiencing reduced demand. This would suggest that Christchurch Airport's PSE2 operating expenditure was not optimal but as demand increases we would expect to see improvement in the efficiency of the terminal utilisation.

We have tested the impact of a change in opex forecast on expected profitability

- B132 We have tested the impact on Christchurch Airport's expected profitability of actual opex being 10% different to its opex forecasts.
- B132.1 If actual opex was 10% higher than Christchurch Airport's opex forecast it would reduce the airport's expected return of 6.65% by 0.5 percentage points to 6.1%.
- B132.2 Conversely, if actual opex was 10% lower than Christchurch Airport's opex forecast it would increase the airport's expected return of 6.65% by 0.5 percentage points to 7.2%.

Capital expenditure forecasts

- B133 There are two relevant limbs of the Act (section 52A(1)(a) and(b)) when assessing whether there are any significant concerns that Christchurch Airport's capital expenditure forecasts for PSE3 is not appropriate. These require considering whether the airport has:
- B133.1 incentives to invest in services at a quality that reflects consumer demand;
and
- B133.2 incentives to improve the efficiency of its investment.

Outline of our approach to assessing Christchurch Airport's capital expenditure forecasts

- B134 Our approach to assessing this is to consider whether Christchurch Airport's consultation process has been reasonable and the outcomes of the process have been generally supported by stakeholders (ie, whether it is investing in the right assets).
- B135 We also consider whether:
- B135.1 there are concerns that the forecasts are not an appropriate starting point for assessing profitability (ie evidence of any planned under- or over-investment); and

B135.2 Christchurch Airport has adequately mitigated any risks relating to actual outcomes differing from its capital expenditure forecasts.

B136 We consider expected service quality and any evidence from current and past disclosures to indicate that the capital expenditure plan is not expected to be deliverable.

B137 In our section 56G review we could not conclude whether information disclosure regulation under Part 4 of the Act was effectively promoting efficient investment at Christchurch Airport because at that stage we did not have actual investment information for PSE2. We now have actual investment information for PSE2 and can compare this against PSE2 forecasts to draw inferences about potential risks to the delivery of planned PSE3 investments.

Has Christchurch Airport’s consultation process been reasonable and have the outcomes of the process been generally supported by stakeholders?

B138 Christchurch Airport is forecasting to spend \$82m in capital expenditure over PSE3. This is a similar level of expenditure to PSE2, where the airport forecast to spend \$75m. Christchurch Airport’s expenditure forecasts for PSE3 reflect predominantly business as usual capex and only three major capital projects over the five-year period:

B138.1 \$10.4m for terminal reconfiguration in order to increase productivity and flexible use of the airport’s terminal;

B138.2 \$5m for further work to install jet ground power at remaining stands which is a key sustainability initiative for the airport; and

B138.3 \$5m as an initial step to install centreline lighting to enable low visibility aircraft operation.

B139 The airport is also seeking to improve the efficiency of its passenger processing through the investment in common use check-in kiosks and baggage drop stations.

B140 Christchurch Airport had initially proposed to spend \$20m to extend its cross-wind runway. However as a result of consultation with major customers, the airport decided to remove the extension from its final pricing decision.

Airlines views

B141 BANRZ indicates that Christchurch Airport’s capital plan for PSE3 is fairly modest, reflecting where the Airport is at in its capital investment cycle. BANRZ was pleased that the Airport chose not to progress with its project to extend the length of the cross-runway, as the benefits of this project did not outweigh the costs.²⁵⁸

²⁵⁸ BANRZ “Review of Auckland and Christchurch Airport’s third price setting events – Process & Issues paper” (28 November 2017), Table 4 row 23.

- B142 Qantas also generally supports Christchurch Airport's (comparatively) modest approach to capex in PSE3.²⁵⁹
- B143 A number of airlines raised concerns at the lack of specificity attached to the proposed 'terminal reconfiguration' capex project.²⁶⁰ BARNZ notes that this is not a clearly defined project that airlines provide views on, but appears to be a contingency fund for the Airport to spend, or not, as it chooses over PSE3.

Conclusion

- B144 Airlines generally support most of Christchurch Airport's capex projects included in the pricing decision and note that the level of investment is modest over PSE3.
- B145 Airlines also acknowledge that Christchurch Airport did respond to airline feedback by removing a \$20m extension to the cross-runway from its capital plan.
- B146 However, airlines do not support the proposed 'terminal reconfiguration' capex project, highlighting the lack of detailed spend breakdown or planning proposals associated with this project.
- B147 Christchurch Airport has responded that the proposed 'terminal reconfiguration' capex project:
- B147.1 is a key component of Christchurch Airport's approach to improve productivity and flexible use which it has explained in detail; and
- B147.2 It is a project that it will definitely undertake in PSE3.

