



Draft 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

Date: 15 October 2013

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Executive Summary

- X1 Our draft conclusions on the effectiveness of information disclosure regulation vary between the different outcomes sought under Part 4.
- Our section 56G review for Christchurch Airport has to date found that information disclosure regulation is effective in promoting incentives to innovate and to provide services at a quality that reflects consumer demand. We have also found that, at the time it set its prices, Christchurch Airport may not have considered it was targeting excessive profits in the current pricing period from 2012 to 2017 (referred to as 'PSE2'). This is because expected returns for PSE2 are within an acceptable range if returns are estimated using the standard assumptions in the information disclosure regime to assess profitability. However, it appears that demand considerations have been the influential factor in setting prices for PSE2, rather than information disclosure.
- Information disclosure has not been effective in limiting expected excessive profits over the 20-year pricing period on which the PSE2 prices were based. Nor has it been as effective in promoting pricing efficiency as we would have expected it to be at this time. We are unable to conclude whether it is effective in other areas of performance relevant to the purpose of Part 4.
- Our overall impression is that information disclosure regulation has had minimal influence over Christchurch Airport's behaviour. Although the regime has only been in place a short time, we would have expected evidence that Christchurch Airport has had direct regard to it, in particular in ensuring the transparency of its approach to setting prices. To date, we do not have that evidence.
- Suppliers have incentives other than information disclosure regulation to achieve the outcomes in the Part 4 purpose statement. It may be that those areas of performance at Christchurch Airport which do not appear to be of concern in the current pricing period are due to those other incentives. There is a risk that those incentives might not apply in future, and that information disclosure might not have a greater influence at that time.

1. Introduction

Purpose of this report

- 1.1 This report contains our draft conclusions as to how effectively information disclosure regulation is promoting the purpose of Part 4 of the Commerce Act 1986 (Act) for Christchurch International Airport Limited (Christchurch Airport).
- 1.2 We have prepared our report after considering all of the submissions and cross-submissions received to date as part of our section 56G review, including following a conference held on 24 May 2013.

Our task under s 56G

We must review how effectively information disclosure is promoting the Part 4 purpose

- 1.3 Information disclosure regulation was put in place with effect from 1 January 2011 for airport services provided by Auckland International Airport (Auckland Airport), Wellington International Airport (Wellington Airport) and Christchurch International Airport (Christchurch Airport).¹
- 1.4 Our task under s 56G of the Act is to report on how effectively information disclosure regulation is promoting the Part 4 purpose. The report must be made 'as soon as practicable' after any new price for airport services is set in or after 2012.

It is appropriate to carry out this review for Christchurch Airport now

1.5 For the same reasons noted in our section 56G reports for Wellington and Auckland Airports, we consider it is appropriate to carry out this review now because Christchurch Airport set new prices on 24 October 2012 for the 2012–17 pricing period (referred to as 'PSE2'). Christchurch Airport has made two disclosures of annual information under information disclosure regulation as well as specific price setting event disclosures for PSE1 and PSE2.

The regulated airport services are set out in s 56A(1) of the Act as 'specified airport services', and consist of aircraft and freight activities, airfield activities, specified passenger terminal activities. This is also referred to as aeronautical services in this report.

² PSE2 relates to the price-setting event which set out Christchurch Airport's revenue requirements and prices from 1 December 2012 to 30 June 2017. Further explanation of the terminology used in this report to describe pricing and disclosure periods is provided in paragraphs 1.19 to 1.21.

A price setting event occurs when an airport fixes or alters the price it charges for its regulated services following consultation. Airports are required to consult on their prices at least once every five years. Following the price-setting event, Airports must publicly disclose information on their forecast expenditures, assets, expected return and associated required revenues for the pricing period, as well as a ten year demand forecast. Airports are also required to provide information on their pricing methodology and the quality of service provided.

- 1.6 We do not consider it would be consistent with reporting 'as soon as practicable' to delay the review in order to wait for:
 - 1.6.1 other information disclosures to be made in the future;
 - 1.6.2 current Court appeals on input methodologies to be resolved; or
 - 1.6.3 summary and analysis reports to be published under s 53B(2).
- 1.7 To wait for these events would likely result in the report being delayed for at least 2–3 years. Parliament clearly envisaged that the review would be made relatively soon after price setting, and did not require that we publish a summary and analysis report prior to carrying out the section 56G review.
- 1.8 The materiality of price setting is clearly evident in the Explanatory Note to the Commerce Amendment Bill. The Explanatory Note indicates that the main area of concern with the information disclosure regime prior to Part 4 (ie, under the Airport Authorities Act 1966 (AAA)), was that it failed to constrain the exercise of substantial market power in setting airport charges. A key objective of the Part 4 information disclosure regime was to address this by protecting consumers from prices that would not be consistent with those in a workably competitive market. Our review has enabled us to conclude on how effectively this has been achieved to date.
- 1.9 We consider that the price setting event disclosure and other views and evidence relating to the price setting event provide sufficient information to carry out the section 56G review. Any limitations in our analysis or to the draft conclusions that we have drawn are explained in the relevant parts of this report.
- 1.10 If the airports' input methodology (IM) merits appeals relevant to our conclusions in this section 56G review succeed to a material degree, we will provide further advice to the Minister regarding how such outcomes impact on our section 56G reports.

How we are carrying out our task under section 56G

1.11 We consulted on our process and approach for the section 56G reviews for the three airports with all interested parties in May 2012. Submitters raised a range of issues which we responded to in a Process Update Paper on 27 July 2012.⁵

Refer to the discussion about the provisions in the Bill relevant to airports: Commerce Commission "Input Methodologies (Airport Services) Reasons Paper" December 2010, paragraphs 1.2.15 to 1.2.16 and paragraphs 1.2.19 to 1.2.23.

These reports and submissions are available on our website at http://www.comcom.govt.nz/section-56g-reports/

We are reporting separately for each airport

1.12 We consider that preparing a separate report for each airport is the most appropriate interpretation of the section 56G task. This is because each airport's price setting decisions have occurred at different times, and information disclosure regulation may be having a different impact across the three airports.⁶

We are following the same assessment approach and process for each airport

- 1.13 Although we are reporting separately, we are using the same assessment approach for each airport. This report only applies to Christchurch Airport, although it refers to our earlier reports on Wellington and Auckland Airports where relevant. The framework for our review that we describe in Chapter 2 and Attachment A is relevant to the review of all three airports.
- 1.14 We are following the same process for all three airports, which includes consulting with interested parties on the issues arising for each airport's review and holding a conference for each airport before consulting on the draft report and publishing our final report. The process we have followed for Christchurch Airport is summarised in Attachment A.

We have not considered whether other forms of regulation should apply

1.15 The scope of our review considers how effectively information disclosure regulation is promoting the Part 4 purpose only. We are not extending our report to include considering and recommending whether regulation other than information disclosure should apply to the airports, nor whether information disclosure should no longer apply.⁷

We have not considered whether the definition of regulated services should be changed

1.16 Some submitters to this process raised the issue of including recommendations to regulate additional services not currently regulated as specified airport services. ⁸ We

Christchurch Airport set new prices on 24 October 2012 while Wellington Airport set new prices on 1 March 2012 and Auckland Airport set new prices on 7 June 2012. The effectiveness of information disclosure regulation for Wellington and Auckland Airports has been considered in our section 56G reports for these airports published on 8 February 2013 and 31 July 2013 respectively. These reports are available on our website at http://www.comcom.govt.nz/section-56g-reports/

Air New Zealand submitted that parallel reviews (eg, Commission inquiry, Ministry of Economic Development review) should be undertaken alongside the section 56G review to consider other types of regulation. See Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review" 29 June 2012, paragraph 134. BARNZ submitted that s 56G gives the Commission scope to consider other types of regulation. See BARNZ "BARNZ responses to Commerce Commission questions relating to process" 28 June 2012, pages 4 to 5.

BARNZ "BARNZ responses to Commerce Commission questions relating to process" 28 June 2012, pages 4 to 5; Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review" 29 June 2012, paragraphs 117 to 119.

do not consider that extending the definition of specified airport services under s 56A(1) is within the scope of our section 56G review, therefore we have not considered that issue within this review.

How we have set out our analysis and draft conclusions in this report

- 1.17 Our conclusions on the effectiveness of information disclosure vary between the different outcomes sought under Part 4. Our section 56G review for Christchurch Airport has found that information disclosure is effective in some areas, including promoting innovation and quality at a level consumers demand. We have also found that, at the time it set its prices, Christchurch Airport may not have considered it was targeting excessive profits in the next pricing period (PSE2), although it appears that demand considerations have been the influential factor in setting these prices, rather than information disclosure. However, information disclosure has not been effective in limiting excessive profits over the 20-year pricing period (on which the PSE2 prices were based). It also has not been as effective in promoting pricing efficiency as we would have expected it to be at this time. We are unable to conclude whether it is effective in some other areas.
- 1.18 The remainder of this report outlines how we have reached these draft conclusions and provides the reasons for our views.
 - 1.18.1 Chapter 2 sets out the key elements of our approach to assessing how effectively information disclosure regulation is promoting the Part 4 purpose. Attachment A expands on this approach and issues raised in submissions on our interpretation of the relevant statutory provisions.
 - 1.18.2 Chapter 3 then summarises our draft conclusions and the reasons why we have reached them. These draft conclusions are supported by further detailed analysis in Attachments B to I.

An explanation of the terminology used in this report

'PSE2' refers to the pricing period 1 December 2012 to 30 June 2017

1.19 Christchurch Airport set its new prices for a period of four years and seven months rather than a five year period, as adopted by Wellington and Auckland Airports. The pricing period was delayed by Christchurch Airport for five months from 1 July 2012 to reflect the uncertainty and delays caused by the timing of the new terminal development at Christchurch Airport and the impact of the earthquakes. Throughout this report, the term 'PSE2' therefore refers to the pricing period 1 December 2012 to 30 June 2017.

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Christchurch Airport "Decision on the Reset of Aeronautical Charges for the period ending 30 June 2017" 24 October 2012, page 20.

'2013-17 disclosure period' refers to the period 1 July 2012 to 30 June 2017

1.20 Much of the forecast information disclosed by Christchurch Airport relates to the full 2012 disclosure year. This is consistent with the information disclosure requirements. Where we have referred to the full 2012 disclosure year in our analysis of the recent price setting event (ie, the period 1 July 2012 to 30 June 2017) we have used the term '2013-17 disclosure period'.

'PSE1' refers the period 1 July 2008 to 30 November 2012

1.21 Prices were previously set for the period 1 July 2008 to 30 June 2011, but were extended for a further 17 months to 30 November 2012. References to the term 'PSE1' throughout this report includes this full four year and five month period.

2. How we assess the effectiveness of information disclosure regulation for this review

Purpose of this chapter

- 2.1 In this chapter we explain our approach to assessing how effectively information disclosure regulation is promoting the Part 4 purpose for Christchurch Airport. Our approach has:
 - 2.1.1 examined the performance (historical and expected) and conduct (ie, behaviour) of Christchurch Airport, both before and after the Part 4 information disclosure came into effect; and
 - 2.1.2 assessed the extent to which this information disclosure has had an impact on Christchurch Airport's performance and conduct.
- 2.2 We begin by explaining what outcomes are sought in the Part 4 purpose and how information disclosure under Part 4 can promote those outcomes. We then explain how we have undertaken our assessment, including the role that input methodologies have played. Further detail is included in Attachment A.

Information disclosure and the Part 4 purpose

The Part 4 purpose sets out our approach to the section 56G review

2.3 The purpose of Part 4 as set out in s 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.
- 2.4 The outcomes produced in workably competitive markets that are relevant to regulated markets under Part 4 are those reflected in the regulatory objectives in (a)–(d) of the purpose. The focus of our section 56G review is therefore on considering how effectively information disclosure is promoting the outcomes reflected in the Part 4 purpose statement. We do this by considering the key performance questions in Table 2.1

Table 2.1: Key performance questions to assess if the Part 4 purpose is being met

Key performance question	Relevance to the Part 4 purpose (s 52A(1))
Is Christchurch Airport operating and investing in its assets efficiently?	(a) and (b)
Is Christchurch Airport innovating where appropriate?	(a)
Is Christchurch Airport providing services at a quality that reflects consumers demand?	(b)
Is Christchurch Airport sharing the benefits of efficiency gains with consumers, including through lower prices?	(c)
Do the prices set by Christchurch Airport promote efficiency?	(a) and (b)
Is Christchurch Airport earning an appropriate economic return over time?	(d)

While these performance areas are interrelated, this does not mean we must reach conclusions in one area to draw conclusions in another

- 2.5 These performance areas are interrelated. In order to assess the effectiveness of information disclosure in promoting particular outcomes observed in workably competitive markets, it is appropriate to consider relevant outcomes in other areas. For example, in order to reach our conclusion on profitability we first considered some of the other areas of performance. This is because the appropriateness of an economic return may vary depending on a supplier's performance in other areas. Likewise, in order to assess whether a supplier is sharing the benefits of its efficiency gains we must first assess whether it has achieved any efficiency gains.
- 2.6 While it is appropriate for us to consider the interrelated outcomes, this does not mean we must reach conclusions in one area to draw conclusions in another. We are satisfied that the time series information available at the time of this review has been sufficient for us to reach the draft conclusions set out in Chapter 3. We consider we are able to reach draft conclusions on the effectiveness of information disclosure in limiting Christchurch Airport's ability to earn excessive profits based on forecast information.
- 2.7 The effectiveness of information disclosure in limiting excessive profits can be assessed based on whether we consider Christchurch Airport is targeting excessive profits when setting prices. This analysis uses Christchurch Airport's own forecast information for PSE2.
- 2.8 Finally on this point, we note that:
 - 2.8.1 concluding that good performance exists in some areas does not necessarily cancel out potential findings of poor performance in others; and

2.8.2 finding some evidence of progress in a particular performance area does not necessarily mean that the intended performance outcome has been achieved.

How information disclosure regulation can promote the Part 4 purpose

- 2.9 Information disclosure can directly promote the Part 4 purpose. It provides incentives to achieve outcomes consistent with those found in workably competitive markets in two main ways:
 - 2.9.1 by providing transparency about how well a supplier is performing relative to other suppliers and over time; and
 - 2.9.2 through the threat of further regulation.¹⁰
- 2.10 Greater transparency enhances consumers' countervailing power, provides owners with better information to help them govern their business more effectively, and incentivises management of regulated suppliers to improve their performance. Better information can facilitate comparisons with other regulated suppliers that may identify sources of best practice, or innovations that should be adopted. Requirements to disclose information may also generate useful information that would not have been collected in the absence of the disclosure requirements.
- 2.11 The threat of further regulation incentivises suppliers to ensure their performance is consistent with the desired outcomes from workably competitive markets. Part 4 requires the Commission to monitor and analyse the information that is disclosed by all regulated suppliers, including airports. Such analysis can help policymakers to identify whether regulation should be removed, or strengthened.
- 2.12 In this review we refer to the way that an airport responds to the incentives provided by information disclosure regulation under Part 4 (or by the information disclosure regime under the AAA prior to Part 4) as the airport's 'conduct'.

Relevance of information disclosure purpose (s 53A) to Part 4 purpose (s 52A)

- 2.13 Information disclosure regulation has its own specific purpose (s 53A). The purpose of information disclosure regulation is for sufficient information to be readily available to interested persons to assess whether the purpose of Part 4 is being met.
- 2.14 The task of the s 56G review, namely assessing how well information disclosure is promoting the Part 4 purpose, is different from assessing how well the information disclosure requirements we have set are meeting the purpose of information disclosure regulation under s 53A.

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Including, for example, the incentives created by airports recognising that the Commission would be undertaking this section 56G review.

- 2.15 Nevertheless, the extent to which information disclosure requirements are meeting the s 53A purpose is relevant to our s 56G assessment. The more effective the disclosure requirements are in meeting the s 53A purpose of information disclosure regulation and making airports' performance transparent, the more likely it is that information disclosure is promoting the overall Part 4 purpose.¹¹
- 2.16 For instance, if the indicators disclosed in accordance with the information disclosure requirements are not providing a good measure of a particular area of performance, there might be relatively weak incentives for suppliers to change their conduct so that their performance becomes more consistent with the Part 4 purpose. Indicators of performance that are more effective in allowing interested persons to assess whether the Part 4 purpose is being met are also likely to provide stronger incentives on suppliers to act consistently with that purpose.

Suppliers have incentives other than those provided by information disclosure

- 2.17 Information disclosure regulation by itself is not expected to be the sole source of all the necessary incentives to promote the Part 4 purpose. Other features of Christchurch Airport's operating environment also create incentives and external pressures to improve performance. For example, Christchurch Airport:
 - 2.17.1 has incentives to operate as a profit maximising entity. It therefore has an incentive to improve its efficiency and to innovate in order to maximise profits;
 - 2.17.2 is subject to other regulatory requirements. For example, the AAA requires Christchurch Airport to consult on large capex programmes with its major customers, and therefore encourages Christchurch Airport to provide services at the quality consumers demand.¹² Christchurch Airport is also subject to minimum safety and security requirements that impact on quality; and
 - 2.17.3 sets its revenue requirement and prices a fixed period in advance.¹³ This creates some self-imposed incentives for Christchurch Airport to achieve efficiency gains and outperform its expenditure forecast to earn higher profits.

We note that NZAA in its submission on our Process and Issues paper stated that: "It follows, therefore, that a fundamental aspect of assessing the effectiveness of ID is assessing its impact on the ability of interested parties to understand and evaluate airport performance." New Zealand Airports Association "Section 56G review of Christchurch Airport: Submission on Process and Issues paper" 22 March 2013, page 3, paragraph 18.

Refer s 4C of the AAA.

Christchurch Airport has set its prices for a period of four years and seven months for PSE2.

The effect of information disclosure regulation will vary for the different outcomes

- 2.18 Our general approach when assessing performance against the Part 4 purpose statement is to assess each outcome in its own right, without specifically elevating one above another. We note, however, that:
 - 2.18.1 we expect the potential impact of information disclosure will vary between the different outcomes sought under Part 4; and
 - 2.18.2 we also expect the time it takes for information disclosure regulation to have an effect on each of the Part 4 outcomes to vary.¹⁴
- 2.19 NZAA stated in its submission on our Process and Issues Paper that:¹⁵

All findings in relation to each limb of the Part 4 purpose statement should be treated equally, as part of the overall question of how effectively ID is achieving the purpose of Part 4. By way of example, a negative finding in relation to profitability should not be given more weight and prominence than positive findings regarding innovation and quality.

- 2.20 We expect information disclosure regulation to have a greater potential impact at this time on certain areas of performance. As a result, it is likely that we will be able to observe these impacts in our review and to draw stronger conclusions in those areas relative to others.
- 2.21 Given the incentives already in place, the most obvious additional incentives provided by information disclosure regulation are on Christchurch Airport's ability to earn excessive profits, and on its sharing of efficiency gains with its consumers. This is because of the relatively weak incentives generally in place for Christchurch Airport in these areas of performance without regulation. Information disclosure under Part 4 should be particularly effective at highlighting concerns about excessive profits (and therefore prices), which heightens the credible threat of further regulation. It is also the area of performance that is most likely to lead to more heavy-handed regulation if the desired outcomes are not being achieved. Incentives

Attachments B to I outline our views on these matters for each area of performance.

New Zealand Airports Association "Section 56G review of Christchurch Airport: Submission on Process and Issues paper" 22 March 2013, page 4, paragraph 26(c).

The specific demand-related factors that have influenced Christchurch Airport's price setting behaviour for PSE2 are discussed in Attachment E (paragraphs E42 to E45).

This is particularly the case with information disclosure under Part 4 (compared to information disclosure under the AAA) because there are input methodologies that allow profitability to be assessed on a consistent basis across suppliers and over time, as well as providing a benchmark for assessing returns through the cost of capital input methodology.

- from the threat of further regulation are therefore likely to be strongest in this area. ¹⁸
- 2.22 In contrast, for example, information disclosure regulation is likely to have a relatively weak impact on incentives to innovate at Christchurch Airport. This is because other incentives play a more important role in driving innovation, for example, incentives to maximise profits.
- 2.23 It is not a concern if information disclosure has a relatively weak effect on incentives in some areas as long as there are other incentives on Christchurch Airport to promote the outcomes sought under Part 4, and Christchurch Airport is already performing well in these areas. Instead, it is important that information disclosure regulation preserves existing incentives and does not provide disincentives in these areas. The benefit of information disclosure in these circumstances is in allowing interested persons to assess whether these outcomes are being promoted.
- 2.24 We may therefore conclude that information disclosure is effectively promoting the purpose of Part 4 with respect to a particular area of performance, even if information disclosure regulation is having a limited impact on that outcome, on the basis that information disclosure is having as much of an impact as we reasonably expect it could have.
- 2.25 We expect the length of time it will take for information disclosure regulation to promote the different outcomes sought under the Part 4 purpose will also vary. In areas such as efficiency of expenditure and quality, information disclosure will have the greatest effect over time, as trends and comparative information become available to interested persons. ¹⁹ The effectiveness of information disclosure at limiting excessive profits can be seen more immediately. This is because:
 - 2.25.1 Christchurch Airport has set its revenue requirement, and therefore its expected profits, for the next pricing period; and
 - 2.25.2 the input methodologies also provide us with a benchmark of the profitability that would be expected in a workably competitive market.
- 2.26 The conclusions we are able to draw in this report are based on the time series information available to the Commission at this point in time ie, "as soon as practicable after any new prices are set for airport services in or after 2012".

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Price-quality regulation is typically applied for the purpose of limiting excessive profits. It is unlikely that, for example, price control would be considered as a solution to improve innovation or quality of service if profits were not considered excessive.

Trends are important because there is not necessarily an immediate benchmark available to assess performance.

- 2.27 Information disclosure cannot preclude changes in future behaviour, which is why a regular monitoring regime is also in place, which requires these section 56G reports, as well as on-going summary and analysis. We are able to draw conclusions now based on what we currently know, and we consider that the evidence available supports those conclusions.
- 2.28 We have acknowledged in this report those areas of performance where we need information over a longer period of time to reach a firm conclusion at this stage (for example, in the case of operating efficiency). Even in those areas where we can draw conclusions at the time of this review, we expect such conclusions may be re-tested through our summary and analysis process as more information becomes available over time.

How we have assessed the impact of information disclosure regulation Is the Part 4 purpose being promoted by information disclosure regulation?

- 2.29 To understand how effectively information disclosure regulation is promoting the Part 4 purpose, we have assessed whether performance at Christchurch Airport is consistent with the outcomes sought by the Part 4 purpose, and whether any improvements in performance are likely to be attributable to changes in conduct incentivised by information disclosure regulation.
- 2.30 In assessing performance we have asked ourselves the questions outlined in Table 2.1 above. The focus of some of the objectives in the Part 4 purpose is on suppliers having incentives. We consider the practical test of whether incentives are working to promote the long-term benefit of consumers is to consider actual performance in that area.²⁰
- 2.31 In assessing whether information disclosure is effectively promoting the Part 4 purpose we have also assessed whether it has impacted on Christchurch Airport's conduct. The choices and decisions made by Christchurch Airport for its recent price setting event are the obvious example. Other areas of conduct are also of some relevance, for example, collaboration with airlines.
- 2.32 To assess how effectively information disclosure is promoting the Part 4 purpose we have therefore:
 - 2.32.1 examined the performance and conduct of Christchurch Airport, both before and after the Part 4 information disclosure came into effect; and
 - 2.32.2 assessed the extent to which this information disclosure has had an impact on Christchurch Airport's performance and conduct.

Where information disclosed by Christchurch Airport relates to its forecast activities then the questions above have been considered in relation to whether performance is forecast to be achieved.

- 2.33 The one area where we have not undertaken a relative comparison of conduct and performance before and after the introduction of Part 4 information disclosure is profitability. The cost of capital set out in the input methodologies provides a benchmark against which to measure profits. Therefore we do not need to examine in any detail Christchurch Airport's revenue requirements for the price setting period beginning prior to Part 4 (ie, PSE1). We explain how we have used the input methodologies below.
- 2.34 Therefore, while we consider that our input methodologies do provide the appropriate benchmark for assessing performance, as well as our assessment of how certain building blocks (for example, asset valuation) should be specified to promote the Part 4 purpose, they do not provide the only legitimate benchmark for assessing performance in terms of the Part 4 purpose.
- 2.35 As set out in this chapter and Attachment A of this report, the Commission has applied the requirements of Part 4 of the Act and the input methodologies in order to carry out the task required under s 56G. The input methodologies developed for airports came into effect in December 2010. Where the primary approach taken by the airport has materially differed from the input methodologies, we have had to consider whether it is appropriate to vary our approach in order to make an appropriate assessment.

The role of input methodologies in our assessment

Input methodologies provide a benchmark for assessing profitability

- 2.36 The input methodologies we developed for airports in December 2010 in relation to cost allocation, asset valuation, the treatment of taxation, and the cost of capital are intended to promote certainty as to the rules, requirements, and processes applying to information disclosure regulation. The input methodologies represent our best assessment of how certain building blocks should be specified to promote the Part 4 purpose in these areas.
- 2.37 Airports are not required to apply the input methodologies in setting their prices although they must disclose information consistent with the input methodologies for information disclosure purposes. The input methodologies then provide an important tool which assists interested persons in assessing whether the purpose of Part 4 is being met.
- 2.38 We have found the input methodologies to be most relevant to the profitability assessment aspect of our review. This is because the input methodologies for asset valuation, taxation and cost allocation are inputs into profitability measures (including the calculation of the return on investment that airports must disclose for past years). Therefore, although the airports are not required to apply the cost of

- capital IM, it provides a basis for comparing what airports are earning against our view of the level of return that is appropriate for this type of business.
- 2.39 If the airport's prices are not fully aligned with our input methodologies we do not simply assume that this means that the Part 4 purpose is not being promoted.²¹ Our assessment considers the extent to which the airport has departed from our input methodologies and how other factors shape such a departure.
- 2.40 Moreover, a combination of alternative methodologies to those contained in our input methodologies may yield a similar outcome in terms of limiting excessive profits in line with the Part 4 purpose.
- 2.41 In its submission on our Process and Issues Paper, NZAA stated that:²²
 - NZ Airports remains deeply concerned that focussing on contentious matters of theoretical modelling (that may bear little resemblance to how prices were in fact set at the time) tells interested parties little or nothing about how effectively ID is promoting the purpose of Part 4 in practice. In relation to airport returns, properly addressing those questions requires the Commission to consider all evidence relevant to the essential question of how effectively ID is promoting the objective of airports being limited in their ability to extract excess profits.
- 2.42 Our assessment has considered the variations by Christchurch Airport from the input methodologies, the reasons why it has departed from them (if relevant), and the impact this has had on historical or expected performance. This is discussed in further detail in Attachment F.

Where input methodologies are not available we have considered what would be expected in a workably competitive market

In some areas of performance it is more difficult to assess the impact information disclosure regulation has had on the actual performance of airports as there are no relevant input methodologies (for example, for pricing efficiency or quality) and changes in performance or conduct may be attributable to external factors. For those aspects of performance, our analysis takes into account events (for example, PSE2) and what we might expect to find in a workably competitive market. We have been largely reliant on submissions received from interested parties as part of this review to assess whether information disclosure regulation has had an impact on these areas of performance.

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Nor do we accept that, if airports have taken and followed external professional advice, the Part 4 purpose is **necessarily** being promoted.

New Zealand Airports Association "Section 56G review of Christchurch Airport: Submission on Process and Issues paper" 22 March 2013, page 2, paragraph 7.

Information used to examine performance

- 2.44 We have relied on the information disclosed by Christchurch Airport under Part 4 and the material provided by the parties during the s 56G consultation process to date to examine performance. Where relevant, we have also had regard to information disclosed under the regulatory regime in the AAA, and documentation shared between Christchurch Airport and airlines during consultation on the recent price setting event.
- 2.45 As we acknowledged in Chapter 1, information disclosure regulation under Part 4 has only been in place with effect since 1 January 2011 and the time series of disclosed data is relatively short in some areas. Where we consider that more time is required in order to tell whether information disclosure is effective, or likely to be effective, in promoting an aspect of the purpose, we highlight that in this report.

3. Draft conclusions from our section 56G review

Purpose of this chapter

3.1 This chapter sets out our draft conclusions on how effectively information disclosure regulation is promoting the Part 4 purpose for Christchurch Airport and the key reasons for those draft conclusions.

Summary of our draft conclusions

- 3.2 Our draft conclusions on the effectiveness of information disclosure regulation vary between the different outcomes sought under Part 4. As summarised below, to date our section 56G review for Christchurch Airport has found that information disclosure regulation appears to have had minimal influence on Christchurch Airport's conduct or performance. We have concluded that information disclosure has been effective in promoting incentives to innovate and to provide services at a quality that reflects consumer demand, although information disclosure may have had little additional impact in these areas.
- 3.3 Christchurch Airport may not have considered it was targeting excessive profits for PSE2. This is because expected returns for PSE2 are within an acceptable range if returns are estimated using the standard assumptions in the information disclosure regime to assess profitability. However, it appears that this conduct and expected performance is due to other factors and not to the information disclosure regime. Furthermore, over the longer term, Christchurch Airport's target returns are well above an acceptable range.
- 3.4 Also, information disclosure has not been as effective in promoting pricing efficiency as we would have expected it to be at this time. There are a number of areas (ie, operating expenditure efficiency, efficient investment, and sharing efficiency gains) where we are unable to conclude whether information disclosure is effective.

Summary of draft conclusions in each performance area

- 3.5 Our draft conclusion is that information disclosure regulation is effectively promoting the Part 4 purpose in the following areas:
 - 3.5.1 Innovation (s 52A(1)(a). Innovation levels at Christchurch Airport appear to be appropriate and airlines consider that Christchurch Airport facilitates airline-led innovation. At this time, information disclosure does not appear to have had an additional impact on incentives to innovate at Christchurch Airport, but has not negatively affected existing incentives to innovate.
 - 3.5.2 Quality (s 52A(1)(b). Christchurch Airport's overall conduct in this area indicates it seeks to ensure quality reflects consumer demands and, based on the available information, the quality of service provided to passengers and airlines does generally reflect their demands. No concerns have been raised about the transparency of information about quality at Christchurch Airport.

- 3.6 Information disclosure regulation has not been effective in limiting Christchurch Airport's ability to extract excessive profits over time (s 52A(1)(d)), because:
 - 3.6.1 Christchurch Airport's price setting behaviour for PSE2 appears to have been primarily influenced by the short-term and longer term demand-related considerations that are affecting the airport, rather than by information disclosure regulation;
 - 3.6.2 the airport's expected profitability performance is not transparent for interested persons, because its price setting disclosure does not fully or transparently reflect its pricing approach; and
 - although Christchurch Airport may not have considered it was targeting excessive profits for PSE2, its target returns over the 20 year period from 2012 to 2032 (ie, 8.9%) are well above an acceptable range of returns (ie, 6.6% to 7.6%).
- 3.7 Christchurch Airport's pricing methodology for PSE2 is likely to promote efficiency, and it did seek to improve the efficiency of its pricing to some extent for PSE2 (s 52A(1)(b). However, the evidence suggests that this outcome has not been materially influenced by information disclosure regulation. Had Christchurch Airport had greater regard to information disclosure, it might have engaged more transparently and constructively with consumers. This may have resulted in its pricing methodology promoting even greater improvements in pricing efficiency.
- 3.8 At this time we are unable to conclude whether information disclosure is effective in the areas of operating expenditure efficiency (s 52A(1)(b)), efficient investment (s 52A(1)(a)-(b)) and sharing efficiency gains (s 52A(1)(c)), as we need more information over a longer period of time.
- 3.9 Unlike in the case of Auckland and Wellington Airports, Christchurch Airport has not provided examples of how information disclosure has led to any changes in its conduct or performance. For example, Christchurch Airport notes that, in the case of quality, "discussion during the PSE2 consultation was not directly influenced by information disclosure". In the case of pricing efficiency, it noted that "our thinking was informed by the economic disciplines emphasised during the development of the input methodologies". ²³
- 3.10 As discussed in Chapter 2, suppliers have incentives other than information disclosure regulation to achieve the outcomes in the Part 4 purpose statement. It

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Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, pages 51 and 60. We recognise that to the extent that Christchurch Airport based its pricing methodologies on the economic analysis that the Commission drew on in developing the pricing methodology provisions of information disclosure regulation, the promotion of the s 52 objectives may have been achieved.

may be that those areas of performance at Christchurch Airport which do not appear to be of concern in the current pricing period are due to those other incentives. However, there is a risk that those incentives might not apply in future, and that information disclosure might not have a greater influence at that time.

3.11 We welcome submissions from Christchurch Airport and other interested parties to assist us in making our final conclusions.

How effectively is information disclosure regulation promoting the Part 4 purpose?

3.12 In the remainder of this chapter we set out how we have reached these draft conclusions. Further detail on our reasons and supporting analysis is provided in the attachments listed in Table 3.1.

Table 3.1: Attachments to this report

Innovation	В
Quality	С
Pricing efficiency	D
Profitability	E and F
Operational expenditure efficiency	G
Efficient investment	Н
Sharing the benefits of efficiency gains	I

Information disclosure is not effective in limiting Christchurch Airport's ability to earn excessive profits

- 3.13 Our draft conclusion is that, at this time, information disclosure regulation has not been effective in limiting Christchurch Airport's ability to extract excessive profits over time, because:
 - 3.13.1 the regime does not appear to have materially influenced Christchurch Airport's price setting behaviour for PSE2;
 - 3.13.2 the airport's expected profitability performance is not transparent for interested persons; and
 - 3.13.3 although Christchurch Airport may not have considered it was targeting excessive profits for PSE2 (ie, 2012 to 2017), its target returns over the 20 year period (from 2012 to 2032) are well above an acceptable range.
- 3.14 Christchurch Airport may not have considered it was targeting excessive profits for PSE2, because expected returns for PSE2 are within an acceptable range if returns are estimated using the standard assumptions in the information disclosure regime to assess profitability. Christchurch Airport's target return for PSE2, based on an IMcompliant regulatory asset base (RAB) and applying standard depreciation

- assumptions, is 6.8%, which is within an acceptable range of returns (ie, 6.6% to 7.6%). ²⁴
- 3.15 However, Christchurch Airport's conduct in setting prices for PSE2 appears to have been primarily influenced by the short-term and longer term demand-related considerations that are affecting the airport, rather than by information disclosure. Prices for PSE2 reflect the short-term uncertainty in demand due to the Canterbury earthquakes, as well as the expected increase in utilisation of Christchurch Airport's new integrated terminal over the longer term.
- 3.16 In any case, Christchurch Airport is actually targeting its returns over the 20 year life cycle of its investment in the new integrated terminal, rather than just over PSE2. Over this full 20 year period (ie, comprising PSE2 and the subsequent 15 years) Christchurch Airport's expected returns are equivalent to a target return of 8.9% on its regulated assets, which is well above an acceptable range. It is not clear whether:
 - 3.16.1 Christchurch Airport will act consistently with that target at each of the next three price setting events;
 - 3.16.2 the demand-related considerations influencing Christchurch Airport's prices for PSE2 will still apply at future price setting events; or
 - 3.16.3 information disclosure might have a greater influence on Christchurch Airport's conduct at those events.
- 3.17 Given that Christchurch Airport's acceptable target returns for PSE2 appear to be due to the influence of demand-related factors, if information disclosure were being effective (based on the existing disclosure requirements) we do not expect that the regime would have necessarily resulted in different prices for PSE2. Rather, we would have expected the regime to have resulted in greater clarity about the airport's expected profitability performance (for PSE2 and beyond). However, to date, 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.

