26 June 2018

Jo Perry
Chief Advisor, Compliance and Performance Analysis
Regulation Branch
Commerce Commission
Regulation.branch@comcom.govt.nz

Dear Jo,

Cross-submission on Draft Report on AIAL's PSE3 pricing decision – Public version

Introduction

1. BARNZ welcomes the opportunity to make this cross-submission in response to submissions on the Commission's report *Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022)*, dated 26 April 2018 (the "Draft Report").

2. This cross-submission is made on behalf of the airlines[1] which BARNZ has written authority under s2A of the Airport Authorities Act 1966 to represent during consultation over charges with New Zealand airports. One item in this cross-submission is confidential and is marked as **BCI [ ]**.

3. BARNZ has commissioned an expert report by TDB Advisory to support this cross-submission, which considers the report by NERA that supported Auckland Airport's (AIAL) submission. The TDB report is attached. Its key conclusions are:[2]

    a. TDB disagrees with NERA that AIAL's own beta estimate should be relied upon. The directly estimated beta for AIAL is highly variable. Using a sample of comparable companies yields a more statistically accurate measure of underlying beta.
    b. TDB reviews NERA's assessment of the justified level of increase for AIAL's beta due to their proposed capital programme. Based on a formula to adjust beta to reflect increased operating leverage, TDB finds that AIAL's capital spend over PSE3 could only yield an adjustment in the order of 0.01 – 0.02, very small in the overall estimation of beta.
    c. In response to NERA's assessment of AIAL's operating leverage relative to the comparator sample, TDB finds that the sample has a wide range of capital expenditure intensity, that AIAL's current operating leverage is mid-range and the average forecast level over PSE3 is above average but well below the highest.
    d. TDB concludes that there is no need for an operating leverage adjustment to AIAL's beta.

4. This cross-submission has a summary below, with responses to key submission points set out in Tables 1 and 2 in the Appendix.

[1] Air Calin, Air China, Air Tahiti Nui, Air Vanuatu, Airwork, American Airlines, Cathay Pacific Airlines, China Airlines, China Eastern, China Southern, Emirates, Fiji Airways, Hong Kong Airlines, Korean Air, LATAM Airlines, Malaysia Airlines, Philippine Airlines, Qatar Airways, Singapore Airlines, Tasman Cargo Airlines, Tianjin Airlines, Thai Airways International, United Airlines, Virgin Australia.
[2] TDB report, page 4.

Judgement when assessing a target return should not detract from evidence and justification

5. The airport submissions generally argue for an assessment framework for target returns that places more weight on context and judgement than on the particular WACC parameters.

6. We think these views overlook what the Commission's assessment framework does. From our reading of the Draft Report, the Commission clearly understands AIAL's logic and rationale for a higher WACC. However, having understood the rationale, it must be tested. Ultimately the way to test it is to consider whether the case put forward (that higher capex leads to higher operating leverage, which justifies an asset beta 0.08 higher than the Commission's estimate) stands up to scrutiny. The best way to do this is to consider whether the evidence supports a beta uplift of that size.

7. If the Commission did not attempt to empirically test whether the evidence supported the increase in beta, we do not see how they could reach a view on whether the target return was reasonable or not. The airports seem to want an assessment framework that is largely subjective and defers to airport judgement, which would of course create the perfect environment for airports to continue to over-charge consumers with only very limited risk of criticism from the Commission. We support the assessment framework set out in the Draft Report and encourage the Commission to resist attempts for it to be watered down to the point where it becomes meaningless.

A target return should not be based on capital spend for assets that will only be commissioned in the next pricing period

8. We challenge AIAL's position that its capital spend on assets that will not be commissioned until after PSE3 should influence the return it will earn during PSE3 – ie the Airport wants to apply a higher WACC to all PSE3 assets on the basis of risk associated with expenditure on assets that will not enter the RAB in PSE3.

9. The general principle on which the building blocks are developed is that revenues are earned after assets are commissioned and delivering services. The building blocks approach works for regulated industries because investors recognise the regulated companies have market power and can expect to recover the cost of additions to the asset base once the assets are in place. AIAL and NERA's analysis fails to recognise that the airport has market power and that investors will recognise that and expect returns once the assets are commissioned. Thus AIAL's focus on near-term cash-flows needs to be modified as rational investors in AIAL should recognise that it will earn the necessary returns on the investment over time.

