



SUBMISSION BY BARNZ ON COMMERCE COMMISSION DRAFT SECTION 56G REPORT ON CHRISTCHURCH AIRPORT

12 NOVEMBER 2013

PART 1 – INTRODUCTION AND EXECUTIVE SUMMARY

BARNZ endorses the Commission's conclusion that information disclosure regulation has been ineffective in limiting excessive returns and not as effective as expected at promoting pricing efficiency at Christchurch Airport.

BARNZ agrees with the Commission's overall impression that information disclosure regulation had minimal influence on Christchurch Airport's decisions in respect of the level of returns it was targeting and has not been as effective as the Commission expected that it would be. BARNZ particularly experienced this in relation to the rate of return being targeted by Christchurch Airport, which was significantly above the Commission's acceptable range, the Airport's use of a pre-tax approach and the Airport's calculation of the tax payable allowance of its building block methodology which was clearly inconsistent with both the Commission's input methodologies reasons paper and the formulas specified in the input methodologies themselves.

Commentary on the financial modelling of the returns being targeted

BARNZ welcomes the Commission's conclusion that Christchurch Airport is targeting returns over the 20 year period of 8.9% for all assets which is well above an acceptable range of returns. However, (as outlined shortly below) BARNZ considers that the Commission is nevertheless significantly underestimating the level of returns being targeted by the Airport. Adjusting for the factors identified by BARNZ, and able to be quantified within the Commission's analysis framework,¹ results in the assessment of the return being targeted by Christchurch Airport over the 20 year period increasing to 10.6% for disclosure assets and 11.5% for pricing assets. Both of these outcomes are materially above the Commission's 6.6% to 7.6% range of acceptable returns and indicate that information disclosure regulation has not effectively provided any limit on Christchurch Airport's ability to extract excessive profits.

In addition to the Commission's analysis of returns over the 20 year pricing path, the Commission has identified that Christchurch Airport is targeting a return of 6.8% over the first four years seven months of its 20 year model (PSE2) which it describes as an above normal return, but within the

¹ These adjustments are the inclusion of previous unforecast revaluations as income in the building block estimate of required revenue; CPI escalation of prices post 2022, reversion to the prices CIAL specified for PSE3 in its financial modelling; use of mid-year cash flows; and alteration of taxable depreciation to previous levels for the last eight years of the model.

Commission's acceptable range of 6.6% to 7.6%. However, this 6.8% estimate of the return for PSE2 is also materially understated primarily due to the Commission's estimate of the required building block revenue not taking into account the unforecast revaluations, which occurred during PSE1 and at the transition to PSE2 and which have not previously been treated as income for the purposes of setting prices.

Making this adjustment increases the return in PSE2 on the disclosed assets to 8.9% if the unforecast revaluations are treated as income in the building block estimate of required revenue in PSE2 (which is significantly above the top end of the Commission's range of acceptable returns) or 7.7% if the unforecast revaluations are spread over 20 years (which is still above the top end of the Commission's range of acceptable returns). The return targeted for pricing assets is 9.4% if the unforecast revaluations are spread over PSE2 or 8.1% if they are spread over 20 years (both of which are also significantly above the acceptable range of returns). The difficulties of managing cascading sets of revaluations going forward means that BARNZ strongly favours unforecast revaluations being treated as income in the immediately following pricing period.

Moreover, as the Commission notes, Christchurch Airport's disclosure of a straight line depreciation profile, despite its levelised constant real pricing path implicitly reflecting an economic depreciation profile, means that the 6.8% figure under-estimates expected returns in PSE2 because it represents returns on an RAB depreciated under a different profile than that used in determining prices. BARNZ agrees.

If the matters identified by the Commission² and by BARNZ as indicating that targeted returns are higher than those calculated by the Commission in its draft modelling are taken into account, then for both PSE2 and for the 20 year levelised constant real price, the outcome is one of significant excess returns being targeted by Christchurch Airport.

The matters which are causing the estimate of the returns to be understated are:

- The Commission's estimate of required revenue under the building blocks approach does not take into account actual unforecast revaluations made during PSE1 and at the transition to PSE2 which were not treated as income by Christchurch Airport when it set charges for PSE1. Such unforecast revaluations can only be treated as income in the following pricing period as they are unknown in the first pricing period. If they are not treated as income in the calculations of required revenue, then the NPV = 0 principle will not be met and airports will have an incentive to under-forecast their revaluations in order to avoid the requirement to reduce required revenue to offset revaluation gains. Christchurch Airport treated revaluations prior to PSE2 as income in its calculations of required revenue during PSE2 and the Commerce Commission needs to as well. Treating unforecast revaluations as income in the first four years seven months of the pricing model³ increases the assessment of the return being targeted on all assets

² Commerce Commission, Draft Report to Ministers of Commerce and Transport on how effectively Information Disclosure Regulation is promoting the purpose of Part 4 for Christchurch Airport (hereafter Commerce Commission draft report), 15 October 2013, paragraph E85.

³ Treating unforecast revaluations as income in PSE2 was the impression which Christchurch Airport's financial model gave in rows 70 to 90 summarising the full cost of service calculation or building blocks in each of the airfield and terminal spread-sheets for the cost centres, and this reflects BARNZ's understanding of the Airport's intention at the time it set charges. It is also more practical than trying to manage several sets of

by 0.7% to a target return of 9.6% (for pricing assets the return is 10.3%) over the 20 year pricing period⁴ and by 1.8% to a target return of 8.7% for PSE2;