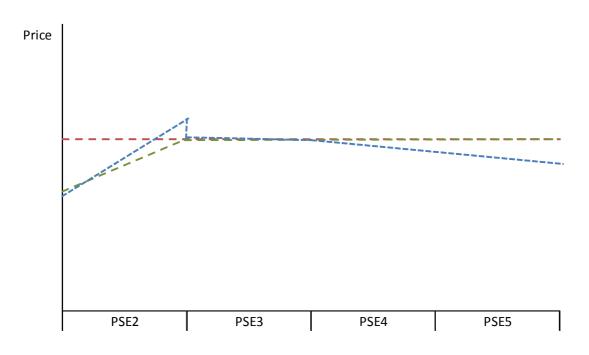
It is difficult to assess the level of profits that Christchurch Airport is targeting

3.18 Christchurch Airport's approach to setting prices for PSE2 (see Figure 3.1) involves:

We assessed the mid-point to 75th percentile range for the cost of capital for both Wellington and Auckland Airport to be between 7.1% and 8.0%. This was based on using the WACC estimate as at 30 April 2012 which is the date we considered was most reasonable for assessing Wellington and Auckland Airport's expected returns in taking into account when each airport finalised the inputs to its pricing model. As discussed in paragraph F73, our range of acceptable returns for Christchurch Airport is estimated as at 1 October 2012.

- 3.18.1 estimating a proposed 'levelised constant real price' path over a 20 year period (from 30 November 2012 30 June 2032) to reflect the relatively low utilisation of its new integrated terminal early on in the terminal's lifetime; and
- 3.18.2 making a commercial decision to only gradually increase prices during PSE2 from current price levels to this levelised price path, given uncertainty about demand over the next 2-3 years due to the Canterbury earthquakes.

Figure 3.1: Christchurch Airport's proposed 'levelised' and actual price path (in real terms)²⁵



CIAL levelised constant price - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as estimated by the Commission
(in real terms)

3.19 The AAA allows Christchurch Airport to set prices as it sees fit, and 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

This figure is intended for illustrative purposes only and is not to scale.

- a time when the expected utilisation of the terminal will be relatively low. Christchurch Airport has explained that the approach avoids price shocks and provides more stable cash flows for both Christchurch Airport and the airlines.
- 3.20 Christchurch Airport's levelised pricing approach reflects efficient pricing principles and is conceptually easy to understand. However, we have some issues with how the approach has been implemented in practice, and about the extent the implementation of the approach is transparent to interested persons.
- 3.21 Information disclosure is not meeting the s 53A objective for profitability because, based on the information disclosed by Christchurch Airport about its PSE2 pricing approach, it is difficult for any interested party (including ourselves) to draw a conclusion on whether Christchurch Airport has set prices to target excessive profits over the 20 year period for which the airport has estimated its proposed levelised price path.
- 3.22 To understand the assumptions underpinning Christchurch Airport's prices for PSE2, as well as its pricing proposals for the subsequent 15 years, we needed to go beyond the information that the airport disclosed about its pricing approach, and to undertake a more detailed investigation. In doing so, we discovered, among other things, that Christchurch Airport's public description of its 'levelised' price path did not fully or transparently reflect its actual approach. For instance, despite setting prices over a 20 year period, the pricing model that Christchurch Airport provided to the airlines during consultation is only for a 10 year period, which makes it difficult to fully understand all the assumptions underpinning the entire levelised pricing period.
- 3.23 Another difficulty is that Christchurch Airport has implemented its pricing approach on a pre-tax basis, rather than on a post-tax basis consistent with the information disclosure framework. Consequently, BARNZ and the airlines have expressed some confusion about the pricing approach Christchurch Airport has elected to take, and do not agree with Christchurch Airport as to the impact of the approach.²⁶
- 3.24 We also do not agree with Christchurch Airport's assessment of the impact of its approach. It is therefore difficult for us to assess the forecast target return that Christchurch Airport itself might have expected the Commission to estimate for the 20 year 'levelised' pricing period (on a post-tax basis). This is particularly the case given that we have no evidence Christchurch Airport's price setting was materially influenced by the information disclosure regime, and therefore we do not know the extent to which the airport might have turned its mind to this question at the time it set its prices for PSE2.

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BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, pages 2 – 4.

Christchurch Airport appears to be targeting excessive profits over the longer term, but not in the short term

- 3.25 Despite these difficulties, we have estimated the expected target return (on a post-tax basis) that is consistent with Christchurch Airport's commercially based pricing decisions for PSE2. Christchurch Airport set prices such that expected returns over PSE2 are equivalent to a target return of 6.8% (based on an IM-compliant RAB and applying standard depreciation assumptions). Although this target return is above a normal return, it is within an acceptable range of returns of 6.6% to 7.6%.²⁷
- 3.26 Christchurch Airport is actually targeting its returns over the 20 year life cycle of its investment in the new integrated terminal. Over this full 20 year pricing period (ie, under the commercially based prices for PSE2, and for the remaining 15 years under its levelised price path) Christchurch Airport's expected returns are equivalent to 8.9% on its regulated assets. This target return is above an acceptable range of returns.
- 3.27 Our approach to determining Christchurch Airport's expected target return, for the purpose of assessing its conduct with respect to profitability, is consistent with our approach for Auckland Airport. However, given that Christchurch Airport is seeking to achieve its target return over 20 years, instead of over any single pricing period, our estimate of the target return relates to a 20 year period rather than to the typical five year pricing period for the other airports.
- 3.28 Although our estimate of Christchurch Airport's expected target return for the full 20 year levelised pricing period is above the upper limit for an acceptable range of returns, Christchurch Airport may have considered its 20 year target return was lower than this, due to its simplified approach to transforming post-tax returns to pre-tax returns. We consider that applying the information disclosure framework appropriately, taking into account Christchurch Airport's levelised pricing approach, does not support such a conclusion.

²⁷ At the time Christchurch Airport set its prices for PSE2, it may have considered that the Commission would assess its expected returns over PSE2 only, and do so on an IM-compliant RAB depreciated using the standard straight-line depreciation method (and indexed for inflation), consistent with the standard assumptions in the information disclosure regime to assess profitability. However, a RAB derived using these standard depreciation and indexation assumptions is not consistent with Christchurch Airport's 20 year levelised constant real price path. Therefore, the 6.8% target return value under-estimates expected returns in PSE2, because it represents returns on a RAB which is depreciated in a manner that is not consistent with Christchurch Airport's long term pricing proposals. The IMs and the information disclosure framework allow airports to apply an alternative depreciation method that would be consistent with a levelised price path. However, Christchurch Airport was not required to disclose its forecast RAB using such an alternative approach. Therefore, for the purpose of assessing its conduct in relation to expected returns, we have recognised that, to the extent it turned its mind to this question, Christchurch Airport may have considered the Commission might assess its returns based on an IM-compliant RAB and applying standard depreciation and indexation assumptions. Our estimate of the expected target return on Christchurch Airport's regulated assets calculated on this basis is 6.8%. Therefore, this is the value we have reported in assessing Christchurch Airport's conduct in respect of expected returns for PSE2.

3.29 Christchurch Airport's approach to price setting is significantly different from Wellington Airport and Auckland Airport. There have been some complexities and challenges involved in taking these differences into account in our analysis. We welcome feedback from interested persons on any aspect of our approach to assessing Christchurch Airport's conduct (and performance) in relation to its expected returns.

Christchurch Airport's pricing approach highlights possible limits to information disclosure's effectiveness

- 3.30 For its disclosures following the PSE2 pricing event, Christchurch Airport disclosed its forecast regulatory asset base (RAB) applying a standard straight-line depreciation approach, and indexing the asset base for inflation. It chose not to use an approach equivalent to the mechanism in the input methodologies that provides for an alternative 'non-standard' depreciation approach (ie, an approach other than straight-line depreciation). Christchurch Airport could have derived and disclosed forecast depreciated values of its RAB that are consistent with its levelised price path (ie, reflecting relatively low capacity utilisation in the short term). Doing so would have allowed interested persons to better assess the impact of its levelised pricing approach on expected returns for PSE2 and beyond.
- 3.31 Christchurch Airport was entitled not to apply a non-standard depreciation approach, because under the information disclosure regime airports are not required to apply the input methodologies in disclosing their forward-looking pricing methodologies. Nevertheless, as a result of doing so, Christchurch Airport's expected profitability performance for PSE2 and subsequent pricing periods is not as transparent as it otherwise could have been.
- 3.32 For its annual disclosures of each year's actual profitability performance, Christchurch Airport may also choose not to apply an alternative depreciation approach that is consistent with its levelised pricing approach, and to disclose RAB values using straight-line depreciation instead. If so, it is likely that interested parties will continue to find it difficult to assess whether Christchurch Airport is limited in its ability to earn excessive profits. In addition, commercially-based pricing decisions at future price setting events may further complicate such assessments.
- 3.33 Our analysis of Christchurch Airport's profitability has therefore highlighted that there may be a limit to information disclosure's effectiveness in limiting excessive profits where an airport decides to take a pricing approach that is not explicitly contemplated by the disclosure regime.

Information disclosure is not as effective in promoting pricing efficiency at Christchurch Airport as we would have expected

3.34 Our analysis indicates that Christchurch Airport's pricing methodology for PSE2 is likely to promote efficiency and that Christchurch Airport did seek to improve the efficiency of its pricing to some extent for PSE2. However, based on the evidence available during this section 56G review, information disclosure regulation under

- Part 4 does not appear to have been as effective in promoting prices that are efficient at Christchurch Airport as we would have expected it to be.
- 3.35 Our analysis indicates that Christchurch Airport's pricing methodology for PSE2 is likely to better promote efficiency relative to the PSE1 pricing methodology. For example:
 - 3.35.1 Christchurch Airport made changes to its pricing methodology to address previous concerns about cross-subsidisation;
 - 3.35.2 Christchurch Airport has considered to some extent the impact of its pricing structure for PSE2 on consumers' demand responsiveness; and
 - 3.35.3 no airlines have raised concerns about their ability to make price-quality trade-offs for PSE2.
- 3.36 The public disclosure of the pricing methodologies generates incentives for airports to ensure their pricing methodology is consistent with efficient pricing principles. We also expected information disclosure regulation to have led to more constructive engagement with airlines on Christchurch Airport's pricing methodology for PSE2. This is because, in order to be consistent with efficient pricing principles, airports are required to consider the likely impact of the pricing methodology on decisions made by consumers (including airlines). As such we would expect an airport to constructively engage with airlines when determining their pricing methodology.
- 3.37 Overall, information disclosure regulation does not appear to have been as effective as we would have expected it to be in this area at this time. The evidence suggests consultation on the pricing methodology for PSE2 was not constructive: there appears to be some confusion from airlines on the purpose of specific changes to the pricing methodology (even during consultation on this section 56G review), and airlines have raised concerns about Christchurch Airport's engagement on issues they raised during consultation.²⁹ Although we consider Christchurch Airport's

These expectations are consistent with our findings for Wellington and Auckland airports. Wellington Airport indicated that one of the reasons it changed its pricing methodology was due to information disclosure regulation and the development of the IMs. Meanwhile, Auckland Airport noted that information disclosure regulation prompted discussions with airlines about its pricing methodology, and that these discussions led to a number of improvements in its pricing methodology for PSE2. 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" 8 February 2013, paragraph D6; Commerce Commission "Report to the Ministers of Commerce and Transport on How Effectively Information Disclosure Regulation is Promoting the Purpose of Part 4 for Auckland Airport" 31 July 2013, paragraph D6.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 31; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 84.

- pricing methodology for PSE2 does promote efficiency, it may have better promoted efficiency if information disclosure had been effective.
- 3.38 Christchurch Airport has not indicated that the requirement to outline its pricing methodology in information disclosure had an impact on its decisions in this area, other than to provide a cross-check on its reasons supporting the efficiency of its pricing decision. ³⁰

Information disclosure is effectively promoting innovation

- 3.39 Information disclosure regulation under Part 4 is effectively promoting the purpose of Part 4 in relation to innovation. Christchurch Airport facilitates airline-led innovation, and the level of innovation at Christchurch Airport appears to be appropriate. At this time, information disclosure does not appear to have had an additional impact on incentives to innovate at Christchurch Airport, but has not negatively affected existing incentives to innovate. As discussed in our reports for Wellington and Auckland Airports, where a supplier is already innovating appropriately, we would not expect information disclosure to have any material impact on innovation.³¹ We therefore consider that information disclosure is effectively promoting incentives to innovate at Christchurch Airport.
- 3.40 The key reasons for our draft conclusion are as follows.
 - 3.40.1 Based on the limited evidence available to us, the level of innovation at Christchurch Airport appears to be appropriate. Airlines have not suggested otherwise.
 - 3.40.2 Airlines consider that Christchurch Airport facilitates airline-led innovation.
 - 3.40.3 It appears that innovation at Christchurch Airport has been appropriate both before and after the introduction of information disclosure regulation under Part 4.

Information disclosure is effectively promoting the provision of quality at a level that reflects consumers' demands

3.41 Christchurch Airport's overall conduct in this area indicates it seeks to ensure quality reflects consumer demands and, based on the available information, the quality of service provided to passengers and airlines does generally reflect their demands.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 22.9.

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" 8 February 2013, paragraph B3. Commerce Commission "Report to the Ministers of Commerce and Transport on How Effectively Information Disclosure Regulation is Promoting the Purpose of Part 4 for Auckland Airport" 31 July 2013, paragraph B3.

- Given this, and that no concerns have been raised about the transparency of information about quality at Christchurch Airport, our draft conclusion is that information disclosure is effective at Christchurch Airport at this time.
- 3.42 The key reasons for our draft conclusions on Christchurch Airport's performance and conduct are as follows.
 - 3.42.1 Quality experienced by passengers at Christchurch Airport is high and comparable with other New Zealand airports.
 - 3.42.2 Based on submissions received as part of this section 56G review process, airlines appear to be generally satisfied with the quality of service provided at Christchurch Airport. Where concerns have been expressed, Christchurch Airport has indicated that these will be largely addressed in the future. Our analysis of data provided in information disclosure under Part 4 also indicates quality reflects airline demands.
 - 3.42.3 Christchurch Airport appears to facilitate improvements in quality or efficiency for services provided by its consumers (eg, airlines).
 - 3.42.4 Christchurch Airport appears to be responsive to matters of quality raised by airlines, and to engage effectively with them on issues that affect service quality.
- 3.43 As discussed in Chapter 2, we may conclude that information disclosure is effectively promoting the purpose of Part 4 even if it is having a limited impact, on the basis that it is having as much an impact as we reasonably expect it to have. Our expectation of the impact of information disclosure at Christchurch Airport therefore considers the incentives generated by information disclosure and the length of time since the regulation was implemented. We have also considered Christchurch Airport's other incentives to provide services at a quality that reflects consumer demands (for example, its incentive to maximise profits). If Christchurch Airport's other incentives are sufficiently strong to ensure service quality reflects consumer demands, the incentives generated by information disclosure are unlikely to have an additional impact on service quality.
- 3.44 Our draft conclusion is that information disclosure is effective at this time at Christchurch Airport. This is because, although information disclosure has not had an observable additional impact, the evidence available indicates Christchurch Airport's conduct in relation to service quality is appropriate, and that quality reflects consumer demands. Furthermore, there does not appear to be any concerns about

- the transparency of information on service quality at Christchurch Airport, although it is not clear that this is a result of information disclosure.³²
- 3.45 Christchurch Airport's conduct and performance in this area appears to be attributable to incentives other than information disclosure. For example, improvements in quality observed since the introduction of information disclosure have been attributed to the development of the new integrated terminal, which occurred prior to information disclosure regulation. Given these incentives and the outcomes observed, we would not expect information disclosure regulation to have an additional impact on quality at Christchurch Airport at this time. Information disclosure regulation has not negatively affected these existing incentives to provide quality at a service that reflects consumer demands at this time.

It is too early to tell whether information disclosure is effectively promoting improvements in operating efficiency

- 3.46 We are unable to conclude whether information disclosure regulation is effectively promoting improvements in opex efficiency at Christchurch Airport at this time. This is because we do not have a sufficiently long time series on actual operating expenditure to assess meaningful trends in opex at Christchurch Airport since information disclosure regulation was implemented. Furthermore, major earthquakes that have impacted the airport have complicated our analysis. Information on actual expenditure that is provided during PSE2 will assist in drawing conclusions on Christchurch Airport's operating efficiency in the future.
- 3.47 The key reasons for our view on the effectiveness of information disclosure regulation in this area are as follows.
 - 3.47.1 Our analysis suggests that Christchurch Airport may have improved its opex efficiency since the implementation of information disclosure regulation. However our analysis is distorted by the impact of the earthquakes.

BARNZ anticipates the quality measures disclosed will inform regular engagement on service quality at Christchurch Airport (BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 27). It is not clear what information was previously provided to airlines and other consumers on service quality at Christchurch Airport.

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 52; BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 26; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 99 to 100; Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 111. The development includes a new domestic terminal as well as an integrated check-in and baggage handling facilities for domestic and international passengers. The construction of the new terminal began in mid-2009.

This may occur by acting as a constraint on Christchurch Airport's profits, thereby weakening its incentive to invest where this would result in quality that reflects consumer demands.

- 3.47.2 Christchurch Airport's opex forecast indicates it may be improving its opex efficiency over PSE2. Data on actual opex is needed before we can conclude in this area.
- 3.47.3 We do not yet have actual expenditure information for PSE2 to assess whether Christchurch Airport has been able to achieve lower opex than forecast, and the reasons for any differences. This will be an important indicator of whether Christchurch Airport is actively improving its efficiency and whether information disclosure under Part 4 is effective in this area of performance.
- 3.47.4 Christchurch Airport does appear to seek to improve its operating efficiency, which may indicate its conduct is appropriate. It is unclear as to whether this is a result of information disclosure regulation.

It is too early to tell whether information disclosure is effectively promoting efficient investment

- 3.48 We cannot conclude whether information disclosure regulation under Part 4 is effectively promoting efficient investment at Christchurch Airport at this stage as we do not have actual investment information for PSE2. Submissions to this review indicate that Christchurch Airport's investment plans for PSE2 are largely considered appropriate, and that it consulted appropriately on its planned investment for PSE2. No party has attributed these outcomes to information disclosure regulation.
- 3.49 Our key findings in this area are outlined below.
 - 3.49.1 While Christchurch Airport spent less than it forecast during PSE1, it is unclear whether this was due to improvements in its efficiency.
 - 3.49.2 Based on submissions received from airlines, Christchurch Airport's investment plans for PSE2 appear to be generally prudent and occurring at an appropriate time.
 - 3.49.3 We do not yet have a sufficiently long time series of actual capital expenditure to assess whether investment is being made in a timely and efficient manner. This will be an important indicator of the effectiveness of information disclosure regulation in promoting incentives to invest efficiently.
 - 3.49.4 Airlines are generally satisfied with consultation on investment plans for PSE2. There is no evidence that Christchurch Airport's conduct in this area has been affected by information disclosure regulation.

We are unable to conclude whether information disclosure is effectively promoting the sharing of efficiency gains with consumers

3.50 We are unable to conclude whether Christchurch Airport is sharing the benefits of operating and investment efficiency gains with consumers and whether information disclosure is effective in this area. This is because it is unclear to what extent

Christchurch Airport has achieved efficiency gains historically that could be shared with consumers when setting prices for PSE2. This is an important indicator of Christchurch Airport's performance, and the effectiveness of information disclosure regulation, in this area.

Attachment A: Regulatory Framework

Purpose

- A1 This attachment sets out more detail on some of the matters covered in Chapters 1 and 2 of this report, including responding to relevant submissions. In particular, it sets out:
 - A1.1 the key statutory provisions applicable to the three regulated airports, and explains how these apply in the context of this current review. The key provisions relevant to this review are sections 52A, 53A and 56G set out in Part 4 of the Commerce Act 1986;
 - A1.2 the application of input methodologies to a section 56G review. The input methodologies provide the Commission with a benchmark for assessing whether the objectives specified in s 52A(1) are being promoted. They are our assessment of how certain building blocks should be specified to promote the Part 4 purpose. The input methodologies are a tool the Commission can use in its analysis of Christchurch Airport's historic and expected performance;
 - A1.3 the relationship between information disclosure regulation under Part 4 and s 4A of the AAA. While airports can set prices as they see fit, information disclosure is intended to have an impact on those prices. We do not consider that s 4A of the AAA is incompatible with the information disclosure regime as the two operate for distinct purposes. We also do not consider that Part 4 is subordinate to s 4A; and
 - A1.4 the scope, timing and process for the section 56G review. The substantive part of the Commission's task under s 56G is to assess "how effectively information disclosure regulation under this Part is promoting the purpose in s 52A in respect of the specified airport services". Section 56G provides that the trigger for the review is the setting of any new price "in or after 2012". This report is therefore an evaluation carried out by the Commission in accordance with s 56G. We consider that we are able to draw conclusions as summarised in Chapter 3 in this report at this point in time (that point in time being "as soon as practicable after any new prices are set ...in or after 2012") based on the information available to us.

Key statutory provisions relevant to airports

- A2 Specified airport services supplied by Auckland Airport, Wellington Airport and Christchurch Airport are subject to information disclosure regulation under subpart 11 of Part 4 of the Act. The subpart came into force on 14 October 2008 and prescribes:
 - A2.1 the scope of regulated services and the definition of 'specified airport services' (s 56A), which are defined as:

- A2.1.1 aircraft and freight activities (s 56A(1)(a));
- A2.1.2 airfield activities (s 56A(1)(b));
- A2.1.3 specified passenger terminal activities(s 56A(1)(c)); and
- A2.1.4 any other services that are determined by the Governor-General, by Order in Council made on the recommendation of the Minister, to be specified airport services (s 56A(1)(d));
- A2.2 arrangements for transition from the previous regulatory regime, namely the Airport Authorities (Airport Companies Information Disclosure)

 Regulations 1999 to the new regulatory provisions under the Act (s 56F);
- A2.3 when the provisions take effect and the statutory timeframes for making s 52P determinations specifying how information disclosure regulation applies to the regulated airports (s 56E); and
- A2.4 monitoring responsibilities for the Commission, including a requirement to provide one-off reports to the Ministers of Commerce and Transport (s 56G).
- A3 Each of the 'specified airport services' set out in clause A2.1 above is defined in detail in s 2 of the AAA. These definitions are quite broad and include non-exhaustive lists of the types of activity that are considered to fall within each of these categories.
- A4 In accordance with s 56E of subpart 11 and subpart 4 of the Act, the Commission determined the "Commerce Act (Specified Airport Services Information Disclosure) Determination 2010" on 22 December 2010 (ID determination). The information disclosure determination sets out the information disclosure requirements applying to the regulated airports from 1 January 2011.
- A5 Section 56G states that the Commission must review the information disclosed under the information disclosure requirements and report to the Ministers on the effectiveness of information disclosure regulation. We must do this as soon as practicable after a supplier sets any new price for a specified airport service in or after 2012. Under s 56G(1) the Commission must:
 - (a) review the information that has been disclosed by suppliers of specified airport services under subpart 4; and
 - (b) consult (without necessarily holding an inquiry) with interested parties; and
 - (c) report to the Ministers of Commerce and Transport as to how effectively information disclosure regulation under this Part is promoting the purpose in s 52A in respect of the specified airport services.

Application of input methodologies to the section 56G review

Overview

- A6 The input methodologies for regulated airport services provide a benchmark for assessing how effectively information disclosure regulation is promoting the purpose of Part 4 in a number of key performance areas, notably historic and forecast revenues and profits, and expenditure efficiency.
- As discussed in Chapter 2, it is accepted that there may be other avenues for promoting the purpose of Part 4 other than input methodologies. The purpose of setting the input methodologies is to promote certainty to regulated suppliers as to the tools the Commission will use in assessing the impact of information disclosure, such that s 52A(1)(a) to (d) occur. We set out our detailed views below.

Application of input methodologies to information disclosure

- A8 We determined input methodologies for the regulated airport services on 22 December 2010. We applied those input methodologies in making our information disclosure determination for airports. The information required to be disclosed includes a wide range of historic and forecast information and performance measures, covering both financial and non-financial matters.³⁵
- A9 Christchurch Airport is required to apply all of those input methodologies, except the cost of capital IM, when disclosing information under Part 4.³⁶
- As is explained in the Airport Services Input Methodologies Reasons Paper, the matters covered by input methodologies in s 52T(1)(a) are most relevant to the disclosure of financial performance measures, as well as the financial statements and other information that supports those measures. The key historic financial performance measure airports must disclose is the annual return on investment (ROI), which measures the supplier's regulatory profit relative to the regulatory investment on which that profit has been earned.

Application of input methodologies to the section 56G review

A11 Christchurch Airport is not required to apply the input methodologies when undertaking any task other than disclosing information under Part 4. For example, it does not have to apply the input methodologies when setting prices. However, Christchurch Airport is required to disclose its forecast revenues and prices, and the actual methodologies it used in determining those revenues and prices.

Section 53C(2) sets out the types of information that we may require airports to disclose.

³⁶ Section 53F(1).

- A12 It is the combination of disclosures of information based on input methodologies, and disclosures of actual and forecast information that the Commission uses in any assessment against the Part 4 purpose.
- A13 The focus of the section 56G review is on the outcomes in s 52A(1). That focus informed the various questions on which we based our analytical framework, as discussed in Chapter 2. What we are interested in is assessing whether those outcomes are evident in Christchurch Airport's performance or conduct.
- A14 The input methodologies provide the Commission with a benchmark for assessing whether the objectives specified in s 52A(1) are being promoted. They are our assessment of how certain building blocks (for example, asset valuation) should be specified to promote the Part 4 purpose. As such, the input methodologies are a tool we can use in our analysis of Christchurch Airport's historic and forecast performance.
- A15 This approach is reflected in s 53F, which explicitly allows us to use input methodologies for our s 53B summary and analysis reports. As much of the analysis and assessment required to be carried out by the Commission under ss 53B and 56G overlaps, it is therefore also logical to use the input methodologies in the assessment required under s 56G.
- A16 Given that airports are not required to apply our input methodologies in setting their prices, where the airport is not fully aligned with our input methodologies we do not simply assume that this means that the Part 4 purpose is not being promoted. Our assessment considers the extent to which the airport has departed from our input methodologies, and how other factors shape such a departure.
- A17 Finally on this point, we note that as discussed in Chapter 2:
 - A17.1 concluding that good performance exists in some areas does not necessarily cancel out potential findings of poor performance in others.
 - A17.2 finding some evidence of progress in a particular performance area does not necessarily mean that the intended performance outcome has been achieved.
- A18 Our assessment has considered the variations by Christchurch Airport from the input methodologies, the reasons why it has departed from them (if relevant), and the impact this has had on performance or expected performance.

The relationship between information disclosure regulation under Part 4 and s 4A of the Airports Authorities Act 1996

- A19 Section 4A(1) of the AAA provides that an airport subject to that statute may:
 - set such charges as it from time to time thinks fit for the use of the airport operated or managed by it, or the services or facilities associated therewith.

A20 However this right needs to co-exist with the new Part 4 regime, evidenced by the inclusion of s 4A(4) which provides:

This section does not limit the application of regulation under Part 4 of the Commerce Act 1986.

- A21 The AAA provisions relating to charges are primarily concerned with ensuring that the decision making process for airport pricing is clear. In that context s 4A clarifies that, while airports are required to consult with their major customers in accordance with the AAA, the final decision as to charges rests with the airports, and the consultation process does not have the ability to prevent airports setting charges as they think fit.
- A22 Information disclosure regulation, while being light-handed, is still intended to promote the overall Part 4 purpose as set out in s 52A. Parliament's intention behind the adoption of this regime was to introduce regulation that would, among other functions, have an impact on airport's prices. That is clear from the structure of Part 4 all forms of Part 4 regulation including information disclosure regulation, are intended to promote the Part 4 purpose, which includes promoting outcomes such that suppliers are limited in their ability to extract excessive profits. Further, when referring to the section 56G review in its report on the Commerce Amendment Bill, the then Ministry of Economic Development (MED) stated:

It is expected that the knowledge of an impending review (combined with robust information disclosure) will influence the price setting by airports. 37

A23 MED's response to issues raised by the Commerce Committee on the Bill also went on to state:

Officials remain of the view that the major airports should be covered in the Commerce Act. Considerations are: ...The major airports have strong natural monopoly characteristics. Absent effective regulation, airports are able to set prices as they see fit...

...Note however, that information disclosure, combined with annual analysis by the Commission and the requirements for a review, will impose some disciplines on pricing behaviour. ³⁸

A24 So while airports can set prices as they see fit, information disclosure is intended to have an impact on those prices. As such, we do not consider that s 4A of the AAA is incompatible with the information disclosure regime as the two operate for distinct purposes, or that the Part 4 purpose is subordinate to s 4A.

Ministry of Economic Development "Commerce Amendment Bill: Report of the Ministry of Economic Development", 4 July 2008, page 52.

Ministry of Economic Development "Commerce Amendment Bill: Response to issues raised by the Commerce Committee", 23 July 2008, pages 5 and 50.

Scope, timing and process for the section 56G review

Scope of the review

- A25 Under s 56G(1) the Commission must:
 - (1) As soon as practicable after any new price for a specified airport service is set in or after 2012 by a supplier of the service, the Commission must-
 - (a) review the information that has been disclosed by suppliers of specified airport services under subpart 4; and
 - (b) consult (without necessarily holding an inquiry) with interested parties; and
 - (c) report to the Ministers of Commerce and Transport as to how effectively information disclosure regulation under this Part is promoting the purpose in section 52A in respect of the specified airport services.
- A26 The substantive part of the Commission's task under s 56G is to assess "how effectively information disclosure regulation under this Part is promoting the purpose in s 52A in respect of the specified airport services". This report is therefore an evaluation carried out by the Commission in accordance with s 56G.
- A27 We have not carried out an assessment as to how effectively information disclosure is promoting the purpose of Part 4 relative to other types of regulation provided for under Part 4. In our view the wording of s 56G(1)(c) is clear: the scope of this section 56G review does not extend to considering and recommending to the Ministers whether regulation other than information disclosure should apply to the regulated airports. Consequently this report does not make any recommendations concerning changes to the current regulatory framework for Christchurch Airport.
- A28 In addition, we do not consider that extending the definition of 'specified airport services' under s 56A(1) is within the scope of the section 56G review. Section 56G is confined to the assessment of the information disclosure regime as it currently stands. Therefore we have not considered whether any additional services, not currently regulated as specified airport services, should be included in the definition of 'specified airport services'.

Timing of the review

The trigger for undertaking the section 56G review has been met

- A29 Section 56G provides that the trigger for the review is the setting of any new price "in or after 2012":
 - as soon as practicable after any new price for a specified airport service is set in or after 2012 by a supplier of the service.
- A30 This is further confirmed by the wording of s 56(1)(c) which is a guide to the overall aim of subpart 11, namely:
 - for a review of the new regime as soon as any new price is set in 2012 for specified airport services.

- A31 We therefore consider that the trigger for reporting to the Ministers has already been met as Wellington Airport, Auckland Airport and Christchurch Airport have reset their prices in 2012.
- A32 The conclusions drawn in this review reflect the level of data available. We consider that we are able to draw conclusions as summarised in Chapter 3 in this report at this point in time (that point in time being "as soon as practicable after any new prices are set ...in or after 2012") based on the available data.
- A33 However, we also acknowledge that the timing requirement of the section 56G review carries with it certain limitations as to the assessment being carried out. For example, the availability of a greater amount of time series data would enable a more robust assessment of some of the outcomes expected from the regime. While we are not persuaded that the benefit of more data overrides the wording of s 56G, we acknowledge that an outcome of conducting the section 56G review now is that it is too early to draw conclusions about the effectiveness of the information disclosure regime in relation to some of the intended Part 4 outcomes.
- As discussed in Chapter 2, while we consider that the performance areas are interrelated, this does not preclude us reaching a conclusion on performance in one area without reaching a conclusion on performance in another. For example, based on the evidence we were presented with, it is not necessary to conclude whether information disclosure is effective in the areas of operational expenditure efficiency, efficient investment and the sharing of efficiency gains in order to conclude whether Christchurch Airport is expected to earn excessive profits.
- As discussed above, the Act requires us to undertake this review "as soon as practicable after any new prices are set...in or after 2012" (which rules out postponing the report until prices are set again in 2017). We consider that there is sufficient time series information available to draw conclusions in certain areas, while not others. We will continue to analyse and draw conclusions on Christchurch Airport's performance over time in our s 53B reports.

Process for the review

- A36 The statutory process we must follow in undertaking this review is set out in paragraph A5 above. We have exceeded these minimum requirements and included various additional consultation steps. The process below has been adopted. We have:
 - A36.1 reviewed the information disclosed under Part 4 and the price setting consultation documentation;
 - A36.2 reviewed the information disclosed in consultation during this review process and in response to any requests for information under our information-gathering powers under the Act;
 - A36.3 published a Process and Issues paper and sought submissions and crosssubmissions on the proposed process and scope of the review;

- A36.4 published the agenda for the Christchurch Airport conference;
- A36.5 held a conference for Christchurch Airport prior to preparing this draft report to ensure that we have all the relevant information, and to test the issues and ensure we understand any differences of opinion;
- A36.6 sought cross-submissions on material discussed at the Christchurch Airport conference; and
- A36.7 issued this draft report for Christchurch Airport.

Separate reports for each airport

A37 We consider that preparing a separate report for each airport is the most appropriate interpretation of the section 56G task. This view takes into account that each airport's price setting decisions are occurring at different times, and that information disclosure regulation may be having a different impact across the three airports. This interpretation is also consistent with the trigger wording of s 56G which provides:

As soon as practicable after any new price for a specified service is set in or after 2012 by a supplier of the service, the Commission must...

Information the Commission may consider in undertaking the section 56G review

- A38 The Act does not contain any explicit limitations on information that we may take into consideration when conducting our analysis of the effectiveness with which the purpose of Part 4 is, or is not, being promoted. We note that the s 56G review goes beyond a mere review of information disclosed, namely:
 - A38.1 it requires a review of the information disclosed (s 56G(1)(a)); and
 - A38.2 a report to the Minister comprising an assessment of how effectively the information disclosure regulation is promoting the purpose in s 52A (s 56G(1)(c)).
- A39 The trigger for the review is the price setting event. To assess the effectiveness of information disclosure in promoting the purpose in that context, and also in the context of the wider airport sector performance, for example in terms of quality, the review explores a wider range of information than just the Part 4 disclosures.
- A40 We have therefore reviewed the information disclosed by Christchurch Airport, and have also sought further information in order to make a meaningful assessment of whether, and to what extent, information disclosure is promoting the Part 4 purpose.

Attachment B: Is information disclosure promoting appropriate innovation at Christchurch Airport?