10. The distinction here appears to be that the input methodologies determine WACC in a particular way for regulated businesses, firms with market power and capped revenues. NERA and AIAL are attempting to place a competitive business framework over that and apply a theory of what returns investors in competitive businesses might require. This misses the point. There should be no need to bring forward returns to attract investment, as investors will understand the nature of AIAL's business and expect returns to be earned over time consistent with the regulatory framework.

11. Further, as noted by TDB, the standard framework for assessing the effect of operating leverage on beta was developed for competitive firms. For regulated monopoly firms, capital expenditure is likely to drive a lesser change in the underlying asset beta "because a regulated firm will have more certainty of future revenue when undertaking a capital project".[3]

[3] TDB report, page 11.

AIAL is challenging the Input Methodologies and long-standing regulatory practice

12. The submission and expert reports from AIAL appear to be pushing for an approach that in effect re-writes the IMs to better suit the airport's current circumstances in a way that would undermine some important incentives within the regulatory framework. This reopens debates that we thought were long settled. We believe that any effort to 'change the rules of the game' at this late stage should be resisted. In summary:[4]

    a. AIAL wants beta to be set based on a forward-looking metric, when all regulatory decisions made by the Commission under Part 4 have used historical beta estimates and there is High Court support for using a longer historical timeframe to assess beta.
    b. The Airport wants its own beta to be used in assessing its prices, but all regulatory decisions made by the Commission under Part 4 have relied on a sample. The use of own-company parameter estimates was rejected by the High Court in the IM merits appeal. The airport and its advisors appear to be unaware of some of the rationale supporting the use of a beta sample in the New Zealand context – ie as previously explained by Dr Alastair Marsden on behalf of NZ Airports Association, use of a comparator sample is a method of addressing the leverage anomaly in the simplified Brennan-Lally CAPM. Using a single-company beta would undermine this method and create perverse incentives for regulated firms to increase debt.
    c. AIAL and NERA are challenging the inclusion of some firms in the comparator sample, but no party challenged the sample when it was developed in 2016.

Evidence suggests that NERA's case for a 0.08 beta uplift is weak

13. TDB has reviewed data relevant to AIAL and the comparator sample and considered preferred measures for assessing the impact of capital expenditure on beta. They conclude that even taking into account all of AIAL's capex during PSE3, AIAL is above average but not very far above average of the comparator sample and could not justify a beta uplift of more than 0.01-0.02, which is very small considering the statistical noise surrounding beta estimates.[5]

14. TDB finds that AIAL's investment would need to average $1.75 billion per annum over PSE3 to justify an asset beta increase of 0.08.[6]

AIAL's expenditure is not nearly as risky as they claim

15. AIAL, with support from NERA, argue that it faces substantial risk because projects cannot easily be deferred or scaled back and it is not easy to change prices within a standard 5-year pricing period. This is demonstrably not the case.

16. AIAL is entirely able to defer or change its capital projects as it is the party that makes the investment decisions. AIAL and NERA also argue that it is not easy to change prices within a five-year pricing period due to the complexity of the consultation and disclosure processes. However, under the Airport Authorities Act 1966, AIAL has discretion to change prices when it chooses as long as it consults with customers. AIAL's submission is asking the Commission to believe that the airport would prioritise avoiding disclosure and consultation obligations over recovering from a scenario where it is losing a substantial amount of money. We are not convinced that is credible. We do not think that position is credible.

[4] These points are all referenced in the appendix.
[5] TDB report, page 11.
[6] TDB report, page 10.

The dual till is a relevant consideration for the aeronautical WACC

17. AIAL argues that the dual till is not a driver of aeronautical investment. This is not plausible. It is clear that passenger volumes will increase to levels that would not be able to be accommodated in the current footprint and that the investment will facilitate passenger growth. It is therefore indisputable that the capital programme will deliver additional customers to AIAL's non-aeronautical businesses. AIAL's submission states that it has not sought to quantify the benefits to its non-aeronautical business from the capital plan, but just because the airport has not quantified them does not mean the benefits are not real.

18. It is entirely reasonable for the Commission to take the dual till implications into account when considering what level of WACC is necessary to incentivise investment.