- The Commission bases its calculations of the targeted returns on an assumption that prices only increase by 0.25% per annum for the last ten years of the 20 year model, as this was what the Commission found Christchurch Airport's financial model effectively did. In contrast, Christchurch Airport's explanations of its approach during consultation, in its pricing disclosures and during the s56G processes to date were all to the effect that it was adopting a levelised constant real pricing path with prices increasing annually by forecast CPI. The Airport's financial model forecasts CPI to increase by 2.5% for each of those last ten years and it is not plausible that the airport will only increase its nominal prices by 0.25% in those years. By not undertaking this adjustment, the Airport's financial model is clearly at odds with the Airport's oft repeated intention and thus understates the returns the Airport is targeting. Adjusting the charges forecast for PSE4 and PSE5 to reflect the Airport's clear intention to increase prices annually by CPI increases the assessment of the return being targeted by 0.4% for the 20 year pricing period.
- The Commission has reduced the charges which were identified by Christchurch Airport and included in its financial model for PSE3 (years 6 to 10) on the grounds that these were specified by the Airport at levels which would result in the Airport earning a return above the levelised constant real pricing path. The Commission has reduced the proposed prices down to the levelised constant real pricing path, thus reducing the level of revenue being targeted by the Airport. BARNZ considers that this assumption does not reflect the very clearly specified prices which the Airport laid out in its financial modelling for each of the five years of PSE3, and effectively means the Commission is basing its analysis on prices lower than those contained in Christchurch Airport's own financial modelling. The difference is approximately \$1m pa, affecting each of the last 15 years of the 20 year pricing model. Removing this adjustment, and applying the pricing path indicated by Christchurch Airport increases the assessment of the return being targeted by 0.1% for the 20 year pricing period.
- The Commission has used end of year cash flows for its modelling, on the basis that while cash-flows are received by the Airport through-out the year, the Airport would not have anticipated the Commission assessing its returns using mid-year cash-flows. However, Christchurch Airport's own financial modelling on which it based its charges assumes mid-year cash-flows. Therefore the Airport clearly viewed mid-year cash-flows as a reasonable assumption and must have anticipated the Commission using mid-year cash-flows. Adjusting the modelling to reflect mid-year cash flows increases the assessment of the return being targeted by 0.3% over the 20 year model.

adjustments for unforecast revaluations if they are treated as income across multiple pricing period. This difficulty is noted by the Commission in para F18 of its draft report.

⁴ If the unforecast revaluations are spread as income over the 20 year pricing model, then the 20 year target return would reduce by a fraction but the targeted return for PSE2 would be 1.1% lower at 7.6% than if the unforecast revaluations were treated as income wholly in PSE2 (if this one change is made).

- Like Christchurch Airport, the Commission's modelling does not include any allowance for capital expenditure in the last 15 years of the 20 year model, namely PSE3, PSE4 or PSE5. If the average capital expenditure levels disclosed for PSE3 are applied, and indexed for CPI, this indicates capital expenditure upwards of \$222m has not been taken into account. The difference in return on capital between Christchurch Airport's targeted 9.76% post tax WACC and the 7.58% upper bound of the Commission's acceptable WACC range amounts to \$37m over these 15 years, which represents a significant amount of excessive profits which have not been taken into account in the Commission's analysis.
- Christchurch Airport has supplied the Commission with new figures estimating taxable depreciation over its 20 year pricing model, which the Commission has used. These new figures have taxable depreciation reducing from \$10-11m pa to \$1-2m pa from year 12 onwards. This increases the tax payable by approximately \$3m pa for the last eight years of the pricing model. These figures have not been previously disclosed to airlines or the Commission during consultation or Christchurch Airport's pricing disclosures. Reversing this reduction in taxable depreciation causes the assessment of the return being targeted to increase by 0.2%.

These matters are not insignificant. All act to understate the return being targeted by Christchurch Airport, on both the analysis of PSE2 and on the analysis of the full 20 years of the levelised constant real pricing path:

- For PSE2, treating unforecast revaluations as income in the building block estimation of required revenue, and moving to a mid-year cash flow (the only adjustments which affect the first four year seven month period), causes the return for the disclosed assets to increase to 8.9% if the unforecast revaluations are spread over five years (which is significantly above the Commission's range of acceptable returns) or 7.7% if they are spread over 20 years (which is above the top end of the Commission's range of acceptable returns). The return targeted for pricing assets is 9.4% if the unforecast revaluations are spread over five years or 8.1% if they are spread over 20 years (both of which are also significantly above the acceptable range of returns).
- For the 20 year levelised constant real pricing path, combining all the outcomes able to be quantified within the Commission's analysis framework, results in the assessment of the return being targeted increasing from the Commission's estimate of an 8.9% target return to a target return of 10.6%. The return being targeted on pricing assets, excluding leased assets, increases from 9.5% to 11.5%. Both of these outcomes are materially above the Commission's 6.6% to 7.6% range of acceptable returns.

These matters are all expanded upon in the second part of this submission.

As a final observation on the modelling and analysis undertaken by the Commission, BARNZ notes that it believes that the Commission should place greater weight on the returns targeted by Christchurch Airport (and indeed by all airports) on pricing assets when reaching conclusions over the reasonableness of the returns being targeted. Even under the Commission's unadjusted analysis, the returns on the pricing assets significantly exceed those targeted on leased assets.

Leased assets are subject to some forms of market discipline, often through rental arbitration clauses, albeit limited by the Airport’s position as the sole provider of facilities on the Airport.

The return on Christchurch Airport’s regulated leased assets is 5.7%. The return estimated by the Commission on Christchurch Airport’s pricing assets over 20 years is 9.5%. The return achieved for leased assets by the Airport, where customers have alternatives (albeit limited alternatives) is thus 60% less than that being targeted for pricing assets. BARNZ sees this as clear evidence that information disclosure is not producing outcomes similar to those achieved in a workably competitive market and that Christchurch Airport has not been constrained in its ability to extract excessive returns on the regulated assets where it is the sole supplier of services and is able to exercise its right to set prices as it sees fit.

BARNZ also notes that a consequence of the Commission focusing on the combined outcome across all disclosed assets, is that the returns on leased assets are being subsidised from returns on pricing assets. This is not appropriate, as the returns on leased assets have been determined through commercial negotiations and market forces and should not be topped up by airports using their power to set charges as they think fit.