Purpose

- B1 This attachment summarises the analysis undertaken for this review to assess the effectiveness of information disclosure regulation in promoting outcomes consistent with workably competitive market outcomes such that Christchurch Airport has incentives to innovate (s 52A(1)(a) of the Act).³⁹
- Innovation is about the discovery and use of new information, leading to the development of new goods or services, and/or more efficient production techniques. 40 Innovation is driven by the prospect of earning higher profits and a greater than normal return.

Draft conclusion

- Information disclosure regulation under Part 4 is effectively promoting the purpose of Part 4 in relation to innovation. Christchurch Airport facilitates airline-led innovation, and the level of innovation at Christchurch Airport appears to be appropriate. At this time, information disclosure does not appear to have an additional impact on incentives to innovate at Christchurch Airport, but has not negatively affected existing incentives to innovate. As discussed in our reports for Wellington and Auckland Airports, where a supplier is already innovating appropriately, we would not expect information disclosure to have any material impact on innovation. We therefore consider that information disclosure is effectively promoting incentives to innovate at Christchurch Airport.
- B4 The key reasons for our draft conclusion are as follows.
 - B4.1 Based on the limited evidence available to us, the level of innovation at Christchurch Airport appears to be appropriate. Airlines have not suggested otherwise.
 - B4.2 Airlines consider that Christchurch Airport facilitates airline-led innovation.

Our focus in this attachment is on innovations by Christchurch Airport that are experienced by consumers. Innovations which affect the efficiency of Christchurch Airport's expenditure (ie, which result in dynamic efficiencies) but which are not necessarily visible to consumers are implicitly considered in Attachments G and H.

Innovation is not the same as the adoption of industry best practice from New Zealand or overseas.

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" 8 February 2013, paragraph B3. Commerce Commission "Report to the Ministers of Commerce and Transport on How Effectively Information Disclosure Regulation is Promoting the Purpose of Part 4 for Auckland Airport" 31 July 2013, paragraph B3.

- B4.3 It appears that innovation at Christchurch Airport has been appropriate both before and after the introduction of information disclosure regulation under Part 4.
- We expect that information disclosure regulation would have a limited impact on innovation because other incentives play a more important role in driving innovation. Christchurch Airport has incentives to innovate so as to increase its profits, and information disclosure does not appear to have negatively impacted on those incentives. Christchurch Airport does not consider there has been a change in its innovation activity since the implementation of information disclosure regulation under Part 4.⁴²

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to innovate appropriately

B6 Christchurch Airport has incentives to maximise its profits through improved performance, including through innovation.

How information disclosure can provide incentives to innovate

B7 Information disclosure regulation places relatively weak incentives on Christchurch Airport to innovate appropriately due to the unique and unpredictable nature of innovation. Information disclosure regulation is likely to be most effective over time when combined with analysis of operational and capital expenditure as this will highlight where innovation may assist in achieving efficiency gains.⁴³

How we have assessed whether Christchurch Airport is innovating appropriately

- B8 Our approach to assessing innovation for this review was to consider Christchurch Airport's performance and conduct regarding innovation. We have looked at:
 - B8.1 evidence of innovation occurring at Christchurch Airport, comparisons with innovation at other airports, and awards for innovation; and
 - B8.2 whether Christchurch Airport enables or facilitates innovation through collaboration.
- B9 We have considered these indicators both before and after the introduction of information disclosure regulation to gain insights into the impact of information disclosure regulation on incentives to innovate.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 47.

⁴³ It may also highlight where innovations and best practice at other airports may be appropriate to adopt by an airport to improve operational and capital efficiency.

Information used to assess whether Christchurch Airport is innovating appropriately

- B10 Our analysis is based on qualitative information from two main sources:
 - B10.1 information disclosed under Part 4; and
 - B10.2 submissions and other material provided to the Commission as part of this section 56G review.

Analysis of innovation performance and conduct

Is Christchurch Airport innovating appropriately?

B11 The available evidence suggests that Christchurch Airport has innovated appropriately in the past, and continues to innovate appropriately. BARNZ submitted that Christchurch Airport is considered to be more innovative than other New Zealand airports, with the exception of Auckland Airport. Although BARNZ does not consider Christchurch Airport to be at the forefront of airport innovation internationally, this is not considered to be a concern as early technology is often expensive and problematic. Airlines have not raised any concerns with the level of innovation at Christchurch Airport.

Does Christchurch Airport's conduct demonstrate that it has facilitated innovation?

We consider that Christchurch Airport has facilitated innovation, and its conduct is therefore appropriate. As discussed in our reports for Wellington and Auckland Airports, facilitation of airline-led innovation is considered an important part of airports' conduct in relation to innovation. The airlines consider that Christchurch Airport is receptive to airline-led innovation. This is demonstrated through the use of Christchurch Airport's facilities by AgResearch and PGCWrightson to trial grass they had developed to reduce bird activity near the runway. He

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 24.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 24.

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" 8 February 2013, paragraph B16.

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 50; BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 25.

BARNZ "Cross-Submission by BARNZ to Auckland Airport Submission on Commerce Commission Draft Report" 18 June 2013, pages 3 to 4.

Attachment C: Is information disclosure promoting services at the quality consumers demand at Christchurch Airport?

Purpose

- This attachment summarises the analysis undertaken for this review to assess the effectiveness of information disclosure regulation in promoting outcomes consistent with workably competitive market outcomes such that Christchurch Airport provides services at a quality that reflects consumer demands (s 52A(1)(b) of the Act).
- We consider that quality is about consumers' experiences of regulated airport services, including comfort, timeliness and the availability of the service. Consumers include airlines, passengers and other users of Christchurch Airport's aeronautical services.

Draft conclusion

- C3 Christchurch Airport's overall conduct in this area indicates it seeks to ensure quality reflects consumer demands and, based on the available information, the quality of service provided to passengers and airlines does generally reflect their demands. Given this, and that no concerns have been raised about the transparency of information about quality at Christchurch Airport, our draft conclusion is that information disclosure is effective at Christchurch Airport at this time.
- C4 The key reasons for our draft conclusions on Christchurch Airport's performance and conduct are as follows.
 - C4.1 Quality experienced by passengers at Christchurch Airport is high and comparable with other New Zealand airports.
 - C4.2 Based on submissions received as part of this section 56G review process, airlines appear to be generally satisfied with the quality of service provided at Christchurch Airport. Where concerns have been expressed, Christchurch Airport has indicated that these will be largely addressed in the future. Our analysis of data provided in information disclosure under Part 4 also indicates quality reflects airline demands.
 - C4.3 Christchurch Airport appears to facilitate improvements in quality or efficiency for services provided by its consumers (eg, airlines).
 - C4.4 Christchurch Airport appears to be responsive to matters of quality raised by airlines, and to engage effectively with them on issues that affect service quality.
- As discussed in Chapter 2, we may conclude that information disclosure is effectively promoting the purpose of Part 4 even if it is having a limited impact, on the basis that it is having as much an impact as we reasonably expect it to have. Our expectation of the impact of information disclosure at Christchurch Airport therefore considers the incentives generated by information disclosure and the length of time

since the regulation was implemented. We have also considered Christchurch Airport's other incentives to provide services at a quality that reflects consumer demands (for example, its incentive to maximise profits). If Christchurch Airport's other incentives are sufficiently strong to ensure service quality reflects consumer demands, the incentives generated by information disclosure are unlikely to have an additional impact on service quality.

- C6 Our draft conclusion is that information disclosure is effective at this time at Christchurch Airport. This is because, although information disclosure has not had an observable additional impact, the evidence available indicates Christchurch Airport's conduct in relation to service quality is appropriate, and that quality reflects consumer demands. Furthermore, there does not appear to be any concerns about the transparency of information on service quality at Christchurch Airport, although it is not clear that this is a result of information disclosure.⁴⁹
- Christchurch Airport's conduct and performance in this area appears to be attributable to incentives other than information disclosure. For example, improvements in quality observed since the introduction of information disclosure have been attributed to the development of the new integrated terminal, which occurred prior to information disclosure regulation. Given these incentives and the outcomes observed, we would not expect information disclosure regulation to have an additional impact on quality at Christchurch Airport at this time. Information disclosure regulation has not negatively affected these existing incentives to provide quality at a service that reflects consumer demands at this time. Si

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to provide services at a quality that reflects consumer demands

As discussed in our reports for Wellington and Auckland Airports, the regulated airports have some incentives to provide quality that reflects consumer demands,

BARNZ anticipates the quality measures disclosed will inform regular engagement on service quality at Christchurch Airport (BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 27). It is not clear what information was previously provided to airlines and other consumers on service quality at Christchurch Airport.

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 52; BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 26; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 99 to 100; Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 111. The development includes a new domestic terminal as well as an integrated check-in and baggage handling facilities for domestic and international passengers. The construction of the new terminal began in mid-2009.

This may occur by acting as a constraint on Christchurch Airport's profits, thereby weakening its incentive to invest where this would result in quality that reflects consumer demands.

aside from those provided by information disclosure regulation under Part 4 (discussed below).⁵² As a commercial operator, Christchurch Airport has incentives to provide quality at a level that consumers are willing to pay for to maximise profits. Christchurch Airport is also subject to other regulatory requirements. For example, the AAA requires Christchurch Airport to consult on material capex programmes with its major customers. This creates some incentives to understand the level of quality its consumers demand, and therefore may encourage Christchurch Airport to provide services at a quality that reflects consumer demands. Christchurch Airport is also obliged to meet safety requirements set by the Civil Aviation Authority (CAA), which requires a minimum level of quality.

C9 However, Christchurch Airport's approach to setting prices, along with its incentive to maximise its profits may weaken its incentives to provide quality at the level consumers demand. On the one hand, once prices are set for the pricing period, Christchurch Airport may earn higher profits by reducing its expenditure, resulting in a reduction in quality. On the other hand, a supplier subject to regulation (including monitoring of its return) that is targeting an excessive return has an adverse incentive to over-invest in quality where it will result in higher capital expenditure, so as to earn higher profits.

How information disclosure can provide incentives to provide the quality consumers demand

- C10 The public disclosure of information through information disclosure regulation can strengthen the incentives to provide services at a quality that reflects consumer demands, for example by requiring Christchurch Airport to disclose the process it has put in place for undertaking operational improvement forums.
- C11 We expect it may take some time for information disclosure regulation to be as effective as it can be in promoting the provision of services at a quality that reflects consumer demands. Significant quality improvements highlighted as necessary by consumers through information disclosure regulation may require a long lead time to implement if investment is required. The availability of a longer time series of information on quality may improve its effectiveness, including during consultation at price setting events. Only limited information on quality was available through information disclosure at the time of consultation for PSE2.

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" 8 February 2013, paragraphs C6 to C7; Commerce Commission "Report to the Ministers of Commerce and Transport on How Effectively Information Disclosure Regulation is Promoting the Purpose of Part 4 for Auckland Airport" 31 July 2013, paragraphs C6 to C7.

How we have assessed whether Christchurch Airport is providing quality at the level consumers demand

- C12 There are usually many dimensions to the quality of a service and a single indicator will provide only an approximation to the overall quality of the service or services to which it relates. Different types of consumers may also demand different levels of quality. We have therefore examined a number of aspects of service quality at Christchurch Airport experienced by different types of consumers.
- Our approach considers whether historic or forecast improvements to quality at Christchurch Airport reflect consumer demands. We have considered evidence of:
 - C13.1 whether the quality of service being received by passengers at Christchurch Airport reflects their demands;
 - C13.2 whether the aspects of service quality that are important to airlines and other substantial customers reflects their demands;
 - C13.3 changes to service quality following the introduction of information disclosure regulation; and
 - C13.4 Christchurch Airport's conduct in this area.
- Our assessment considers a number of aspects of quality, including the cleanliness and comfort of the airport, the reliability of different services provided by the airport and whether there is sufficient capacity to meet the demand of consumers. We have also considered whether Christchurch Airport facilitates improvements in quality or efficiency for services provided by its consumers (eg, airlines).
- C15 An assessment of whether quality reflects consumer demands implicitly includes an assessment of whether consumers are willing to pay for higher quality, or would prefer to pay less and receive a lower quality.⁵³

Information used to assess whether Christchurch Airport is providing services at the level of quality consumers demand

- C16 Our analysis is based on qualitative and quantitative information from:
 - C16.1 information disclosed under Part 4 and the AAA; and
 - C16.2 submissions and other material provided to the Commission as part of this section 56G review.
- C17 The information provided to us as part of this section 56G review has been helpful as it has allowed us to hear directly from Christchurch Airport's consumers on whether

We therefore also consider whether Christchurch Airport has over-invested in quality.

the quality they experience reflect their demands, taking into consideration the price-quality trade-offs. Information disclosure does not provide information on whether consumers are willing to pay for higher quality, whether they consider quality at Christchurch Airport is too high or low, or whether quality is at the appropriate level given costs. ⁵⁴ These price-quality trade-offs are largely addressed through consultation at the price setting events.

Analysis of Christchurch Airport's quality performance and conduct Is Christchurch Airport providing services at a quality that reflects passenger demands?

- C18 Christchurch Airport appears to provide services at a quality that reflects passenger demands. This is evidenced by the high passenger satisfaction scores and similar passenger satisfaction scores to other New Zealand airports. However, information disclosure does not appear to have an additional impact in this area at this time.
- C19 Table C1 shows that passenger satisfaction at Christchurch Airport since information disclosure regulation under Part 4 took effect is similar to passenger satisfaction at Wellington and Auckland Airports. ⁵⁶ It also shows that passenger satisfaction at Christchurch Airport is relatively high at between 3.9 and 4.2 out of a possible 5.

Table C1: Annual passenger satisfaction survey results for Christchurch, Auckland and Wellington airports (2011–12)

	;	2011	2012		
	Domestic	International	Domestic	International	
Christchurch	3.9	4.1	4.1	4.2	
Auckland	4.0	4.1	4.1	4.2	
Wellington	4.1	4.0	4.1	4.1	

Sources: Christchurch Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012; Auckland Airport, "Specified Airport Services Annual Information Disclosure" 2011 to 2012; Wellington Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012.

C20 Figure C1 shows that passenger satisfaction scores at Christchurch Airport have increased since information disclosure regulation under Part 4 was implemented. Following a period of declining passenger satisfaction scores after Q2 2009,

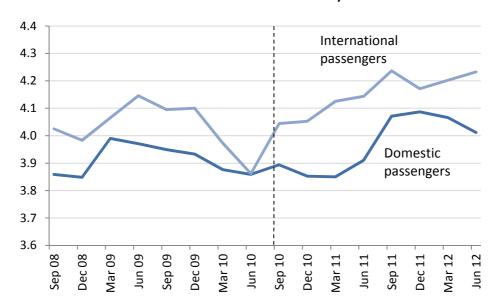
It does however provide information on the steps Christchurch Airport has taken to elicit feedback from consumers on the quality they expect.

We have not received any submission from passengers as part of this section 56G review to be able to consider passenger views on whether Christchurch Airport is providing services at a quality that reflects passenger demands. We have therefore been reliant on evidence provided in information disclosure, as well as submissions on this issue by airports and by airlines.

Our analysis uses measures of passenger satisfaction from the Airport Service Quality (ASQ) quarterly survey programme run by the Airports Council International (ACI).

passenger satisfaction scores for international passenger began to increase in September 2010 while scores for domestic passengers began to increase in June 2011. These timings closely relate to the beginning of construction work on the new integrated terminal in mid-2009, and the completion of key aspects of this work.⁵⁷

Figure C1: Quarterly passenger satisfaction survey results at Christchurch Airport (2008-12)



Notes: Graph shows average survey score in each quarter. Graph does not start at 0 for readability. Dotted line indicates the first quarter of passenger satisfaction results reported in information disclosure. To ensure comparability across time, not all survey questions are included in the analysis.

Sources: Christchurch Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012; Additional ASQ data provided in data request response from Christchurch Airport, 6 May 2013.

Does service reliability at Christchurch Airport reflect consumer demands?

- C21 An analysis of service reliability at Christchurch Airport provides information about continuity of supply.
- C22 Our analysis in Table C2 and Table C3 shows that Christchurch Airport generally has a similar or lower number and duration of interruptions for many services when compared with Auckland and Wellington Airports. The notable exceptions are interruptions to runway and baggage handling services in 2011. Christchurch Airport has attributed all runway interruptions to the earthquakes.⁵⁸ It is not clear what the

For example, the first stage of the new terminal was completed in May 2011. This included the completion of the integrated international/domestic check-in hall, first floor retail shopping and food court area. The development of the terminal was completed in March 2013.

There were 5 runway interruptions at Christchurch Airport in 2011 totalling 40 hours and 29 minutes, and 1 runway interruption of 2 hours 45 minutes in 2012. Note that the values shown in Table C2 and Table C3 have been normalised by the number of landings to allow comparisons with Auckland and Wellington Airports. Christchurch Airport "Specified Airport Services Information Disclosure Requirements

cause of the relatively high interruptions to baggage interruptions services was, although Christchurch Airport notes that its new integrated baggage handling system has resulted in a decline in the number of faults in this area. Operation of this new system commenced in April 2011. 59

Table C2: Normalised number of interruptions at Christchurch, Auckland and Wellington Airports (2011-12)

	2011			2012			
	Christchurch	Auckland	Wellington	Christchurch	Auckland	Wellington	
Runway	1	0	0	0	0	0	
Taxiway	0	0	0	0	0	0	
Remote stands/ means of (dis)embarkation	0	0	0	0	0	0	
Contact stands and air bridges	1	12	4	2	18	0	
Baggage sortation system on departures	6	2	3	2	2	1	
Baggage reclaim belts	1	0	0	1	1	0	
On-time departure delay	0	0	0	N/A	2	1	

Notes: Runway, taxiway, and stand and air bridge data reported per 10,000 landings. Outbound baggage sortation system data reported per million departing passengers. Baggage reclaim data reported per million arriving passengers. 2011 interruptions data shown here relates to interruptions caused by all parties. 2012 interruptions shown here include only interruptions where the primary cause is the airport. Differences in interruptions may also be due to varying approaches to recording interruptions at airports.

Information Templates for year ending 30 June 2011", page 27; Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 112.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 112.

Table C3: Normalised duration of interruptions (minutes) at Christchurch, Auckland and Wellington Airports (2011-12)

	2011			2012			
	Christchurch	Auckland	Wellington	Christchurch	Auckland	Wellington	
Runway	505	62	8	21	0	0	
Taxiway	0	7	0	0	0	0	
Remote stands/ means of							
(dis)embarkation	0	0	0	0	0	0	
Contact stands and air							
bridges	165	1,943	661	198	1732	8	
Baggage sortation system							
on departures	787	218	555	107	208	393	
Baggage reclaim belts	168	9	0	209	97	0	
On-time departure delay	0	0	0	N/A	88	2	

Notes: Runway, taxiway, and stand and air bridge data reported per 10,000 landings. Outbound baggage sortation system data reported per million departing passengers. Baggage reclaim data reported per million arriving passengers. 2011 interruptions data shown here relates to interruptions caused by all parties. 2012 interruptions shown here include only interruptions where the primary cause is the airport. Differences in interruptions may also be due to varying approaches to recording interruptions at airports.

C23 We consider it too early to be able to assess meaningful trends in service reliability at Christchurch Airport. Limited comparable information on service reliability is available prior to information disclosure. What information is available does not indicate any obvious change in performance in this area since information disclosure regulation under Part 4 was implemented. An analysis of information that is available is also complicated by the impact of the earthquakes.

Does the utilisation of capacity at Christchurch Airport reflect consumer demands?

- C24 Utilisation of capacity is relevant to our assessment of quality because it can identify potential service constraints, indicating that a service is not available when required.⁶¹
- C25 Our draft conclusion is that overall Christchurch Airport appears to have provided capacity at a level that reflects consumer demands. Where concerns have been raised about capacity constraints, Christchurch Airport has indicated that these will

Information on total unplanned interruptions to runway, baggage, stand and air bridge services was disclosed under the AAA prior to information disclosure.

However, a service may be constrained as consumers may not be willing to pay for additional capacity. In this case, increasing capacity may not reflect consumer demands. Where capacity is constrained, a more efficient outcome may be to introduce congestion charging than to increase capacity.

be largely addressed in the future.⁶² Air New Zealand also acknowledges that the investment forecast for PSE2 incorporates sufficient expenditure to address any potential constraints.⁶³ The following capacity constraints were identified by operational airline staff at Christchurch Airport.

- C25.1 Capacity constraints at gates for regional aircraft, resulting in regional operations having to use jet gates at times. In response, Christchurch Airport noted that planned investment in PSE2 to extend the regional apron and the regional aircraft parking space will address this issue. ⁶⁴
- C25.2 BARNZ noted that seating capacity in the regional lounge is limited at peak times. Christchurch Airport submitted that this capacity was designed by Air New Zealand, and it did not incorporate any feedback from Christchurch Airport. 65
- C25.3 Limited capacity in the international arrivals baggage reclaim area. Airline operation staff consider that an additional large belt is required in this area. Christchurch Airport noted that it is possible to modify the configuration of the international arrivals baggage claim area to address this issue when the need to do so is determined. ⁶⁶
- C25.4 Conflict between aircraft waiting to push-back from the terminal and aircraft taxiing on the taxiway at peak times. Christchurch Airport submitted that it has developed a new taxi lane as part of the new domestic jet apron specifically to address this issue. ⁶⁷

As discussed in paragraph C11, it may be reasonable that these concerns are not addressed immediately if it requires additional investment.

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 40.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, pages 20 to 21; Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 18.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, pages 20 to 21; Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 18.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, pages 20 to 21; Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 18.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, pages 20 to 21; Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 18.

Does Christchurch Airport facilitate improvements in quality and efficiency for services provided by its consumers?

- C26 We consider that quality also includes actions taken by Christchurch Airport which affect the quality of services provided by downstream suppliers and/or the ability of downstream suppliers to improve their efficiency. Many consumers of Christchurch Airport's services are themselves providers of services downstream. For example, airlines use Christchurch Airport's facilities and services to provide air transport services to passengers. The quality of services provided by Christchurch Airport may affect the service they are able to offer to their own consumers.
- C27 Our draft conclusion is that Christchurch Airport does facilitate improvements in quality and efficiency for services provided by its consumers. An example of this is its facilitation of the introduction of ground power units for aircraft. ⁶⁸ This avoids the need for aircraft to run their engines at the gate in order to power aircraft systems, saving fuel and reducing carbon emissions and noise. ⁶⁹

Does Christchurch Airport's conduct indicate that it seeks to ensure quality reflects consumer demands?

- C28 Overall, Christchurch Airport's conduct indicates that it seeks to ensure quality reflects consumer demands. However, it is not clear whether information disclosure has had an impact in this area.
- C29 Christchurch Airport appears to be responsive to matters of quality raised by airlines. Operational staff for the airlines have provided positive feedback on the willingness of Christchurch Airport to engage with airlines on 'teething' issues associated with the new terminal where this is having an impact on the quality of service received by airlines and passengers.⁷⁰
- C30 Christchurch Airport's consultation on quality appears appropriate.
 - C30.1 Christchurch Airport engages with airlines on quality issues through a number of forums. These include the Airlines Working Group, Airside Safety Group, Facilitation Group and the Airlines Operating Committee.⁷¹

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 50.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 24.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 26.

Christchurch Airport "Specified Airport Services Information Disclosure Requirements Information Templates for year ending 30 June 2012", page 33.

- C30.2 Although quality is not explicitly consulted on as part of price setting events, Christchurch Airport did appear to engage effectively with airlines on the service requirements for the new terminal during PSE1.⁷² As a result, it agreed significant improvements to services in the new terminal with airlines.⁷³ Air New Zealand notes that Christchurch Airport did not reflect all customer requirements in its design for the new terminal, and that this may result in some levels of services not being as requested by airlines.⁷⁴ It is not clear whether this is a result of disagreement between airlines, or between Christchurch Airport and the airlines. Airlines have not raised any major concerns with the resulting quality of service provided by the new terminal.
- C31 Christchurch Airport collates information to understand the quality demanded by consumers, in addition to that required under information disclosure. Christchurch Airport submitted that it carries out in depth market research to identify the cause of outcomes identified in the customer satisfaction survey, and undertook further research following the introduction of Air Asia X to understand the drivers of service and requirements of this passenger group.⁷⁵
- C32 Submissions have not indicated that this conduct is attributable to information disclosure regulation under Part 4. Indeed, Christchurch Airport notes that 'discussion during the PSE2 consultation was not directly influenced by information disclosure' other than 'it provided a framework on which information was disclosed'. This may be because limited information on quality at Christchurch Airport was available through information disclosure at the time of consultation, as discussed in paragraph C11, and suggests conduct at Christchurch Airport is influenced by other factors. To

For example, BARNZ has referred to a 'significant amount of discourse, and, at times robust exchange, on the level of service and quality seen as appropriate by airlines for both passengers and for the supply of aeronautical facilities and services' as part of consultation on the new terminal BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 27).

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 50.

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 53.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 49.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 51.

Unlike Wellington and Auckland Airports, Christchurch Airport has not attributed changes in quality to information disclosure regulation. Wellington Airport asserted that improvements to passenger satisfaction surveys and the consequent improvement in passenger satisfaction levels were partially attributable to the introduction of information disclosure. Auckland Airport attributes changes to its fault diagnosis and management system and an improved focus on reliability to information disclosure

Attachment D: Is information disclosure promoting prices that are efficient at Christchurch Airport?

Purpose

- D1 This attachment summarises the analysis undertaken by the Commission to assess the effectiveness of information disclosure regulation in promoting outcomes consistent with workably competitive markets such that Christchurch Airport has incentives to set prices that promote efficiency (s 52A(1)(b) of the Act).⁷⁸
- D2 References to prices in this attachment relate to the charging structure at Christchurch Airport and how Christchurch Airport's total revenue requirement is collected from different services and consumers. This is set out in Christchurch Airport's pricing methodology disclosed in information disclosure. This attachment does not consider whether Christchurch Airport's target total revenue (and therefore the overall level of prices) is appropriate. That is considered in Attachment E.
- D3 Consistent with s 52A(1)(b), we have assessed whether the pricing methodology used by Christchurch Airport is likely to result in prices that improve efficiency. We have therefore assessed Christchurch Airport's pricing methodology for PSE2 relative to its PSE1 pricing methodology. Our analysis does not assess whether Christchurch Airport's prices are fully efficient.

Draft conclusion

- Our analysis indicates that Christchurch Airport's pricing methodology for PSE2 is likely to promote efficiency and that Christchurch Airport did seek to improve the efficiency of its pricing to some extent for PSE2. However, based on the evidence available during this section 56G review, information disclosure regulation under Part 4 does not appear to have been as effective as we would have expected it to be at this point in time, in promoting prices that are efficient at Christchurch Airport.
- Our analysis indicates that Christchurch Airport's pricing methodology for PSE2 is likely to better promote efficiency relative to the PSE1 pricing methodology. For example:
 - D5.1 Christchurch Airport made changes to its pricing methodology to address previous concerns about cross-subsidisation;

regulation under Part 4. 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" 8 February 2013, paragraph C4.3; Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" 31 July 2013, paragraph C5.

Section 52A1(b) states that the Part 4 purpose is to promote outcomes such that regulated suppliers "have incentives to improve efficiency".

- D5.2 Christchurch Airport has considered to some extent the impact of its pricing structure for PSE2 on consumers' demand responsiveness; and
- D5.3 no airlines have raised concerns about their ability to make price-quality trade-offs for PSE2.
- The public disclosure of the pricing methodologies generates incentives for airports to ensure their pricing methodology is consistent with efficient pricing principles. We also expected information disclosure regulation to have led to more constructive engagement with airlines on Christchurch Airport's pricing methodology for PSE2. This is because, in order to be consistent with efficient pricing principles, airports are required to consider the likely impact of the pricing methodology on decisions made by consumers (including airlines). As such we would expect an airport to constructively engage with airlines when determining their pricing methodology.
- Overall, information disclosure regulation does not appear to have been as effective as we would have expected it to be in this area at this time. The evidence suggests consultation on the pricing methodology for PSE2 was not constructive: there appears to be some confusion from airlines on the purpose of specific changes to the pricing methodology (even during consultation on this section 56G review), and airlines have raised concerns about Christchurch Airport's engagement on issues they raised during consultation. Although we consider Christchurch Airport's pricing methodology for PSE2 does promote efficiency, it may have better promoted efficiency if information disclosure had been more effective.
- D8 Christchurch Airport has not indicated that the requirement to outline its pricing methodology in information disclosure had an impact on its decisions in this area, other than to provide a cross-check on its reasons supporting the efficiency of its pricing decision. ⁸¹

These expectations are consistent with our findings for Wellington and Auckland airports. Wellington Airport indicated that one of the reasons it changed its pricing methodology was due to information disclosure regulation and the development of the IMs. Meanwhile, Auckland Airport noted that information disclosure regulation prompted discussions with airlines about its pricing methodology, and that these discussions led to a number of improvements in its pricing methodology for PSE2. 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" 8 February 2013, paragraph D6; Commerce Commission "Report to the Ministers of Commerce and Transport on How Effectively Information Disclosure Regulation is Promoting the Purpose of Part 4 for Auckland Airport" 31 July 2013, paragraph D6.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 31; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 84.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 22.9.

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to set prices that promote efficiency

D9 Christchurch Airport has an incentive to set prices that will result in higher demand and therefore higher profits. It therefore has incentives to set prices that promote efficiency. However these incentives may be distorted where Christchurch Airport's market power differs between areas.

How information disclosure can provide incentives to improve pricing efficiency

- D10 The increased transparency of Christchurch Airport's pricing methodology generated by information disclosure regulation may strengthen incentives to set prices that promote efficiency in a number of ways.
 - D10.1 Information disclosure regulation under Part 4 allows interested persons to understand the reasons for the pricing methodology adopted, and to assess the outcomes resulting from the methodology. This greater transparency may enhance consumers' countervailing power over time.
 - D10.2 The potential scrutiny of the disclosed pricing methodology (including by us) may incentivise Christchurch Airport to ensure its pricing methodology is consistent with efficient pricing principles. It may therefore also incentivise Christchurch Airport to effectively engage with consumers on its pricing methodology during consultation on the price setting event. This is because engagement with consumers will help the airport understand the likely impact of the pricing methodology on decisions made by consumers, and therefore whether the pricing methodology is consistent with efficient pricing principles. This also has the effect of strengthening consumers' countervailing power.
 - D10.3 The disclosure of pricing methodologies can also provide examples of best practice from other regulated airports.

How we have assessed whether Christchurch Airport's prices promote efficiency for the purpose of this review

D11 Section 52A(1)(b) states that the Part 4 purpose is to promote outcomes consistent with outcomes in workably competitive markets such that regulated suppliers "have incentives to improve efficiency". This includes productive, dynamic and allocative efficiencies.⁸³

For example, through price discrimination.

Productive efficiency relates to the supply of goods or services at the lowest cost possible, while maintaining (or increasing) the quantity and quality of the good or service produced. Dynamic efficiency relates to decisions made over time, including investment and innovation, which improve productive

- D12 The prices set by Christchurch Airport through its pricing methodology have an important role to play in improving efficiency. Consistent with outcomes observed in workably competitive markets, the prices set by Christchurch Airport for each charged service should help ensure the efficient allocation of its aeronautical services and therefore its resources (allocative efficiency) and provide signals of where innovation and investment is needed at Christchurch Airport to meet consumer demands (dynamic efficiencies).
- D13 To assess whether Christchurch Airport's prices promote efficiency, we have reviewed its pricing methodology for PSE1 and PSE2 against efficient pricing principles. This will allow us to understand whether information disclosure regulation has had any impact on its performance in this area.

Information used to assess whether Christchurch Airport set prices that promote efficiency

- D14 Our analysis uses quantitative and qualitative data from the following sources:
 - D14.1 information disclosed under Part 4 and AAA; and
 - D14.2 submissions and other material generated as part of this section 56G review.

Analysis of whether Christchurch Airport's performance and conduct on pricing resulted in prices that promote efficiency

- D15 The remainder of this attachment considers:
 - D15.1 the appropriate efficient pricing principles to assess Christchurch Airport's pricing methodology against;
 - D15.2 the extent to which Christchurch Airport's methodology for PSE2 addresses each of these principles relative to PSE1; and
 - D15.3 Christchurch Airport's conduct in setting its pricing methodology during PSE2.

Efficient pricing principles

D16 We have assessed Christchurch Airport's pricing methodology and subsequent prices against a number of principles that reflect the objectives of efficient prices. ⁸⁴ These principles are discussed in more detail in the following sections.

efficiency. Allocative efficiency occurs when resources, goods or services are allocated to their highest value use.

These principles are consistent with the pricing methodology IM applicable to gas distribution and transmission businesses. See Commerce Commission "Input methodologies (Electricity Distribution and

- D16.1 Prices should be subsidy free.⁸⁵
- D16.2 As part of this, 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.
- D16.3 Prices should have regard to consumers' demand responsiveness.
- D16.4 Prices should enable consumers to make price-quality trade-offs or nonstandard arrangements for services, where practical, to reflect the value they place on services.
- D16.5 The development of prices should be transparent, and promote price stability and certainty for consumers, where demanded.

Prices should be subsidy free

- D17 To be subsidy free, prices should be equal to or greater than incremental costs, and less than or equal to standalone costs. 86 We recognise there may be instances where it is not efficient for these criteria to be met. 87
- D18 Our draft conclusion is that Christchurch Airport's pricing methodology for PSE2 is unlikely to result in cross-subsidisation, and the evidence suggests its pricing methodology better reflects the principle of being subsidy free relative to PSE1. Christchurch Airport submitted that the introduction of a fixed charge per aircraft departure was designed to address concerns about previous cross-subsidisation of turbo prop aircraft by jet aircraft. Christchurch Airport has further limited the likelihood of cross-subsidisation occurring in PSE2 with the introduction of charges for children.

Gas Pipeline Services) Reasons Paper" December 2010, Table 7.2. Similar principles are discussed in reports commissioned by airlines, Wellington Airport and Auckland Airport during consultation for the second pricing periods. See for example, Estina Consulting Limited "Aeronautical Pricing Methodology" 13 September 2011.

- Subsidy free prices are generally a necessary but not sufficient condition for efficient pricing.
- The incremental cost is the cost of producing another service. The standalone cost is the cost that would have occurred if the supplier solely undertook that activity. 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.
- For example, if the cost of collecting the information to ensure that the price charged to each individual consumer is subsidy free outweighs the benefits of setting prices that are subsidy free.
- This also resulted in an incentive for airlines to substitute between jet and turbo prop aircraft so as to reduce their airport charges (Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, paragraph 27; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 71 to 72; Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 107).

D19 The evidence available to us does not indicate that there is cross-subsidisation at Christchurch Airport. Airlines raised concerns that jet aircraft were facing disproportionate increases in charges relative to turbo prop aircraft and that operators which only use airfield services (such as freight and military operators) are cross-subsidising terminal activities. 89 Christchurch Airport has provided analysis to demonstrate that there is no cross-subsidisation of turbo prop aircraft by jet aircraft. 90 We also understand that the relatively low charges for turbo prop aircraft reflect the reduced 'damage' to the runway caused by these aircraft relative to heavier jet aircraft, the shorter and narrower runway used by turbo prop aircraft, and the reduced taxiway and parking areas that would be required if only turbo prop aircraft were to use the airfield. 91 It also became clear at the conference for Christchurch Airport and in cross-submissions on this conference that, in some cases, the airlines concerns about the cross-subsidisation of terminal activities are not so much that there is cross-subsidisation (as defined in paragraph D17), but that the level of revenue (and thereby profits) sought by Christchurch Airport is excessive. 92 We therefore do not consider there is any evidence that cross-subsidisation is occurring at Christchurch Airport.