Is Christchurch Airport expected to provide services at a quality that reflects consumer demands?

- B148 BARNZ considers that Christchurch Airport is generally expected to provide services at a quality that reflect consumer demands. BARNZ notes for example that issues recently identified by the Airline Operators Committee were raised with the Airport and resolved reasonably quickly. The airport also made an investment in FY17 to improve airfield efficiency by widening a taxiway to enable A380 aircraft to use the taxiway rather than use the runway as a taxiway to return to the terminal.²⁶¹
- B149 BARNZ notes that the results of the standard survey of international passengers reported through information disclosures have been between 4.1 and 4.3 (out of 5) in every year since 2011 for Christchurch Airport. Christchurch Airport states that it

²⁵⁹ Qantas "Review of Auckland and Christchurch Airports' third price setting events – Qantas Group feedback to the Process and issues paper" (28 November 2017), page 2.

²⁶⁰ Qantas "Review of Auckland and Christchurch Airports' third price setting events – Qantas Group feedback to the Process and issues paper" (28 November 2017), page 2. BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), page 23. Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraphs 88–89.

²⁶¹ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), Table 5, row 28.

“consistently ranks as the best of nine major Australasian airports across a number of service categories.”²⁶²

B150 BARNZ indicates that Christchurch Airport's service reliability appears to be of a reasonable standard. Airlines have not reported significant concerns to BARNZ about service reliability at Christchurch Airport. The disclosed performance indicators up to FY16 show improved performance over time except for on-time departure delays.²⁶³

B151 BARNZ also states that, in general, there is sufficient capacity for international arrivals and departures. However, BARNZ does note a couple of areas where the airport can experience capacity constraints or delays.²⁶⁴

B151.1 there are capacity constraints in the domestic regional departures area at Christchurch Airport; and

B151.2 there are usually queues in the early morning at international departures due to the opening times of the Customs and Aviation Security check points, but this is primarily an issue for Avsec and Customs to resolve rather than Christchurch Airport.

Conclusion

B152 Christchurch Airport consistently achieves high ratings on passenger surveys. In 2017, the airport received an average rating of 4.4 for its domestic travellers and 4.3 for international (on a scale of 1 – 5). This is the highest rating of the New Zealand regulated airports.

B153 Christchurch Airport appears willing to respond to customer concerns and resolve issues quickly. Submitters have noted examples of the airport responding to identified concerns.

Are Christchurch Airport’s capex forecasts an appropriate starting point for assessing profitability?

B154 We recognise that there may be an incentive for airports to overstate capital expenditure if airports expect that they are able to capture any underspend that actually occurs. In addition, efficiency gains and losses may be rewarded differently depending on the year in which they occur. This time inconsistency can create incentives for airports to delay efficiency improvements.

B155 The incentive for airports to delay efficiency improvement under information disclosure regulation may be weaker than price-quality regulation. This is because airports can set prices as they see fit and can opt to reset prices earlier than every five years so long as they consult with major customers.

²⁶² BARNZ “BARNZ assessment of CIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 2-3.

²⁶³ BARNZ “BARNZ assessment of CIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 3.

²⁶⁴ BARNZ “BARNZ assessment of CIAL’s PSE3 pricing decision against Part 4 criteria” (28 November 2017), page 4.

Airlines views

- B156 Air New Zealand notes that pricing in capital expenditure, then failing to deliver this, or delivering it more cheaply, is how airports are incentivised to make additional returns for shareholders at the expense of consumers under the current regulatory regime.²⁶⁵
- B157 NZ Airports disagrees with the airlines' allegation that airports are over estimating their capital expenditure in forecasts to obtain higher returns and suggests there is no evidence from historical performance that airports' actual expenditure is systematically below their capex forecasts. NZ Airports considers that Christchurch Airport incurred expenditure materially above forecast for PSE2 and notes that airlines do not propose wash-ups that would allow airports to recover such additional un-forecast expenditure.²⁶⁶
- B158 Christchurch Airport also strongly disagrees, stating that the ID/IM regime includes annual disclosures by airports that track actual capex spend and allow the Commission and interested parties to easily understand airports' actual capital expenditure compared to forecasts. Christchurch Airport also states that Air New Zealand cannot point to a track record of Christchurch Airport intentionally underspending on capex.
- B159 Air New Zealand considers that the expenditure disclosed in such 'pre-set cost buckets' by Christchurch Airport is insufficiently transparent to consumers, and in fact is set to be large enough, and opaque enough to allow Christchurch Airport to use that expenditure buckets as a vehicle for excessive profits. The \$10.4m allowed by Christchurch Airport for 'terminal reconfiguration' is an example of opaque expenditure.²⁶⁷
- B160 BARNZ notes that Christchurch Airport's major capex projects are appropriately included in prices, except for the terminal development project. It also states that capex is included in prices from the forecast date of commissioning. BARNZ argues that the terminal development project is not an actual project but funds for the Airport to use when it chooses, and therefore it has limited confidence that the prices will reflect this project from the actual date of commissioning.²⁶⁸
- B161 Christchurch Airport argues that airlines have also mischaracterised its \$10.4m investment in the terminal as a "blank cheque" or "contingency fund". Christchurch Airport insists this is not the case and that the purpose of the expenditure is fixed