Commentary on Commission’s Findings

BARNZ has summarised below the Commission’s conclusions on the key elements of the purpose statement contained in section 52A, and its response to each of these conclusions:

Summary of Commerce Commission Finding	BARNZ Response
Innovation levels appear to be appropriate at CIAL. While information disclosure has not had an additional impact on incentives to innovate at CIAL it has not negatively affected existing incentives to innovate.	Support finding.
CIAL seeks to ensure that its quality of service reflects consumer demands and available information indicates that the quality of service at CIAL does generally reflect the demands of airlines and passengers.	Support finding, but note that information disclosure regulation does not itself provide any incentives as opposed to simply not detracting from other previously existing incentives.
Information disclosure did not materially influence the changes made to CIAL’s pricing methodology. The changes in pricing methodology are likely to promote efficiency, but had CIAL engaged more transparently and constructively with consumers there might have been greater improvements in pricing efficiency.	BARNZ agrees that information disclosure regulation did not materially influence CIAL’s pricing methodology. While a levelised price can contribute towards improving efficiency, the lack of transparency and level of over-recovery implicit in CIAL’s approach means that this was not achieved. Moreover, if incomes rise in real terms, then the impact on today’s traveller is greater than on tomorrow’s travellers meaning the outcome is not likely to be optimal from a welfare maximising perspective.

	<p>BARNZ has difficulty seeing how the changes to airfield charges will make any meaningful improvements to efficiency. CIAL has retained the same structure between jet and turbo-prop revenue meaning that the introduction of the fixed airfield charge is an illusory change with no overall real purpose other than to obscure the level of increases to charges. Airfield charges were set at levels above even CIAL’s target revenue, and with the CPI escalation applied as intended for the final ten years of the pricing model will produce significant excess returns resulting in subsidisation of terminal activities.</p>
<p>Information disclosure regulation has not been effective in limiting CIAL’s ability to extract excessive profits over time. The target returns over 20 years of 8.9% are well above an acceptable range of returns. The Airport’s price setting behaviour for PSE2 (where returns were above normal albeit within the acceptable range) was primarily influenced by short term demand considerations, rather than by information disclosure regulation.</p>	<p>The overall finding that information disclosure regulation has not been effective in limiting CIAL’s ability to extract excessive profits over time is supported, however BARNZ considers that the Commission’s calculations nevertheless significantly under-estimate the levels of returns being targeted by CIAL:</p> <ul style="list-style-type: none"> • Unforecast revaluations made by CIAL during PSE1 and at the transition to PSE2 which were not treated as income when CIAL set charges for PSE1 should be treated as income in the calculations of required revenue for PSE2 otherwise the NPV = 0 principle will not be met. This increases the level of return targeted by CIAL over the 20-year period by 0.7% to 9.6%. • If prices for the last 10 years of the pricing model increase by forecast CPI (rather than 0.25%) as per CIAL’s levelised constant real pricing path then CIAL’s targeted return increases by 0.4% for the 20 year pricing period. • The Commission has reduced the prices specified by CIAL in its financial model for PSE3 down to the levelised constant real pricing path, rather than CIAL’s indicated pricing of applying CPI increases from the 1 January 2015 uplifted pricing path. • The Commission has used end of year cash flows for its modelling, despite Christchurch Airport’s own financial modelling being undertaken on mid-year cash-flows. Adjusting the modelling to reflect mid-year cash flows increases the targeted revenue by 0.3%. • The analysis does not include any allowance for capex after the first five years, which means it does not capture the higher return targeted by CIAL on that capex which will likely amount to more than \$220m. BARNZ estimates that excess returns

	<p>targeted on this capex will amount to \$37m over those 15 years.⁵</p> <ul style="list-style-type: none"> The Commission's calculations are based on new material provided by CIAL which has taxable depreciation significantly reducing from year 12 onwards of the pricing model, thus increasing tax payable by approximately \$3m pa. Reversing this reduction in taxable depreciation causes the targeted revenue to increase by 0.2%.
It is not yet possible to conclude whether information disclosure is effectively promoting improvements in operating efficiency as more information is needed over a longer period of time	Finding supported as the fundamental changes in underlying costs as a result of the new integrated terminal and the necessary earthquake repairs means that previous information disclosed on costs under the AAA is less relevant going forward for Christchurch Airport.
It is not yet possible to conclude whether information disclosure is effectively promoting efficient investment and innovation as more information is needed over a longer period of time	While BARNZ considers that the capex forecast by the airport for PSE2 is largely at efficient levels, BARNZ accepts the CC's conclusion that it needs to see the actual outcome before it is able to reach a final conclusion.
It is too early to conclude whether information disclosure is effectively promoting the sharing of efficiency gains as more information is needed over a longer period of time	Support finding.
The Airport's price setting disclosures do not fully or transparently reflect its pricing approach, therefore the purpose of s53A is not met.	Support finding. A number of the Commission's findings were not apparent to airlines during consultation or in the pricing disclosure information, and in some cases are still not transparent, such as the lack of CPI indexation of prices in the last ten years of the financial model, quantification of the differences between the straight line depreciation and the economic depreciation consistent with the levelised constant real pricing path, the amount of taxable depreciation and the allowance included for tax payable.

⁵ In addition, as noted by the Commission, depreciation has been over-stated due to it being based on a constant ratio in the outer years of the Airport's financial modelling despite the lack of forecast capex.