Price should ensure the optimal use of scarce resources

D20 Scarcity at airports may arise through congestion at facilities, and a lack of capacity where required. To understand whether Christchurch Airport's prices promote the optimal use of scarce resources, we have examined whether Christchurch Airport's prices are likely to allocate congested or scarce services efficiently to manage competing demands for limited capacity and resources.⁹³

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 31; Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 60.

Christchurch Airport, "Airfield charges analysis" 1 September 2012. This analysis was undertaken as part of Christchurch Airport's consultation with airlines during PSE2. We were unable to independently review this analysis but have not received submissions from airlines to suggest this analysis is incorrect.

Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 82; Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, Appendix 7.

Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 73 to 74; Air New Zealand "Post-Conference Cross-Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 19 June 2013, paragraph 19. Our assessment of whether Christchurch Airport is targeting excessive profits is discussed in Attachment E.

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. This will likely result in higher prices for those scarce resources and will help ensure that only those who benefit most from consuming the service will do so.

D21 Our draft conclusion is that 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. For example, Christchurch Airport submitted that planned investment in PSE2 to extend the regional apron and the regional aircraft parking space will address concerns about capacity constraints at gates for regional aircraft. Airlines have not indicated that they would prefer these constraints to be managed through the pricing structure instead, or indicated that there are other capacity constraints which are not being addressed.

Prices should have regard to consumers' demand responsiveness

- 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 would be to make up any shortfall by setting prices in a manner that has regard to consumers' demand responsiveness, to the extent practicable (ie, Ramsey pricing principles).⁹⁵
- Our draft conclusion is that Christchurch Airport has considered consumers' demand responsiveness to some extent in its pricing methodology for PSE2, although it is unclear whether pricing efficiency in respect of this principle has improved relative to PSE1. Christchurch Airport submitted that its prices in PSE2 are below its levelised constant price due to concerns that targeting this price would have an adverse effect on overall demand. During consultation for PSE2, it also reduced the fixed charge per aircraft departure for turboprop aircraft in response to concerns from Air New Zealand that this would have a major impact on charges for these aircraft. Christchurch Airport has also submitted that its charges were intended to lead to a slightly higher level of cost recovery from relatively less price sensitive domestic services, and a relatively lower cost recovery from more price sensitive international services.

Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 18.

This means that if the cost of serving each consumer group is the same, those consumers that are less responsive to prices are set higher prices than more price-sensitive consumers. For this to be efficient, prices that adopt Ramsey pricing principles should increase output relative to a common price for all consumers.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 110.

Christchurch Airport "Decision on the Reset of Aeronautical Charges or the period ending 30 June 2017"
 24 October 212, pages 21 to 22.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 58.

- D24 Further improvements in Christchurch Airport's consideration of demand may result in more efficient outcomes. Airlines and freight operators have raised some specific concerns about the impact of Christchurch Airport's pricing methodology on their future demand. For example, Emirates submitted that as a result of Christchurch Airport's charges, per passenger charges will be higher for the wide body aircraft (eg, Boeing 777-300) it uses relative to the narrower gauge aircraft used by its competitors (eg, Boeing 737-800). ⁹⁹ Freightways has indicated that increases in Christchurch Airport's prices will have an impact on its demand, and question why its charges do not reflect that it operates outside peak hours and does not utilise many of the airport's facilities. ¹⁰⁰
- D25 A number of airlines have raised concerns during this section 56G process on the impact of Christchurch Airport's prices on their demand. The concerns raised by airlines appear to relate largely to the overall level of prices (ie, the overall revenue targeted by Christchurch Airport) rather than the allocation of the required revenue across consumers. Our assessment of whether the level of revenue targeted by Christchurch Airport is excessive is discussed in Attachment E.

Prices should enable price-quality trade-offs

- D26 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 as well as standard charges that reflect the use (and non-use) of specific assets that affect the quality of service provided.
- D27 Our draft conclusion is that the price-quality trade-offs in Christchurch Airport's pricing methodology are appropriate. This is because Christchurch Airport enables consumers to make price-quality trade-offs through commercial arrangements and individual contracts, and airlines have not raised any concerns about their ability to make price-quality trade-offs through the standard charges set at Christchurch Airport. It is not clear whether there has been an improvement in consumers' ability

Letter from Emirates to the Commerce Commission with its post-conference cross-submission on Christchurch Airport Section 56G Report (20 June 2013). This price differential puts Emirates at a cost disadvantage relative to its competitors, particularly as Emirates has limited flexibility to change its aircraft type due to its capacity commitments under the authorised Trans-Tasman alliance. In March 2013, the Australian Competition and Consumer Commission (ACCC) authorised an alliance between Qantas and Emirates until March 2018. This alliance involves the coordination of airlines' passenger and cargo transport operations and other related services. As part of this agreement, the airlines are required to maintain at least pre-alliance aggregate capacity on trans-Tasman routes. (http://www.accc.gov.au/media-release/accc-grants-conditional-authorisation-for-an-alliance-between-qantas-and-emirates). Ministerial authorisation of this alliance was granted by the New Zealand Ministry of Transport in May 2013.

Freightways Express "Submission to the Commerce Commission, Commerce Act 1986, Part 4, Section 56G Review: Christchurch International Airport" 4 April 2013.

to make price-quality trade-offs since information disclosure. This is not a concern as the price-quality trade-offs in Christchurch Airport's pricing methodology for PSE2 are considered to be appropriate.

- D28 Christchurch Airport's standard charges do not allow for explicit price-quality trade-offs (for example, explicit charges for airbridge or walking access). Airlines have not raised any concerns in submissions about this. Overall price-quality trade-offs were made during consultation on the opex and capex forecasts for PSE2.¹⁰¹ This indicates that the absence of price-quality trade-offs within the standard charges is appropriate.
- D29 The evidence available indicates Christchurch Airport has enabled consumers to make price-quality trade-offs through other aspects of its pricing methodology, including agreements for users of specific assets. For example, it is negotiating long term contracts for the use of ground power assets by domestic aircraft, and has specific commercial arrangements for dedicated check-in counters. 102

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

- D30 Our draft conclusion is that, overall, the development of prices at Christchurch Airport promotes appropriate price stability and certainty for stakeholders. However, the evidence that Christchurch Airport has developed its pricing methodology transparently is mixed. This indicates that information disclosure regulation has not been effective in fully promoting this principle.
- D31 Christchurch Airport appears to have considered the stability of its prices for PSE2, although there are some concerns about the magnitude of the increase in prices. Christchurch Airport submitted that the five month delay in its proposed price increase and its planned under-recovery of forecast costs in PSE2 indicates it has considered the stability of its prices. Airlines have expressed some concern about the magnitude of the increase in prices following the price setting event. Our own

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 59.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraphs 39.2 to 39.3.

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 16.

Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 80.

- analysis indicates that airfield charges per departure will increase by an average of around 80% across aircraft types between 2010 and the close of PSE2 in 2017. 105
- D32 The evidence available indicates Christchurch Airport provides price stability, where possible. Christchurch Airport's use of a levelised constant price indicates it has considered the importance of price stability. The evidence also suggests Christchurch Airport is open to longer term contracts. We understand that Christchurch Airport has agreed a number of longer term contracts with airline customers, including a 20 year lease on the regional terminal with Air New Zealand. While airlines have expressed a desire for longer term contracts going beyond the PSE2 period of four years and seven month, we understand that the AAA limits Christchurch Airport's ability to set or commit to charges for a longer period than five years.
- D33 The evidence that Christchurch Airport has developed its pricing methodology transparently is mixed. Qantas supported the simplification of charges by Christchurch Airport, which increases transparency. However, there appears to have been some confusion on the purpose of the fixed charge per aircraft departure. This confusion indicates that the process of developing the PSE2 pricing methodology at Christchurch Airport could have been more transparent. As discussed below, the process for developing the pricing methodology could have better engaged with consumers.

This analysis is based on the different types of aircraft that use Christchurch Airport. It does not reflect the proportion of traffic at Christchurch airport from each type of aircraft (ie, it is not a weighted average).

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph

Qantas/Jetstar recommended a longer pricing cycle of nine and a half years, with reviews of key elements every three to four years (Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013). Air New Zealand also indicated it has sought a long-term contract, although it is not clear what the purpose of this would be, or the reasons for seeking one (Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 69). s4B of the AAA states that airports must consult on charges within five years of setting its charges.

Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013.

Airlines were concerned that the intention of this charge was to address congestion on the airfield, at a time when they did not consider the airfield to be congested. Our understanding is that the purpose of the fixed charge per aircraft departure is to reflect the fixed costs of operating the runway (for example, emergency fire services). BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 31; Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 10.

Does Christchurch Airport's conduct indicate that it seeks to improve the efficiency of its pricing?

- Overall, Christchurch Airport's conduct in setting the pricing methodology for PSE2 does indicate that it seeks to improve the efficiency of its pricing to some extent. However, we would have expected Christchurch Airport to have further considered the efficiency of its pricing, for example, by engaging more constructively with the airlines during consultation in PSE2. Therefore, information disclosure does not appear to have been fully effective in this area.
- D35 Christchurch Airport did, to some extent, consider the efficiency of its prices for PSE2. Christchurch Airport employed economic and engineering experts to review the appropriate allocation of airfield costs across different aircraft types, and reduced its fixed charge for departures by smaller aircraft in response to concerns it may result in a reduction in demand. 110
- D36 However, airlines have expressed some concerns that Christchurch Airport did not engage on concerns they raised in respect of its pricing structure during consultation on price setting event. While it is not always clear that addressing airline concerns will result in more efficient prices, the perceived lack of engagement on issues raised indicates that Christchurch Airport did not seek to improve the efficiency of its prices to the extent possible.
- D37 We understand that Christchurch Airport's price setting process is not intended to address the needs of all its consumers, and that it is open to negotiating variations to its standard charges following the price setting event. It notes that 'consultation on the pricing structure would become unwieldy if it tried to accommodate ever possible variation on the use of the airfield'. We are not necessarily concerned that the price setting event does not address the concerns of all customers regarding the efficiency of the pricing structure provided that these are addressed appropriately following the price setting event. It is not clear that this has occurred at Christchurch Airport.
- D38 There is no evidence to suggest that Christchurch Airport's conduct in this area has improved since PSE1.

Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, paragraph 28; Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 72 to 73.

Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 84.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, paragraph 17.

Changes to the information disclosure requirements

D39 We do not anticipate that changes to the information disclosure requirement would significantly strengthen incentives in this area. The pricing principles we have assessed Christchurch Airport's pricing methodology against are based on well-known economic theory. 113

Furthermore, these are also set out in the pricing methodology IM applicable to gas distribution and transmission businesses.

Attachment E: Is information disclosure limiting Christchurch Airport's ability to extract excessive profits?

Purpose

- This attachment contains our analysis and draft conclusions on how effectively information disclosure regulation is promoting outcomes consistent with those produced in competitive markets such that Christchurch Airport is limited in its ability to extract excessive profits (s 52A(1)(d) of the Act).
- For the purpose of this section 56G review, profitability is measured as the returns achieved or expected by a supplier from its operations over time relative to the value of the assets employed in those operations. A supplier's profitability can be compared against the cost of capital to assess whether it is earning a reasonable economic return over time, or whether its profits are excessive. Further discussion of our approach to assessing Christchurch Airport's returns is provided in Attachment F.

Draft conclusion

Information disclosure is not effective in limiting Christchurch Airport's ability to earn excessive profits

- Our draft conclusion is that, at this time, information disclosure regulation has not been effective in limiting Christchurch Airport's ability to extract excessive profits over time, because:
 - E3.1 the regime does not appear to have materially influenced Christchurch Airport's price setting behaviour for PSE2;

We use 'returns' as the measure of airport profits. 'Normal returns' are the expected return that investors require to invest in a business with the given level of systematic risk. We consider the mid-point estimate of the cost of capital to provide the best estimate of a normal return, and to be the appropriate starting point for any assessment of airport profitability. However, we have also considered the 75th percentile cost of capital when assessing airport profitability. As is discussed in paragraph F81, the 75th percentile cost of capital allows for the uncertainty of estimating the cost of capital and limits the potential asymmetric consequences of estimation error on investment. Targeting returns within this range will generally be consistent with limiting the ability of the airport to earn excessive profits, while allowing it to achieve at least a normal return--ie, it will be an 'acceptable range'. However, if a clearly inefficient airport were to target returns within this range, yet consistently at (or close to) the 75th percentile, that would still require a consideration of whether that airport is limited in its ability to earn excessive profits. (refer Commerce Commission "Auckland International Airport Limited Final s56G Report" 31 July 2013, paragraph 2.9). Returns marginally above this range are not on their own necessarily indicative of the 'excessive profits' referred to in the Part 4 purpose statement (ie, in s 52A(1)(d)). It may be appropriate to assess whether excessive profits are expected to be earned after consideration of other factors, including whether superior performance by the airport justifies earning a return above this cost of capital range (eg, see Commerce Commission "Input Methodologies (Airport Services) Reasons Paper" December 2010, paragraphs 1.2.2, 2.6.28 and 6.2.3.

- E3.2 the airport's expected profitability performance is not transparent for interested persons; and
- E3.3 although Christchurch Airport may not have considered it was targeting excessive profits for PSE2 (ie, 2012 to 2017), its target returns over the 20 year period (from 2012 to 2032) are well above an acceptable range.
- Christchurch Airport may not have considered it was targeting excessive profits for PSE2, because expected returns for PSE2 are within an acceptable range if returns are estimated using the standard assumptions in the information disclosure regime to assess profitability. Christchurch Airport's target return for PSE2, based on an IMcompliant RAB and applying standard depreciation assumptions, is 6.8%, which is within an acceptable range of returns (ie, 6.6% to 7.6%).¹¹⁵
- However, Christchurch Airport's conduct in setting prices for PSE2 appears to have been primarily influenced by the short-term and longer term demand-related considerations that are affecting the airport, rather than by information disclosure. Prices for PSE2 reflect the short-term uncertainty in demand due to the Canterbury earthquakes, as well as the expected increase in utilisation of Christchurch Airport's new integrated terminal over the longer term.
- In any case, Christchurch Airport is actually targeting its returns over the 20 year life cycle of its investment in the new integrated terminal, rather than just over PSE2.

 Over this full 20 year period (ie, comprising PSE2 and the subsequent 15 years)

 Christchurch Airport's expected returns are equivalent to a target return of 8.9% on its regulated assets, which is well above an acceptable range. It is not clear whether:
 - E6.1 Christchurch Airport will act consistently with that target at each of the next three price setting events;
 - the demand-related considerations influencing Christchurch Airport's prices for PSE2 will still apply at future price setting events; or
 - information disclosure might have a greater influence on Christchurch Airport's conduct at those events.
- E7 Given that Christchurch Airport's acceptable target returns for PSE2 appear to be due to the influence of demand-related factors, if information disclosure were being effective (based on the existing disclosure requirements) we do not expect that the

We assessed the mid-point to 75th percentile range for the cost of capital for both Wellington and Auckland Airport to be between 7.1% and 8.0%. This was based on using the WACC estimate as at 30 April 2012 which is the date we considered was most reasonable for assessing Wellington and Auckland Airport's expected returns in taking into account when each airport finalised the inputs to its pricing model. As discussed in paragraph F73, our range of acceptable returns for Christchurch Airport is estimated as at 1 October 2012.

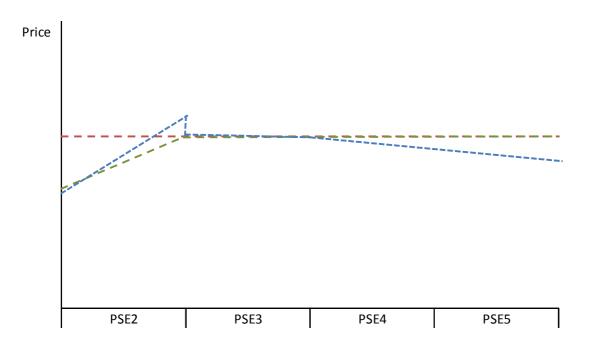
regime would have necessarily resulted in different prices for PSE2. Rather, we would have expected the regime to have resulted in greater clarity about the airport's expected profitability performance (for PSE2 and beyond). However, to date, sufficient information is not available to interested persons to assess Christchurch Airport's expected profitability performance, because its price setting disclosure does not fully or transparently reflect its pricing approach.

It is difficult to assess the level of profits that Christchurch Airport is targeting

- E8 Christchurch Airport's approach to setting prices for PSE2 (see Figure E1 on the next page) involves:
 - estimating a proposed 'levelised constant real price' path over a 20 year period (from 30 November 2012 30 June 2032) to reflect the relatively low utilisation of its new integrated terminal early on in the terminal's lifetime; and
 - E8.2 making a commercial decision to only gradually increase prices during PSE2 from current price levels to this levelised price path, given uncertainty about demand over the next 2-3 years due to the Canterbury earthquakes.
- The AAA allows Christchurch Airport to set prices as it sees fit, and 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. Christchurch Airport has explained that the approach avoids price shocks and provides more stable cash flows for both Christchurch Airport and the airlines.
- E10 Christchurch Airport's levelised pricing approach reflects efficient pricing principles and is conceptually easy to understand. However, we have some issues with how the approach has been implemented in practice, and about the extent the implementation of the approach is transparent to interested persons.
- Information disclosure is not meeting the s 53A objective for profitability because, based on the information disclosed by Christchurch Airport about its PSE2 pricing approach, it is difficult for any interested party (including ourselves) to draw a conclusion on whether Christchurch Airport has set prices to target excessive profits over the 20 year period for which the airport has estimated its proposed levelised price path.
- E12 To understand the assumptions underpinning Christchurch Airport's prices for PSE2, as well as its pricing proposals for the subsequent 15 years, we needed to go beyond the information that the airport disclosed about its pricing approach, and to undertake a more detailed investigation. In doing so, we discovered, among other things, that Christchurch Airport's public description of its 'levelised' price path did not fully or transparently reflect its actual approach. For instance, despite setting prices over a 20 year period, the pricing model that Christchurch Airport provided to

the airlines during consultation is only for a 10 year period, which makes it difficult to fully understand all the assumptions underpinning the entire levelised pricing period.

Figure E1: Christchurch Airport's proposed 'levelised' and actual price path (in real terms)¹¹⁶



CIAL levelised constant price - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as estimated by the Commission
(in real terms)

Another difficulty is that Christchurch Airport has implemented its pricing approach on a pre-tax basis, rather than on a post-tax basis consistent with the information disclosure framework. Consequently, BARNZ and the airlines have expressed some confusion about the pricing approach Christchurch Airport has elected to take, and do not agree with Christchurch Airport as to the impact of the approach.¹¹⁷

This figure is intended for illustrative purposes only and is not to scale.

BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, pages 2 – 4; Air New Zealand "Post-Conference Cross-Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 19 June 2013, paragraphs 13 – 18.

We also do not agree with Christchurch Airport's assessment of the impact of its approach. It is therefore difficult for us to assess the forecast target return that Christchurch Airport itself might have expected the Commission to estimate for the 20 year 'levelised' pricing period (on a post-tax basis). This is particularly the case given that we have no evidence Christchurch Airport's price setting was materially influenced by the information disclosure regime, and therefore we do not know the extent to which the airport might have turned its mind to this question at the time it set its prices for PSE2.

Christchurch Airport appears to be targeting excessive profits over the longer term, but not in the short term

- Despite these difficulties, we have estimated the expected target return (on a post-tax basis) that is consistent with Christchurch Airport's commercially based pricing decisions for PSE2. Christchurch Airport set prices such that expected returns over PSE2 are equivalent to a target return of 6.8% (based on an IM-compliant RAB and applying standard depreciation assumptions). Although this target return is above a normal return, it is within an acceptable range of returns of 6.6% to 7.6%. ¹¹⁸
- Christchurch Airport is actually targeting its returns over the 20 year life cycle of its investment in the new integrated terminal. Over this full 20 year pricing period (ie, under the commercially based prices for PSE2, and for the remaining 15 years under its levelised price path) Christchurch Airport's expected returns are equivalent to 8.9% on its regulated assets. This target return is above an acceptable range of returns.
- Our approach to determining Christchurch Airport's expected target return, for the purpose of assessing its conduct with respect to profitability, is consistent with our approach for Auckland Airport. However, given that Christchurch Airport is seeking to achieve its target return over 20 years, instead of over any single pricing period,

At the time Christchurch Airport set its prices for PSE2, it may have considered that the Commission would assess its expected returns over PSE2 only, and do so on an IM-compliant RAB depreciated using the standard straight-line depreciation method (and indexed for inflation), consistent with the standard assumptions in the information disclosure regime to assess profitability. However, a RAB derived using these standard depreciation and indexation assumptions is not consistent with Christchurch Airport's 20 year levelised constant real price path. Therefore, the 6.8% target return value under-estimates expected returns in PSE2, because it represents returns on a RAB which is depreciated in a manner that is not consistent with Christchurch Airport's long term pricing proposals. The IMs and the information disclosure framework allow airports to apply an alternative depreciation method that would be consistent with a levelised price path. However, Christchurch Airport was not required to disclose its forecast RAB using such an alternative approach. Therefore, for the purpose of assessing its conduct in relation to expected returns, we have recognised that, to the extent it turned its mind to this question, Christchurch Airport may have considered the Commission might assess its returns based on an IM-compliant RAB and applying standard depreciation and indexation assumptions. Our estimate of the expected target return on Christchurch Airport's regulated assets calculated on this basis is 6.8%. Therefore, this is the value we have reported in assessing Christchurch Airport's conduct in respect of expected returns for PSE2.

- our estimate of the target return relates to a 20 year period rather than to the typical five year pricing period for the other airports.
- Although our estimate of Christchurch Airport's expected target return for the full 20 year levelised pricing period is above the upper limit for an acceptable range of returns, Christchurch Airport may have considered its 20 year target return was lower than this, due to its simplified approach to transforming post-tax returns to pre-tax returns. We consider that applying the information disclosure framework appropriately, taking into account Christchurch Airport's levelised pricing approach, does not support such a conclusion.
- Christchurch Airport's approach to price setting is significantly different from Wellington Airport and Auckland Airport. There have been some complexities and challenges involved in taking these differences into account in our analysis. We welcome feedback from interested persons on any aspect of our approach to assessing Christchurch Airport's conduct (and performance) in relation to its expected returns.

Christchurch Airport's pricing approach highlights possible limits to information disclosure's effectiveness

- For its disclosures following the PSE2 pricing event, Christchurch Airport disclosed its forecast regulatory asset base (RAB) applying a standard straight-line depreciation approach, and indexing the asset base for inflation. It chose not to use an approach equivalent to the mechanism in the input methodologies that provides for an alternative 'non-standard' depreciation approach (ie, an approach other than straight-line depreciation). Christchurch Airport could have derived and disclosed forecast depreciated values of its RAB that are consistent with its levelised price path (ie, reflecting relatively low capacity utilisation in the short term). Doing so would have allowed interested persons to better assess the impact of its levelised pricing approach on expected returns for PSE2 and beyond.
- E21 Christchurch Airport was entitled not to apply a non-standard depreciation approach, because under the information disclosure regime airports are not required to apply the input methodologies in disclosing their forward-looking pricing methodologies. Nevertheless, as a result of doing so, Christchurch Airport's expected profitability performance for PSE2 and subsequent pricing periods is not as transparent as it otherwise could have been.
- E22 For its annual disclosures of each year's actual profitability performance, Christchurch Airport may also choose not to apply an alternative depreciation approach that is consistent with its levelised pricing approach, and to disclose RAB values using straight-line depreciation instead. If so, it is likely that interested parties will continue to find it difficult to assess whether Christchurch Airport is limited in its ability to earn excessive profits. In addition, commercially-based pricing decisions at future price setting events may further complicate such assessments.
- E23 Our analysis of Christchurch Airport's profitability has therefore highlighted that there may be a limit to information disclosure's effectiveness in limiting excessive

profits where an airport decides to take a pricing approach that is not explicitly contemplated by the disclosure regime.

How we have structured the analysis in this attachment

- E24 The analysis in this attachment outlines:
 - E24.1 how we have assessed the effectiveness of information disclosure;
 - how we have assessed whether Christchurch Airport is earning excessive profits;
 - E24.3 whether Christchurch Airport's conduct indicates that it seeks to earn a reasonable economic return over time; and
 - E24.4 Christchurch Airport's expected profitability.

How we have assessed the effectiveness of information disclosure

Incentives on Christchurch Airport to limit excessive profits

- E25 Without information disclosure regulation, Christchurch Airport would be expected to have weak incentives to limit excessive profits. Christchurch Airport has market power and may therefore be expected to choose to set prices that result in excessive profits. However, in contrast to Auckland and Wellington Airports, Christchurch Airport has stated that it is the airport most exposed to leisure travel, and that it is in competition with Auckland Airport, particularly for direct services into New Zealand from overseas services (including the United States, Asia and more particularly on the trans-Tasman routes). 119
- Christchurch Airport has made a commercial decision to set prices lower than its 20 year 'levelised' price path for PSE2. The main reason that Christchurch Airport has given for this decision is the demand uncertainty over the next 2-3 years after the Canterbury earthquakes. 120

How information disclosure can provide incentives to limit excessive profits

As discussed in Chapter 2, information disclosure under Part 4 is intended to provide incentives for Christchurch Airport not to extract excessive profits. The public disclosure of information on Christchurch Airport's returns provides transparency about whether Christchurch Airport is earning, or is expected to earn, a return that exceeds the Commission's estimate of returns earned in workably competitive markets (ie, the IM-compliant cost of capital estimate). This transparency, combined

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 13.

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 7.

with the threat of further regulation, is expected to deter the regulated airports from setting prices that result in excessive profits.

We expect that the effectiveness of information disclosure should be able to be identified at this stage

- The effectiveness of information disclosure in limiting Christchurch Airport's ability to extract excessive profits should be able to be identified at this time. The input methodologies (IMs) applicable to information disclosure under Part 4 provide benchmarks against which to assess whether Christchurch Airport's profits reflect the levels of profitability that could be expected in a workably competitive market. The input methodologies were available to Christchurch Airport at the time it set its prices for PSE2, and could therefore have influenced its conduct and performance at the time. Furthermore, we expect suppliers with market power to have an incentive to target excessive profits when setting their prices. As Christchurch Airport has recently set prices for PSE2, we should be able to assess at this time whether it is targeting an excessive profit.
- As is noted in our draft conclusion above, Christchurch Airport's conduct with regards to price setting for PSE2 does not appear to have been materially influenced by information disclosure. Rather, the airport appears to have been primarily influenced by both short-term and longer term demand-related considerations. In reaching our conclusion on the effectiveness of the information disclosure regime, we do not need to form a view on whether these factors have directly constrained Christchurch Airport's market power (at least in the short term), or whether these factors are simply having an influence on the airport's exercise of market power.

How we have assessed whether Christchurch Airport is earning excessive profits

E30 We have examined the conduct and performance of Christchurch Airport in relation to its expected returns. In assessing Christchurch Airport's conduct, we have considered the target return that Christchurch Airport might have expected the Commission to estimate based on information disclosed in accordance with the

 $^{^{121}\,\,}$ This is discussed further in Attachment A.

Input methodologies for information disclosure under Part 4 of the Act allow profitability to be assessed on a consistent basis across suppliers and over time. A primary indicator of a benchmark level of normal returns achieved in a competitive market is provided by the cost of capital input methodology which estimates a supplier's WACC. By 'normal return' we mean the expected return that investors require to invest in a business with the given level of systematic risk. Given the uncertainty in estimating the WACC, the cost of capital IM not only requires the Commission to publish a mid-point estimate of the WACC, but also 75th percentile and 25th percentile estimates. Under the cost of capital IM and the information disclosure requirements, airports may also calculate and disclose the amount of any term credit spread differential (TCSD). Unless otherwise specified, our analysis has also allowed for estimates of the TCSD in calculations of returns. Under the cost of capital IM, our best estimate of a normal return comprises both the mid-point WACC estimate and an allowance for the TCSD (if any).

Part 4 information disclosure regime, taking into account relevant aspects of Christchurch Airport's actual approach to pricing. As is discussed below, Christchurch Airport's pricing approach involves estimating a 'levelised' price path over a 20 year period, but only gradually increasing prices to this level during PSE2. This analysis is intended to help us to understand whether Christchurch Airport set prices knowing that the resulting profits would be excessive considering the Commission's published framework for analysis (the IMs).

- In assessing Christchurch Airport's performance, we have calculated the excess returns in dollar terms that we expect Christchurch Airport will earn over PSE2, and over the subsequent 15 year period for which it has estimated its 'levelised' price (and which it has estimated its forecast passenger volumes and aircraft movements). We have done this by constructing our own levelised price over the 20 year period, based on a target return equal to the cost of capital that would be expected for businesses with similar risk at the time prices were set (ie the IM-compliant cost of capital). Our approach is discussed in more detail in Attachment F.
- As is discussed further below, Christchurch Airport's approach to price setting is significantly different from Wellington Airport and Auckland Airport. There have been some complexities and challenges involved in taking these differences into account in our analysis. We welcome feedback from interested persons on any aspect of our approach to assessing Christchurch Airport's conduct and performance in relation to its expected returns.
- E33 Our conclusion on profitability was reached only after considering the other areas of performance relevant to this aspect of the Part 4 purpose, such as improvements to the efficiency of its operational expenditure. This requires us to take into consideration whether the forecasts used to determine prices are appropriate. Our analysis of these areas of performance is discussed in Attachments B, C, D, G, H and I. Given we do not have any significant concerns with performance in these areas, this attachment focuses on Christchurch Airport's expected return relative to our estimated cost of capital.
- Unlike many of the other aspects of performance set out in Chapter 2, our conclusion on whether Christchurch Airport has been able to extract excessive profits does not require detailed comparison of performance prior to and subsequent to the introduction of information disclosure under Part 4. Instead, the cost of capital set out in the IMs provides a benchmark against which to measure performance. As such, our conclusions on the effectiveness of information disclosure regulation under Part 4 are not based on any assessment of the returns achieved by Christchurch Airport over PSE1.
- As discussed in Chapter 2, if an airport is expected to earn returns in excess of an acceptable range of cost of capital (ie, from the mid-point to the 75th percentile of the WACC estimate), this may not necessarily result in a conclusion that information disclosure is ineffective. If an Airport were expected to earn a return that is only marginally above the Commission's acceptable range of cost of capital, the

- Commission would exercise its judgment in assessing whether, given the overall context, the Airport is targeting excessive profits.
- Similarly, if an Airport were expected to earn a return that is within the Commission's acceptable range of the cost of capital, the Commission would have to apply its judgement as to whether this is the result of information disclosure, or whether this is as a result of other factors. It is unlikely that we would be able to form a view whether any such factors might continue to be an influence on prices at future price setting events, or whether information disclosure might have a greater influence on conduct in the future.

Information used to assess whether Christchurch Airport is earning excessive profits

- E37 Our analysis relies on:
 - E37.1 information disclosed under Part 4;
 - E37.2 information provided by Christchurch Airport and other parties to the Commission as part of this section 56G review;
 - E37.3 information made available by Christchurch Airport as part of its consultation process for PSE2. Much of this information is not required to be disclosed as part of information disclosure regulation under Part 4; and
 - E37.4 meetings and communications with Christchurch Airport as part of the s56G review process (see Attachment F for more discussion on the additional information sought by the Commission in undertaking this review).

Analysis of Christchurch Airport's profitability conduct and performance Does Christchurch Airport's conduct indicate that it seeks to earn an acceptable economic return over time?

- Our draft conclusion is that Christchurch Airport set its commercially-based prices for PSE2 such that its expected returns are equivalent to a target return of 6.8% on its regulated assets (ie, its pricing assets and leased assets), where the assets in the RAB are depreciated using standard straight-line depreciation assumptions. Although this target return is above our assessment of a normal return, it is within an acceptable range of returns of 6.6% to 7.6%. 123
- E39 However, Christchurch Airport is actually targeting its returns over the 20 year life cycle of its investment in the new integrated terminal. Over the full 20 year pricing

As noted above (footnote 118), this estimate of Christchurch Airport's target return for PSE2 is consistent with the standard assumptions in the information disclosure regime to assess profitability. However, the estimate of expected returns would be higher if depreciation assumptions were used that are more consistent with Christchurch Airport's levelised real price path over 20 years.

period (ie, under the commercially based prices for PSE2, and for the remaining 15 years under its levelised price path) Christchurch Airport's expected returns are equivalent to 8.9% on its regulated assets. This target return is above an acceptable range of returns.

- E40 Although our estimate of Christchurch Airport's expected target return for the full 20 year levelised pricing period is above the upper limit for an acceptable range of returns, Christchurch Airport may have considered its 20 year target return was lower than this. This is because Christchurch Airport's approach to pricing is on a pretax basis, and it uses a simplified approach to transform post-tax returns to pre-tax returns. We consider that applying the information disclosure framework appropriately, taking into account Christchurch Airport's levelised pricing approach, does not support such a conclusion.
- E41 Although Christchurch Airport has been limited in its ability to earn excessive profits for PSE2, we consider this has primarily been due to demand-related considerations faced by Christchurch Airport following its investment in the integrated terminal project, and due to the recent earthquakes. It is not clear whether the demand-related considerations influencing Christchurch Airport's prices for PSE2 will act as a similar influence on prices at future price setting events, or whether information disclosure might have a greater influence on Christchurch Airport's conduct at that time.

Christchurch Airport's approach to price setting is significantly different from Wellington and Auckland Airports

- E42 Christchurch Airport's pricing approach is very different from Wellington Airport or Auckland Airport. Key differences between Christchurch Airport's pricing approach and the approaches taken by either Wellington Airport or Auckland Airport include:
 - E42.1 a current pricing period (ie, PSE2) that is only four years and seven months, due to the delay in the completion of Christchurch Airport's integrated terminal project, rather than five years;
 - E42.2 targeting returns over a 20 year period, rather than over just the current pricing period;
 - E42.3 setting a price path that reflects demand-related considerations, rather than the price path being simply the outcome of a building blocks approach using straight-line depreciation; and
 - e42.4 undertaking all calculations on a pre-tax basis (ie, determining revenue without an explicit building block for tax, and undertaking NPV calculations using a pre-tax discount rate applied to pre-tax cash flows), rather than applying a post-tax approach (ie, determining revenue with an explicit forecast tax payable building block, and undertaking NPV-calculations using a post-tax discount rate applied to post-tax cash flows).