An increased WACC is not needed for the airport's investment to proceed

19. BARNZ's view is that AIAL would carry out its investment programme anyway with a mid-point WACC, because the new facilities are needed to meet demand and because AIAL's unregulated car parking and retail activities will see increased revenues resulting from the increased passenger volumes that the new facilities will deliver.

20. AIAL itself seems to tacitly concede this. The most that it can say in terms of how consumers would benefit from the higher target return is that "would provide consumers with a higher degree of confidence that we could deliver on that plan". This is not a compelling case for spending an additional $65m over five years.

Contact details

21. If you have any questions about this submission, please contact me on 09 358 0696 or at ian@barnz.org.nz.

Yours sincerely,

Ian Ferguson
Regulatory Manager

Appendix: Response to selected submission points

Table 1: Response to AIAL's asset beta analysis

This table is structured to respond broadly in the topic order of the Commission's asset beta logic chain and Appendix C of AIAL's submission

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
AIAL states that its increase in capital expenditure is not limited to assets that will enter the RAB in PSE3. Over half of the forecast expenditure will not be commissioned in PSE3	BARNZ questions whether basing the assessment of operating leverage on capex (rather than commissioned assets) is appropriate in the context of a building blocks model. More than half of the expenditure being made by AIAL in PSE3 is for assets that are to be commissioned after 2022. A fundamental principle on which the building blocks are developed is that revenues are earned after assets are commissioned and delivering services. However, AIAL is seeking a higher WACC for the PSE3 period, which will be applied to the FY17 opening RAB plus forecast PSE3 commissioned assets. The justification for this higher WACC is AIAL's expenditure on assets that will not enter the RAB until PSE4 or later. We do not see how this is consistent with the building blocks method. The building blocks approach works for regulated industries because investors recognise that monopoly companies have market power and can expect to recover the cost of additions to the asset base in future. AIAL and NERA's analysis fails to recognise that the airport has significant market power and that investors will recognise this and respond accordingly (ie investors will recognise they will earn a return on assets once they are commissioned). Thus AIAL's focus on near-term cash-flows needs to be modified as rational investors in AIAL should recognise that it will earn the necessary returns on the investment over time. The regulatory building blocks approach in which firms receive rewards for investment once they are made has an important incentive effect in terms of encouraging firms to make investments that are needed to deliver services. The regulatory framework does not generally provide rewards to firms for investments that have not been made. Otherwise a firm with market power could perpetually delay investments and collect substantial revenues on the basis of its future investment plans. AIAL's claim for a WACC reward before investments are complete undermines the logic of the Part 4 regulatory system. Also, the holding cost of capital is capitalised in the WIP and so will be recovered by AIAL in future once the asset is commissioned. This reduces AIAL's risk associated with asset construction and rational investors will recognise this.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
	For these reasons, we think it would be more appropriate to only consider PSE3 opening and commissioned assets, rather than total capex, when assessing WACC and asset beta for PSE3.
NERA argues that AIAL has high and increasing operating leverage over PSE3. AIAL states that NERA's analysis and commentary from rating agencies and equity analysts are consistent with the conclusion that the scale of AIAL's capital programme will lead to materially higher operating leverage than in PSE2. AIAL states that NERA's analysis shows that the selection of an appropriate empirical measure should be guided by a focus on cashflow based measures of operating leverage that account for capex.	We refer the Commission to the TDB report, which suggests a more appropriate measure of operating leverage than those put forward by NERA. TDB also notes that rating agencies and equity analysts tend to focus more on total risk rather than systematic risk in their assessments.[7]
AIAL and NERA argue that comparison against the comparator sample shows that AIAL's operating leverage is higher than that of the sample.	We refer the Commission to the TDB report, which concludes that even if all of AIAL's PSE3 capex is included in the assessment, AIAL is not an outlier in the comparator sample and is not very far above the average of the sample.[8]
AIAL and NERA argue that the Bloomberg operating leverage measure is not fit for purpose in the current context. NERA argues that, based on cashflow measures, AIAL's operating leverage is	Similar to the point made in our previous submission, we are not aware of other regulated utilities in New Zealand seeking or needing a higher cost of capital to compensate for increased capital spending. Electricity distributors and Transpower are all able to make substantial increases in capital expenditure without requiring a higher WACC to attract investor funding. This suggests investors are well aware of and adjusted to the environment in which they operate – ie one where the firm has market power.