²⁶⁵ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraph 34.

²⁶⁶ NZ Airports "cross-submission on the process and issues paper on the review of Auckland and Christchurch Airports third price setting event for airport services (issues and questions raised)" (19 December 2017), paragraph 40.

²⁶⁷ Air New Zealand "Cross submission on issues raised in submissions to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (19 December 2017), paragraphs 60-61.

²⁶⁸ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 20.

and clear. Christchurch Airport states that it has assured its substantial customers (with reasons) that it will undertake the proposed capital works during PSE3.²⁶⁹

B162 BARNZ undertook a review of the 13 projects listed in Christchurch Airport's PSE2 disclosure and identified that the amount budgeted for was ultimately underspent or not spent at all. BARNZ also suggests there was a large amount of expenditure on 'other capital expenditure' and non-forecast projects that was greater than in the PSE2 forecast.²⁷⁰

B163 BARNZ acknowledges that in part this variation reflects the difficulty in forecasting capex requirements for five-year periods in a changing commercial environment and that it supports changes to the capital plan when circumstances necessitate this. However, BARNZ is concerned that the Airport's capital expenditure can vary so much from the forecasts used to set prices.²⁷¹

Conclusions

B164 In total, Christchurch Airport spent \$126m, or 67%, more than forecast over FY13-FY17. This overspend was concentrated in FY17. Capital expenditure was below forecast in FY14 but above forecast in all other years.

Table B1 Forecast compared to actual capital expenditure over PSE3

(Figures in \$000s)	30/06/2013	30/06/2014	30/06/2015	30/06/2016	30/06/2017
Forecast capital expenditure	33,557	12,137	7,366	13,331	9,083
Actual capital expenditure	35,686	10,189	12,113	25,274	42,767
Difference	2,129	-1,948	4,747	11,943	33,684
Cumulative difference	2,129	181	4,928	16,871	50,555

B165 We do not see evidence of a strategy to gain from either setting forecasts too high with the intention to underspend on capital expenditure or from delaying projects.

B166 We note that the over-expenditure at the end of the PSE2:

²⁶⁹ Christchurch Airport "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraph 37.

²⁷⁰ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), pages 18-19.

²⁷¹ BARNZ "BARNZ assessment of CIAL's PSE3 pricing decision against Part 4 criteria" (28 November 2017), page 19.

- B166.1 came mainly from un-forecast projects, which are difficult to predict and more likely to occur towards the end of a PSE; and
- B166.2 would be a concern if Christchurch Airport had consistently underspent up till then, whereas it was actually spending above forecast across PSE2. This means it was not earning returns on any of the commissioned assets over and above forecast.
- B167 We note that there was significant expenditure on un-forecast projects of approximately \$55m (including \$24.3m on 'New Freight Apron Facility' and \$15.3m on 'runway shoulder upgrade' projects). However, we understand that airlines were closely engaged in the development and approval of these un-forecast projects.
- B168 We understand that the airlines have particular concerns about the airport's inclusion of \$10.4m for terminal redevelopment and the lack of specificity about what this project entails. However, given the airport has indicated that a key focus of PSE3 is to improve the flexibility of its integrated terminal, it would be expected that some degree of investment would be necessary to achieve this, and this level of expenditure does not appear unreasonable.
- B169 In order to better understand the materiality of the airport's capital expenditure on its expected returns, we have tested the impact on Christchurch Airport's expected profitability of actual capex being 10% different to its capex forecasts.
- B169.1 If actual capex was 10% higher than Christchurch Airport's capex forecast it would reduce the airport's expected return of 6.65% by 0.3 percentage points to 6.3%.
- B169.2 Conversely, if actual capex was 10% lower than Christchurch Airport's capex forecast it would increase the airport's expected return of 6.65% by 0.3 percentage points to 7.0%.

Has Christchurch Airport adequately mitigated any risks relating to actual outcomes differing from its capital expenditure forecasts?