- E43 Christchurch Airport has stated that "the pricing decision we have made for the next five years seeks to achieve a balance between targeting the required return and responding to the current market conditions." It also notes that "our investment in our new integrated terminal has required everybody to think outside the normal parameters of the building blocks model to ensure that we can achieve the necessary return over the life cycle of that investment."
- As is described in more detail in Attachment F, Christchurch Airport's approach to setting prices for PSE2 has involved three key steps.
 - E44.1 First, Christchurch Airport has calculated the revenues needed to achieve a pre-tax target return of 13.55% over a 20 year period (from 30 November 2012 30 June 2032) using a pre-tax building blocks approach. Christchurch Airport includes revaluation wash-ups relating to PSE1 as a discount to building block revenues in PSE2. 125
 - E44.2 Second, Christchurch Airport has estimated a proposed 'levelised constant real price' price path over that 20 year period which is NPV-equivalent to the building block revenues (where pre-tax cash flows are discounted using Christchurch Airport's pre-tax target return of 13.55%). This levelised price path is intended to reflect the relatively low utilisation of its new integrated terminal early on in the terminal's lifetime. Christchurch Airport has explained its reason for using a levelised price is to ensure that per unit charges for all users are not differentiated by whether the use occurs during the relatively low utilisation early period in the life of the asset (ie, the new integrated terminal) or the relatively high utilisation late period in the life of the asset. One additional effect of levelising the price path is to spread the effect of the discount due to revaluation wash-ups over the full 20 year pricing period.
 - E44.3 Finally, Christchurch Airport has made a commercial decision to only gradually increase prices during PSE2 from current levels to the 'levelised' price path, given uncertainty about demand over the next 2-3 years. Christchurch Airport has stated that the Canterbury earthquakes have provided a significant challenge and revenue risk to the Airport because of the uncertain passenger and aircraft demand profile over the next 2-3 years, as international travel to the South Island has been adversely impacted

Christchurch Airport's pre-tax target return of 13.55% only relates to pricing assets. As is discussed below, Christchurch Airport's target return across all assets used to supply regulated services will be less than this given the airport's lower target return for leased assets.

Christchurch Airport's revaluation wash-ups are described in Attachment F.

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 50.

through the perception of the damage to Christchurch and the South Island as a destination. 127

The AAA allows Christchurch Airport to set prices as it sees fit, and Christchurch Airport's reason for wanting to establish a 'levelised constant real price' over multiple five-year 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. Christchurch Airport has stated the approach it has taken endeavours to avoid price shocks and provide more stable cash flows for both Christchurch Airport and the airlines. 128

It is difficult to assess the level of profits that Christchurch Airport is targeting

- Christchurch Airport's levelised pricing approach reflects efficient pricing principles because, all other things being equal (eg consumer preferences do not change), constant real prices are consistent with allocative efficiency in workably competitive markets. Furthermore, the approach is conceptually easy to understand. However, we have some issues with how the approach has been implemented in practice, and about the extent the implementation of the approach is transparent to interested persons in disclosures (as well as during consultation on PSE2 and during the current s 56G review consultation process).
- Information disclosure regulation has not been successful in making Christchurch Airport's expected performance sufficiently transparent, such that interested parties are able to assess whether Christchurch Airport is limited in its ability to earn excessive profits (ie s 53A). If information disclosure is not effective in meeting its purpose under s 53A, it is unlikely to provide the appropriate incentives for promoting conduct consistent with s 52A(1)(d).
- Information disclosure is not meeting the s 53A objective for profitability because, based on the information disclosed by Christchurch Airport about its PSE2 pricing approach, it is difficult for any interested party (including ourselves) to draw a conclusion on whether Christchurch Airport has set prices to target excessive profits over the 20 year period for which the airport has estimated its proposed levelised price path.
- As is set out in Attachment F, to understand the assumptions underpinning Christchurch Airport's prices for PSE2, as well as its pricing proposals for the

¹²⁷ Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 7.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 11.

For example, Commerce Commission "Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper" December 2010, paragraph 5.2.6.

subsequent 15 years, we needed to go beyond the information that the airport disclosed about its pricing approach, and to undertake a more detailed investigation. In doing so, we discovered, among other things, that Christchurch Airport's public description of its levelised price path did not fully or transparently reflect its actual approach. For instance, despite setting prices over a 20 year period, the pricing model that Christchurch Airport provided to the airlines during consultation is only for a 10 year period, which makes it difficult to fully understand all the assumptions underpinning the entire levelised pricing period.

- Another difficulty is that Christchurch Airport has implemented its pricing approach using a pre-tax WACC to estimate its levelised price path over 20 years, rather than a post-tax cost of capital as specified under the IMs. Christchurch Airport considers that there is no material difference in the level of the 'levelised constant real price' between deriving that price on the basis of using the pre-tax WACC and the calculation of the 'levelised constant real price' using the present value of tax payable over the life of the assets. This approach has resulted in significant disagreement between parties as to the actual impact of the pre-tax approach applied by Christchurch Airport, with BARNZ arguing that "the Airport has treated income from revaluations as being taxable when it calculated its base income requirements, and it has increased its required revenue to include tax on income from these revaluations despite the fact that such tax does not exist in New Zealand." 131
- E51 We also do not agree with Christchurch Airport's assessment of the impact of its approach. It is therefore difficult for us to assess the forecast target return that Christchurch Airport itself might have expected the Commission to estimate for the 20 year levelised pricing period (on a post-tax basis), at the time the airport set its prices for PSE2. This is particularly the case given that we have no evidence Christchurch Airport's price setting was materially influenced by the information disclosure regime, and therefore we do not know the extent to which the airport might have turned its mind to this question at the time it set its prices for PSE2.
- For its disclosures following the PSE2 pricing event, Christchurch Airport disclosed its forecast regulatory asset base (RAB) applying a standard straight-line depreciation approach, and indexing the asset base for inflation. It chose not to use an approach equivalent to the mechanism in the input methodologies that provides for an alternative 'non-standard' depreciation approach (ie, an approach other than

The Commission publishes post-tax WACC values and vanilla WACC values (which comprise a post-tax cost of equity and a pre-tax cost of debt) in accordance with the cost of capital IM for airports. The Commission does not publish pre-tax WACC values (ie effectively a pre-tax cost of equity weighted with a pre-tax cost of debt). As is discussed in Attachment F, a pre-tax WACC can be found by a transformation from the post-tax WACC, but this transformation is not straightforward.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 110.

straight-line depreciation). Christchurch Airport could have derived and disclosed forecast depreciated values of its RAB that are consistent with its levelised price path (ie, reflecting relatively low capacity utilisation in the short term, as well as an expectation of higher cash flows in the future). Doing so would have allowed interested persons to better assess the impact of its levelised pricing approach on expected returns. However, Christchurch Airport stated that it "felt that the complexities of that were greater than the approach we've taken." 133

- Christchurch Airport was entitled not to apply a non-standard depreciation approach, because under the information disclosure regime airports are not required to apply the input methodologies in disclosing their forward-looking pricing methodologies. Nevertheless, as a result of doing so, Christchurch Airport's expected profitability performance for PSE2 and subsequent pricing periods is not as transparent as it otherwise could have been.
- E54 On the other hand, for its future disclosures of its actual profitability performance for each disclosure year, Christchurch Airport will be required to apply the relevant input methodologies (except the cost of capital IM). However, Christchurch Airport would, under the current IMs, be able to choose not to avail itself of an alternative depreciation approach consistent with its levelised pricing approach, and to disclose RAB values using straight-line depreciation instead. If so, it is likely that interested parties will continue to find it difficult to assess whether Christchurch Airport is limited in its ability to earn excessive profits. Arguably there might be some complexities in initially setting up depreciation calculations that are consistent with Christchurch Airport's pricing approach. Nevertheless, doing so would make Christchurch Airport's profitability performance more transparent for interested persons than if it were to disclose RAB values that bear little or no relationship to its prices.

Christchurch Airport appears to be targeting excessive profits over the longer term

E55 We have considered the forecast return that Christchurch Airport might have expected the Commission to estimate from the start of the PSE2 period, given Christchurch Airport's knowledge of the information disclosure requirements and

Under straight-line depreciation (which is the 'standard' or default depreciation method under the IMs), the depreciation amounts for an asset are the same in each year (prior to the effect of indexation). Prices that are consistent with an asset value depreciated using straight-line depreciation (but indexed for inflation) will decline in real terms over time. In contrast, to be consistent with a levelised price path that is constant in real terms, the asset value will initially need to depreciate at a lesser rate than if the asset were depreciated using straight-line depreciation. However, over the lifetime of the asset, these annual 'non-standard' depreciation amounts will increase over time and in later years will become greater than would be the case under straight-line depreciation. For consistency with the price path, the depreciated value of the asset in each year should equal the discounted value of the future cash flows generated from the asset.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 51.

the relevant IMs underpinning those requirements. No forward-looking indicator of returns is currently required to be disclosed under the information disclosure regime.

E56 Our analysis:

- starts by estimating the equivalent target post-tax return on Christchurch Airport's pricing assets from its proposed 'levelised' price path over the 20 year period (taking into account the discount from the revaluation wash-ups);
- estimates the extent to which this target return on pricing assets reduces because Christchurch Airport has made a commercial decision to set lower prices for most of PSE2; and
- estimates the target return over 20 years on the entire regulatory asset base (ie, taking into account leased assets as well as pricing assets).
- E57 Christchurch Airport's proposed 'levelised' price path over the 20 year period, taking into account the discount from the revaluation wash-ups, provides expected returns that are equivalent to a target (post-tax) return of 9.7% over that period on its pricing asset base (refer Table E1). This target return does not take into account the commercial decisions affecting prices in PSE2. This target is above an acceptable range of returns of 6.6% to 7.6%.
- E58 However, at the time Christchurch Airport estimated its proposed 'levelised' price path, it may have expected that its target return over the 20 year period was equivalent to a lower return than this. Christchurch Airport estimated its 20 year 'levelised' price path targeting a pre-tax return of 13.55% (prior to the discounts for revaluation wash-ups) and appears to have believed this was equivalent to a post-tax return of 9.76%, using its simple approach to transforming post-tax returns to pre-tax returns.
- E59 We consider that Christchurch Airport's approach to deriving its target pre-tax return from its target post-tax return, and its use of that pre-tax return as the discount rate in deriving an NPV-equivalent levelised price path (refer paragraph F43), explain why our estimate of the equivalent post-tax target return (9.7%), is almost as high as 9.76% (even though our estimate takes into account the discounts due to revaluation wash-ups). The equivalent post-tax return to the levelised price path prior to the discounts due to revaluation wash-ups will be higher than 9.76%. The equivalent post-tax return to the levelised price path prior to the discounts due to revaluation wash-ups will be higher than 9.76%.

As is noted below (paragraphs E65 to E66), our approach to estimating equivalent target returns for the purpose of assessing Christchurch Airport's conduct is consistent with the approach used for Auckland Airport. We have considered the target return that Christchurch Airport might have expected the Commission to estimate based on the current information disclosure framework. At the time Christchurch

Christchurch Airport's view of its target return in post-tax terms (ie, 9.76%) is still higher than an acceptable range. Furthermore, we consider that applying the information disclosure framework appropriately, taking into account Christchurch Airport's levelised pricing approach, does not support a conclusion that a 13.55% pre-tax return is equivalent to a 9.76% post-tax return.¹³⁶

Table E1: Target (post-tax) returns (2012 - 2032)

	Return On:	Target Return:
Levelised price path (including revaluation wash-ups as a discount spread over the entire 20 year period)	Pricing assets	9.7%
Commerically based prices for PSE2, with levelised price path (including revaluation wash-ups as a discount spread over 20 years) for 15 years after PSE2	Pricing assets	9.5%
Commercially based prices for PSE2, with levelised price path (including revaluation wash-ups as a discount spread over 20 years) for 15 years after PSE2	Regulated assets (ie, pricing and leased assets)	8.9%
Acceptable range of returns	Regulated assets	6.6% - 7.6%

Nevertheless, as noted above, Christchurch Airport has not set prices for PSE2 based on its proposed 'levelised' price path. Instead, influenced by short-term demand uncertainty, it has made a commercial decision to set lower prices for most of PSE2

Airport set its prices for PSE2, it may have expected that the Commission would assess its expected returns on an IM-compliant RAB depreciated using straight-line depreciation (and indexed for inflation), consistent with the standard assumptions in the information disclosure regime to assess profitability. Each of our estimates of the equivalent post-tax target return is simply a constant annual input to a standard building blocks model (ie, using standard depreciation and indexation assumptions), prior to levelising the price path using a discount rate that is equal to that target post-tax return. Each estimate is therefore equivalent to the role played by Christchurch Airport's pre-tax target return, which is a constant annual input to its full (building blocks) cost of service model, and is the discount rate used by Christchurch Airport in levelising its price path. We note that an IRR analysis of the post-tax cash-flows under Christchurch Airport's levelised price path, assuming an IM-compliant RAB at the end of the 20 year period (ie, pricing assets only), also results in an expected target return of 9.7%.

- An explanation of Christchurch Airport's pre-tax approach to estimating its 'levelised' price path, and the issues we and the airlines have with that approach, are provided in Attachment F. We have not estimated the equivalent post-tax target return for Christchurch Airport's levelised price path prior to the application of the discounts, because all of the models we have received from Christchurch Airport include a revenue path with the discounts already applied.
- As is noted in footnotes 175 and 176 in Attachment F, we are releasing a simple model with this draft report to demonstrate the impact of using Christchurch Airport's simple post-tax to pre-tax transformation, and levelising the constant real price path on an NPV-equivalent pre-tax basis using the outcome of that transformation.

(see Figure E1 above). Christchurch Airport has set these commercially-based prices for PSE2 such that its expected returns are equivalent to a target return of 9.5% over 20 years (Table E1). This return is based on Christchurch Airport's actual prices for PSE2, and assumes that prices for the following 15 years will be capped by its 'levelised' price path (including the discount relating to revaluation wash-ups) consistent with its recent statements to us and to the airlines. 138

- Although this expected target return is still above the upper limit for an acceptable range of returns, given its simple post-tax to pre-tax transformation approach, Christchurch Airport may have considered its target return over the 20 year period was lower than this. Once again we consider that applying the information disclosure framework appropriately, taking into account Christchurch Airport's levelised pricing approach, does not support such a conclusion.
- Our assessment of expected target returns above has been based only on the assets included in the latest price setting event and therefore excludes leased assets which typically contribute a lower return. We expect post-tax returns on Christchurch Airport's leased assets to be 5.7% over PSE2. Leased assets make up approximately 16% of Christchurch Airport's regulatory asset base at the start of PSE2, reducing to 13% by the end of PSE2.
- Including the leased assets for PSE2 in our assessment of returns, and assuming that both the proportion of leased assets to pricing assets and the returns remain at similar level for the following 15 years, would represent target returns of 8.9% on its regulated assets (ie, its pricing assets and leased assets). This target return over the full 20 year pricing period (ie, under the commercially based prices for PSE2, and for the remaining 15 years under its levelised price path, including the discount relating to revaluation wash-ups), is still higher than the upper limit of an acceptable range of returns (Table E1).
- Our approach to determining Christchurch Airport's expected target return for the purpose of assessing its conduct is consistent with our approach for Auckland Airport. In that case, as with Christchurch Airport, Auckland Airport had not explicitly stated the post-tax return it thought it was targeting on its regulated asset base. ¹³⁹ Instead, we had to derive the target return that would generate expected excess returns of zero, taking into account Auckland Airport's actual pricing approach (which was significantly affected by the airport's moratorium on asset revaluations).

We note that an IRR analysis of the post-tax cash-flows under this price path, assuming an IM-compliant RAB at the end of the 20 year period (ie, pricing assets only), also results in an expected target return of 9.5%.

Christchurch Airport s56G conference CIAL presentation 24 May 2013, slide 7 states that the 'levelised constant real price' is the ceiling for intended price levels.

In Wellington Airport's case, Wellington Airport had stated its own estimate of its target return when calculated in a manner consistent with the information disclosure framework.

In Christchurch Airport's case, we have had to take into account the airport's intention to achieve its target return over a 20 year period by using a levelised pricing approach, as well as its commercial decision to set prices lower than this level for most of PSE2. Given that Christchurch Airport is seeking to achieve its target return over 20 years, instead of over any single pricing period, our target returns estimate relates to a 20 year period, rather than to the typical five year pricing period for the other airports.

Christchurch Airport may not have considered it was targeting excessive profits in PSE2

- We have also assessed what the expected target return is over just PSE2 (which in Christchurch Airport's case is only a period of 4 years and 7 months). Christchurch Airport set its commercially-based prices for PSE2 such that its expected returns are equivalent to a target return of 7.0% on its pricing assets, where the assets in the RAB are rolled forward using standard depreciation assumptions and indexed for inflation. The equivalent target return on Christchurch Airport's regulated assets (ie, its pricing assets and leased assets) is 6.8%. Although this target return is above our assessment of a normal return, it is within an acceptable range of returns (ie, 6.6% to 7.6%). At the time Christchurch Airport set its prices for PSE2, it may have expected that the Commission would assess its expected returns over PSE2 only, and do so on an IM-compliant RAB depreciated using straight-line depreciation (and indexed for inflation), consistent with the standard assumptions in the information disclosure regime to assess profitability.
- Cur draft conclusion about Christchurch Airport's conduct in respect of expected returns for PSE2 might appear contrary to our draft conclusion about Christchurch Airport's expected profitability performance for PSE2, which is discussed in the next section (ie, paragraph E76). There we explain that we expect Christchurch Airport to make excess returns in PSE2, when compared to either the mid-point or 75th percentile WACC (refer Table E4). That analysis is, however, based on comparing Christchurch Airport's expected revenues and returns for PSE2 against revenues and returns under our own estimate of what the levelised price path would be over the 20 year period, if it were based on a target return equal to an IM-compliant cost of capital.
- A RAB derived using the standard straight-line depreciation method (and indexed for inflation) is not consistent with this levelised constant real price path. Therefore, the 6.8% target return value that we have derived above under-estimates expected returns in PSE2, because it represents returns on a RAB which is depreciated using straight-line depreciation (and indexed for inflation).¹⁴⁰

To derive a RAB in PSE2 consistent with the levelised price path would involve rolling forward the RAB by deducting 'Economic Depreciation' in each year, instead of deducting straight-line depreciation and adding revaluations (due to inflation indexation). In simplified form, Economic Depreciation for each year could be determined from Forecast Revenue (based on our estimate of the levelised price path) less (IM-

- As is discussed in Attachment F, although the IMs allow airports to apply an alternative depreciation method that would be consistent with a levelised price path, the information disclosure regime does not currently require actual profitability performance to be reported using such a method. More importantly, in the current context, airports are not required to apply the IMs in disclosing their forward-looking pricing methodologies, and are not required to disclose any forward-looking indicator of profitability.
- E71 Therefore, for the purpose of assessing its conduct in relation to expected returns, we have recognised that to the extent it turned its mind to this question, Christchurch Airport may have considered the Commission might assess its returns based on an IM-compliant RAB and applying standard depreciation assumptions. Our estimate of the expected target return on Christchurch Airport's regulated assets calculated on this basis is 6.8%, and therefore this is the value we have reported in assessing Christchurch Airport's conduct in respect of expected returns for PSE2.

The value of assets used to estimate Christchurch Airport's return

Christchurch Airport's return is assessed relative to the value of its assets over time. Our estimate of returns (for either our conduct assessment or our performance assessment) therefore requires assumptions on the value of Christchurch Airport's assets for regulated activities at the beginning of our period of analysis (the opening asset base), and how the asset base is expected to roll forward over the 20 years for which the 'levelised' price has been targeted. Attachment F sets out these assumptions.

We have modelled cash flows at year-end only

E73 Our estimate of Christchurch Airport's target return on its regulated assets over the full 20 year period (8.9%) is based on the assumption that cash flows (eg, staff wages, revenues received) occur at Christchurch Airport at the end of the year. This is a conservative assumption consistent with the current information disclosure requirements, but does not reflect actual cash flows at Christchurch Airport. However, when Christchurch Airport set its prices for PSE2 it would not have expected us to undertake an assessment of its returns using a mid-year cash flow timing assumption. Therefore, our assessment of Christchurch Airport's conduct

compliant WACC multiplied by the Forecast RAB) less Forecast Opex less Forecast Tax. The Economic Depreciation reflects all changes in asset value (either up or down) other than due to capital expenditure (ie, Capex). The Forecast RAB would no longer be rolled forward using standard depreciation and indexation assumptions. Rather, the Forecast RAB in each year would be derived by adding Capex and deducting Economic Depreciation. Given the profile of the revenue under the levelised price path (refer Figures E2 and E3), when using Economic Depreciation values consistent with that path, the RAB in PSE2 will be higher than the RAB derived using standard depreciation and indexation assumptions. Expected returns in PSE2 on the RAB derived using Economic Depreciation will therefore be higher than 6.8%, primarily because the revaluation gains in each year will be higher than inflation.

instead relies on our assessment of whether it was targeting an acceptable return based on end of year cash flows.

Christchurch Airport's expected target return is compared to the mid-point and 75th percentile of the Commission's estimated cost of capital

- Our estimate of Christchurch Airport's target return for the 20 year period, and for PSE2, is compared to the Commission's estimate of the mid-point and 75th percentile cost of capital, as defined in the input methodologies. The mid-point estimated cost of capital is 6.6%, while the 75th percentile is 7.6%. We consider the mid-point cost of capital to be an appropriate starting point for any assessment of profitability for Christchurch Airport while the 75th percentile cost of capital allows for the uncertainty of estimating the true cost of capital and in light of the direct consequences of estimation error on pricing and investment.
- E75 Our analysis uses a cost of capital estimated for 1 October 2012. This is discussed further in Attachment F.

Will Christchurch Airport's prices provide an acceptable economic return over time?

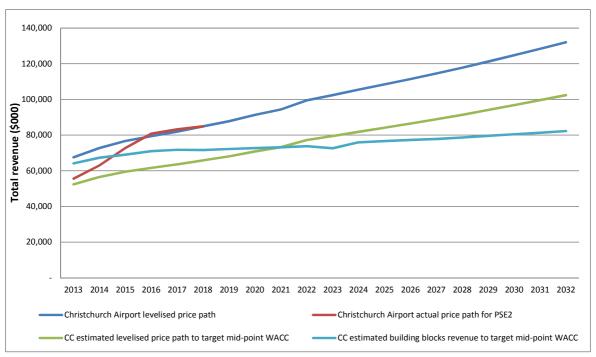
- Our conclusion on the effectiveness of the information disclosure regime in limiting Christchurch Airport's ability to earn excessive profits relies on the extent to which the regime appears to have influenced the airport's conduct (ie, its price setting behaviour for PSE2), as well as on the transparency of relevant disclosures.
- E77 We have made some estimates of Christchurch Airport's expected profitability performance, although we have not undertaken as many scenarios as we did for the other airports. For instance, as part of our profitability performance assessment for Wellington and Auckland Airports, we also estimated expected returns based on an assumption that cash flows will occur mid-year rather than at the end of the year. We have not done so for Christchurch Airport.
- Furthermore, as is discussed in Attachment F, in our reports for the other two airports we estimated the expected internal rate of return (IRR) for PSE2 and beyond (ie, over the remaining life of the assets) for each airport, as well as excess returns and 'excess revenues' in dollar terms for PSE2 and beyond. In this report we have only estimated Christchurch Airport's excess returns in dollar terms, and not IRR values. Also, the excess returns have been calculated over Christchurch Airport's 20 year levelised pricing period rather than over the remaining life of the assets.

The Commission's cost of capital estimate applies to a five year term, whereas Christchurch Airport has estimated its levelised price path for 20 years. However, Christchurch Airport intends resetting key input parameters to the levelised price path for every five year pricing period (including the WACC), and therefore the use of a five-year WACC is appropriate. [Commerce Commission (Conference), Conference transcript for process and issues (CIAL) paper, 25 May 2013, page 19].

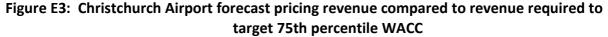
Value and impact of excess returns earned by Christchurch Airport

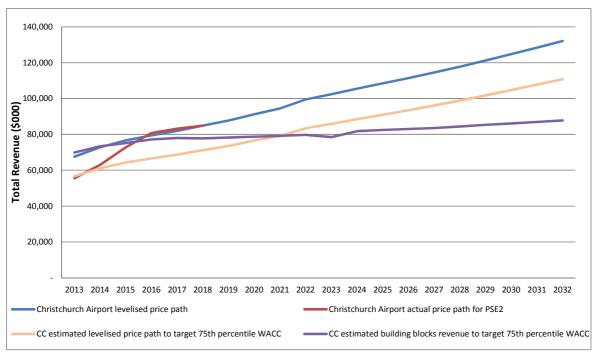
- In present value terms, our expected target return estimate for Christchurch Airport's pricing assets (ie, 9.5%) is equivalent to 'excess returns' of \$152.8 million for the 20 years beginning in PSE2 when compared to the IM-compliant mid-point cost of capital. However, when compared to the 75th percentile cost of capital, 'excess returns' are estimated to be \$96.8m.
- We have estimated these excess returns by constructing our own levelised price path over the 20 year period, based on a target return equal to the mid-point or 75th percentile IM-compliant WACC as appropriate. The resultant revenue paths are compared against Christchurch Airport's 20 year price path (ie, the commercially based prices for PSE2, and the levelised price path including discounts from revaluation wash-ups for the remaining 15 years). Figures E2 and E3 show Christchurch Airport's revenue path over 20 years compared to the revenue from our estimated levelised price path, using the mid-point and 75th percentile cost of capital values respectively. Christchurch Airport's 20 year revenue path lies above revenue paths that target an IM-compliant cost of capital in every year of the 20 year period.

Figure E2: Christchurch Airport forecast pricing revenue compared to revenue required to target mid-point WACC



Figures E2 and E3 show the expected revenues from pricing assets for the financial year to 30 June 2013 had Christchurch Airport's prices been applied from the beginning of the year, rather than showing the revenues expected for the remaining 7 months of the financial year to 30 June 2013 from the time when Christchurch Airport's prices actually came into effect. Making this adjustment (solely for the purposes of representing the results graphically) better reflects the annual change in each revenue path.





E81 Constructing our own levelised price path enables us to estimate how much of the estimated excess returns over the 20 year period relate to PSE2 rather than to the remaining 15 years. Table E2 below shows the range of excess returns we consider Christchurch Airport is expected to earn on its pricing assets, broken down by the expected excess returns for PSE2 and years 2017 - 2032.

Table E2: Estimated present value of excess returns on pricing assets at Christchurch Airport

	Lower estimate 143	Higher estimate
Excess returns over PSE2 (2013-17) based on its commercial decision	\$21.1m	\$35.2m
Excess returns from 2017 to 2032 based on the 'levelised' price path	\$75.7m	\$117.6.m
Total excess returns from 2013 over the 20 years of the 'levelised' price period	\$96.8m	\$152.8m

The lower estimate of excess returns is based on comparing the expected return using end of year cash flows to the 75th percentile cost of capital (7.6%). The higher estimate of excess returns is based on comparing the expected return using end of year cash flows to the mid-point cost of capital (6.6%).

We have also estimated whether Christchurch Airport expects to earn any excess returns on its leased assets. Table E3 below shows that we do not expect Christchurch Airport to earn excess returns on its leased assets, and we have quantified the present value of the under-recovery of cash flows Christchurch Airport is expected to earn on its leased assets for PSE2. 144

Table E3: Estimated present value of excess returns on leased assets at Christchurch
Airport

	Lower estimate	Higher estimate
Excess returns over PSE2 (2013-17) for leased assets	-\$5.4m	-\$2.6m
Excess returns from 2017 to 2032 for assuming average cash flow shortfall for PSE2 continues 145	-\$8.0m	-\$4.1m
Total excess returns from 2013 to 2032 for leased assets	-\$13.3m	-\$6.7m

E83 Having determined the present value of the excess returns for both pricing and leased assets, for both PSE2 and the following 15 years for which a 'levelised' price path for pricing assets was established, we can estimate the combined excess returns for its entire regulated asset base (ie, both pricing and leased assets). Table A3 below shows the range of excess returns we consider Christchurch Airport is expected to earn on its regulated asset base, broken down by the expected excess returns for PSE2 and years 2017 - 2032.

In order to be consistent with our excess cash flows analysis for pricing assets, we have assumed that the under-recovery of cash flows on leased assets is based on 4 year 7 months period for PSE2. We have assumed that cash flows occur evenly over the year and have therefore adjusted cash flows in 2013 to be 7/12 of the full year's cash flows.

To estimate the on-going excess cash flows (or shortfall) for leased assets we have assumed the average shortfall in cash flows achieved over PSE2 will continue until 2032.

Table E4: Estimated present value of excess returns on regulated assets at Christchurch
Airport

	Lower estimate	Higher estimate
Excess returns over PSE2 (2013-17) based on its commercial decision	\$15.8m	\$32.6m
Excess returns from 2017 to 2032 based on the 'levelised' price path	\$67.7m	\$113.5m
Total excess returns from 2013 over the 20 years of the 'levelised' price period	\$83.5m	\$146.1m

Figures E2 and E3 also show the revenue paths that target an IM-compliant cost of capital (mid-point or 75th percentile as appropriate) prior to levelising. These are the revenue paths found by using a standard building blocks approach where the RAB is depreciated using straight-line depreciation and indexed for inflation. In these cases, the revenue paths intersect Christchurch Airport's 20 year revenue path during PSE2. This illustrates why Christchurch Airport's target return for PSE2 (ie, 6.8%), based on an IM-compliant RAB and applying standard depreciation assumptions, is within an acceptable range.

Factors that might affect our assessment of Christchurch Airport's expected returns

- In our assessment of Christchurch Airport's expected returns we have identified several factors or risks that suggest expected returns could be greater than these estimates, particularly given Christchurch Airport will reconsider prices every five years. These include:
 - the use of a year-end cash flow timing assumption in our analysis to date, consistent with current information disclosure requirements; however, using more realistic assumptions about cash flow timing would increase expected returns;
 - the treatment of all revaluation wash-ups for PSE1 as a discount to pricing over the 'levelised' pricing period, rather than just that portion of wash-ups relating to revaluations prior to the initial RAB being established under Part 4;
 - the actual price path used for PSE2 results in revenues greater than those that would have occurred under a 'levelised' price path by year 3 as illustrated in Figure E1 (yet, consistent with Christchurch Airport's recent statements, we have assumed Christchurch Airport will return to the 'levelised' price path at the beginning of PSE3);

- when setting the 'levelised' price path, Christchurch Airport assumed only a single period of inflation would be applied in the final 10 years of the 'levelised' price path, effectively resulting in a decreasing real price after year 10 (as illustrated in Figure E1), and this seems like an unrealistic assumption to continue applying in future; 146 and
- E85.5 a lack of capital expenditure forecasts after 5 years in Christchurch Airport's 20-year 'levelised' price calculation. ¹⁴⁷
- On the other hand, Christchurch Airport's actual passenger volumes have been lower than the passenger volumes forecast at the time Christchurch Airport set its prices for PSE2. Lower passenger volumes would result in lower actual returns. However, our draft conclusion is based on what Christchurch Airport's expected returns were at the time it set prices, because this is the point at which information disclosure will or will not influence Christchurch Airport's conduct.

We acknowledge that Christchurch Airport has stated its intention to maintain this assumption in future (subject to consultation with airlines before each pricing period). However, we note that this statement was made only recently in response to our investigation into Christchurch Airport's approach to deriving its levelised price path (described further in Attachment F). This assumption would not have been evident to airlines during the consultation process for PSE2, and it is not consistent with Christchurch Airport's description of how its levelised pricing approach was intended to work in its public submissions or conference presentation during this s 56G review.

Had capital expenditure forecasts been included in years 6 – 20 of the forecast period, it is reasonable to assume that this expenditure would have been expected to earn on-going returns on its pricing assets of 9.7% (consistent with Christchurch Airport's target pre-tax WACC of 13.55%). However, we note (footnote 158) that Christchurch Airport's depreciation assumptions in its pricing model suggest that there is an implicit capital expenditure allowance in every year of the 20 year period.

Attachment F: Supplementary material on our analysis of Christchurch Airport's returns

Purpose

This attachment contains further detail on our approach to assessing whether Christchurch Airport is earning excessive profits discussed in Attachment E. It also addresses a number of key issues raised in submissions on our approach to assessing Christchurch Airport's profitability.

Structure of this attachment

- F2 The remainder of this attachment is structured as follows:
 - F2.1 paragraphs F3 to F43 discuss how Christchurch Airport has set its prices for PSE2;
 - F2.2 paragraphs F44 to F51 discuss challenges in undertaking our analysis of Christchurch Airport;
 - F2.3 paragraphs F52 to F59 discuss how have we assessed expected returns for Christchurch Airport;
 - F2.4 paragraphs F60 to F63 discuss Christchurch Airport's asset valuations and the setting of its opening RAB;
 - F2.5 paragraphs F64 to F67 discuss the treatment of revaluation wash-ups;
 - F2.6 paragraph F68 explains our assumptions on cash flow timings used in our analysis;
 - F2.7 paragraphs F69 to F87 explain why we have adopted the mid-point and 75th percentile of our cost of capital estimated at October 2012 to be the benchmark for Christchurch Airport's expected profitability performance;
 - F2.8 paragraphs F88 to F93 consider whether the demand forecasts used in Christchurch Airport's price setting are reasonable;
 - F2.9 paragraphs F94 to F97 consider whether cost allocations used in Christchurch Airport's price setting are reasonable;
 - F2.10 information on the airport activities included in our analysis of returns is provided in paragraphs F98 to F103; and
 - F2.11 paragraphs F104 to F110 discuss limitations in the effectiveness of information disclosure regulation.

How has Christchurch Airport set its prices for PSE2?

What is the context for Christchurch Airport's current price setting event?

- In 2011, Christchurch Airport began its investment in the integrated terminal project (ITP). At that time, completion of this work was expected to be in early 2013 and total investment was expected to be approximately \$215m, resulting in a doubling of the pricing asset base.
- Christchurch Airport has stated that "our investment in our new integrated terminal has required everybody to think outside the normal parameters of the building blocks model to ensure that we can achieve the necessary return over the life cycle of that investment." This resulted in Christchurch Airport developing a pricing methodology that allowed it to recover the ITP investment over the economic life of the facility in line with growth in volumes.

How did Christchurch Airport initially propose to set prices for PSE2?

- Christchurch Airport's initial pricing proposal involved a significant deferral in price rises to lessen the price shock to airlines in the 2013-2017 period as the result of the investment in the integrated terminal (ITP). Christchurch Airport expected this deferral in price rises would have resulted in an apparent (and significant) underrecovery of revenue relative to the revenue that would be required to earn Christchurch Airport's target return on its pricing asset base (if assets were depreciated using straight-line depreciation, and indexed to inflation). Christchurch Airport proposed a deferred value account (DVA), which would have allowed the airport to keep track of this 'under-recovery' so that Christchurch Airport could defer part of the required price increases until subsequent pricing periods. The DVA would have established the amount of the under-recovery to be carried forward to be balanced by an equal and opposite level of over-recovery of revenue in present value terms (using Christchurch Airport's target return) in a future pricing period or periods.
- Strong opposition from BARNZ and the airlines led Christchurch Airport to abandon the concept of a DVA in its revised proposal. Christchurch Airport has stated that this opposition by BARNZ and the airlines was on the basis that the airlines considered that there was no under-recovery. 149

What approach did Christchurch Airport actually use to set prices for PSE2?