[7] TDB report, section 5 and section 6.
[8] TDB report, pages 15-16.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
expected to increase by 14%-20% and is likely higher than the comparator sample average.	AIAL and NERA have gone to some effort to challenge the Bloomberg data used by the Commission and to argue that cash-flow measures are better suited to assessing AIAL's operating leverage. We found this a little surprising as, in terms of current operating leverage, both the Bloomberg analysis used by the Commission and the measures used by NERA indicate that AIAL is somewhere around the middle of the group of comparator sample companies – ie the Bloomberg data is producing similar results to NERA's analysis.[9] Also, even if we were to accept the NERA analysis, it shows AIAL's operating leverage as being the highest (by 1%) or second highest (9% different from the highest) of the comparator sample. This is not compelling evidence that AIAL is a material outlier from the comparator sample.[10] To us, the debate really seems to be about whether an historical view of beta or a forward-looking view is the most appropriate. The input methodologies are unequivocal that it is reasonable to estimate beta using historical information: 2010 IMs decision *"Beta is estimated empirically. As the cost of capital is intended to be forward looking, forward-looking betas are required. As there is no reliable way to forecast asset betas, the Commission, like other analysts, assumes that historic beta estimates are indicative of future betas. Historic estimates of average betas are used as beta is expected to be relatively stable over time."* [11] 2016 IMs decision *"In reaching our estimates, we focussed on asset betas for the two most recent five-year periods (2006-2011 and 2011-2016), based on weekly and four-weekly observation frequencies. However, we have also had regard to earlier periods (1996-2001 and 2001-2006) and daily estimates."*[12]

[9] NERA report, figures 2.4 and 2.5 seem to have Auckland Airport (current operating leverage) in a similar position relative to the sample to Figures A3 and A4 of the Commission's Draft Report.
[10] NERA report, figures 2.4 and 2.5.
[11] Airport Services Input Methodologies Reasons Paper, December 2010, paragraph 6.5.20. Very similar language was used in the 2016 IM review Cost of Capital decisions paper – Topic Paper 4, paragraph 272.
[12] IM Review Decisions: Topic Paper 4 – Cost of capital issues, 20 December 2016, paragraph 268.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
	<u>2015 Chorus WACC decision</u> *"When estimating the asset beta for UCLL and UBA we have:* • *used updated data from a combination of the two most recent five-year periods;* • *considered rolling averages over the last 10 years, as additional evidence..."*[13] The High Court, in its merits appeal judgment, also noted the benefits of using longer historical time periods for beta estimates and considered that relying only on recent data created a risk of error: *"In terms of [Vector's] proposition that some of the data used by the Commission was, put simply, too old to be relevant… The underlying basis of Vector's proposition is not clear to us. One might have thought that the longer the period the better"* [14] *"we think it is fair to say that at any one point in time it would be unwise to place too much weight on the most recent estimates. As the Commission pointed out, data in the period to 2000 indicated estimates of asset beta of less than 0.20. If those estimates had been relied upon in or around 2001, as being the most recent estimates, the resulting asset betas would have been too low"* [15]
NERA claims that the liquidity and comparability of some companies in the comparator sample are potentially biasing downwards the sample mean.	The time to make this argument was when the comparator sample was determined at the time of the Input Methodologies review in 2016. However, at that time neither AIAL nor any other submitter challenged the comparator sample developed by the Commission. As the Commission said in their final 2016 WACC decisions paper: *"We have retained the same comparator sample as the draft decision, given we received no submissions suggesting companies be added or excluded"* [16] Also, when the comparator sample decision was made the Commission applied a liquidity filter to the sample and concluded that all firms met the liquidity threshold applied.[17]