- B170 Air New Zealand states that it proposed adopting an approach whereby prices could be adjusted during PSE3 if capital expenditure that was not agreed during consultation, was subsequently agreed to and carried out. It notes that Christchurch Airport rejected this approach but included the un-agreed capital expenditure in its pricing forecasts.²⁷²
- B171 However, BARNZ states that it did not propose any additional risk allocation adjustments to Christchurch Airport during the price consultation. BARNZ notes that given the size of Christchurch Airport's capex programme, it should be able to deliver on its capex forecasts. In PSE2, the Airport spent more than the value included in its

²⁷² Air New Zealand "Review of Auckland and Christchurch Airport's third price setting events – cross-submission on process matters" (12 December 2017), paragraph 82.

capex forecast.²⁷³

B172 Christchurch Airport has stated it has no objection to a capex adjustment process in the right circumstances. However the starting point of the Airport Authorities Act and IM/ID regime is that prices are set for a period based on robust consultation. This process gives certainty up-front and allows airports and their customers to make informed decisions for the pricing period. Where capex is reasonable and well consulted on, as is the case for Christchurch Airport's modest PSE3 capex, there is no reason to exclude it from pricing.²⁷⁴

B173 Christchurch Airport also notes that Air New Zealand's proposal to adjust prices during PSE3 to reflect capex projects agreed after price setting was not emphasised during consultation.

Conclusions

B174 In this instance, the absence of a risk allocation adjustment is not a significant concern affecting our assessment of Christchurch Airport's profitability.

B175 We consider that risks should be allocated to suppliers or consumers depending on which are best placed to manage them.²⁷⁵ Applying this principle in the context of Part 4 regulation promotes the section 52A(1)(a)-(d) outcomes for the long-term benefit of consumers in a similar way as if those outcomes are promoted in workably competitive markets.²⁷⁶

B176 We note that actual capital expenditure may differ from forecast levels for several reasons, including:

B176.1 the forecast was reasonable, but the airport failed to deliver the projects on time / within budget (for example due to inefficiencies);

B176.2 the forecast was reasonable, but actual expenditure was lower due to efficiency gains;

B176.3 the forecast was deliberately set above the efficient level, so that the airport would profit from outperforming the forecast without necessarily being efficient; and

B176.4 the forecast was inaccurate due to the inherent uncertainty regarding key inputs.

²⁷³ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), table 4, row 21.

²⁷⁴ Christchurch Airport "Cross-submission on process and issues paper on the review of Auckland and Christchurch Airports third price setting for airport services (issues and questions raised)" (19 December 2017), paragraph 41.

²⁷⁵ Commerce Commission "Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper" (22 December 2010), paragraph 2.6.4, 5.29, 8.20; Commerce Commission "Setting the customised price quality path for Orion New Zealand Limited" (29 November 2013), paragraph B22.

²⁷⁶ Commerce Commission "Input methodologies review decision – Framework for the IM review" (20 December 2016), paragraphs 124-127 and 131.

- B177 We consider that achieving an appropriate allocation of risk between the parties cannot necessarily be realised through applying a simple wash-up, as proposed by some airlines. This is because there are different types of risk associated with the forecasting and delivery of Christchurch Airport's PSE3 capex, and this has implications around which party is best placed to manage the risks. Relevant types of risk are included below.
- B177.1 **Delivery risk** - because Christchurch Airport is best placed to manage delivery on time, it is more appropriate for Christchurch Airport to bear some of the consequences of its non-delivery of outputs where these investments are still needed and where deferral is not efficient. In this instance a related wash-up resulting in lower future prices for airlines might be appropriate.
- B177.2 **Unit cost risk** - because Christchurch Airport is best placed to manage delivery within budget, it is appropriate for Christchurch Airport to receive some reward (or penalty) if unit costs are lower (or higher) than unbiased forecasts (ie, which occurs if any differences in unit costs are not passed through to prices during the PSE3 period). Doing so provides capex efficiency incentives for Christchurch Airport, and the benefits of any capex efficiency gains will potentially be shared with airlines at the next PSE, through prices lower than they otherwise would be. In this case, a wash-up is potentially inappropriate as it could remove that incentive.
- B177.3 **Forecast bias risk** - it is not appropriate for Christchurch Airport to receive rewards solely due to biased (eg, inflated) forecasts. If that were a key concern, then a wash-up might be appropriate.
- B177.4 **Forecast error risk** - there is inherent uncertainty regarding key inputs, for example demand is determined to an extent by both the airlines and the airport. Nevertheless, Christchurch Airport is still better placed than airlines to do the capex forecasting and to manage the risk of getting the forecast wrong. Again, assuming the forecasts are unbiased, that would suggest that introducing a simple wash-up might remove a desirable incentive.
- B178 As discussed above, Christchurch Airport's forecast capital expenditure is relatively moderate for PSE3 with total capital expenditure across this five year period representing 15.7% of total RAB in 2017. This is not sufficient to cover depreciation of 21.2%, therefore the asset base is actually declining in real terms, airlines are generally happy with the airport's forecast expenditure plan.
- B179 Airlines have questioned whether the terminal reconfiguration project worth \$10.4m will actually go ahead, however we have no evidence from past behaviour to suggest that the airport intentionally set its capex forecast too high.
- B180 We will continue to monitor ex-post disclosures to ascertain whether Christchurch Airport undertakes the terminal reconfiguration project and consider any justification if this project were to materially deviate from forecast.