F7 Christchurch Airport has described its actual pricing methodology as involving an estimate of the 'long-run levelised constant real price' required to recover its costs

Commerce Commission "Conference transcript for process and issues (CIAL) paper" 24 May 2013, page

Christchurch Airport, "Proposal for the Reset of Aeronautical Charges for the period ending 30 June 2017, 31 July 2012", page 7.

over the economic life of the assets associated with the ITP (assumed for pricing purposes to be 20 years). That is, Christchurch Airport has established a set of prices that, if those prices increased annually by inflation, would result in its target return (set on a pre-tax basis) being earned over the 20-year period.¹⁵⁰

- The 'levelised constant real price' is intended to minimise future price shocks and ensure that the total cost of investment is allocated fairly between current and future users. Christchurch Airport's revenue is forecast to grow with utilisation, ensuring that per unit charges for all users are not differentiated by whether the use occurs during the relatively low utilisation early period in the life of the asset, or during the relatively high utilisation period late in the life of the asset. In establishing the price path, Christchurch Airport's starting point was the principle that it will achieve an NPV = 0 outcome over the 20-year period on a pre-tax basis, based on its target pre-tax return. ¹⁵¹
- Christchurch Airport explains that the practical effect of this approach is to 'under-recover' in early years, when passenger volumes are at their lowest, which is then offset by 'over-recoveries' in later periods, as passenger volumes increase. By 'under' or 'over' recovery, Christchurch Airport means in comparison to the annual revenue which would be provided by pricing off a 'total cost of service' building blocks model using standard depreciation assumptions. That model would calculate the annual revenue needed each year to recover the airport's target return on its pricing asset base, where that asset base is depreciated using straight-line depreciation (and indexed for inflation).
- This is illustrated in Figure F1 below, which Christchurch Airport used to show the illustrative under and over recoveries of revenue expected from the 'levelised' price path when compared to revenue under an illustrative total cost of service. The 'Levelised Price' line represents the revenue that would be recovered under a 'levelised constant real price'. Christchurch Airport estimates that the initial years of the path would result in an 'under-recovery' of revenue of around \$20 million compared to the total cost of service, but that amount would be recovered in future periods.

We note that in much of its explanatory material Christchurch Airport describes its 'levelised' price path as being the 'long run marginal cost' or 'LRMC' price (eg, Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 14). We do not consider that to be an accurate characterisation of the 'levelised constant real' price path approach, given that the price path is (appropriately) intended to recover the cost of Christchurch Airport's past investments, and not just the cost of its incremental investments.

Despite estimating a 20-year 'levelised' price, Christchurch Airport will continue to reset prices every five years following consultation and updating input parameters, such as its target pre-tax return. This is discussed further in paragraphs F22 to F24.

The figure assumes that the total cost of service remains constant in nominal terms, purely for illustrative purposes.

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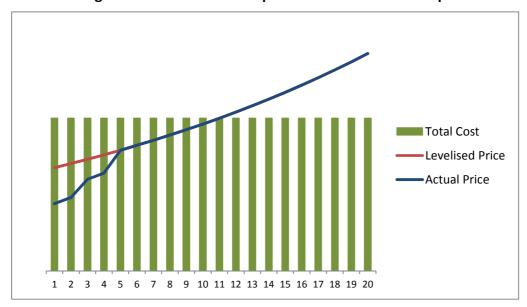


Figure F1: Christchurch Airport's illustrative revenue path¹⁵³

- Having estimated the 'levelised constant real price' required to earn its target pretax return, Christchurch Airport has made downward adjustments to this price to reflect the current economic conditions created by the recent Canterbury earthquakes. Therefore the expected revenue for PSE2 falls short of the revenue that would have been expected if the 'levelised constant real price' had been used in PSE2. Christchurch Airport has estimated this permanent under-recovery as compared to revenue under the 'levelised constant real price' to be \$16 million in present value terms (as illustrated by the difference between the blue 'Actual Price' line and the red 'Levelised Price' line in Figure F1).
- P12 Due to the delay in the completion of the ITP, Christchurch Airport's new prices only commenced from 1 December 2012, the date at which Christchurch Airport considered the ITP substantially complete. As a result, the new prices for PSE2 will only apply for 4 years 7 months.

How does Christchurch Airport's pricing model actually calculate the 'levelised' price?

Christchurch Airport's reason for wanting to set a 'levelised' constant real price over a long time period is understandable. The commissioning of the new integrated terminal will result in a significant increase in the value of Christchurch Airport's pricing asset base, at a time when the expected utilisation of the terminal will be relatively low. Christchurch Airport's levelised pricing approach reflects efficient pricing principles because, all other things being equal (eg consumer preferences do

Christchurch Airport, "S56G conference CIAL presentation" 24 May 2013, page 8.

- not change), constant real prices are consistent with allocative efficiency in workably competitive markets. 154
- When estimating the 20-year 'levelised' price path, Christchurch Airport first calculated its 'full cost of service' in each year. This cost of service calculation is intended to be equivalent to a building blocks approach consistent with the IMs, using the default approach in the IMs for depreciating fixed assets (ie straight-line depreciation).¹⁵⁵
- However, as is discussed further in the next section, Christchurch Airport's approach differs from the building blocks approach underpinning the IMs (and the assessment of profitability under the information disclosure requirements), because the calculation is undertaken on a pre-tax basis. The target return on capital investment is based on a pre-tax weighted average WACC of 13.55%. Therefore, the calculation includes no explicit provision for Christchurch Airport's expected tax costs, as the use of a pre-tax WACC implicitly compensates Christchurch Airport for its expected tax costs. The levelised price is set such that the revenue stream using the levelised price and the revenue stream that would have been required under the cost of service methodology are NPV equivalent (where cash flows are discounted on a pre-tax basis using Christchurch Airport's pre-tax WACC).
- When estimating its full cost of service, Christchurch Airport has included the revaluations that occurred prior to PSE2 as a reduction in the overall revenue required in PSE2. (We call this a revaluation 'wash-up', consistent with our terminology for similar mechanisms applied by Wellington Airport). Christchurch Airport implemented a moratorium on asset revaluations for PSE1, but the opening pricing asset base for PSE2 includes \$33.5m of revaluations. Of these revaluations, \$10.5m relates to the revaluation that occurred when the RAB was first established under information disclosure in 2009 (effectively revaluations that occurred prior to the information disclosure regime). The remaining revaluations relate to the period between 2009 and 2012 (ie, subsequent to information disclosure coming into effect).

For example, Commerce Commission "Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper" December 2010, paragraph 5.2.6.

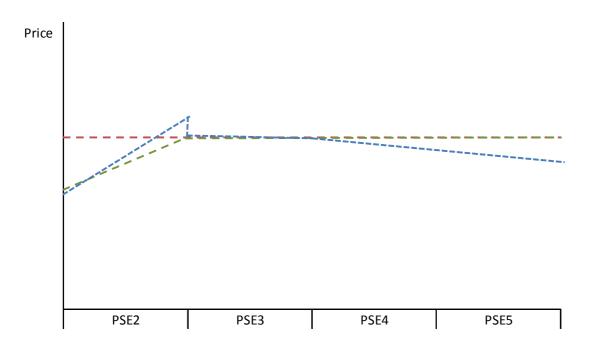
In its estimate of it full cost of service, Christchurch Airport uses the average of the opening and closing RAB in each year as the basis for estimating its required return on capital. This is not entirely consistent with the IMs which requires the return on capital to be estimated using the regulatory investment value (RIV) which is calculated as the opening RAB in each year plus 50% of the capital expenditure in the year.

Although there is no explicit building blocks formula in either the IMs for airports, or the airport information disclosure requirements, the building blocks approach underpins the relationship between the IMs and disclosed measures of profitability (refer Commerce Commission, Input Methodologies (Airport Services) Reasons Paper, December 2010, paragraphs 2.8.4-2.8.9.

- F17 Christchurch Airport has stated that both the initial MVAU revaluation (June 2009) and the 2012 MVAU revaluation of land were treated as revenue in the pricing model over the 2013-2017 pricing period. In doing this, Christchurch Airport has treated the revaluations for PSE2 as a reduction in the revenue required under its full cost of service model between 2013 and 2017.
- In Christchurch Airport's full cost of service model, the revaluation wash-ups are spread equally over the 5 years of PSE2 such that the present value of the wash-ups is equal to \$33.5m in 2012. While the revaluation wash-ups have been included within the cost of service model for the period from 2013 to 2017, the effect of levelising the price means that the wash-ups will actually result in a lower 'levelised' price over the entire 20-year period than would be the case without the wash-ups. This is because the NPV-equivalence calculation effectively smoothes the effect of the discount from revaluation wash-ups in the first five years across all years. Therefore, the full benefit of the wash-ups to consumers will not be realised until the end of the 20-year period. For the benefits of the wash-ups to be received by consumers after PSE2 will require Christchurch Airport to continue to explicitly include the remainder of the unrealised wash-up amounts in prices at future price setting events.
- Christchurch Airport has stated that the 'levelised constant real price' is the ceiling for intended price levels. However, when setting the actual price path for PSE2, the total revenues expected to be earned are greater than those that would have been expected under the 'levelised' price path in years 2016 and 2017 as shown in the illustrative Figure F2.
- Christchurch Airport has described its price setting methodology as the 'levelised constant real price' and stated that this price has been set to earn a return over 20-years. However, it became apparent to us during the course of this review that Christchurch Airport did not explicitly model the 20-year period when determining what the 'levelised' price should be. Instead the Airport developed a 10 year model which included 'terminal' values that were calculated to represent forecast revenues and costs over the last 10 years in present value terms. Christchurch Airport has stated that the terminal values, for simplicity, treated the remainder of the economic life of the asset as a single period.
- F21 The consequence of this assumption is that while future costs were calculated as being the present value of the expected future costs for the remaining 10 years, including annual inflation of 2.5%, the revenues were estimated as being the present value of the expected future volumes multiplied by the expected price in year 11. By assuming the terminal value was for a single period, Christchurch Airport assumed that prices over the last 10 years would only increase by a single period worth of inflation (2.5%, or an average of 0.25% per annum). This means the 'levelised' price is not constant in real terms over the 20-year period but would begin to decline in real terms after year 10. This is illustrated in Figure F2 below. Christchurch Airport has indicated that it was aware of how the terminal value calculation would impact on its expectation of future prices. However, we are uncertain whether this would

have been apparent to other parties given Christchurch Airport's description of the 'levelised' price path as being constant in real terms.

Figure F2: Christchurch Airport's proposed 'levelised' and actual price path (in real terms)



CIAL levelised constant price - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as per CIAL's presentation to conference
(in real terms)

CIAL actual price path - as estimated by the Commission
(in real terms)

- F22 Christchurch Airport has stated that future prices cannot be prejudged or fixed in advance, given its obligation to consult with airlines. While Christchurch Airport intends to apply the 'levelised' price path approach for PSE3 and the subsequent two pricing periods, a number of factors and inputs (such as the appropriate cost of capital) will need to be reconsidered in PSE3.
- F23 One significant example of an area where there will need to be revised forecasts is for capital expenditure. Currently the 20-year 'levelised' price only includes capital expenditure forecasts for the 5 years of PSE2, with no explicit on-going capital expenditure forecast for PSE3 and beyond. While Christchurch Airport would not, in reality, expect that there is no need for on-going capital expenditure beyond PSE2, the airport has stated that it has not included any expectation of on-going capital

- expenditure.¹⁵⁷ This is because the airport considers that any future capital expenditure proposals are subject to consultation prior to PSE3 or other future price setting events, and are therefore too uncertain to include in current calculation of the 'levelised' price.¹⁵⁸
- PSE3 and beyond include operating costs and demand forecasts. Christchurch Airport has stated that it needs to consider changes in costs from those currently forecast, including any efficiency gains. Demand volumes also need to be reconsidered, given that the impact of the Canterbury earthquakes on demand is likely to reduce over time.

How does Christchurch Airport's approach compare to the input methodologies?

- F25 Under AAA regulation, Christchurch Airport is able to set prices as it sees fit. However the input methodologies (IMs) represent our best assessment of how certain building blocks should be specified to promote the Part 4 purpose in these areas. Although Christchurch Airport is not required to apply the IMs when setting prices, or when disclosing its forward-looking pricing methodologies after each price setting event, they provide a provide an important framework for comparing what airports are expected to earn against our view of the level of return that is appropriate for this type of business.
- Christchurch Airport has stated that, in setting its prices for PSE2, "our starting point has been that the IMs are an important benchmark, representing as they do the Commission's view as to the most appropriate way to calculate the efficient cost of service for airports under Part 4 information disclosure." The airport explains that because "the IMs were deliberated over a long period with input from a number of parties and experts, CIAL was able to use the IMs as the point of reference for its own analysis, and to focus on the aspects of the IMs which CIAL believed were not appropriate for the CIAL's circumstances."
- F27 In respect of particular IMs, Christchurch Airport stated that:

¹⁵⁷ Christchurch Airport has stated that it made a deliberate choice to include only capex for PSE2 when establishing the levelised price. The pricing model does not include capex for the remaining 15 years because Christchurch Airport intends to incorporate additional capex only as consultation takes place for each future pricing period. Christchurch Airport recognises that not including additional capex for the remaining 15 years will result in an understatement of the levelised price [see Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 17 – 18].

We note, however, that Christchurch Airport's pricing model appears to assume that depreciation in each year is a constant ratio of the RAB (ie, the average remaining life of the assets in the pricing assets base does not change). This assumption would only hold if capital expenditure is expected to be incurred to maintain the average asset life at a constant level. Therefore, the model does include an implicit capital expenditure allowance.

- F27.1 its cost inputs are fully consistent with the asset valuation and cost allocation IMs;
- F27.2 its approach to tax is complicated by the fact that its pricing is derived on the basis of expected cost recovery over the life of the assets, rather than only from the calculation of costs within the pricing period itself;
- F27.3 the one area where it has materially diverged from the IMs is in respect of cost of capital; and
- F27.4 it has decided to treat revaluations arising from the 2009 RAB MVAU valuation to be treated as income (resulting in a \$10.5 million benefit to airlines), although the IMs do not require this approach. 159

Treatment of depreciation

- For its disclosures following the PSE2 pricing event, Christchurch Airport disclosed its forecast regulatory asset base (RAB) applying a standard straight-line depreciation approach, and indexing the asset base for inflation. It chose not to use an approach equivalent to the mechanism in the input methodologies that provides for an alternative 'non-standard' depreciation approach (ie, an approach other than straight-line depreciation). Christchurch Airport could have derived and disclosed forecast depreciated values of its RAB that are consistent with the depreciation profile implicit in its levelised price path (ie, reflecting relatively low capacity utilisation in the short term, as well as an expectation of higher cash flows in the future). Doing so would have allowed interested persons to better assess the impact of its levelised pricing approach on expected returns.
- Under straight-line depreciation (which is the 'standard' or default depreciation method under the IMs), the depreciation amounts for an asset are the same in each year (prior to the effect of indexation for inflation). Prices that are consistent with an asset value depreciated using straight-line depreciation (but indexed for inflation) will decline in real terms over time. In contrast, to be consistent with a levelised price path that is constant in real terms, the asset value will initially need to depreciate at a lesser rate than if the asset were depreciated using straight-line depreciation. However, over the lifetime of the asset, these annual 'non-standard' depreciation amounts will increase over time, and in later years will become greater than would be the case under straight-line depreciation. For consistency with the price path, the depreciated value of the asset in each year should equal the discounted value of the future cash flows generated from the asset.

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 8.

Commerce Commission "Airport Input Methodologies Reasons Paper" December 2010, paragraphs C11.1 to C11.5.

- F30 Christchurch Airport was entitled not to apply a non-standard depreciation approach, because under the information disclosure regime airports are not required to apply the input methodologies in disclosing their forward-looking pricing methodologies. Nevertheless, as a result of doing so, Christchurch Airport's expected profitability performance for PSE2 and subsequent pricing periods is not as transparent as it otherwise could have been.
- F31 On the other hand, for its future disclosures of its actual profitability performance for each disclosure year, Christchurch Airport will be required to apply the relevant input methodologies (except the cost of capital IM). However, Christchurch Airport would, under the current IMs, be able to choose not to avail itself of an alternative depreciation approach consistent with its levelised pricing approach, and to disclose RAB values using straight-line depreciation instead. If so, it is likely that interested parties will continue to find it difficult to assess whether Christchurch Airport is limited in its ability to earn excessive profits.
- F32 We note that Christchurch Airport supported such a flexible depreciation approach in information disclosure during consultation on the IMs.

166 CIAL agrees with the Commission that applying straight line depreciation to an inflation-indexed asset base would result in a more efficient time path of prices than without indexation, and hence accepts this as a default method of depreciation for the airport sector.

167 CIAL notes, however, that for certain investments an alternative depreciation method may deliver more efficient prices, and hence airports should have the flexibility (but not requirement) to apply a different depreciation method in such circumstances. In this respect, CIAL welcomes the Commission's draft decision to allow airports to adopt an alternative depreciation method where justified. CIAL is considering as an option (along with straight line depreciation based pricing) calculating prices for its new Integrated Terminal Project (ITP) using a more deferred return of capital than inflation-indexed straight line depreciation in order to maximise the use of the new terminal and recover costs in a more equitable manner over time. CIAL notes, however, that it is only commercially feasible to set the ITP prices using such a deferred return of capital if CIAL has certainty that the RAB will be rolled forward using that depreciation method in the future.

In response to questions by the Commission at the s 56G conference as to whether Christchurch Airport had given any consideration to using an alternative depreciation methodology consistent with its pricing approach in its disclosures, Christchurch Airport stated that it "felt that the complexities of that were greater than the approach we've taken, and this is why we believe [that] developing the constant levelised long-run price overcome a number of those risks and inconsistencies." 162

Christchurch Airport, "Submission on input methodologies and information disclosure draft determinations and reasons papers for airport services" 12 July 2010, page 38.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 49-50.

- Christchurch Airport's adviser from Castalia acknowledged that "under certain assumptions the two approaches converge", but stated that the approach chosen enables Christchurch Airport to "understand the consequences of commercial choices and commercial impacts more clearly than a deferred depreciation approach would." We note, however, that Christchurch Airport has stated it has no intention of recouping any under-recovery due to its commercial decision to set prices lower than the 'levelised' price during PSE2. Therefore there would be no need to complicate disclosures made using an alternative depreciation approach by taking into account the impact of the commercial decision to set lower prices in PSE2.
- More importantly, we consider that not reflecting the implicit alternative depreciation profile associated with Christchurch Airport's levelised price path in its disclosures will mean that interested parties will experience difficulties in trying to assess whether the airport's ability to extract excessive profits is being limited. This is because the disclosed value of the RAB will bear little or no relationship to the net present value of Christchurch Airport's expected future cash flows, and the usefulness of the disclosed RAB value will become more and more limited at future price setting events.

Cost of capital

Christchurch Airport has stated that it holds a different view to the Commission as to what is an appropriate WACC. Christchurch Airport considers that adopting the Commission's estimate of WACC would imply significant reductions in its cost of equity over the past two years, despite Christchurch Airport's view that its risk has not decreased. In estimating its post-tax WACC for PSE2 of 9.76% Christchurch Airport has made several departures from the IMs. The airport has described some of these departures as representing the differences in assessment which are currently being examined under the merits reviews of the IMs, while others relate to our specific assessment of the current market conditions and Christchurch Airport's specific circumstances. A detailed discussion of the Commission estimate of the acceptable range of cost of capital for Christchurch Airport is provided in paragraphs F69 to F87 below.

Treatment of tax

F37 In calculating the levelised price path, Christchurch Airport has estimated the long-term revenue requirement by applying a pre-tax WACC rather than a post-tax WACC. The airport has explained that it "felt that a simple approach of using pre-tax WACC avoided a multitude of tax complications", and "provides a reasonable estimate of

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 50-51.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 21.

the present value of future tax allowances". Christchurch Airport has also stated that its "analysis presented to the airlines as part of the Revised Pricing Proposal shows that there is no material difference in the level of the levelised constant real price between deriving that price on the basis of (i) our approach of using the pre-tax WACC to calculate the levelised constant real price and (ii) the calculation of the levelised constant real prices using the present value of tax payable over the life of the assets." For that reason, while its method for incorporating the tax allowance is different to the IMs, it considers that its "method of using the pre-tax WACC to estimate the levelised constant real price over the life of the assets is consistent with the tax IM."

- F38 Christchurch Airport's levelised price path was estimated so as to target a pre-tax return of 13.55%, which it considers to be equivalent to its post-tax WACC estimate (ie, its target post-tax return) of 9.76%. Christchurch Airport derived its pre-tax WACC from the post-tax WACC by dividing the post-tax WACC by one minus the corporate tax rate of 28%.
- F39 BARNZ and some airlines expressed the view during the conference that Christchurch Airport's approach was designed to lift the calculation of the maximum allowable revenue over the next pricing period, and to provide the airport with an over-recovery of its expected tax costs. BARNZ has argued that "the Airport has treated income from revaluations as being taxable when it calculated its base income requirements, and it has increased its required revenue to include tax on income from these revaluations despite the fact that such tax does not exist in New Zealand."¹⁶⁷
- F40 BARNZ and Air New Zealand submitted their concerns to Christchurch Airport regarding the tax treatment of revaluations during the consultation process. However, Christchurch Airport did not make any adjustments to its approach when it set prices stating that its analysis "showed that over the economic life of the assets, there was no material effect on the levelised price from the implied tax allowance using our simplified calculation compared to an allowance which would be derived

¹⁶⁵ Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, paragraphs 23 – 25. Christchurch Airport considers that the use of its approach increases the present value estimate of total tax costs by approximately 1.3% compared to the Commission's approach where tax payable amounts are explicitly modelled, and that this difference is "well within the acceptable margin of error rate" (refer: Christchurch Airport, Response to Airline Queries, 4 September 2012, pp 9-10).

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 8.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 110.

Christchurch Airport "Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017", 19 December 2012, page 34.

from calculating the tax payable for each year". ¹⁶⁹ Christchurch Airport provided BARNZ and the airlines with analysis that it considered proved its approach was consistent with the Tax IM, in the form of the 'tax check' model. This model was released to BARNZ and the airlines at the end of the consultation process. BARNZ has stated that that this model does not demonstrate that the two approaches are consistent. ¹⁷⁰

- P41 During consultation on IMs for airports we noted that it would be possible to assess returns on a pre-tax basis, but we considered that it would be more transparent to treat tax as a separate 'building block'. 171 In the current context, we note that there are number of complications in transforming a post-tax WACC (or return) to a pre-tax WACC (or return), or in undertaking discounted cash flow analysis using pre-tax cash flows discounted by a pre-tax WACC. This is particularly the case where the effective tax rate differs from the corporate tax rate due to the use of diminishing value depreciation permitted by tax rules, and where the asset base for pricing purposes is revalued, whereas under tax rules the tax asset base is not revalued. Christchurch Airport's simple transformation of post-tax WACC to pre-tax WACC uses the corporate tax rate and ignores any effect of revaluations. 172
- F42 Our own assessment of the impact of Christchurch Airport's use of a pre-tax WACC to determine the 'levelised' price path indicates that doing so is equivalent to a materially higher post-tax return than that which the airport appears to have expected. Our analysis indicates that the post-tax return on the revenues estimated by Christchurch Airport when targeting a 13.55% pre-tax return (but including the discounts due to revaluation wash-ups) is equivalent to a 9.7% post-tax

Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 34.

BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 3.

Commerce Commission "Airports Input Methodologies Reasons Paper" December 2010, footnotes 352 and 368.

For example: Kevin Davis, "Why pre-tax discount rates should be avoided", *Journal of Applied Research in Accounting and Finance*, Vol. 5, No. 2, pp. 2-5, 2010; and Kevin Davis, "Access regime design and required rates of return: pitfalls in adjusting for inflation and tax", *Journal of Regulatory Economics*, Vol. 29, No. 1, pp. 103-122, 2006.

In undertaking our returns analysis on a post-tax basis, we have had to estimate forecast tax payable. Because Christchurch Airport's pricing model has all been undertaken on a pre-tax basis, it does not include the information needed for us to estimate forecast tax payable amounts over the 20 year period. In response to Commission questions at the Christchurch Airport s 56G conference, Christchurch Airport provided us with a separate model which compares its pricing approach on a pre-tax and post-tax basis. (Christchurch Airport's model is available on our website in the section containing cross-submissions following the conference). We have calculated forecast tax payable taking into account the forecast tax depreciation amounts provided in this model. We note, however, that this tax depreciation profile does not appear to be consistent with the forecast tax payable amounts provided by Christchurch Airport in complying with Schedule 18 of the information disclosure requirements.

return. This is almost as high as the 9.76% return stated by Christchurch Airport as its equivalent post-tax target return prior to the \$33.5 million discount due to revaluation wash-ups. We would expect that the equivalent post-tax target return for the levelised price path prior to the discounts due to revaluation wash-ups is higher than 9.76%. ¹⁷⁴

- F43 The difference between our post-tax target return estimate and Christchurch Airport's is due to two factors:
 - F43.1 Christchurch Airport's simple transformation from post-tax to pre-tax WACC and its treatment of revaluations when establishing the required revenue under the full cost of service approach;¹⁷⁵ and
 - F43.2 levelising its price path on an NPV-equivalent basis using the high pre-tax WACC that results from this transformation. Using a relatively high discount rate to derive the NPV-equivalent levelised price path gives lesser weight to the higher revenues and corresponding cash flows in the latter years of the price path. 176

Challenges in undertaking our analysis of Christchurch Airport

Our assessment of whether information disclosure is effective in limiting
Christchurch Airport's ability to earn excessive profits has proven to be a more
challenging task that for the previous s56G reviews of Auckland and Wellington
Airports. The information provided under information disclosure regulation has not

An IRR analysis of the post-tax cash flows under Christchurch Airport's levelised price path (including discounts due to revaluation wash-ups) also results in an expected target return of 9.7%. For this calculation, we assumed that the closing RAB at the end of the 20 year period is an IM-compliant value rolled forward using standard depreciation and indexation assumptions.

We are releasing a simple model with this draft report to demonstrate the impact of using Christchurch Airport's simple post-tax to pre-tax transformation, and levelising the constant real price path on an NPV-equivalent pre-tax basis using the outcome of that transformation. The model is of the revenues and returns generated from a single asset fully depreciated over 20 years, and is undertaken using an IRR calculation. The model demonstrates that if the effective tax rate equals the corporate tax rate (because it is assumed that tax depreciation equals accounting depreciation), and there are no revaluations due to inflation, then a pre-tax return target of 13.55% is equivalent to a 9.76% post-tax IRR (ie, consistent with CIAL's assumption that a 13.55% pre-tax WACC is equivalent to a 9.76% WACC). However, for a revaluation/inflation rate of 2.1% and a diminishing value tax depreciation rate of 10%, the equivalent post-tax IRR increases from 9.76% to 10.42%.

For instance, in the example in the previous footnote, if revenue is subsequently derived from an NPV-equivalent constant real price path using a pre-tax discount rate of 13.55%, then the post-tax IRR increases even further: from 10.42% to 11.02% (for an assumed annual quantity growth rate of 2%).

- been sufficient for us to accurately estimate the return that would be expected under Christchurch Airport's current pricing approach. 177
- F45 We have had to make a number of requests for additional information from Christchurch Airport and have met with representatives from the Airport on a number of occasions (Christchurch Airport representatives met with the Commission on 16 May 2013 and a representative from the Commission met with Christchurch Airport on 29 August 2013). It has only been through these additional information requests that a comprehensive understanding of the Airport's pricing approach has been formed.
- F46 Areas of particular focus for our discussions with Christchurch Airport included:
 - whether the use of a pre-tax WACC results in outcomes that are consistent with the tax IM as Christchurch Airport has asserted; ¹⁷⁸
 - F46.2 whether Christchurch Airport's treatment of revaluations in its full cost of service model results in higher levels of required revenue than under the IMs; and
 - the practical implications of the terminal value calculations in the pricing model on the 'levelised' price in years 10 20.
- In order to try to settle the on-going disagreement between Christchurch Airport and the airlines about the tax implications of Christchurch Airport's methodology, we requested at the conference that Christchurch Airport demonstrate the IM equivalence of its revenue setting approach, by undertaking a net present value calculation on the post-tax cash flows derived from its revenue path so as to be able to compare it directly with the Commission's IM approach. Christchurch Airport provided this calculation in their cross-submission but a notable feature of the calculation was that the post-tax cash flow was derived not by deducting the income tax calculated by simply applying the corporate tax rate to taxable income, but by grossing up this amount to a pre-tax equivalent number before deducting it. This is not consistent with the calculation of tax payable under the IMs or under the Income

While we have been required to request additional information from each of the airports in undertaking our s 56G reviews, the amount of additional information requested from Christchurch Airport and the amount of correspondence required is significantly greater than for either Auckland or Wellington Airports.

¹⁷⁸ Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 8.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 41-42.

Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, Tax Building Block Calculation.

Tax Act 2007. The adjustment that Christchurch Airport made mirrors the grossing up of a tax allowance building block to provide for the additional tax payable on that tax allowance, which is a methodological adjustment used in the determination of allowable revenue, not in calculating the tax payable on that revenue once it is set. Despite repeated communication with Christchurch Airport about this issue we have not been able to reach agreement.¹⁸¹

- Christchurch Airport set its prices so as to earn a return over the 20-year period from 2012 to 2032. Much of Christchurch Airport's analysis is based on the expected revenues over the full 20-year period for which the levelised price was established (e.g, Christchurch Airport's tax check model is based on 20 years of revenue and cost information). However, the pricing model provided to airlines during consultation calculated only the first 10 years of the pricing period with a terminal value calculation used to estimate the returns over years 11 to 20.
- F49 Considering Christchurch Airport's description of its approach as having established a 'levelised' price for 20 years, and the availability of analysis by Christchurch Airport for the full 20 year period, we expected Christchurch Airport to have generated a pricing model that calculated the 'levelised' price path over the entire 20 years and proved that cash flows generated using the levelised price were NPV neutral when compared with the cash flows under the airport's full cost of service over the same period. The fact that the terminal values in the pricing model provided to airlines linked to another model for data for periods 11 to 20 supported this expectation.
- F50 We requested Christchurch Airport provide this additional model so that we could see how Christchurch Airport's terminal valuation calculation estimated the expected revenues and costs for years 11 to 20. Christchurch Airport initially declined to provide this model to us. It was only after on-going discussion about the provision of this additional model that we understood that there was no 20-year model of the 'levelised' price path and that the pricing model provided to airlines was the actual model used by Christchurch Airport to establish both the levelised price and the actual price path for PSE2.
- F51 In the absence of a 20-year model, Christchurch Airport provided us with an expanded version of the pricing model that showed the forecast prices for the entire 20-year period and compared the expected revenues to those required under a full cost of service building blocks approach. It was this expanded version of the pricing model that illustrated that the 'levelised' price was not constant in real terms but

As noted above, we are releasing a simple tax model with this draft report to demonstrate the impact of using a Christchurch Airport's simple post-tax to pre-tax transformation.

While the additional model included 20 year forecasts for passenger volumes, operating expenditure and the roll forward of the pricing asset base, it was not used to establish the levelised price or to set prices for PSE2. The additional model was substantial in size and included a significant amount of data from Christchurch Airport's reporting systems that was not relevant to the current price setting event.

grew by only 0.25% per annum from years 11 to 20. We do not consider that this outcome was transparent in Christchurch Airport's disclosures or its explanations of how the levelised price was set and we are uncertain as to whether other interested parties would have understood that the levelised price was actually expected to decline in real terms in years 11 to 20.

How have we assessed expected returns for Christchurch Airport?

Christchurch Airport's conduct has been assessed based on expected target returns

- We have undertaken an assessment of what Christchurch Airport's expectations of its target returns were when it set prices, given its understanding of the information disclosure regime (ie, its pricing behaviour or 'conduct'). When assessing the expected target returns for Christchurch Airport, we have had regard to the specific considerations taken into account by the Airport when setting its prices for PSE2 and have ensured that our approach to assessing its expected returns is appropriate given those considerations. This is consistent with our analysis of Auckland Airport, where we had to make specific adjustments to our approach in order to appropriately reflect Auckland Airport's use of a moratorium on asset valuations. In this particular instance, Christchurch Airport has set it prices such that it is expected to earn a target return over 20 years (prior to commercial decisions that have reduced the return in PSE2). Therefore, we have assessed Christchurch Airport's conduct based on its expected target return over the same period (ie, we have not assessed expected returns for PSE2 alone).
- Our approach to determining Christchurch Airport's expected target return is consistent with our approach for Auckland Airport, except the estimate is derived for a 20-year period, rather than for the typical 5 year pricing period for the other airports. Each of our estimates of the equivalent post-tax target return is simply a constant annual input to a standard building blocks model (ie, using standard depreciation assumptions, and indexing for inflation), prior to levelising the price path using a discount rate that is equal to that target post-tax return. Each estimate is therefore equivalent to the role played by Christchurch Airport's pre-tax target return, which is a constant annual input to its full (building blocks) cost of service model, and is the discount rate used in levelising the price path.

We have done less scenario-based analysis of Christchurch Airport's profitability performance

- P54 Our analysis of both Wellington Airport and Auckland Airport's profitability performance was based on an IRR calculation which determined the expected return for PSE2 and beyond, based on the expectation that the pricing behaviour exhibited by each Airport for PSE2 would continue into PSE3 and beyond. When identifying excess returns we showed whether these were expected to be earned in PSE2 or the periods beyond PSE2.
- As noted in Chapter 2, where the primary approach taken by the airport has materially differed from the input methodologies, we have had to consider whether it is appropriate to vary our approach in order to make an appropriate assessment.

We recognise that simply because an airport's prices are not fully aligned with our input methodologies does not necessarily mean that the Part 4 purpose is not being promoted.