PART 2 – COMMENTS ON THE COMMISSION’S ASSESSMENT OF CHRISTCHURCH AIRPORT’S EXPECTED RETURNS

The Commission has identified six factors or risks that it describes ‘suggest expected returns could be greater than [its] estimates’⁶ of Christchurch Airport’s expected returns. These are:

- The treatment of all revaluation wash-ups for PSE1 as a ‘discount’ to pricing over the levelised pricing period, rather than just the portion of revaluations prior to the initial RAB being established;
- The application of a single period of CPI indexation to prices in the last ten years of the pricing model, effectively resulting in decreasing real prices after year 10;
- Assuming that the Airport will return to the levelised price path at the beginning of PSE3;
- The use of year-end cash-flow timing assumption in the Commission’s analysis to date;
- A lack of capital expenditure forecasts after five years in the levelised price calculation; and
- Use of straight-line depreciation in the calculation of the reasonableness of the returns sought when this is not consistent with the manner of depreciation within Airport’s 20 year levelised constant real price path.⁷

In addition, BARNZ has identified two further issues which indicate that the expected returns from the prices Christchurch Airport set will be greater than the Commission has estimated:

- The treatment of the previous actual revaluations made by Christchurch Airport during PSE1 and as it moved to PSE2 by the Commission when calculating the estimated required building block revenue for Christchurch Airport to achieve an acceptable range of return is not consistent with how these revaluations have been treated by Christchurch airport in its forecast revenue path; and
- There is an unexplained substantial drop in Christchurch Airport’s taxable depreciation in the last eight years of the model which the Airport recently provided to the Commission.

BARNZ considers that each of these factors results in the Commission’s measurement of the returns being targeted by Christchurch Airport being understated. BARNZ has endeavoured to illustrate the impact of making these adjustments using the Commission’s financial model. These adjustments are explained in section 2.6. The workings accompany this written submission and are referred to where appropriate.

Each of these factors is discussed below.

The points identified by BARNZ and by the Commission in relation to the revaluation wash-ups are related, and are addressed together in the immediately following section. Likewise, the discussion of the two points identified by the Commission in relation to the levelised price path being targeted by Christchurch Airport are discussed together, as are the depreciation matters (one of which is identified by the Commission and one of which is an additional matter being raised by BARNZ).

⁶ Commerce Commission draft report, para E85, which identifies the first five of the factors listed here.

⁷ Commerce Commission draft report, 15 October 2013, footnote 118.

2.1 Treatment of unforecast revaluations during PSE1 and at transition to PSE2

The Commission has only treated future forecast revaluations as income in its calculation of the building block required revenue – it has not treated the difference between the actual revaluations which occurred during PSE1 and at the transition between PSE1 and PSE2, and the revaluations which were forecast to occur during PSE1⁸ (referred to hereafter as unforecast revaluations) as income for the purposes of estimating required building block revenue. This results in the building block revenue being over-stated – because unforecast revaluations, which form part of the return to the Airport, have not been taken into account in the calculation of required revenue, in either PSE1 or PSE2. Not deducting actual revaluations from the required revenue fails to meet the FCM principle.

The Commission is thus treating forecast revaluations and unforecast revaluations differently. The unforecast revaluations are not flowing through to the Commission's calculation of required revenue under the building block approach, and are not being reflected in the Commission's evaluation of the reasonableness of price setting decisions. This results in the building block revenue being over-stated where unforecast revaluations are a positive figure (or under-stated if unforecast revaluations are negative).

In its Input Methodologies Reasons paper the Commission stated:⁹

If a nominal cost of capital is applied to an inflated/indexed asset base, any revaluations of the asset, such as an upward revaluation for inflation, must be treated as income in the ROI for profits to be monitored effectively.

The same principle applies, however, even where a revaluation occurs for reasons other than economy-wide inflation, and where the extent of the revaluation differs from the change in the CPI. Because the use of a nominal WACC with a non-revalued asset base is consistent with FCM, any revaluation gains must be treated as income in the ROI.

The Commission has not applied this principle in its calculation of required revenue under the building block approach with respect to the \$33m of unforecast revaluations which occurred during PSE1 and at the transition to PSE2.

If confirmed, the Commission's approach of only treating unforecast revaluations as income for the purpose of measuring returns in the pricing period just finishing under information disclosure, and not for the purposes of estimating required building block revenue when setting prices or assessing the reasonableness of target returns, will have a number of consequences:

- As noted above, it will mean unforecast revaluations will not be reflected in assessments of required building block revenue and thus will not be taken into account in assessing the reasonableness of pricing decisions;
- The NPV = 0 principle will not be achieved;

⁸ Which in the case of Christchurch Airport were forecast at nil because as that Airport set charges in 2009 it had revalued its assets upwards by \$162m (of which \$153m were unforecast) and then unilaterally determined that it would adopt a moratorium on future revaluations going forward, with the effect that it forecast zero revaluations in PSE1.

⁹ Refer Commerce Commission, Specified Airport Services Input Methodologies Determination, 22 December 2010, para 2.8.13 – 17.

- It will incentivise asset owners to under-forecast expected revaluations, so as to minimise the allowance for revaluations in the building block calculations of required revenue, knowing that, while any additional unforecast revaluations will be included as income for the purpose of measuring returns after the end of the pricing period, they will not be required to actually flow through to pricing decisions in the building blocks approach; and

The treatment of unforecast revaluations has been an ongoing point of difference between airlines and airports for more than a decade. The differences between forecast revaluations and actual revaluations have often been extremely material. At the time of consultation on the determination of the input methodologies BARNZ calculated that the level of revaluations which have not been treated as income amounted to \$112m for Wellington Airport and \$154m for Christchurch Airport. Auckland Airport had similar levels of revaluations which have not been treated as income in the charge setting process.¹⁰

When Christchurch Airport set prices for PSE1 it elected to adopt a moratorium on asset revaluations for the two following pricing periods, and included no forecast revaluations as it set prices. Responding to airline concerns that the Airport could potentially alter this position and choose to revalue its assets going forward without treating any of the actual revaluations as income for the purposes of pricing, Christchurch Airport answered through Mr Jeff Balchin, its expert advisor, that:¹¹

The risk that BARNZ has identified is a risk that should not exist. ... If a revaluation has not been foreshadowed, consistency requires that the assets must not be revalued at the end of the period. ... If CIAL had not committed at the start of a future pricing period to a revaluation at the end of that period – and had not made a forecast of revaluation gains and treated this as income when those prices were set – then a revaluation at the next price review should not occur. (Emphasis included in the original statement.)