[13] Cost of Capital for the UCLL and UBA pricing reviews: Final Decision, 15 December 2015, paragraph 153.
[14] Input Methodologies Merits Appeal Decision, at [1521] and [1522]
[15] Input Methodologies Merits Appeal Decision, at [1523].
[16] IM Review Decisions: Topic Paper 4 – Cost of capital issues, 20 December 2016, paragraph 465.
[17] IM Review Decisions: Topic Paper 4 – Cost of capital issues, 20 December 2016, paragraphs 466-467.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
AIAL and NERA argue that forecasting future operating leverage for the sample is not necessary, because the question at hand is whether AIAL's forward-looking beta is higher than the historical beta of the comparator sample	The evidence put forward in the Appendix of the BARNZ submission of 29 May 2018 showed that many other airport companies in the comparator sample are carrying out or planning to carry out substantial investments in airport infrastructure. If AIAL and NERA are correct that capital investment will lead to increases in beta, then we can expect the comparator sample average beta estimate to increase in future and this would be likely to result in an increased WACC estimate for New Zealand airports. This would be the appropriate way for increased capital expenditure to flow through into asset beta (if indeed it does). Further, AIAL and NERA appear to be assuming that few or no companies in the comparator sample have been making major capital investments in the recent past, because otherwise this would have shown up in the assessment of current operating leverage for the companies. We find this implausible. Finally, if AIAL's approach of comparing its forecast beta to the historical comparator sample was accepted, then that would mean AIAL's WACC would need to be set differently at each price decision from now on. To explain: a. If the investment by AIAL and other airports does lead to increased beta within the comparator sample in future, then this will (all else being equal) lead to a higher mid-point WACC estimate for the sample in future years. b. This higher mid-point will then become the 'backward-looking' beta estimate that will be used by the Commission to estimate WACCs for regulated New Zealand airports in future. c. So AIAL would be able to increase its WACC for PSE3 based on its forecast beta and then also have a higher WACC in future regulatory periods once (if) the investment has flowed through and become evident in the comparator sample estimate. d. This would mean that AIAL would earn a higher return in two different time periods for the same risk, which cannot be an acceptable outcome. e. So, if AIAL can set a beta 0.08 higher than the comparator sample average, then AIAL will need to adjust its beta every time it reset prices to reflect the difference between the historical sample average and its own expected future OL (including where its forecast beta is lower than the historical sample average). This would need to become a permanent feature of AIAL price setting.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
	To us, the complexity and confusion this would cause is a good reason to avoid creating the problem in the first place and to rely on the comparator sample beta estimate.
NERA argues regulatory precedent supports operating leverage adjustments and plots the relationship of OL and asset beta in Ofgem's decisions. NERA estimates that a 13% increase in capex to RAB was associated with a 9-basis point beta uplift.	We refer the Commission to the TDB report, which concludes that even with some assumptions that are generous to the airport, a beta uplift of no more than 0.01-0.02 can be justified, which is very small in the context of the statistical noise surrounding beta estimates.[18]
AIAL states that the scale of investment proposed is unprecedented in its history. AIAL further states that during PSE3 it is exposed to cash flow risks – as the capital outlay is relatively fixed and the pricing through the period is unitised and has a relatively flat price path. There are risks to demand. AIAL states that once it commences projects its ability to stop them is limited.	We think these concerns are greatly over-stated. AIAL has a substantial degree of market power, which is why it is regulated under Part 4 (the same applies to Christchurch and Wellington Airports). This greatly limits its exposure to economic downturns as it can change prices in the face of changes in demand. This is one of the reasons why airports have a relatively low beta. AIAL, as the party that makes expenditure decisions, is entirely able to defer or change its capital projects and we have seen examples of this in the current capital programme.
AIAL says that although it has a theoretical ability to reset prices more often than every five years, even in the case of an adverse event it is unlikely that this could be done quickly or that any re-pricing would help it mitigate adverse economic events. AIAL goes on to say that price-setting is an extremely intensive and resource hungry two and a half year process (6 months internal discussion, 12 months stakeholder consultation, 12 months regulatory process after prices are set).	AIAL's statement is not accurate. Under the Airport Authorities Act 1966, airports are able to price as they see fit and must consult before changing a price or within 5 years of last changing a price. So AIAL is entirely able to change prices when it chooses. We also note that AIAL's claim of a 2.5 year price setting process is an exaggeration – 1 year of the process comes after prices are set, so the delay between an event occurring and new prices being set would be at most 1.5 years, which is not a long time in terms of long-lived infrastructure assets. AIAL's submission is asking the Commission to believe that the airport would prioritise avoiding disclosure and consultation obligations over recovering from a scenario where it is losing a substantial amount of money. We are not convinced that is credible. It is also worth noting that demand shocks become more likely later in a pricing period (as forecasts become less reliable), but of course the later years are closer to a price change anyway, which reduces the risk somewhat.