Attachment C Methodology for our profitability assessment

Purpose

- C1 This attachment describes our methodology for our assessment of Christchurch Airport's profitability discussed in **Chapter 2**.
- C2 Our profitability analysis has been published alongside this draft report.

Profitability assessment methodology

- C3 We have estimated Christchurch Airport's expected return for PSE3 on its total RAB as 6.65%. This estimate is based on our understanding of Christchurch Airport's forecasts and consistent with its disclosed target return of 6.65%.
- C4 Consistent with our approach to assessing airport profitability outlined in the IM review, we calculated an IRR forecast when assessing the returns targeted by Christchurch Airport over the PSE3 period. This required information on Christchurch Airport's:
 - C4.1 opening investment value;
 - C4.2 forecast cash flows over the duration of the pricing period; and
 - C4.3 forecast closing investment value.²⁷⁷
- C5 In a forward-looking IRR calculation, the opening investment value reflects the initial capital to be recovered. It comprises:
 - C5.1 the IM-compliant closing RAB value from the ex-post disclosure of the year preceding the start of the current price setting event; and
 - C5.2 any adjustments reflecting decisions made in previous price setting periods that have an impact on charges for the current pricing period. This is important in order to achieve consistency between the opening investment value and the forecast cash flows that are used in a forward-looking IRR calculation.²⁷⁸
- C6 The forecast cash flows over the duration of the pricing period comprise:
 - C6.1 revenues;
 - C6.2 opex;

²⁷⁷ Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016), paragraph 163.1.

²⁷⁸ Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016), paragraph 152.

- C6.3 capex; and
- C6.4 tax.²⁷⁹
- C7 In a forward-looking IRR calculation, the forecast closing investment value reflects the remaining capital to be recovered. It comprises:
- C7.1 the forecast closing asset base used by airports when setting prices, reflecting an airport's assumed time profile of capital recovery; and
- C7.2 any adjustments reflecting decisions made by airports that affect charges for the current and future price setting events that are not already reflected in the forecast closing asset base. This is important in order to derive a forecast closing investment value that is a good reflection of the remaining capital to be recovered.²⁸⁰

We have confirmed Christchurch Airport's disclosed target return by undertaking our own modelling

- C8 Our assessment of Christchurch Airport's expected return is consistent with Christchurch Airport's disclosure of its expected returns. However, our assessment of Christchurch Airport's expected returns did not solely rely on Christchurch Airport's own estimate or modelling.
- C9 We have created our own profitability model based on our profitability analysis carried out in relation to Christchurch Airport's PSE2 disclosure. This reflects recent amendments to the IM and ID Determinations resulting from the IM review (for example, cash flow timing and carry forward adjustments – see **Attachment D** for more information).
- C10 The purpose of undertaking our own modelling is to confirm whether Christchurch Airport's disclosure of its target return is consistent with the methodologies and approach used in the IM and ID Determinations. In addition, our own modelling allows us to test identified scenarios and sensitivities. Finally, our analysis allows us to estimate the revenues that would be required to support returns other than the airport's target cost of capital.
- C11 Our profitability analysis has used Christchurch Airport's information disclosures, as required under the ID Determination and its pricing model as key inputs. We have received additional information from Christchurch Airport regarding assumptions related to the forecasting of other regulated assets in order to be able to model and quantify returns on the total RAB.

²⁷⁹ Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016), paragraph 153.

²⁸⁰ Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016), paragraph 155.