Accordingly, as it set prices in PSE2, based on revaluations which had not been foreshadowed or forecasted, Christchurch Airport treated those unforecast revaluations which occurred during PSE1 for the purposes of information disclosure under Part 4, and which occurred as it transitioned to PSE2 (when it undertook a further land revaluation), as income when it determined its required revenue for PSE2.

Going forward, Christchurch Airport has accepted that any difference between the revaluations it forecasts as income as it set its prices, and the actual revaluations which subsequently occur, should be treated as income for the purposes of setting charges:¹²

BARNZ raised a query as to what may happen at the end of the pricing period (i.e. 30 June 2017) when land is valued at MVAU and there is a difference between the CPI index and the MVAU valuation. CIAL believes that the most appropriate treatment for such valuation variation, in line with the Information Disclosure regime, is to include any difference in the asset base and treat the revaluation as revenue in subsequent pricing resets.

¹⁰ BARNZ, Submission on Commerce Commission Input Methodologies Discussion Paper, 31 July 2009, page 26.

¹¹ Jeff Balchin, Allen Consulting Group, Statement for CIAL, 16 February 2009, page 6.

¹² Christchurch Airport, Updated Proposal for the Reset of Aeronautical Charges for the Period ending 30 June 2017, 31 July 2012, page 20.

BARNZ and Christchurch Airport are in accord with this approach.

However, as discussed above, the Commission has adopted a different approach in its calculation of the estimated required building block revenue. The comparison the Commission is making between its assessment of required building block revenue and the revenue forecast to be earned by Christchurch Airport is therefore inappropriate as the two approaches treat revenue from unforecast revaluations differently, and will result in the target revenue being understated.

The Commission is comparing the revenue forecast to be earned by Christchurch Airport from the prices it set using a financial model which treated unforecast revaluations from PSE1 and the transition to PSE2 as income in PSE2, as against a required revenue calculation undertaken by the Commission which does not reflect the unforecast revaluations from PSE1 and the transition to PSE2 as income in PSE2. The Airport's prices thus reflect the unforecast revaluations being treated as income and are accordingly lower than would otherwise be the case, yet are being compared against a required revenue calculation which does not treat the unforecast revaluations as income and is accordingly higher. There needs to be consistency between the calculation of the required revenue and the income forecast to be earned, in order for the comparison to be valid.

In BARNZ's view the most appropriate means of achieving this is for the forecast income from the charges set by Christchurch Airport (which reflected an unforecast revaluation wash-up that reduced the required revenue) being compared against an estimate of required revenue calculated by a building block model which similarly treats the unforecast revaluations from PSE1 and the transition to PSE2 as income in PSE2, thus also reducing the required revenue.¹³

What is not valid is what the Commission's draft decision appears to do, namely comparing charges set by Christchurch Airport which contain a wash-up for unforecast revaluations thus reducing the level of income forecast for PSE2, as against an estimate of the required revenue derived from a building blocks approach which does not contain any adjustment or allowance for the unforecast revaluations from PSE1 and the transition to PSE2 as income in PSE2. The outcome of this approach results in an under-statement of expected returns.

Because the difference between the forecast and actual revaluations (being referred to here as unforecast revaluations) is not known until the revaluations occur (usually in the last year of the pricing period as new charges are being consulted over), the practical reality is that unforecast revaluations cannot be reflected in the building block required revenue for the initial pricing period. The only practical way to reflect unforecast revaluations in the calculation of building block required revenue is for the income (or loss) to be deducted (or added) to required revenue in the subsequent pricing period. In other words, for there to be a wash-up of unforecast revaluations in the following

¹³ An alternative would be for the forecast income from the charges set by Christchurch Airport (which reflected an unforecast revaluation wash-up) to be adjusted to remove the unforecast revaluation wash-up allowance (in other words, to reverse the reduction in revenue), with that adjusted revenue forecast then being compared against an estimate of required revenue calculated by a building block model which similarly does not contain any adjustment or allowance for the unforecast revaluations from PSE1 and the transition to PSE2 as income in PSE2. This is the approach the Commerce Commission appears to have considered applying, but ultimately has not. Refer Commerce Commission draft decision, para E59 and footnote 135

pricing period. Christchurch Airport recognises this principle in both its consultation material and in its pricing model.

The Commission's draft approach means that unforecast revaluations will never be taken into account by the Commission in any assessments it makes of required revenue under the building block approach. They would only be taken into account by the Commission in monitoring returns post the event. This means that the NPV = 0 principle will not be met in respect of actual revaluations and airports (and other regulated suppliers) would be incentivised to under-forecast revaluations so as to avoid having to treat large portions of their asset revaluations as income for the purposes of setting charges.

A further issue, specific to the long run approach taken by Christchurch Airport, is whether these unforecast revaluations should be treated as income over the forthcoming pricing period or over the full length of the model. Treating unforecast revaluations as income in PSE1 was the impression which Christchurch Airport's financial model gave in rows 70 to 90 summarising the full cost of service calculation or building blocks in each of the airfield and terminal spread-sheets for the cost centres, and this reflects BARNZ's understanding of the Airport's intention at the time it set charges.

In terms of measuring the return over 20 years, the two approaches produce very similar outcomes. However, the practicalities going forward after several pricing periods of managing a number of streams of revaluations being spread over 20 years, quickly becomes difficult. For this reason, BARNZ strongly favours unforecast revaluations being treated as income in the one pricing period and not being spread over multiple pricing periods. BARNZ notes that the Commission has also identified this difficulty.¹⁴

Treating unforecast revaluations as income in the estimate of required building block revenues in the first four years seven months of the pricing model increases the assessment of the return being targeted on all assets by 0.7% to a target return of 9.6% (for pricing assets the return is 10.3%) over the 20 year pricing period.¹⁵

For PSE2, the target level of return increases by 1.8% to a target return of 8.7% if unforecast revaluations are treated as income in the estimate of required building block revenues.¹⁶

The Commission's approach of not treating unforecast revaluations as income in the estimate of required building block revenue thus materially understates the returns being targeted by Christchurch Airport.

¹⁴ Commerce Commission, draft decision, para F18.