- F56 In Christchurch Airport's case, its 'levelised' pricing approach is intended to be NPV equivalent to a full cost of service model using building blocks over a 20-year period.
- F57 Our assessment of Christchurch Airport's expected returns is based on only the 20 years for which the Airport estimated the 'levelised' price. We have no basis for making any assumptions beyond that 20-year period (ie for the full remaining lifetime of the assets). Therefore, unlike previous reports, we have not used an IRR calculation based on the explicit PSE2 period with a closing asset value reflecting future expected cash flows for the remaining life of the assets. In order to undertake an IRR based analysis of Christchurch Airport we would have needed to determine the closing value of the pricing asset base that would reflect the Airport's expected future cash flows.
- This could have been undertaken by deriving the implicit depreciation profile consistent with Christchurch Airport's levelised price path. Doing so would ensure that the forecast closing value of the pricing asset base at the end of PSE2 reflects the discounted future cash flows expected to be generated by the levelised price path over the remaining life of the assets. However, given this analysis would not affect our draft conclusion, we have not done so.
- F59 Instead, in undertaking our assessment of whether Christchurch Airport is expected to earn excess returns over the 20 years for which the levelised price path was estimated, we have only calculated the dollar value of the excess returns relating to PSE2 and the 15 years beyond PSE2. To estimate the dollar value of excess returns we have estimated what 20-year levelised price path would be NPV equivalent to the full cost of service building blocks model, where the cost of service is estimated using

Estimating closing asset values that would reflect Christchurch Airport's expectation of discounted future cash flows associated with its pricing asset base could, in simplified form, be achieved as follows. 'Economic Depreciation' for each year would be determined from Forecast Revenue (based on CIAL's 'levelised' price path) less (CIAL's Pre-Tax WACC multiplied by the Forecast Pricing Asset Base) less Forecast Opex. The Economic Depreciation effectively comprises regulatory depreciation less revaluations and reflects all changes in asset value (either up or down) other than due to capital expenditure (ie, Capex). The Pricing Asset Base in the first year of PSE2 would be consistent with that portion of the disclosed RAB relating to pricing assets (and the same as that used in the analysis we have undertaken for this draft report). The Forecast Pricing Asset Base would be rolled forward each year by adding Forecast Capex and deducting Economic Depreciation (which could be a positive or negative value). The calculation would use Christchurch Airport's own WACC because the closing asset value reflects the level future revenue would need to be at to ensure that Christchurch Airport achieves its target return over the 20year levelised pricing period. From these expressions, it can be seen that for a given levelised price path during PSE2, the higher Christchurch Airport's target return is, the higher the closing asset value at the end of PSE2 will be. This is because, all other things being equal, a higher target return will mean an expectation of greater cash flows after PSE2.

a post-tax WACC consistent with our cost of capital IM, and using an appropriate tax payable allowance consistent with our tax IM. 184

Asset valuations and opening RAB

- The opening value of assets employed by Christchurch Airport in its full cost of service building blocks model has been established in a manner consistent with the IMs. In establishing the opening asset base for land, a market value alternative use (MVAU) methodology as prescribed by the asset valuation IM was carried out by Seagar & Partners in 2012 to derive an updated valuation for the opening asset base for PSE2. For non-land assets, Christchurch Airport has applied an optimised depreciated replacement cost (ODRC) methodology. Opening valuations for non-land assets were set at 2009, and rolled forward to 2012 by the addition of capital expenditure, the deduction of depreciation and disposals, plus the indexing of specialised assets at CPI, consistent with the IMs.
- Christchurch Airport has removed approximately 35% of its total land holdings. Using the most recent land valuation in 2012, the average cost of land per hectare is \$218,333. However, the actual range of values from different parcels of land with Christchurch Airport's holdings are \$120,000 per hectare to \$1,000,000. When excluding land from the regulatory asset base, Christchurch Airport has assumed that all of the land excluded has been valued at the average land value per hectare and has not tried to identify the specific parcels of land that are being excluded. Given the significant variance between the values of specific parcels of land, we are uncertain whether the assumption that all excluded land is valued at the average land value per hectare is reasonable. Had the excluded parcels of land related to areas that are valued at either the very high or very low end of the valuation range, this could have a significant impact on the average value of the remaining parcels of land incorporated in the regulatory asset base.
- Christchurch Airport disclosed its regulatory asset base as at 30 June 2012. However, the airport set its prices for PSE2 from 30 November 2012. Our analysis uses an estimate of the opening regulatory asset base as at the date prices were set. To establish the asset base used for pricing as at 30 November 2012, Christchurch Airport treated the ITP as being in its commissioned state from the beginning of the

In undertaking our analysis, we have replicated Christchurch Airport's actual approach to setting levelised prices (ie, we have assumed that prices will increase by on average 0.25% in the last 10 years of the 20-year period for which the' levelised' price was set. When estimating the revenues from a 'levelised' price path that would have achieved a post-tax return consistent with our acceptable range of returns we have scaled all of Christchurch Airport's prices for individual services as at 1 December 2012 such that the NPV of the post-tax cash flows from our estimated 'levelised' price path is neutral when compared to the full cost of service building blocks approach. (The relevant IM-compliant cost of capital is used as the discount rate--ie mid-point or 75th percentile as appropriate to the scenario). Figures E2 and E3 show the revenue paths that we have estimated from applying this approach.

price reset period. This decision was taken because the first 2 stages of the development had been completed and the final stage was expected to be completed by April 2013. This approach resulted in an increase in the pricing asset from \$330m as at 30 June 2012 to \$401m as at 30 November 2012, or a total increase of \$71m.

BARNZ has stated that it considers 1 December 2012 a reasonably pragmatic date for assuming the new passenger terminal was in use. However, it considers that the airside apron works of \$18.7m should be treated differently. These were scheduled to be complete circa April 2013, and therefore should not form part of the 1 December 2012 opening asset base. Instead, they should be treated as capital expenditure occurring in the first year of the pricing period. In our analysis, we have used the opening asset value from Christchurch Airport's pricing model and have included forecast capital expenditure of \$33.6m for the period from 1 December 2012 to 30 June 2013. We believe this is consistent with both Christchurch Airport's treatment for price setting and BARNZ's submission.

Revaluation wash-ups related to periods prior to PSE2

- When looking at the pricing periods separately it becomes important to ensure that income is recognised in the period in which it relates. This is of particular importance with the issue of the revaluation wash-ups included in the Christchurch Airport pricing disclosure, as these wash-ups, which are intended to be NPV neutral, can have a significant impact on the return attributed to an individual pricing period.
- The wash-ups provided by Christchurch Airport are made up of two components, revaluations that occurred when the opening RAB was set for information disclosure in 2009 and revaluations which occurred after the 2009 opening RAB was set. Information disclosure requires that all revaluations are treated as income; however establishing the initial RAB under Part 4 effectively draws a 'line in the sand' under decisions made prior to Part 4. Therefore, any revaluations caused as a result of establishing that RAB would not have been required to be treated as income by Christchurch Airport. Therefore we consider that wash-ups related to revaluations that occurred prior to the introduction of the information disclosure regime should be treated differently to those that occurred once the regime was in place.
- In dealing with the revaluation wash-ups, it is important that there is a consistent treatment of the revalued asset base and the revenue recognised on that revalued asset base in anticipation of higher future cash flows. To preserve the relationship between the two, the closing revalued RAB at the end of PSE1 must be the same as

BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 6.

BARNZ stated that its proposed treatment of the airside apron works in the opening asset base is consistent with Christchurch Airport's pricing model. BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 6.

the opening RAB of PSE2 and the returns for PSE2 measured using the corresponding uplifted revenue and asset base.

F67 Christchurch Airport applied a moratorium on asset revaluations when it set prices for PSE1. However, in setting the opening RAB for PSE2, Christchurch Airport revalued its assets by \$33.5m. While the revaluation wash-ups provided by Christchurch Airport in respect of revaluations since the introduction of information disclosure are an appropriate offset to revaluations, arguably they do not reflect a discount in PSE2, but a return of income over-recovered in PSE1. As a result the inclusion of the revaluation wash-ups, in respect of revaluations since the introduction of information disclosure, results in a conservative estimate of Christchurch Airport's expected return. The revaluation wash-ups related to revaluations that occurred when establishing the opening RAB for information disclosure in 2009 (\$10.5m) do reflect a discount on behalf of Christchurch Airport as there was no requirement prior to information disclosure for these to be treated as income.

Cash flow timings assumed in our calculation

F68 For our assessment of Christchurch Airport's conduct, we have assumed cash flows occur at the end of each year, with the exception of capital expenditure. 187 This gives rise to a conservative estimate of the return compared to using assumptions which attempt to better approximate the real timing of cash flows. We do not agree with BARNZ and Air New Zealand's suggestion that our conclusions should be based on analysis that assumes cash flows occur mid-year. 188 Our conclusion is based on the assumption of year-end cash flows as this is consistent with the treatment of cash flows in information disclosure requirements. The use of mid-year cash flows to assess returns had not been signalled at the time Christchurch Airport set prices. Therefore, we would not expect Christchurch Airport to have had regard to this when setting its prices. We propose to consider enhancing the information disclosure requirements to better reflect the actual timing of cash flows.

For our previous reports on Auckland and Wellington Airports we assumed that capital expenditure occurred mid-year consistent with the information disclosure regime. Due to the 7 month first period for PSE2, we have assumed all remaining capex for 2013 will occur at the end of the year, with capital expenditure for remaining periods occurring mid-year.

See BARNZ "Submission by BARNZ on Commerce Commission Draft Section 56G Report on Christchurch Airport" 31 May 2013, page 12; Air New Zealand "Submission to the Commerce Commission on the Draft report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" 31 May 2013, paragraph 26.

Cost of capital and underlying assumptions

How we estimate the cost of capital

- The WACC estimates the percentage return on capital consistent with returns that may be achieved in a workably competitive market over time. ¹⁸⁹ Under Part 4, we have published an IM for estimating the cost of capital for monitoring and analysing information disclosed by airports. We considered a range of analyses used by capital market practitioners to estimate the cost of capital.
- F70 In this report we have stated all returns on a post-tax basis as this is consistent with analysis provided in our section 56G reviews for Wellington and Auckland Airports, and is likely to be most familiar to most interested persons. 190
- As is discussed above, Christchurch Airport has estimated its 'levelised' price path using a pre-tax WACC, and has undertaken its NPV equivalence calculations applying a pre-tax discount rate to pre-tax cash flows. Although we understand the attraction of using an apparently simpler pre-tax approach, our analysis has been consistently undertaken on a post-tax basis. Doing so is consistent with the IMs, is more transparent, and provides a more analytically robust approach that avoids the "enormous dangers associated with the application of pre-tax discount rates". 191

Our analysis uses a 1 October 2012 cost of capital estimate

- F72 We consider that the most appropriate cost of capital to use when assessing Christchurch Airport's forecast returns is a post-tax WACC estimate based on the IMs for 1 October 2012. 192
- F73 In reaching this view, we considered the July 2012 cost of capital determination. ¹⁹³ This was the most recently published WACC determination for airports at the time

Commerce Commission "Information Disclosure (Airport Services) Reasons Paper" 22 December 2010, paragraph 3.23.

The cost of capital IM requires a vanilla nominal WACC and post-tax nominal WACC to be estimated and published for airport services for the purpose of information disclosure. The vanilla WACC is specified as the expected post-tax cost of equity capital and the expected pre-tax cost of debt capital, weighted by the respective proportion each represents of the total capital. The post-tax WACC is determined as the expected post-tax cost of equity capital and the post-tax expected cost of debt capital, weighted by the respective proportion each represents of the total capital. Christchurch Airport has targeted a pre-tax WACC which has been estimated by a simple transformation from its target post-tax WACC.

Tyrone Carlin and Nigel Finch, Editorial, *Journal of Applied Research in Accounting and Finance*, Vol. 5, No. 2, p 1, 2010

Our 1 October WACC estimate using the risk-free rate and debt premium on Auckland Airport's bonds, contained in the October 2012 WACC determination for Powerco (Commerce Commission "Determination of cost of capital to apply for information disclosure in respect of gas distribution services supplied by Powerco Limited [2012] NZCC 31" 31 October 2012).. This approach is consistent with the cost of capital IM.

Christchurch Airport set its prices on 24 October 2012. We consider it is feasible that Christchurch Airport would have reconsidered the WACC used to set prices between September and October 2012. We note that using a later WACC does not disadvantage Christchurch Airport.

F74 Post-tax WACC estimates for 1 July 2012 and 1 October 2012 are summarised in Table F1 below. 195

Table F1: Post-tax WACC estimates for airports based on the IMs (%)

	1 July 2012	1 October 2012
25th percentile	5.51	5.61
Mid-point	6.49	6.59
75th percentile	7.48	7.58

Note: The increase in post-tax WACC estimates over the period from 1 July 2012 to 1 October 2012 was largely driven by increases in the risk-free rate despite a decrease in the debt premium. As at 1 July the risk-free rate was 2.78%. The risk-free rate increased to 2.97%% as at 1 October 2012.

- In choosing between the 1 July 2012 and 1 October 2012 WACC estimates, we note that Christchurch Airport could have made a reasonable estimation of the Commission's cost of capital based on the IMs at the date that it finalised the market data for its pricing decision. BARNZ has previously stated that "the Commission's methodology has been specified sufficiently clearly in its Input Methodologies that interested parties (with access to sufficient expertise) are themselves able to update the WACC estimate". We understand Christchurch Airport estimated its WACC in March 2012 but that there was subsequent consultation on this estimate. The final responses from airlines were received in September 2012. It is therefore feasible that Christchurch Airport could have decided to update the WACC at this time, although it did not choose to do so. 197
- F76 Using information available at the time Christchurch Airport set prices is consistent with the approach taken for our section 56G review for Auckland Airport. In the case

Commerce Commission "Cost of capital determination for information disclosure year 2013 for Transpower, gas pipeline businesses and specified airport services (with a June year-end) [2012] NZCC 20" 30 July 2012.

See paragraph A63 for greater discussion.

We assessed the mid-point to 75th percentile range for the cost of capital for both Wellington and Auckland Airport to be between 7.1% and 8.0%. This was based on using the WACC estimate as at 30 April 2012 which is the date we considered was most reasonable for assessing Wellington and Auckland Airports expected returns when taking into account when each airport finalised the inputs to its pricing model.

BARNZ "BARNZ Post Conference Submission on Wellington Airport Section 56G Revenue" 17 August 2012, page 21.

¹⁹⁷ Christchurch Airport "CIAL Post-Conference Submission: Section 56G Review" 19 June 2013, page 19.

of the section 56G report for Wellington Airport, a WACC estimated after the date which prices were set was used only because the previous WACC determination was in July 2011, several months prior to Wellington Airport's price setting decision. We also note using a later WACC did not disadvantage Wellington Airport.

F77 In the circumstances we consider that using a WACC estimate for 1 October 2012 is appropriate. The use of an October WACC is supported by Air New Zealand and BARNZ. 198

We have assessed Christchurch Airport's returns relative to the mid-point and the 75th percentile estimate of the cost of capital

- When assessing Christchurch Airport's profitability we have used the mid-point cost of capital as the starting point, but also considered the 75th percentile cost of capital. This is consistent with the approach adopted in the section 56G report for Wellington and Auckland Airports. 199
- F79 Given that we are assessing profitability against an excessive standard, the 25th percentile is not relevant.
- F80 We consider the mid-point cost of capital to be an appropriate starting point for any assessment of profitability for Christchurch Airport. The Airport IM reasons paper states that "in assessing profitability for the Airports an appropriate starting point for any assessment is the 50th percentile (mid-point) on the range". Using the mid-point has previously been supported by the airlines. BARNZ submitted that "...the mid-point WACC estimate represents an appropriate level of target return for Airports and is more than sufficient to provide incentives to innovate and invest". Air New Zealand submitted that "returns consistent with the WACC mid-point are an

Air New Zealand "Post-Conference Cross-Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 19 June 2013, paragraph 28; BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 10.

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" 8 February 2013, paragraphs F36 to F38; Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" 31 July 2013, paragraphs F57 to F66.

Commerce Commission "Input Methodologies (Airport Services) Reasons Paper" December 2010, paragraph E11.2.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Auckland Airport" 18 October 2012, page 8.

- appropriate level of target return" and that "this represents a balance between the objectives of s 52A(1)(a) and (d)". 202
- F81 For the purpose of our review of how effectively information disclosure regulation is promoting the purpose of Part 4, we have also considered the 75th percentile cost of capital, in addition to the mid-point, to assess Christchurch Airport's profitability. The 75th percentile cost of capital allows for the uncertainty of estimating the cost of capital and limits the potential asymmetric consequences of estimation error on investment. The analysis of Christchurch Airport's profitability undertaken for this section 56G review is forward-looking and as such, it is important to allow for uncertainty about the cost of capital to ensure adequate incentives for investment are provided.

Differences between our cost of capital estimate and Christchurch Airport's cost of capital estimate

- The parameters used by Christchurch Airport to calculate its cost of capital estimate differ from those applied by the Commission. Christchurch Airport has calculated a post-tax WACC of 9.76%. Our estimate of WACC for 1 October 2012 determination results in a mid-point post-tax WACC of 6.59%.
- Table F2 below summarises the key parameters used by Christchurch Airport in calculating the cost of capital for PSE2, and which is used in estimating its 20-year 'levelised' price path. The parameters used by the Commission to set its cost of capital determination for Airports in July 2012, as well as the specific risk-free rate and debt premium from our 1 October 2012 estimate, are also included.

Table F2: Cost of capital parameters for Christchurch Airport

Parameters	Christchurch Airport pricing decision	Commission's estimate of cost of capital 1 July 2012	Commission's estimate of cost of capital 1 October 2012
Risk-free rate (equity) (%)	6.00	2.78	2.97
Risk-free rate (debt) (%)	4.31	2.78	2.97
Debt premium (%)	2.35	2.18	1.88
Debt issuance costs (%)	0.35	0.35	0.35
TAMRP (%)	7.50	7.00	7.00

Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Auckland International Airport" 19 October 2012, paragraph 155.

²⁰³ Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 27.

Asset beta	0.70	0.60	0.60
Leverage (%)	26	17	17
Post-tax WACC (mid-point)	9.76%	6.49%	6.59%

Sources: Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 27; Commerce Commission, "Cost of capital determination for information disclosure year 2013 for Transpower, gas pipeline businesses and specified airport services (with a June year-end) [2012] NZCC 20" 30 July 2012.

Our estimated cost of capital is consistent with the input methodologies

Parties had extensive opportunities to submit on the IMs, and the final IM was our view of the best approach. As noted in our reports for Wellington and Auckland Airports, the certainty intended by setting the IMs would be undermined if we made ad hoc adjustments to our published cost of capital estimates derived from the IMs.²⁰⁴

We do not therefore agree with Christchurch Airport's deviations from the IMs when calculating its cost of capital. For example, Christchurch Airport's estimate of WACC uses a 10 year average of the risk free rate for the cost of equity. This is because it considers using a 10 year average reflects recent market uncertainty. The IMs use a five-year average; reflecting the airport's ability to reset prices over this time and, in doing so, reflect changes in the risk free rate. As noted above, Christchurch Airport has indicated that, even though it proposes applying its 'levelised' pricing approach for the full 20-year period, it does intend resetting key input parameters, including the WACC, at each five-yearly price setting event. A five year average also reflects the airport's use of interest rate swaps which shorten the period for which their interest rate is fixed.

We consider the asset beta established in the IMs is appropriate at Christchurch Airport

Christchurch Airport adopted a higher asset beta than that established by the IMs. It argued that the industry average asset beta developed for the IMs is not appropriate as a large proportion of its revenues are from leisure travellers. The demand from these travellers is considered by Christchurch Airport to be more strongly correlated with the economic cycle than is the case for demand from other travellers. ²⁰⁶

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" 8 February 2013, paragraphs F46 to F47; Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" 31 July 2013, paragraphs F70 to F71.

²⁰⁵ Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 28.

²⁰⁶ Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 28.

F87 Christchurch Airport has not provided any evidence to support the view that demand from leisure travellers is more correlated with changes in the New Zealand market than demand from other travellers, or that its passenger mix differs significantly from the other airports used to determine the asset beta in the IMs nor that the sample of airports used to the set asset beta is not suitable. It is not clear therefore that a higher asset beta is justified at Christchurch Airport.

Is Christchurch Airport's demand forecast reasonable?

- F88 In this section, our analysis focuses on whether Christchurch Airport's demand forecast for PSE2 is appropriate. The demand forecast is an important determinant of the prices set by Christchurch Airport, and through this, its actual profits.
- F89 Based on submissions and recent events, we consider that Christchurch Airport's overall demand forecast for PSE2 is unlikely to result in returns higher than forecast. Therefore, with hindsight, Christchurch Airport's demand forecast for PSE2 does appear to be reasonable. We also consider that the demand forecast for PSE1 was reasonable. However, airlines have raised some concerns that Christchurch Airport's demand forecast for PSE2 was too low.
- Christchurch Airport may have an incentive to under-forecast the demand used to derive its prices so as to earn higher profits. Prices are set by assuming a volume forecast for each charged service. These prices, combined with the volume forecast, should be set to recover only the revenue requirement forecast by Christchurch Airport when setting its prices. If volumes are then higher than assumed, Christchurch Airport will receive higher total revenue and likely higher returns. However, higher volumes may also be a result of factors outside Christchurch Airport's control, or due to superior performance in attracting additional passengers and aircraft over the regulatory period.
- F91 While airlines consider that Christchurch Airport's forecast of international demand for PSE2 is reasonable, they have raised some concerns with its forecasts of domestic demand.
 - F91.1 BARNZ and Air New Zealand consider that Christchurch Airport's forecasts of MCTOW and seats for domestic jet are too conservative and do not completely account for Air New Zealand's fleet upgrade. BARNZ's alternative demand forecast for domestic jet MCTOW and seats would result in an increase in Christchurch Airport's revenue of around 2%. Christchurch Airport responded that Air New Zealand's fleet upgrade was accounted for in its demand forecast for pricing. Furthermore, its forecast

²⁰⁷ Christchurch Airport has forecast an increase of 4.9% and 14.8% in domestic jet MCTOW and seats respectively over PSE2. BARNZ has suggested that the growth rates should be 8.2% (MCTOW) and 27.3% (seats) instead. (BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 30).

- assumed the upgrade was to be completed by the end of 2013, rather than 2016 as advised by Air New Zealand. 208
- F91.2 Qantas has submitted that Christchurch Airport's forecast of domestic passenger demand for PSE2 is too low stating that it has under estimated the level of recovery from the Canterbury earthquakes. However, Qantas has not suggested an alternative demand forecast and so we have not analysed this further.
- F92 At this stage, these concerns raised by airlines have not been realised. Actual demand at Christchurch Airport in 2013 has been lower than forecast. Christchurch Airport has indicated that demand has not recovered as much as it had expected and that passenger numbers in 2013 are lower than that forecasted for PSE2.²¹⁰
- F93 There is no evidence that Christchurch Airport had deliberately under-forecast demand in PSE1. Airlines have not raised any concerns regarding Christchurch Airport's demand forecast for PSE1. Air New Zealand considered Christchurch Airport forecast to be reasonable. Actual demand in 2009 and 2010, prior to the Canterbury earthquakes was close to what was forecast by Christchurch Airport at the time of the price setting event. Passenger numbers and aircraft movements were around 1% higher than forecast. 212

Christchurch Airport's allocation of common costs

- F94 In this section, we examine Christchurch Airport's allocation of its common costs between its regulated (aeronautical) and unregulated (non-aeronautical) business. The cost allocation methodology used by the Christchurch Airport determines those costs included in the price setting event and those that fall outside.²¹³
- F95 Christchurch Airport has followed a similar cost allocation methodology in PSE2 as that applied in PSE1. Changes to the cost allocation in PSE2 are mainly as a result of a

Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 10.

Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013.

Christchurch Airport readjusted it forecast passenger growth downwards by around 60% for 2013 in light of softer than expected demand (Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 13).

²¹¹ Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 59.

²¹² Calculations are based on actual data disclosed by Christchurch Airport under the Airport Authorities Act and forecast data under Part 4 of the Commerce Act.

Airports may have an incentive to allocate more of its common costs to its regulated business than to its unregulated business. This is because its unregulated business may operate in a more competitive market than its regulated business.

changing footprint with the commissioning of the Integrated Terminal Project.²¹⁴ Airlines have raised some concerns regarding the sharing of cost between Christchurch Airport's aeronautical and non-aeronautical business. However, based on the information available, these are not considered to have a significant impact on its prices or returns. These concerns are summarised below.

- BARNZ and Air New Zealand submitted that the aeronautical allocation of assets to public spaces of the new terminal is overstated by \$5.5m. Their concern is that the horizontal circulation space has not been allocated appropriately and should be treated the same as vertical circulation space. Christchurch Airport responded that vertical circulation space serves a more general purpose to the airport and is therefore allocated based on the relative size of regulated and unregulated areas of the terminal. Conversely, horizontal circulation spaces serve a specific purpose and are allocated according to the where the space is located. Given that this accounts for little more than 1% of Christchurch Airport's regulatory asset base, we consider that this would have minimal impact on its prices or returns.
- F97 Qantas observes that there is no change in the cost allocation of shared facilities in spite of a large increase in retail. However, Qantas has not indicated what it considers to be an equitable share and so we have not analysed this any further.

Activities included in our assessment of Christchurch Airport's returns

Our analysis is based on the expected return for Christchurch Airport over the 20 years for which the 'levelised' price was set. Christchurch has only targeted a 'medium term' return for pricing assets. Other regulatory assets (ie leased assets) have not been priced in order to earn a return in the 'medium term'.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 29.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 32; Air New Zealand "Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 22 March 2013, paragraph 62.

Horizontal circulation space (which includes corridors, walkways, and public circulation space) has an 88% allocation to the aeronautical asset base. Vertical circulation space (which includes stairs, lifts and escalators) has a 58% allocation to the aeronautical asset base. See BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 32.

For example, corridors supporting baggage reclaim are allocated 100% to Christchurch Airport's regulated activities. Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, page 14.

Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013, paragraph 4.

F99 The table below summarises the forecast revenue and costs for leased assets for PSE2.

Table F3: Leased asset revenues and costs for PSE2

	2013	2014	2015	2016	2017
Leased asset income	10,028	10,238	10,453	10,673	10,897
Leased asset operating costs	1,914	1,954	1,996	2,037	2,080
Value of leased assets (as at 30 June)	77,195	75,428	73,647	71,795	69,722

- F100 We consider the expected return for leased assets to be 5.7% over PSE2. Leased assets account for approximately 16% of the regulatory asset base as at 30 June 2012. However, the proportion of leased assets is expected to reduce over PSE2, with leased assets accounting for 13% of the regulatory asset base by 2017.
- F101 Forecasts for leased assets are only available for the 5 years of PSE2, therefore we have not been able to accurately combine pricing assets and leased assets in forming a conclusion of the expected return for all regulatory assets for the 20-year period over which returns have been targeted.
- F102 However, in order to estimate the impact of including leased assets on the expected 20-year target return for Christchurch Airport's conduct, we have calculated the weighted average return for pricing and leased assets. This analysis assumes that expected returns for leased assets over PSE2 are consistent with expected returns for leased assets over 20 years. It also assumes that the average proportion of leased assets to the regulatory asset base is consistent with expected makeup of the regulatory asset base in future (this would appear to be a conservative assumption given the recent decline in the leased asset base).
- When estimating the excess cash flows expected to be earned by Christchurch Airport, we have calculated the value of the cash flows generated by the Airport's leased assets for PSE2 as compared to the value of cash flows that would have been expected had a return within the acceptable range of cost of capital been targeted. We have then extrapolated the value of the difference in cash flows from years 5 to 20 between those expected from targeting an acceptable range of returns and those expected if Christchurch Airport were to continue to target a return of 5.7% in future. The present value of the difference of these cash flows has been added to the excess cash flows earned on pricing assets for PSE2 and for the remaining years for which the 'levelised' price has been established.

Limitations in the effectiveness of information disclosure

F104 Although information disclosure provides some of the mechanisms required to deal with the long-term demand considerations facing Christchurch Airport in light of its recent investment in the ITP, the Airport can set prices as it sees fit and is not required to avail itself of the methodologies set out in information disclosure.

- F105 Had Christchurch Airport set prices using a 'levelised' price, without any of the commercial considerations which favour the airport's consumers coming into effect, information disclosure would have been able to reflect the Airport's expected return by determining the value of the RAB that reflected the expectation of future cash flows. This could have been implemented using an approach equivalent to the mechanism provided for under the regime to provide a depreciation profile consistent with the levelised price path. While this approach may have presented some challenges, it would have been able to provide a reasonable estimate of the returns earned by the Airport while still reflecting any expectation of higher future returns created by the use of the levelised pricing methodology.
- As discussed in the s 56G report for Wellington and Auckland Airports, incentives for airports to price consistent with the Part 4 purpose could be strengthened if each airport were required to disclose an indicator of its expected returns comparable to its cost of capital, along with the other information disclosed following a price setting event. Under the current disclosure requirements, after each price setting event airports must disclose information about how they have set their current and future prices. However, airports are not required to disclose an indicator of their expected returns for the relevant pricing period. The inclusion of such an indicator would require additional information requirements than currently provided for under information disclosure, particularly information about the asset base expected to be used to set prices on an on-going basis.
- F107 The opening asset base for such a forward-looking profitability indicator should also reflect alternative approaches permitted by input methodologies or appropriate departures from input methodologies taken by airports. Likewise, it would be appropriate that any indicator reflecting past returns also be consistent with the indexation, revaluation and standard or alternative depreciation decisions made by airports when they set their prices for the current pricing period, to ensure that incorrect conclusions about excess returns are not made. In future, it would be appropriate to ensure that the existing flexibility to apply alternative depreciation approaches is only provided to ensure that the information disclosed applies the same assumptions underpinning prices (which can be set by airports as they see fit). 220

Alternatively, the information disclosure requirements also allow airports to disclose a 'revenue smoothing adjustment' in each year of the pricing period. However, this adjustment contemplates NPV-neutral smoothing of revenue across all disclosure years of a single pricing period, and not over multiple periods.

We also consider that requiring airports to disclose reconciliation between the asset values and other information used for pricing purposes, and the equivalent disclosure information, would assist interested persons in analysing disclosures.

- F108 However, given the practical application of the levelised pricing methodology has some differences when compared to the theoretical explanation of what the Airport has been trying to achieve (eg, Christchurch Airport's application of the pre-tax WACC does not produce a return consistent with its post—tax target return, and its use of a single period of inflation over the last 10 years of the forecast prices is not consistent with a constant real price) this makes determining an appropriate estimation of a consistent RAB value even more challenging, and makes it difficult for the regime to effectively monitor and make transparent Christchurch Airport's performance.
- F109 While Christchurch Airport started its approach to price setting using a building blocks approach, it ultimately chose to set prices for PSE2 based on commercial considerations that reflected short-term demand considerations related to the recent Canterbury earthquakes. It is the impact of these commercial considerations which favour the airport's consumers, and any future commercial considerations that Christchurch Airport might continue to make, that are perhaps most difficult to accurately reflect under the information disclosure regime.
- F110 Christchurch Airport's use of commercial decisions to set a price path which underrecovers during PSE2, as compared to the levelised price path adds a further layer of
 complexity in accurately reflecting the Airport's returns. This is because the underrecovery created by the actual price path for PSE2 is intended to be a concession and
 is not required to be recovered in future periods. Therefore, not only do the asset
 values need to be established based on the expectation of future cash flows
 excluding the impact of any concessions that are not to be recovered, but the regime
 would also need to keep track of any of these concessions so as to ensure that any
 long term returns estimated under information disclosure reflect such concessions
 and do not allow these to be recaptured at a later date.

Attachment G: Is information disclosure promoting improvements in operating efficiency at Christchurch Airport?

Purpose

- This attachment summarises the analysis undertaken for this s 56G review to assess the effectiveness of information disclosure in promoting outcomes consistent with workably competitive markets such that Christchurch Airport has incentives to improve operating efficiency (s 52A(1)(b) of the Act).
- G2 Consistent with s 52A(1)(b), we have assessed whether Christchurch Airport is improving its operating efficiency.
- Improvements in operating efficiency result from reductions in operational expenditure (opex) while maintaining (or even increasing) the quality and quantity of service provided as a result of improvements in managerial efficiency. Opex efficiency gains may also result from an increase in quantity or quality for no additional opex.

Draft conclusion

- G4 We are unable to conclude whether information disclosure regulation is effectively promoting improvements in opex efficiency at Christchurch Airport at this time. This is because we do not have a sufficiently long time series on actual operating expenditure to assess meaningful trends in opex at Christchurch Airport since information disclosure regulation was implemented. Furthermore, major earthquakes that have impacted the airport have complicated our analysis. Information on actual expenditure that is provided during PSE2 will assist in drawing conclusions on Christchurch Airport's operating efficiency in the future.
- G5 The key reasons for our view on the effectiveness of information disclosure regulation in this area are as follows.
 - G5.1 Our analysis suggests that Christchurch Airport may have improved its opex efficiency since the implementation of information disclosure regulation. However our analysis is distorted by the impact of the earthquakes.
 - G5.2 Christchurch Airport's opex forecast indicates it may be improving its opex efficiency over PSE2. However, data on actual opex is needed before we can conclude in this area.
 - G5.3 We do not yet have actual expenditure information for PSE2 to assess whether Christchurch Airport has been able to achieve lower opex than forecast, and the reasons for any differences. This will be an important indicator of whether Christchurch Airport is actively improving its efficiency and whether information disclosure under Part 4 is effective in this area of performance.

G5.4 Christchurch Airport does appear to seek to improve its operating efficiency, which may indicate its conduct is appropriate. However, it is unclear as to whether this is a result of information disclosure regulation.

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to improve its opex efficiency

- Christchurch Airport has an incentive to operate efficiently to increase its profits.

 This incentive is strengthened by Christchurch Airport fixing its prices for a fixed period. This gives Christchurch Airport an incentive to improve efficiency so as to outperform the opex forecast used to set prices (ie, have lower actual expenditure than forecast) and earn higher profits.
- G7 These incentives to operate efficiently are weakened because of Christchurch Airport's market power. For example:
 - G7.1 Christchurch Airport sets its prices, in part, based on its forecast of opex.

 Christchurch Airport has an incentive to set this forecast above an efficient level so as to earn higher profits by outperforming this opex forecast without necessarily being efficient; and
 - G7.2 Christchurch Airport may also have an incentive not to achieve efficiency gains in the last year of the pricing period. This results in a higher starting point than otherwise from which to forecast opex for the subsequent starting period.

How information disclosure can provide incentives to improve operating efficiency

Information disclosure may strengthen Christchurch Airport's incentives to operate efficiently. The public disclosure of information on historic and forecast opex provides transparency about how well Christchurch Airport is performing relative to other suppliers and over time. Over time it can highlight if Christchurch Airport has over-forecast opex for the purpose of price setting.

We expect that information disclosure would have had a relatively limited impact at this stage

We expect that it will take a number of years for information disclosure regulation to be fully effective at promoting operating efficiency. That is because the effectiveness of information disclosure in this area is dependent on the availability of data to assess trends in expenditure, as well as to make comparisons with trends at other airports. The availability of this information potentially increases the countervailing power of consumers at Christchurch Airport. This information was not available at the time of consultation for PSE2.

How we have assessed operating efficiency for the purpose of this review

G10 We have analysed whether information disclosure regulation is effectively promoting operating efficiency at Christchurch Airport by examining:

- G10.1 whether Christchurch Airport has outperformed its opex forecast for PSE1, and the reasons for any over or under performance;
- G10.2 the efficiency trend of Christchurch Airport's historic opex expenditure. As part of this, we have examined historic trends in Christchurch Airport's unit opex for the period 2006–12 and its unit opex relative to other airports; and
- G10.3 evidence of forecast improvements in opex efficiency in PSE2, and Christchurch Airport's conduct in establishing this forecast.
- Our analysis considers Christchurch Airport's performance and conduct both before and after the introduction of information disclosure regulation to gain an insight into the impact of information disclosure regulation on promoting incentives to improve opex efficiency.
- G12 To help understand the efficiency of Christchurch Airport's opex, we have explored two unit opex measures: opex per passenger and opex per aircraft movement. We consider these 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. ²²¹ Christchurch Airport also sets a number of its prices on a per passenger or per movement basis.
- G13 We do not have a sufficiently long time series of trends in actual opex data at Christchurch Airport to conclude whether information disclosure regulation under Part 4 is effective in promoting improvements in operating efficiency. We expect to observe the effectiveness of information disclosure in promoting incentives to improve opex efficiency through actual performance, rather than forecasts. Christchurch Airport's incentives to improve efficiency are strongest once prices have been set, as any efficiency improvements will result in higher profits. We do not therefore expect its opex forecast will reflect all of its expected future efficiency gains. In order for us to draw conclusions concerning opex in this report, we would need to have actual information available. Since the implementation of information disclosure under Part 4, only two years of data are available which is insufficient for drawing conclusions in this area. Furthermore, both years of data have been affected by unexpected additional operational costs as a consequence of the Canterbury earthquakes.
- G14 A disaggregated review of the different components of opex may provide further insights into whether Christchurch Airport's forecast opex for PSE2 reflects improvements in efficiency. However, given the likely limited insights into the effectiveness of information disclosure regulation this would provide, we do not

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²²¹ Changes in opex per aircraft movement may however also reflect changes in the size and capacity of aircraft.