We have made some adjustments to our analysis since PSE2 to reflect recent outcomes from the IM review

- C12 We have updated how we estimate the revenues required to support a target cost of capital. This is to reflect Christchurch Airport's opening and closing carry forward adjustment to the RAB and to account for new cash flow timing assumptions.
- C13 We have adjusted the calculation of the regulatory investment value to reflect the impact of the opening and closing carry forward adjustments when estimating the revenue required to target an IM-compliant cost of capital. We have assumed change from the opening carry forward adjustment value to the closing carry forward adjustment value is spread evenly over time.
- C14 We have also introduced cash flow timing factors, in order to reflect that our IRR calculation now included specifically defined cash flow timing assumptions for revenues and costs. Prior to the IM review, all cash flows were assumed to occur at year end.

Attachment D Have recent amendments as part of the IM review improved the transparency of airports' profitability?

Purpose

- D1 This attachment considers how effective recent amendments to the IM and ID Determinations have been in improving the transparency of Christchurch Airport's expected profitability.

Recent amendments to the IM and ID Determinations

Internal rate of return and carry forward mechanism

- D2 We amended the Airports ID disclosure to require airports to disclose a forward-looking profitability indicator by using an IRR calculation that comprises:
- D2.1 an opening investment value at the beginning of the pricing period;
 - D2.2 a forecast closing investment value; and
 - D2.3 forecast cash flows over the duration of the pricing period.²⁸¹
- D3 The amendments also supplement the IRR with a carry forward mechanism that can be used to adjust the opening investment value and the closing investment value to better reflect an airport's pricing intent and that can take into account multiple pricing periods.²⁸²
- D4 These amendments were introduced to enable greater transparency for interested parties to better understand an airport's approach to pricing and, in particular, whether the airport is limited in its ability to extract excessive profits.

Stakeholder views

- D5 Christchurch Airport notes that the new scope to articulate carry forward adjustments has assisted its efforts to align its pricing decision with its past and future annual disclosures.²⁸³
- D6 Christchurch Airport submits that establishing the expected IRR as the focus of a pricing event disclosure – and setting out its calculation – has also assisted airports with communicating their pricing decisions.²⁸⁴

²⁸¹ Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016).

²⁸² Commerce Commission "Input methodologies review decisions – Topic Paper 5 – Airport profitability assessment" (20 December 2016), Table 3.1.

²⁸³ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 34.

²⁸⁴ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 34.

- D7 Christchurch Airport submits that the structure of the WACC disclosure templates – which envisage that airports’ expected IRRs may differ from their estimated WACC, which may differ from our benchmark WACC – is a useful acknowledgement of the need for the ID regime to cater for a variety of different contexts across the New Zealand airports and over time.²⁸⁵
- D8 Air New Zealand submits that the amendments to the IM and ID requirements have increased the transparency of target profitability of airports.²⁸⁶

Our view

- D9 Christchurch Airport has used the price setting event disclosure templates to disclose its estimated post-tax WACC, which differs from its post-tax IRR. Using this template has made the difference between these measures transparent. Christchurch Airport provided the factors that contributed to this difference in its PSE disclosure.
- D10 However, until further requested information was provided from Christchurch Airport, the relative contributions of the factors contributing to the difference between the post-tax WACC and post-tax IRR was unclear. These factors are:
- D10.1 the use of a simplified version of the building block calculation in relation to the timing of intra-year cash flows;
 - D10.2 the exclusion of pricing incentives from the opex and revenue forecast when deriving prices; and
 - D10.3 the airport expects revenue from check-in activities to be lower than the revenue requirement because it is required to honour existing contracts.
- D11 In general, we required a reasonable amount of additional clarity about the information that Christchurch Airport provided under ID to effectively assess its expected profitability. This appears to be primarily due to differences in expectations between us and Christchurch Airport about the type and level of information required under ID, rather than actual shortcomings with the IM regime itself.

Cost of capital

- D12 As discussed above, as part of the IM review we decided to change our approach to disclosing WACC, due to two main problems with the previous framework:²⁸⁷
- D12.1 the upper limit of our WACC range had become the de facto benchmark when assessing airport profitability; and

²⁸⁵ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 34.

²⁸⁶ Air New Zealand "Response to the Process and Issues Paper: Auckland and Christchurch Airports' third price setting events (July 2017-June 2022)" (28 November 2017), paragraphs 14-15.

²⁸⁷ Commerce Commission "Input methodologies review decisions – Topic paper 6: WACC percentile for airports" (20 December 2016), paragraph X4.

D12.2 there was limited and weak rationale for using the 75th percentile as the upper limit of the WACC percentile range.

D13 We decided to remove the WACC range, and instead publish only our mid-point WACC and a standard error so that any required percentile can be calculated. We also required airports to justify the use of target returns above the benchmark mid-point cost of capital.

Our views

D14 Christchurch Airport's target WACC percentile has decreased in PSE3 compared to PSE2.