¹⁵ If the unforecast revaluations are spread as income over the 20 year pricing model, then the level of the 20 year target return would reduce by a small fraction.

¹⁶ If the unforecast revaluations are spread as income over the 20 year pricing model, then the target return for PSE2 would be 7.6%, 1.1% less than if the unforecast revaluations were treated as income wholly in PSE2.

2.2 Levelised Constant Real Price Path

Christchurch Airport describes its pricing approach as one of ‘setting a levelised constant real price to recover the overall economic costs over the economic life of the assets’.¹⁷

In simple terms, BARNZ’s understanding of Christchurch Airport’s approach was that the Airport was setting a price path which (other than for a stepped increase in charges on 1 January 2015 and international terminal charges remaining unchanged during PSE2) would result in prices over the 20 years being constant in real terms on a unit basis. In other words, the intention was that a passenger using facilities at Christchurch Airport in 2014 would (in real inflation adjusted terms) pay a substantially similar charge to a passenger using the Airport in 2024 or in 2032. Christchurch Airport’s pricing model was thus based on the charges which commenced in December 2012 adjusting annually by forecast CPI (with the exception of the additional 1 January 2015 increase and international terminal charges remaining unchanged during PSE2).

BARNZ’s understanding was gleaned both from explanations provided by Christchurch Airport management and advisors during the consultation process as well as the consultation documentation. For example, Christchurch Airport’s first Pricing Proposal states that “this price (known in economic language as Long Run Marginal Cost (LRMC)) would be constant in real terms (ie allowing adjustments for inflation).”¹⁸ To similar effect are statements in Christchurch Airport’s Revised Pricing Proposal which describes the aim of the Airport’s pricing strategy as being to set prices that are stable in real terms over the life of the assets.¹⁹

In its draft report the Commission discloses that its analysis has identified two areas where Christchurch Airport’s financial modelling is inconsistent with the Airport’s written description of its intended approach in its disclosures and consultation information:

- The Airport’s financial modelling only applies a single period of CPI indexation to prices in the last ten years of the pricing model, effectively resulting in decreasing real prices after year 10 despite the Airport’s description of its process as being of levelised constant real prices;²⁰ and
- The prices included in the Airport’s financial modelling for PSE3 continue at the higher level moved to on 1 January 2015, which is above the Airport’s levelised constant real price path.²¹

The Commission’s approach to these two inconsistencies differs. In the first case the Commission has left the Airport’s financial model unaltered and has corrected for the identified error. However, in the second case, the Commission adjusted the proposed pricing downwards to correct for what it assumes is an error on the Airport’s part.

¹⁷ Christchurch Airport, Price Setting Disclosure, 19 December 2012, page 14.

¹⁸ Christchurch Airport, Proposal for the Reset of Aeronautical Charges for the period ending 30 June 2017, 12 March 2012, page 48.

¹⁹ Christchurch Airport, Updated Proposal for the Reset of Aeronautical Charges for the period ending 30 June 2017, 31 July 2012, page 6.

²⁰ BARNZ was not aware of this departure from the levelised constant real price path.

²¹ BARNZ was aware that prices had moved above the building block required revenue in FY16 and FY17, but had not appreciated that they were above the levelised constant real price path in PSE3 and beyond.

With respect to the lack of annual CPI indexation for the second half of Christchurch Airport's financial modelling, which results in the Airport's financial modelling understating the revenue it is targeting, and hence presenting a lower targeted return than is the case, the Commission takes the Airport's error forward into its own modelling and assumes that prices will only increase by 0.25% per annum for the second half of the twenty year period. This assumption is in Christchurch Airport's favour and understates the targeted returns. Moreover, the assumption is entirely at odds with the Airport's clearly stated approach that it will increase its charges annually for inflation. The CPI forecast at row 13 of the 'volume and CPI' worksheet of the Airport's 27 July 2012 financial model shows forecast CPI of 2.5% pa for FY23 to FY32. BARNZ does not consider that the Commission's assessment of returns based on a pricing path of only 0.25% annual increases in charges for the last ten years of the 20 year period is consistent with the returns Christchurch Airport clearly stated it was targeting. We think the Commission's approach results in it understating the returns the Airport was targeting. BARNZ considers that the Commission needs to undertake its modelling applying Christchurch Airport's intended approach of annually increasing charges by forecast CPI.

In BARNZ's assessment, correcting for this one factor, so that charges increase by CPI for the remaining ten years of the model, in line with Christchurch Airport's clearly stated intention of stable real prices, results in the return on pricing assets increasing from 9.5% to 9.9% over the 20 year pricing path. For the blended return on all information disclosure assets, the return increases from 8.9% to 9.3%.

The Commission again adopts the approach most favourable to the Airport when considering the second inconsistency it identified between the Airport's stated intention of pricing at the levelised constant real price path and its financial modelling. This second difference is the fact that Christchurch Airport's financial model is based on pricing post PSE2 continuing at the 1 January 2015 pricing path which is above the levelised constant real price path, and which produces revenues approximately \$1m greater than the levelised constant real price path each year thereafter. The Commission makes an adjustment to remove or correct for this difference from the end of PSE2.

In actual fact Christchurch Airport's financial modelling specifically shows prices until 2022 continuing to increase annually for inflation from the 1 January 2015 level, without any reduction in unit charges. BARNZ refers the Commission to the 'pricing and revenue 4yr7 target' worksheet in version 4 of Christchurch Airport's financial model, at rows 55, 57, 188, 199, 211, 222 and 233, particularly column T where FY18 prices are indicated as being 2.5% higher than FY17 prices.