- consider the costs of requiring this information for the purpose of this review are appropriate.
- G15 We expect that the availability of longer trends in time series information for opex for Christchurch Airport and comparator airports in PSE2 through information disclosure, as well as information to assess differences between actual and forecast opex for PSE2 will better allow interested persons to assess whether Christchurch Airport is improving its opex efficiency in PSE2.

Information used to assess opex efficiency at Christchurch Airport

- G16 Our analysis uses quantitative and qualitative data from the following sources:
 - G16.1 information disclosed under Part 4 and the AAA;
 - G16.2 information published by the Australian Competition and Consumer Commission (ACCC); and
 - G16.3 submissions and other material received as part of this s 56G review.
- G17 All currency values in this attachment are expressed in real 2012 terms unless otherwise stated. 222

Analysis of Christchurch Airport's opex efficiency performance and conduct Did Christchurch Airport improve its operating efficiency in the first pricing period?

- There is some evidence that Christchurch Airport may have improved opex efficiency in PSE1. Both total opex and unit opex decreased over PSE1 prior to the Canterbury earthquakes. Furthermore unit opex in 2009 and 2010 at Christchurch Airport was similar to that forecast for PSE1. It is not clear to what extent this reduction in opex is due to a reduction in expenditure on the old terminal rather than efficiency gains. The impact of the earthquakes has also distorted our analysis.
- G19 Since the implementation of information disclosure regulation in 2011 unit opex has increased. This appears to have been partially driven by the impacts associated with the earthquakes. When the costs associated with the earthquakes are excluded, opex per passenger in 2011 and 2012 are lower than historic levels.
- G20 To assess whether Christchurch Airport has improved its operating efficiency during PSE1 we have compared actual and forecast opex during PSE1 and examined historic trends in unit opex at Christchurch Airport as well as its unit opex relative to other regulated airports.

We have calculated historic real values using the Statistics New Zealand consumer price index (CPI).

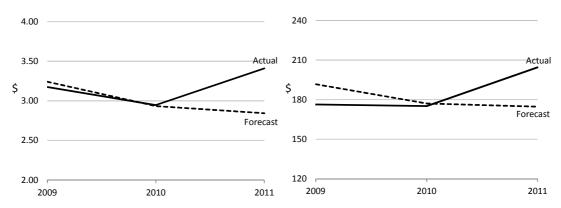
Future real values are based on Christchurch Airport's assumption of 2.1% inflation in its pricing model.

Comparisons between actual and forecast opex

G21 Christchurch Airport set forecast opex in PSE1 for three years from 1 July 2008 to 30 June 2011. In 2009 actual unit opex was slightly lower than it forecast and in 2010 actual unit opex was similar to the level it forecast, as shown in Figure G1 and Figure G2. This suggests that Christchurch Airport may have achieved slight efficiency gains in the first two years of PSE1.

Figure G1: Forecast and actual opex per passenger (2009–11)

Figure G2: Forecast and actual opex per aircraft movement (2009–11)



Notes: Forecast and actual opex excludes aircraft and freight costs, leased areas, and cost associated with the ITP as these were not included in the PSE1 forecast. Dollars shown are in real (2012) value.

Sources: Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 July 2008 to 30 June 2011; Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 26.

- G22 Actual opex per passenger in 2011 exceeded its forecast by 20%. Christchurch Airport advised that this can be largely explained by the following factors.
 - G22.1 Increased repairs and maintenance costs resulting from the earthquakes. Christchurch Airport has submitted that the earthquakes were the main reason for the increase in repairs and maintenance in 2011. This accounted for approximately 28% of the difference between actual and forecast opex per passenger; 225

Actual data used to compare opex with the forecasts was taken from Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 26. According to its submission this data uses the same cost allocation framework as that used for its forecast.

²²⁴ Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 27.

Based on analysis of information disclosed.

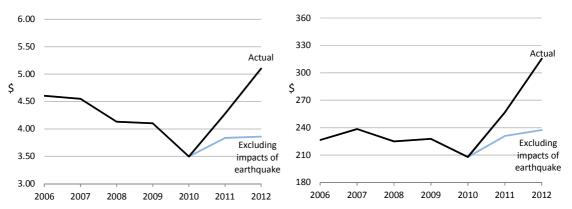
- G22.2 Decreased demand as a result of the earthquakes. In 2011 passenger numbers at Christchurch Airport dropped by 5.2% relative to the PSE1 forecast for 2011. This accounted for 30% of the difference; and
- G22.3 Christchurch Airport cite that the difference in administration and other operating costs, which accounted for 41% of the difference, is mainly attributed to costs associated with stimulating new routes and services which were not forecast.²²⁸

Historic trends in unit opex

- G23 Unit opex at Christchurch Airport was declining up until 2010, as shown in Figure G3 and Figure G4. It is unclear to what extent the reduction in expenditure was due to a reduction in expenditure on the old terminal rather than efficiency gains.
- G24 There was a significant increase in unit opex in 2011 and 2012. As discussed above, this was partly due to earthquake related expenses and declining demand. Excluding these impacts from our analysis shows that unit opex has still increased over these two years but remains below 2009 levels, as shown in Figure G3 and Figure G4.

Figure G3: Actual opex per passenger (2006–12)

Figure G4: Actual opex per aircraft movement (2006–12)



Note: The impact of the earthquakes consists of additional repairs and maintenance expenditure, increased insurance premiums from 2012, and reduced demand. Dollars shown are in real (2012) value.

Sources: Christchurch Airport "Identified Airport Activities Disclosure Financial Statements" 2006 to 2010; Christchurch Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012.

We consider this an appropriate estimation for 2011 given that Christchurch Airport's forecast passenger movements closely approximate actual movements in PSE1.

Based on analysis of information disclosed.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 27.

Comparisons of unit opex between airports

G25 There is evidence to suggest that Christchurch Airport did increase its operating efficiency historically when comparing its historical opex with the other two regulated airports. However, as discussed above, it is unclear to what extent this difference is due to a reduction in expenditure on the terminal rather than efficiency improvements. Christchurch Airport's unit opex decreased up until 2010. This is in contrast to Auckland and Wellington Airports where unit opex increased over the same period, as shown in Figure G5 and Figure G6. While unit opex at Christchurch Airport increased substantially from 2011 we consider it inappropriate to compare it with other airports due to the earthquakes.

Figure G5: Indexed opex per passenger at Christchurch, Auckland and Wellington Airports (2006–12)

Figure G6: Indexed opex per aircraft movement at Christchurch, Auckland and Wellington Airports (2006–12)



Note: Graph shows differences in the rate at which unit opex has changed at the airports between 2006 and 2012. It does not represent differences in the level of unit opex. The graph illustrating the indexed opex per aircraft movement between the three airports is different from that presented in our section 56G reports for Wellington and Auckland Airports. This is due to clarification from Christchurch Airport regarding their aircraft movements between 2006 and 2012.

Sources: Christchurch Airport "Identified Airport Activities Disclosure Financial Statements" 2006 to 2010; Auckland Airport "Identified Airport Activities Disclosure Financial Statements" 2006 to 2010; Wellington Airport "Identified Airport Activities Disclosure Financial Statements" 2006–10; Christchurch Airport, "Specified Airport Services Annual Information Disclosure" 2011 to 2012; Auckland Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012; Wellington Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012.

Our indicative analysis in Figure G7 and Figure G8 shows that in 2012 Christchurch Airport had lower unit opex relative to Auckland Airport and the Australian airports subject to monitoring by the ACCC. However, unit opex was higher than at Wellington Airport. At this stage, due to a limited understanding and data on these differences, we cannot provide more detailed comparisons.

Wellington
Christchurch
Auckland
Melbourne
Brisbane
Perth
Adelaide
Sydney
\$0 \$2 \$4 \$6 \$8 \$10

Figure G7: Opex per passenger (2012)

Notes: Australian currency converted to New Zealand currency based on a rate of \$NZ1 = \$A0.781.

Sources: Christchurch Airport, "Specified Airport Services Annual Information Disclosure for year ending 30 June 2012"; Auckland Airport "Specified Airport Services Annual Information Disclosure for year ending 30 June 2012"; Wellington Airport "Specified Airport Services Annual Information Disclosure for year ending 31 March 2012"; ACCC "Airport Monitoring Report 2011-12: Price, financial performance and quality of service monitoring", April 2013.

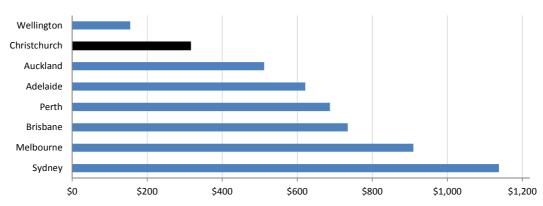


Figure G8: Opex per aircraft movement (2012)

Notes: Australian currency converted to New Zealand currency based on a rate of \$NZ1 = \$A0.781.

Sources: Christchurch Airport, "Specified Airport Services Annual Information Disclosure for year ending 30 June 2012"; Auckland Airport "Specified Airport Services Annual Information Disclosure for year ending 30 June 2012"; Wellington Airport "Specified Airport Services Annual Information Disclosure for year ending 31 March 2012"; ACCC "Airport Monitoring Report 2011-12: Price, financial performance and quality of service monitoring", April 2013.

Did Christchurch Airport's opex forecast for the second price setting event indicate reasonable future efficiency gains?

- G27 Christchurch Airport has forecast a decline in unit opex over PSE2. This appears to be largely driven by economies of scale. Total opex is relatively constant over the period while passenger numbers are forecast to increase, partly driven by an expected recovery in demand following the earthquakes.
- G28 To assess whether Christchurch Airport's opex forecast for PSE2 indicates reasonable future efficiency gains, we have:

- G28.1 considered forecast trends in unit opex at Christchurch Airport, including relative to unit opex in PSE1. We would expect forecast opex to reflect some, but not necessarily all, expected future efficiency gains;
- G28.2 assessed trends in Christchurch Airport's forecast unit opex for the 2012-17 disclosure period relative to Auckland Airport and Wellington Airports' forecast expenditure in the same period. This provides an indication of whether any forecast efficiencies by Christchurch Airport are appropriate;
- G28.3 assessed whether any reductions in unit opex are due to economies of scale, and whether these economies are attributable to improvements in managerial efficiency at Christchurch Airport; and
- G28.4 considered the views raised in submissions on this s 56G review.

Forecast trends in unit opex

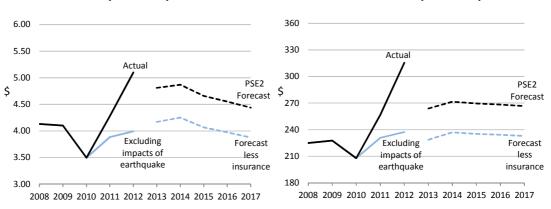
- G29 Figure G9 and Figure G10 show that opex per passenger and per movement at Christchurch Airport is forecast to decline over PSE2 but is expected to remain above pre earthquake levels. Christchurch Airport attributes this relatively higher opex to two main factors.
 - G29.1 Higher insurance premiums as a result of the earthquakes. Christchurch Airport submitted that insurance premiums had increased from approximately \$1m in 2010 to approximately \$4.5m in 2012 and are expected to continue into PSE2. When this increase in insurance premiums is excluded from our analysis, opex per passenger by 2015 is forecast to be lower than in 2009, as shown in Figure G9.
 - G29.2 The new Integrated Terminal Project (ITP) which has a 26% larger footprint than the old terminal. Christchurch Airport has submitted that while there are efficiencies resulting from the new terminal, these are outweighed by its bigger size. This means that unit opex is higher in the short-term but may decline as passenger volumes increase. No airlines have raised any concerns that the terminal has been built for a larger capacity than required.

Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 40.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 103.

Figure G9: Opex per passenger (2008-17)

Figure G10: Opex per aircraft movement (2008-17)



Note: Dollars shown are in real (2012) value.

Sources: Christchurch Airport "Identified Airport Activities Disclosure Financial Statements" 2006 to 2010; Christchurch Airport "Specified Airport Services Annual Information Disclosure" 2011 to 2012.

Economies of scale at Christchurch Airport

G30 Much of the decline in opex per passenger over PSE2 appears to be due to economies of scale. Some of these economies of scale may be, in part, attributable to efficiencies expected to be generated by Christchurch Airport. However, we consider that it is likely that much of these economies of scale are instead due to the recovery in demand following the earthquakes, and organic growth in passenger volumes and aircraft movements. ²³¹

G31 The evidence available indicates there are economies of scale at Christchurch Airport. Total opex for the 2012-17 disclosure period is forecast to be relatively constant at around \$27m per year while passenger growth is forecast to increase at around 3.3% per year.

G32 We consider that economies of scale may represent efficiency gains if demand growth is driven, at least in part, by the airport. Christchurch Airport has increased expenditure on promoting new routes and services, as stated in paragraph G22.3. However, at this stage there is no evidence that this has directly led to demand growth.

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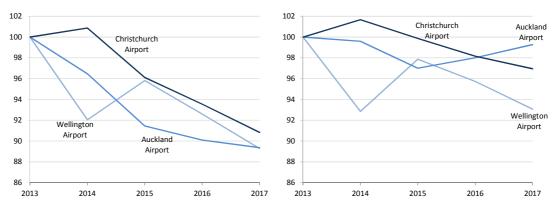
Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, pages 55 to 56; BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 29.

Comparison of forecast trends in unit opex

G33 Christchurch Airport has forecast a similar decline in unit opex over the 2012-17 disclosure period relative to Wellington and Auckland Airports, as shown in Figure G11 and Figure G12. This suggests that Christchurch Airport's forecast reductions in unit opex may be reasonable. However, as discussed above in paragraph G26, it is not clear that such comparisons are appropriate.

Figure G11: Indexed opex per passenger at Christchurch, Auckland and Wellington Airports (2013-17)

Figure G12: Indexed opex per aircraft movement at Christchurch, Auckland and Wellington Airports (2013-17)



Sources: Christchurch Airport "Christchurch International Airport Limited: Price setting event disclosure" 19
December 2012; Auckland Airport "Auckland International Airport Limited: Price setting event disclosure" 2
August 2012; Wellington Airport "Wellington International Airport Limited: Price setting event disclosure" 30 April 2012.

Concerns raised in submissions

- G34 Airlines raised some concern about the uplift in opex at the end of PSE1, and the consequent impact on the opex forecast for PSE2. However they have recognised that the earthquake and the ITP have had an impact on both actual opex in PSE1 and forecast opex in PSE2.²³² Our analysis shows that:
 - G34.1 as shown in in Figure G3 and Figure G4, the uplift in opex at the end of PSE1 appears to be explained by the effects of the earthquakes.
 - G34.2 the forecast level of unit opex for the 2012-17 disclosure period is comparable with pre-earthquake levels once the cost of the increased insurance premiums is accounted for. We also understand that there is additional opex resulting from the new terminal, which has a larger footprint than the previous terminal.

Air New Zealand "Section 56G Review of Christchurch Airport – Cross-submission" 5 April 2013, paragraph 42; BARNZ "BARNZ Cross-submission to Submissions made on the Commerce Commission's Section 56G Issues Paper relating to Christchurch Airport" 5 April 2013, pages 22-23.

Qantas has questioned the uplift in personnel costs that have been forecast to increase by 16% in the first two years of PSE2. Christchurch Airport submitted that the growth in personnel is necessary to support the increased scale of the new terminal. This increase may be reasonable given that the terminal has a 26% bigger footprint.

Does Christchurch Airport's conduct indicate that it seeks to improve efficiency?

- G36 There is some evidence to indicate that Christchurch Airport does seek to improve its efficiency based on its conduct. For example, in building the ITP, Christchurch Airport has included features to improve efficiency such as heating, lighting, and air conditioning.²³⁵ However, it is unclear whether this is a result of information disclosure regulation.
- G37 Transparent consultation provides an opportunity for consumers to identify potential efficiency gains, and for Christchurch Airport to incorporate these into its expenditure forecast. BARNZ considered that Christchurch Airport responded to and engaged on issues that were raised during consultation. Airlines also note that, due to Christchurch Airport's operating circumstances at the time (including the impact of the earthquakes), it was difficult to critique opex during consultation.

²³³ Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013, paragraph 4.

²³⁴ Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, page 41.

²³⁵ Christchurch Airport "Commerce Commission Section 56G Review: Process and Issues Paper" 22 March 2013, pages 40, 43 and 44.

Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, pages 102 to 105.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, pages 102 to 105.

Attachment H: Is information disclosure promoting incentives to invest efficiently at Christchurch Airport?

Purpose

- This attachment summarises the analysis undertaken for this review to assess the effectiveness of information disclosure regulation in promoting outcomes consistent with workably competitive market outcomes such that Christchurch Airport has incentives to invest and improve the efficiency of its investment (s 52A(1)(a) and (b)).
- H2 Efficient investment is the investment in assets at the lowest possible cost over the lifetime of the assets, while delivering the required level of quality or output which is valued by consumers. The efficiency of an investment is assessed based on:
 - H2.1 the information available at the time the decision to invest was made; and
 - H2.2 the actual costs and delivery of an investment project once completed.

Draft conclusion

- H3 We cannot conclude whether information disclosure regulation under Part 4 is effectively promoting efficient investment at Christchurch Airport at this stage as we do not have actual investment information for PSE2. Submissions to this review indicate that Christchurch Airport's investment plans for PSE2 are largely considered appropriate, and that it consulted appropriately on its planned investment for PSE2. However, no party has attributed these outcomes to information disclosure regulation.
- H4 Our key findings in this area are outlined below.
 - H4.1 While Christchurch Airport spent less than it forecast during PSE1, it is unclear whether this was due to improvements in its efficiency.
 - H4.2 Based on submissions received from airlines, Christchurch Airport's investment plans for PSE2 appear to be generally prudent and occurring at an appropriate time.
 - H4.3 We do not yet have a sufficiently long time series of actual capital expenditure to assess whether investment is being made in a timely and efficient manner. This will be an important indicator of the effectiveness of information disclosure regulation in promoting incentives to invest efficiently.
 - H4.4 Airlines are generally satisfied with consultation on investment plans for PSE2. However, there is no evidence that Christchurch Airport's conduct in this area has been affected by information disclosure regulation.

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to invest efficiently

- Christchurch Airport has some incentives to invest efficiently. Christchurch Airport has set its prices for a four year and seven month pricing period. Setting its prices for a fixed period provides Christchurch Airport with an incentive to invest efficiently so as to outperform the capex forecast assumed when setting its prices (ie, have lower actual expenditure than forecast), and therefore earn higher profits. Under s 4C of the AAA Christchurch Airport is also required to consult on large capex programmes with its substantial consumers.
- H6 Some of these incentives to invest efficiently are weakened because of Christchurch Airport's market power. For example:
 - H6.1 Christchurch Airport has an incentive to set its capex forecast above an efficient level to justify higher prices through its price setting approach. This allows it to then earn higher profits by outperforming this forecast without necessarily being efficient;
 - H6.2 Christchurch Airport may choose to defer investment beyond the point at which it is efficient to invest so as to reduce its costs within the pricing period. Christchurch Airport may also choose to forecast investment earlier in the pricing period than would likely occur. Where the timing of investment differs from the forecast used to set prices, Christchurch Airport may earn higher profits; and
 - H6.3 Christchurch Airport's prices are based on the size of its asset base. If it is targeting the recovery of an excessive cost of capital on its asset base, it may have an incentive to over-invest to increase the size of its asset base. This is because it could earn higher profits if the targeted cost of capital on that investment exceeds the economic cost of financing the investment.

How information disclosure can provide incentives to improve investment efficiency

- Information disclosure may strengthen Christchurch Airport's incentives to invest efficiently. The public disclosure of information on historic and planned capex can provide transparency about how well Christchurch Airport is performing relative to other suppliers and over time. It can highlight if Christchurch Airport over-forecasts capex, or forecasts capex to occur too early in the pricing period, when setting prices.
- We expect information disclosure regulation will only become as effective as it can be, in terms of promoting efficient investment, over time. That is because the effectiveness of information disclosure is dependent on the availability of data to assess trends, and the opportunity for suppliers and consumers to react to the information disclosed. At the time of consultation for PSE2, only limited information on Christchurch Airport's capex was available in information disclosure.

How we have assessed whether Christchurch Airport is investing efficiently

- Our approach to assessing investment for this review is to consider Christchurch Airport's performance and conduct regarding investment. We have looked for evidence of:
 - H9.1 the delivery of investment at lowest possible cost, without compromising quality or outputs and delivering the desired outcome. As part of this we have reviewed the actual and forecast capex of Christchurch Airport in PSE1;
 - H9.2 planned under-investment and over investment; and
 - H9.3 planned and actual investment occurring at an appropriate time.
- H10 We have also considered the conduct of Christchurch Airport when planning, consulting on and delivering capital projects.
- H11 Given that there is little concern from the airlines about Christchurch Airport's capex forecast for PSE2, we have not undertaken a detailed review of its capex forecasts and supporting business cases. We did not consider the costs of undertaking such a review were appropriate to address concerns with Christchurch Airport's capex forecast for PSE2 that are likely to only have a relatively minor impact on prices. Our analysis of the efficiency of Christchurch Airport's capex therefore relies to a large extent on submissions received as part of this section 56G review.

Information used to assess whether Christchurch Airport is investing efficiently

- H12 Our analysis uses quantitative and qualitative data from the following sources:
 - H12.1 information disclosed under Part 4; and
 - H12.2 submissions and other material generated as part of this section 56G review.

Analysis of Christchurch Airport's investment performance and conduct Is Christchurch Airport investing efficiently?

Does Christchurch Airport deliver investment for an efficient cost?

- H13 At this time, we do not have sufficient actual expenditure information to assess the effectiveness of information disclosure regulation in promoting the efficient delivery of capex. As information disclosure regulation under Part 4 was introduced in 2011, there is currently only two years of data available on actual capex at Christchurch Airport (2011 and 2012). Furthermore, we would not anticipate that our regulation would influence Christchurch Airport's expenditure in these years. This is because decisions about the delivery of this expenditure would likely have been made prior to introduction of information disclosure.
- H14 Christchurch Airport spent less than it forecast on individual projects during PSE1. As shown in Table H1, pavement maintenance and other capex was less than forecast. Pavement maintenance expenditure was lower than forecast as a review of the

pavement's condition identified that a lesser programme than planned was more appropriate. This may indicate Christchurch Airport did invest efficiently. Christchurch Airport also notes that the Christchurch earthquakes also influenced actual capex, although it is not clear how. Although the Integrated Terminal Project (ITP) was not included in the PSE1 forecast, we understand it was completed within 1% of budget, in spite of the Canterbury earthquakes which affected the region. The ITP accounted for around 80% of aeronautical capex at Christchurch Airport in PSE1.

Table H1: Forecast and actual capex at Christchurch Airport (2009-11)

Program	Forecast	Actual	Difference from forecast	
	(\$m)	(\$m)	(\$m)	(%)
Pavement maintenance	20.9	14.1	-6.8	-33
Other capex	20.8	10.7	-10.1	-48
Total	41.8	24.8	-16.9	-41
Integrated terminal project (ITP)	0.0	109.0	+109.0	

Note: Figures reported in \$ million (nominal values).

Sources: Christchurch Airport "Christchurch International Airport Limited: FY08-FY12 Price setting Disclosure" 27 October 2011; Christchurch Airport "Specified Airport Services Information Disclosure Requirements Information Templates for year ending 30 June 2012".

With the exception of Air New Zealand, airlines have not raised any major concerns about the efficiency of expenditure on the ITP. Air New Zealand considered that there is a potential lack of future expansion capabilities for domestic flights and the domestic baggage reclaim in the new terminal. It questions the long term efficiency of the investment. However, it has not provided further information on to what extent this is a concern for them, or suggested any alternative options.

Christchurch Airport "Specified Airport Services Information Disclosure Requirements Information Templates for year ending 30 June 2011", page 10.

Although this difference may also be due to a higher forecast than considered necessary.

Christchurch Airport "Specified Airport Services Information Disclosure Requirements Information Templates for year ending 30 June 2011", page 10.

This project was excluded from the PSE1 forecast as it was still being consulted on with airlines at the time prices were set. Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, paragraph 115.

Air New Zealand "Post-Conference Cross-Submission to the Commerce Commission: Commerce Act 1986, Part 4 – Section 56G Review of Christchurch International Airport" 19 June 2013, paragraphs 31 to 32.

Is there evidence of planned under or over investment at Christchurch Airport?

- Submissions provided as part for this section 56G review provide mixed evidence of whether Christchurch Airport has planned to over invest in PSE2. Airlines consider that the investment plans by Christchurch Airport in PSE2 consist mostly of business as usual capex and are generally appropriate. However, Qantas has questioned the level of spend on pavement maintenance. No airlines have indicated that Christchurch Airport plans to under invest.
- Christchurch Airport in PSE2 is significantly more than for similar projects at other airports of similar size.²⁴⁴ This accounts for almost 40% of capex and is the largest project in PSE2. Christchurch Airport responded that comparisons between airports are not practical, and cite that the condition of the pavement, the number and type of aircraft using the pavement, the nature of the underground soil (substrata), and climatic conditions were decisive factors for determining the forecast.²⁴⁵ No other airlines have raised any concerns with this expenditure.
- H18 There is no evidence that Christchurch Airport planned to under-invest or over-invest in PSE1. As stated above, the majority of capex in PSE1 was spent on the ITP. Airlines consider that a new terminal was required for Christchurch Airport and, on the most part, there have been no objections to the level of spend.²⁴⁶

Is investment planned and undertaken at an appropriate time?

H19 Submissions suggest that Christchurch Airport planned investment for PSE2 is, on the most part, taking place at an appropriate time. BARNZ did submit that the planned \$6m investment on reconfiguring the international stands in 2016 is occurring too early and should be delayed. It considers that this investment could instead be used for extending the international reclaim belts. However, given this is a relatively small amount and occurs late in the pricing period, BARNZ considered this to be a minor issue. ²⁴⁷ This planned investment is unlikely to have had a significant impact on prices for PSE2.

Commerce Commission, Transcript of Christchurch Airport Section 56G Conference, held on 24 May 2013, page 107.

Jetstar "Commerce Commission request for feedback re Christchurch Airports five year aeronautical pricing" 22 March 2013, page 3.

²⁴⁵ Christchurch Airport "Cross-submission on the Section 56G Review: Christchurch International Airport Process and Issues Paper" 5 April 2013, Appendix 3.

BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 10.

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, pages 21 to 22.

- H20 As indicated in paragraph H13, we do not have sufficient information on actual expenditure to assess whether investment is undertaken at an appropriate time.
- H21 Airlines consider that investment in the ITP, the main project in PSE1, occurred at an appropriate time. BARNZ states that airlines "recognised that the domestic facilities were extremely constrained and of low quality and investment in new domestic facilities was essential." ²⁴⁸

Does Christchurch Airport's conduct reflect that it seeks to invest efficiently?

- H22 The evidence available indicates that Christchurch Airport's conduct has been appropriate and that it does seek to invest efficiently. Neither Christchurch Airport nor the airlines have attributed this to information disclosure regulation.
- H23 Christchurch Airport appears to have appropriately consulted and engaged with airlines regarding its investment plan for PSE2. Airlines have not raised any concerns in submissions regarding Christchurch Airport's consultation process. ²⁴⁹ Christchurch Airport has also considered investment issues that were raised by airlines during the consultation. For example, as a result of consultation Christchurch Airport omitted one of the international stands planned for PSE2, reducing capex by \$3m. ²⁵⁰
- H24 Christchurch Airport revisiting of its pavement maintenance program in PSE1, as mentioned in paragraph H14, may indicate that it has sought to invest efficiently in the past.

BARNZ "Post Conference Submission by BARNZ after Christchurch Airport Section 56G Conference" 18 June 2013, page 10.

However, BARNZ did suggest that Christchurch Airport could follow Auckland Airport's example of approaching airlines to identify airline priorities before investment consultation in the future (Commerce Commission, *Transcript of Christchurch Airport Section 56G Conference*, held on 24 May 2013, page 106).

BARNZ "BARNZ responses to Commerce Commission Section 56G Issues Paper relating to Christchurch Airport" 22 March 2013, page 21; Christchurch Airport "Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 43.

Attachment I: Is information disclosure promoting the sharing of efficiency gains with consumers at Christchurch Airport?

Purpose

- This attachment summarises the analysis undertaken by the Commission to assess the effectiveness of information disclosure regulation in promoting outcomes consistent with workably competitive markets such that Christchurch Airport shares the benefits of efficiency gains with consumers, including through lower prices (s 52A(1)(c) of the Act).
- In a workably competitive market, efficiency gains achieved by a supplier are likely to be shared with consumers over time through lower prices. Efficiency gains may also be shared through improvements to service quality or additional investment at no cost to consumers. Our focus is on sharing efficiency gains made in the supply of regulated services. Some of these efficiency gains may arise as a result of providing regulated and unregulated services in combination (ie, economies of scope).
- To assess whether a supplier is sharing efficiency gains, an assessment first needs to be made of whether it is achieving efficiency gains. This is discussed in Attachments G and H.

Draft conclusion

We are unable to conclude whether Christchurch Airport is sharing the benefits of operating and investment efficiency gains with consumers and whether information disclosure is effective in this area. This is because it is unclear to what extent Christchurch Airport has achieved efficiency gains historically that could be shared with consumers when setting prices for PSE2. This is an important indicator of Christchurch Airport's performance, and the effectiveness of information disclosure regulation, in this area.

How we have assessed the effectiveness of information disclosure Incentives on Christchurch Airport to share efficiency gains with consumers

15 Christchurch Airport has weak incentives to share efficiency gains with consumers.

Although Christchurch Airport is required to consult with its customers on pricing, its ability to set charges as it sees fit means it is unlikely to have strong incentives to promote the sharing of efficiency gains outcomes sought under Part 4.

How information disclosure can provide incentives to share efficiency gains

Information disclosure can strengthen incentives to share efficiency gains by increasing transparency of whether efficiency gains have been made and allowing interested persons to assess whether these have been shared with consumers. If efficiency gains are not shared with consumers over time, then this can indicate that excessive profits are being earned. This may increase the likelihood of further

- regulation. However, the ability of information disclosure regulation to be effective in this area relies on Christchurch Airport making or forecasting efficiency gains in the first instance.
- Information disclosure may potentially provide an incentive to share efficiency gains resulting from economies of scope through the cost allocation IM.²⁵¹ This implicitly requires common costs to be allocated between Christchurch Airport's regulated aeronautical services, and its non-aeronautical services. The IM may help ensure that efficiency gains that are achieved through the joint supply of aeronautical and non-aeronautical services are shared with consumers of aeronautical services.

We expect that information disclosure would have had a relatively limited impact at this stage

- We expect information disclosure regulation will only become as effective as it can be in this area over time. Efficiency gains are most likely to be shared with consumers through the prices set and investments planned. However, the effectiveness of information disclosure is dependent, in part, on information on historic efficiency gains. Detailed information on trends in Christchurch Airport's expenditure was not available through information disclosure at the time prices were set for PSE2 to assess whether efficiency gains had been made.
- 19 At this time we consider that information disclosure regulation has not provided any disincentives for making efficiency gains or sharing them with consumers.²⁵²

How we have assessed whether Christchurch Airport is sharing efficiency gains for the purpose of this review

- Our approach considers whether any historic or forecast efficiency gains are being shared with consumers through lower prices. As part of this, we examined:
 - in previous pricing periods (ie, between period sharing);
 - whether prices set by Christchurch Airport reflect any forecast efficiency gains for the pricing period (ie, within period sharing); and
 - 110.3 whether Christchurch Airport has any explicit mechanisms for sharing efficiency gains that are not forecast.

Economies of scope arise when it is less expensive to produce different types of goods or services together rather than separately.

Our future summary and analysis reports on the information disclosed under Part 4 will likely consider the treatment of efficiency gains in considering profitability and may therefore have incentive effects in this area.

- We also considered whether efficiency gains have been passed on in improvements to service quality at Christchurch Airport or investment in aeronautical assets, at no cost to consumers. This would mean that these investments or improvements are not funded through the prices set by Christchurch Airport during the price setting event.
- We have assessed whether Christchurch Airport is sharing efficiency gains with consumers both before and after the introduction of information disclosure regulation. This provides insight into the effectiveness of information disclosure regulation in promoting the sharing of efficiency gains.

Information used to assess whether Christchurch Airport is sharing efficiency gains

Our analysis relies on information provided by Christchurch Airport in its disclosures for PSE1 and PSE2, and our assessment of the efficiency of Christchurch Airport's operational and capital expenditure discussed in Attachments G and H. We have also considered submissions received as part of this s 56G review on whether Christchurch Airport has shared efficiency gains.

Analysis of Christchurch's Airports performance and conduct

- 114 We are unable to conclude whether prices set by Christchurch Airport reflect efficiency gains achieved in previous pricing periods. As discussed in Attachment G, the increase in opex arising from the earthquakes and the new terminal means we are unable to conclude whether Christchurch Airport has achieved opex efficiency gains historically. We are therefore unable to assess whether any historic efficiency gains have been passed on, for example, through lower prices. We note however that any historic efficiency improvements in capex will have been passed on through to consumers through the regulatory asset base used by Christchurch Airport to set prices for PSE2.²⁵⁴
- Similar to PSE1, prices for PSE2 reflect the efficiencies included in Christchurch Airport's expenditure forecasts. This is because the approach used to set prices by Christchurch Airport includes forecasts of operational and capital expenditure. Forecast efficiency gains that are included in these expenditure forecasts (including any economies of scale) will therefore automatically be reflected in lower prices through the revenue requirement. As discussed in Attachment G, Christchurch Airport has forecast a decline in unit opex over PSE2.

For example, an airport may choose to share efficiency gains through investment in new lounge facilities without these being funded through the prices it charges for its services.

Christchurch Airport set prices for PSE2 based on an asset valuation that is consistent with the IMs (Christchurch Airport "Christchurch International Airport Limited: Price setting disclosure for the pricing period 1 December 2012 to 30 June 2017" 19 December 2012, page 22). This approach means that any improvements in capex efficiency over PSE1 will result in a relatively lower asset base on which to set prices for PSE2. However, any historic inefficiencies will also be passed on.

- We are not aware of any mechanisms implemented by Christchurch Airport in PSE1 or PSE2 to share efficiency gains that were achieved but not forecast.
- We do not have evidence to indicate whether or not Christchurch Airport is sharing any efficiency gains through planned improvements in quality or investment for aeronautical services at Christchurch Airport. As discussed in paragraph I11, suppliers may share efficiency gains through investment and improvements in quality that are not funded through the prices set for the regulatory period.
- As a general note, prices for PSE2 are higher relative to PSE1.²⁵⁵ This indicates that any efficiency gains shared with consumers are outweighed by increases in the other factors that determine the price set.

For example, our analysis indicates that airfield charges have increased by 28% on average between 2011 and 2012, and will increase a further 44% on average over PSE2.

1579542.1