D15 Christchurch Airport's PSE3 disclosures have provided greater transparency regarding its forecast cost of capital, the return it has targeted through prices and the rationale for these when compared to its PSE2 disclosures. Christchurch Airport has provided an explanation for its target returns in its price setting event disclosures.

D16 Christchurch Airport has explained the differences between its WACC estimate and our mid-point WACC estimate by providing its own alternative estimates of key WACC parameters, such as asset beta and its debt premium. We consider that the specific magnitude of adjustment to each parameter is an important factor when considering whether the airport's approach is justified. There was a lack of evidence supporting Christchurch Airport's expected return on its other regulated services in its price setting event disclosure. Christchurch Airport subsequently provided additional evidence in support of the level of returns it is expected to earn on its other regulated services.

D17 Therefore it would appear that the amendments have had some impact on Christchurch Airport's approach to cost of capital and the transparency of its disclosures.

The returns on priced services and other regulated services

D18 The following changes were introduced to the Airports ID Determination with respect to priced services:

D18.1 addition of a new schedule to the Airports ID Determination reflecting airports' targeted profitability based on the pricing asset base only; and

D18.2 requiring airports to explain any differences in profitability based on the pricing asset base and the profitability based on the total RAB.

D19 The objective of these changes was to provide greater transparency for interested parties to better understand an airport's approach to pricing.

Stakeholder views

D20 Christchurch Airport states that it appreciates the effort the Commission has undertaken to improve the ease with which airports are able to communicate their

pricing decisions, and expects these changes to assist interested parties to interpret pricing decisions and price setting event disclosure.²⁸⁸

Our views

- D21 The amendments appear to provide greater clarity and transparency about the different target returns for priced and other regulated services, and the reasons for the expected returns on priced services. The reasons for the expected return on other regulated services are still unclear.
- D22 As noted, other regulated services are priced through contractual arrangements which are likely to be affected by a range of factors, making it difficult to determine whether returns on these contracts – over a given five-year pricing period – are appropriate.
- D23 We consider it may be better to consider returns on these services over a longer period of time and invite feedback from stakeholders on this view. We intend to take a proportionate approach to monitoring the returns on other regulated services over the longer 'cycle' and the proportion of revenue captured under these services, which tends to be small.
- D24 The amendments have made it easier for us to reconcile the outcomes of Christchurch Airport's price setting event decisions (including its forecast modelling) with the disclosure of expected returns for its total RAB.

Forecast over and under-recoveries

- D25 The following requirements were introduced to the Airports ID Determination with respect to forecast over and under-recoveries:
- D25.1 including in the carry forward mechanism adjustments to the forecast closing investment value, any forecast over and under-recoveries that are intended by airports to be offset in future pricing events;
- D25.2 requiring airports to summarise the views of substantial customers, as expressed during price setting consultation, regarding those forecast over and under-recoveries included in the carry forward mechanism;
- D25.3 when an airport has included forecast over and under-recoveries in the carry forward mechanism to adjust the forecast closing investment value, requiring the airport to provide information on:
- D25.3.1 why the resulting forecast closing investment value is a good indicator of the remaining capital to be recovered at the end of the current pricing period;

²⁸⁸ Christchurch Airport "Submission on process and issues paper on the review of Auckland and Christchurch Airports' third price setting event" (28 November 2017), paragraph 33

- D25.3.2 the purpose and appropriateness of including these amounts in the carry forward mechanism;
- D25.3.3 the intended duration until these forecast over and under-recoveries have been fully offset; and
- D25.3.4 why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than an alternative approach to accounting for these forecast over and under-recoveries already provided for under the Airport IM and ID determinations.

D26 The objective of these changes was to provide greater transparency for interested parties to better understand an airport's approach to pricing, and greater clarity about the requirements in the Airport IM and ID Determinations.

Stakeholder views

- D27 Air New Zealand submits that little incentive exists for airports to share risk because by participating in a risk sharing mechanism, airports effectively agree to lower their asset beta, and therefore their rate of return. Air New Zealand also notes that to the extent that any risk sharing was entered into, that risk would be reallocated every year, and that under the current settings, it is unlikely that airports will adopt any mechanism to share risk as available in the IMs.
- D28 Air New Zealand states that it proposed adopting an approach whereby prices could be adjusted during PSE3 if capital expenditure, which was not agreed during the price setting consultation, but was subsequently agreed and carried out. It notes that Christchurch Airport rejected this approach but included the un-agreed capital expenditure in its pricing forecasts.²⁸⁹

Our views

- D29 In response to Air New Zealand's statement, we note that the use of risk sharing mechanisms in the context of EDBs - moving from a price cap to a revenue cap - did not change the applicable asset beta.
- D30 Christchurch Airport has made one carry forward adjustments consistent with IM and ID requirements. This was to reflect disclosure inconsistencies relating to the use of a non-standard depreciation approach. This adjustment was appropriate to align the airport's disclosed RAB and the approach it took to valuing its assets used for setting prices. This is discussed in more detail in **Attachment B**.
- D31 Christchurch Airport has not proposed any forward-looking risk allocation adjustments.