There was no mention or indication which BARNZ can recall during the pricing consultation that prices would be reduced at the commencement of PSE3 to return to the levelised constant real price path. The understanding which BARNZ had from the consultation process and explanations provided by the Airport was that prices would increase for CPI at the beginning of PSE3, plus any adjustments for capital expenditure and any real increases in operating expenses, as well as for updated WACC and demand forecasts. BARNZ is sceptical that Christchurch Airport would reduce prices in this manner. It is certainly not what is indicated in its financial modelling for PSE3. BARNZ therefore considers that the Commission should undertake its modelling based on the targeted revenue and prices which Christchurch Airport has identified for PSE3 at columns T to X of the relevant rows of the 'pricing and revenue 4yr7 target' worksheet in Christchurch Airport's financial

model. This correction results in the targeted return on pricing assets increasing by 0.1% over the 20 year pricing path.

In summary, BARNZ believes that the Commission has made decisions regarding the differences between Christchurch Airport's financial modelling and its written description of its intended approach of a levelised constant real price path in a manner which favours Christchurch Airport and which understates the return the Airport was targeting. BARNZ considers that the Commission should have modelled PS3 revenue using the prices specified by the Airport in its financial model, and PSE4 and PSE5 revenue applying annual 2.5% increases for CPI in accordance with the Airport's CPI forecasts and its stated intention of annually adjusting prices for inflation.

2.3 End of Year vs Mid-Year Cash-flow Timing Assumptions

The Commission notes that its estimate of Christchurch Airport's target returns are based on the assumption that cash flows are received at the end of the year. The Commission notes that 'this is a conservative assumption consistent with current information disclosure requirements, but does not affect actual cash flows at Christchurch Airport'. It also stated that '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'.

BARNZ questions this assumption that Christchurch Airport would not have expected the Commission to undertake an analysis based on mid-year cash-flows. Christchurch Airport's financial model shows that it undertook all of its modelling on mid-year cash flows. Refer for example to the worksheet entitled 'pricing and revenue 4yr7 target' in Christchurch Airport's financial model (v4) where at rows 194, 205, 218, 227 and 238 it can clearly be seen that Christchurch Airport is assuming mid-year cash flows.

BARNZ estimates that adjusting for a mid-year cash-flow increases the weighted return by 0.3% in the 20-year model and 0.1% in the 5-year model.

BARNZ considers that the Commission should undertake its analysis based on mid-year cash flows. It is axiomatic that the Airport incurs costs and earns revenue throughout the year, and since this is the basis on which Christchurch Airport determined its target revenue, it cannot be an unexpected approach.

2.4 Lack of forecast capex in PSE3, PSE4 and PSE5

As the Commission notes, Christchurch Airport has not included any forecasts for capital expenditure after the end of PSE2 in its financial modelling. This means its levelised constant real pricing path will be understated through not incorporating the targeted return on capital and the associated tax liability, although it appears an allowance for depreciation has been implicitly incorporated within Christchurch Airport's levelised constant price path.

Christchurch Airport forecast average capex of \$15.7m pa in PSE2. Its forward looking forecasts of capex indicate it estimates average annual capex for PSE3 of \$13.5m pa. Adopting the PSE3 forecasts, and increasing the capex forecasts by inflation for PSE4 and PSE5 indicates that some \$222m of capex can be anticipated over those three pricing periods. The 2.18% difference between Christchurch Airport's target WACC of 9.76% and the upper bound of the Commission's acceptable WACC range results in the likelihood of \$37m of additional return on capital over PSE3, PSE4 and PSE5 above the acceptable WACC range being targeted by the Airport.

In addition, as the Commission has identified, the Airport has forecast depreciation to remain at a constant ratio of the RAB, despite the fact it does not forecast any capital expenditure beyond the end of PSE2, indicating that the forecast depreciation included by the Airport within its financial model (which the Commission has also utilised for its modelling) includes an implicit allowance for capital expenditure and is higher than appropriate. This will act to suppress forecast targeted returns.

This demonstrates that the absence of forecast capex for PSE3, PSE4 and PSE5 in Christchurch Airport's financial model, materially understates both the levelised constant real price and the levels of excess returns being targeted by the Airport over the 20 years being modelled.

2.5 Matters relating to depreciation assumptions

The remaining two matters which affect the calculation of the estimated required building block revenue both relate to the calculation of depreciation:

- The Airport's disclosure of depreciation on a straight line basis and not on an alternative basis reflecting the economic depreciation profile implicit in its levelised constant real price; and
- The large reduction in taxable depreciation in the last eight years of the 20 year financial model provided by the Airport to the Commission

Straight line vs economic depreciation

The Airport's modelling is based on straight line depreciation – despite the fact that its pricing path reflects a levelised constant real price and therefore implicitly reflects a form of economic depreciation, as the Commission has recognised. Hence the return for PSE2 will be understated because it is being measured against an estimate of required revenue necessary to meet the higher

straight-line depreciation, rather the revenue required to meet the lower initial economic depreciation which the levelised constant real pricing path reflects.

The Commission notes that its calculation of a 6.8% return for PSE2 under-estimates expected returns for PSE2 because of this problem.²² However it does not articulate the magnitude of the difference. BARNZ commissioned work to assess this but it was found to be difficult to unravel the level of depreciation under the different approaches. BARNZ therefore considers that this known under-estimation of returns in PSE2 because of the lack of disclosure of a depreciation profile reflecting the levelised constant real pricing path, means that the returns measured for the 20 year pricing period should be treated as the more accurate measure of returns being targeted by Christchurch Airport.

Taxable depreciation

The Commission's modelling indicates that Christchurch Airport has provided the Commission with a model forecasting that its taxable depreciation will drop from around the \$10 to \$11m mark in preceding years to less than \$2m in year 12 (2024) and beyond of the pricing model.²³

BARNZ has not seen any explanation for this very material reduction. The accounting depreciation remains relatively constant in the relevant period. Significantly airfield depreciation (which is less affected by the depreciation rules on buildings) has remained relatively stable. The reduction in tax deductible depreciation causes the tax payable to increase in the relevant years under the building block calculation of required revenue – by approximately \$3m pa. BARNZ estimates that reversing this reduction in taxable depreciation in years 12 to 20 (2024 to 2032) results in the return over the 20 year model increasing by 0.2%. The effect of this previously unseen reduction in taxable depreciation is therefore depression of the level of return appearing to be earned.

Christchurch Airport did not separately forecast taxable depreciation in its financial modelling on which consultation was based. This shortcoming was pointed out by BARNZ which, in the absence of anything more definitive, applied a ratio derived from Auckland and Wellington Airport disclosures of taxable depreciation equating to 80% of accounting depreciation, or 66% of specified passenger terminal depreciation (with the simplifying assumption that all airfield depreciation was taxable).²⁴ These same assumptions were applied by Christchurch Airport when it made its pricing disclosures.²⁵

Given the materiality of this change, the fact it was not included in Christchurch Airport's financial modelling disclosed to airlines during pricing consultations, and the difference from Christchurch Airport's pricing disclosures, BARNZ requests that the Commerce Commission look further into this issue of the level of taxable depreciation.

²² Commerce Commission draft report, footnote 118.

²³ Refer row 191 of the inputs worksheet of the Commerce Commission modelling.

²⁴ BARNZ Assessment of CIAL Revised Pricing Proposal, 7 September 2012, pages 19-20.

²⁵ Christchurch Airport, Price Setting Disclosure, 19 December 2012, page 35.

2.6 Explanation of adjustments to modelling

The adjustments to the Commission's analysis discussed above have been made in the attached spread-sheet. In each case the changes described below were made and then goal seek was used to solve for the post tax WACC that equalises the NPV of the cash flows under the actual pricing path and the building blocks model, as per the procedure used by the Commission in its analysis.

1. Revaluation wash-up adjustment

The building blocks model has been adjusted to include the wash-up for revaluations occurring prior to PSE2. In the 20-year and 5-year models, the total revaluation (\$33,464,840) has been spread over either 5 or 20 years at the WACC calculated in the model to equate present values. These adjustments are highlighted in row 460 of the 20-year model and row 49 of the 5-year model.

2. Constant real price adjustment

The CPI assumption in the 20-year model was changed to 2.5% per annum from 2023 onwards. These changes are highlighted in row 46 of the 20-year model.

3. Mid-year cash flows

To estimate the effect of bringing the timing of all cash flows forwards by half a year, we have adjusted the dates applying to the cash flows under the actual pricing path by half of the duration of each period. This is highlighted in rows 440-442 of the 20-year model and rows 29-31 of the 5-year model.

4. Return to Christchurch Airport Pricing Path

For PSE 3, 4 & 5 we have assumed that Christchurch Airport's actual price path revenue will follow the path implied by its financial model rather than reverting to the (lower) levelised price path from 2018. This adjustment is highlighted in row 421 of the 20-year model. Since Christchurch's financial model ends in 2022, for the subsequent periods we have assumed a differential of \$1 million per year between the actual price path and the levelised price path, consistent with the differential in earlier years.

5. Taxable depreciation

To test the effect of changing the amount of taxable depreciation to more reasonable levels for 2024 onwards, we have assumed taxable depreciation in these years of the average for 2021-23 (\$10,210,689). This is highlighted in row 430 of the 20-year model.

2.7 Combined Impact

These matters are not insignificant. All act to markedly understate the Commission's estimation of the return which was being targeted by Christchurch Airport:

Matter causing the Commission's estimate of targeted return to be understated	Quantification of effect on estimated return over 20 years
Not treating unforecast revaluations as income in the building block calculation of required revenue for PSE2	Increases the level of return targeted by CIAL by 0.7%
Prices for the last 10 years of the 20 year period not being increased by CPI as per CIAL's levelised constant real pricing path	Increases the level of return targeted by CIAL by 0.4%
Reduction of prices after PSE2 down to the levelised constant real pricing path, rather than CIAL's stated pricing of applying CPI increases from the 1 January 2015 uplifted pricing path. This reduces the Commission's quantification of the revenue targeted by CIAL by \$1m pa.	Increases the level of return targeted by CIAL by 0.1%
Use of end of year cash flows for modelling, despite Christchurch Airport's own financial modelling being undertaken on mid-year cash-flows	Increases the level of return targeted by CIAL by 0.3%
The absence of any allowance for capex after the first five years, which would easily amount to \$222m. The excess returns targeted on this capex but not captured in the Commission's analysis will amount to \$37m over those 15 years.	Effect on level of return targeted not quantified
The unexplained reduction in taxable depreciation in year 12 of CIAL's inputs	Increases the level of return targeted by CIAL by 0.2%

The combined effect is highly material.

For the 20 year outcome, adjusting for all the factors identified above which are able to be quantified,²⁶ the targeted return over the 20 year period increases from the Commission's assessment of a return on all disclosed assets of 8.9% to a targeted return of 10.6%. The return being targeted by the Airport on pricing assets increases to 11.5% over the 20 years. Both of these outcomes are materially above the Commission's 6.6% to 7.6% range of acceptable returns and indicate that information disclosure regulation has not effectively provided any limit on Christchurch Airport's ability to extract excessive profits.

With respect to the outcome for PSE2, the combined outcome of adjusting for treating unforecast revaluations as income in the building block estimation of required revenue, and moving to a mid-

²⁶ These adjustments are the inclusion of previous unforecast revaluations as income in the building block estimate of required revenue; CPI escalation of prices post 2022, reversion to the prices CIAL specified for PSE3 in its financial modelling; use of mid-year cash flows; and alteration of taxable depreciation to previous levels for the last eight years of the model.

year cash flow (the only adjustments which affect the first four year seven month period) , increases the return for the disclosed assets to 8.9% if the unforecast revaluations are spread over PSE2 (which is significantly above the Commission's range of acceptable returns) or to 7.7%% if they are spread over 20 years (which is still above the top end of the Commission's range of acceptable returns). The return targeted for pricing assets is 9.4% if the unforecast revaluations are spread over PSE2, or 8.1% if they are spread over 20 years (both of which are also significantly above the acceptable range of returns).

BARNZ considers that this analysis very clearly demonstrates that information disclosure regulation has not been able to effectively limit the ability of Christchurch Airport to extract excessive profits.