²⁸⁹ Air New Zealand "Review of Auckland and Christchurch Airport's third price setting events – cross-submission on process matters" (12 December 2017), paragraph 82.

- D32 In response to Air New Zealand’s submission, we note that while the airport has not proposed any forward-looking risk allocation adjustment in PSE3:
- D32.1 we have seen greater discussion between Christchurch Airport and airlines in consultations of these types of mechanisms, which suggests such a mechanism is now more likely to be used in future; and
 - D32.2 achieving an appropriate allocation of risk between the parties cannot necessarily be realised through applying a simple wash-up reflecting the cost of a capital expenditure project after it has been carried out. There are different types of risk associated with the forecasting and delivery of Christchurch Airport’s capital expenditure, and this has implications for which party is best placed to manage the risks.

Depreciation

- D33 The following requirements were introduced to the Airports ID Determination with respect to depreciation:
- D33.1 requiring airports to apply specified principles when using alternative depreciation approaches; and
 - D33.2 allowing airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. (Alternative methodologies can only be applied if they do not detract from the purpose of Part 4.)
- D34 The objective of these changes was to provide greater clarity about the requirements in the Airport IM and ID Determinations, and while balancing complexity and compliance costs.

Our views

- D35 Christchurch Airport’s disclosure of its asset valuation, including its disclosure of its non-standard depreciation, is consistent with current IMs and ID requirements for airports. This includes changes made during the IM review about principles that must be applied when using non-standard depreciation approaches. This means that:
- D35.1 Christchurch Airport’s non-standard depreciation methodology is NPV neutral.²⁹⁰
 - D35.2 The methodology is consistent with the time profile of capital recovery implied by Christchurch Airport’s price setting methodology and its RAB indexation approach.²⁹¹

²⁹⁰ Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraph 106.2.

²⁹¹ Christchurch Airport “Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010” (1 August 2017), paragraph 101–102.

- D35.3 Christchurch Airport has explained how the time profile of capital recovery implied by its price setting methodology is consistent with the long-term benefit of consumers.²⁹²
- D35.4 The decision to use non-standard depreciation was made ex-ante (ie, at the time it set prices) and we expect Christchurch Airport to continue to reflect this methodology in its annual disclosures.²⁹³
- D35.5 Christchurch Airport has explained how its expected time profile of capital recovery reflects its expected utilisation of its priced assets.²⁹⁴
- D36 Airlines appear to have a greater understanding of Christchurch Airport's non-standard depreciation methodology for PSE3 compared to PSE2 and appear to be more comfortable with the outcomes for pricing.²⁹⁵
- D37 The IM and ID amendments appear to have provided greater clarity and certainty on the treatment of non-standard depreciation compared to our review on the airport's PSE2 disclosure.

Timing of cash flows

- D38 The following requirements have been introduced to the Airports ID Determination with respect to the timing of cash flows. Airports are now required to:
- D38.1 specify, in the annual ex-post disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues;
- D38.2 specify, in the price setting event disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues; but
- D38.3 provide, in the price setting event disclosures, the flexibility for airports to deviate from the default cash flow timing assumption if airports provide evidence that the actual cash flow timing for specific cash flow items is different from the default cash flow timing assumption.
- D39 The objective of these changes was to provide transparency for interested parties to better understand an airport's approach to pricing.

²⁹² Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 100-101.

²⁹³ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 106.3.

²⁹⁴ Christchurch Airport "Price setting disclosure – In accordance with clause 2.5 of the Airport Services Information Disclosure Determination 2010" (1 August 2017), paragraph 100.

²⁹⁵ BARNZ "Review of Auckland and Christchurch Airport's third price setting events – Process & Issues paper" (28 November 2017), page 4.

Our views

- D40 Christchurch Airport has disclosed on the basis of mid-period cash flows and has not suggested alternative cash flow timing assumptions. It appears our amended approach to cash flow is generally appropriate for Christchurch Airport.
- D41 We note, however, that Christchurch Airport did not use these cash flow timings in its models used to set prices.
- D42 The changes have enabled greater clarity and consistency on cash flow timing assumptions compared to our review on the airport's PSE2 disclosure. We no longer have to test sensitivities on the impact of cash flow timing on expected airport profitability.