[18] TDB report, page 11.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
AIAL says that any decision to reopen prices would not be taken lightly. Although there are some circumstances in which that decision would be made, AIAL did not consider that this would mitigate the risks to its earnings from higher operating leverage and that intra-period price resets are extremely uncommon.	Even if AIAL did choose not to reset prices within the standard five-year pricing period, at the next price adjustment in 2022 it would be able to adjust prices to reflect the new demand conditions. For an asset with a life of 40 years, for example, AIAL can adjust prices seven times using a standard 5-year pricing cycle. This gives it ample opportunity to cauterise any losses to within a small portion of an asset's life and reset prices regularly to meet changing conditions.
AIAL say it was not predictable to them that the Commission would dismiss airport specific evidence on asset beta. Chorus' asset beta was rejected against the advice of the Commission's consultants on the grounds of a short trading history. AIAL claim it would not be reasonable for AIAL to extrapolate that to mean its own beta is unreliable given it has a long trading history.	This is a surprising statement. The reliance on a sample rather than a firm-specific beta estimate has been a core feature of Part 4 regulation since the Input Methodologies were first set, even for Transpower as the only firm in the electricity transmission sector. This approach has been upheld by the High Court. We do not see how AIAL could have overlooked this regulatory history and thus failed to predict the Commission's view. For example, the 2010 IMs decision paper said:[19] *"the Commission notes that estimating asset betas for an industry (or specific service) is inherently imprecise and involves a significant degree of judgement. Estimating supplier-specific equity betas would require an even greater degree of judgement than estimating service-specific equity betas"* In the 2013 Input Methodologies merits appeal decision, the High Court considered Transpower's case that its own cost of capital should be used for its price setting decision. The Court concluded that:[20] *"estimating Transpower's cost of capital in reliance on its data alone (as advocated by Transpower …) would not promote the Part 4 purpose. Indeed, such a proposition flies in the face of the Part 4 purpose… because Transpower simply does not operate in a workably competitive market."* The Airport's reliance on the Chorus decision being focused on trading history length also seems to be based on a misinterpretation, because the Commission's final reasons paper said the decision not to use Chorus' own beta "*avoids placing undue weight on the beta estimate for Chorus, which is likely to*

[19] Airport Services Input Methodologies Reasons Paper, December 2010, paragraph E8.10.
[20] IM Merits Appeal Judgment at [1184].

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
	*be subject to significant measurement error (**partly** due to the short trading history); **and** is consistent with the approach to estimating asset beta used in the IMs."* [emphasis added].[21]
On behalf of AIAL, First Economics and NERA provide analysis in support of using the AIAL asset beta. First Economics notes overseas examples of regulators placing reliance on own-firm asset betas. AIAL considers that empirical evidence about AIAL's systematic risk is reliable airport-specific evidence that should inform the Commission's assessment.	We refer the Commission to the discussion in the TDB report of the volatility that can be seen in single-firm beta estimates, which is why it is helpful to use a sample of comparable firms to reduce the statistical error in the estimation.[22] Both of AIAL's advisors (based overseas) appear to overlook a key reason why, in a New Zealand context, use of a comparator sample beta set is superior to reliance on a single-supplier's estimate. Dr Alasdair Marsden (from Auckland UniServices and a former advisor to Auckland Airport), in a submission for NZ Airports Association as part of the original IM consultation process, concluded that:[23] *"the assumption of a zero-debt beta is an appropriate and reasonable assumption in the WACC model and application of the simplified version of the Brennan-Lally CAPM. This is **provided** the Harris and Pringle formula used by the Commission **is applied consistently** to the comparative set of firms and the industry or firm in question"* [emphasis added] This relates to the leverage anomaly – the observed counter-intuitive outcome of the Simplified Brennan-Lally CAPM that WACC increases as leverage increases. Dr Marsden indicated that a way to address this anomaly is to set a notional leverage value equal to the average leverage of the consistent data set of the comparator sample firms used to determine beta. Dr Marsden's advice precludes giving a greater weight to AIAL's beta because that would introduce an inconsistency between the derivation of notional leverage compared to beta. Worse still, if consistency was restored by giving greater weight to AIAL's leverage, that would create an incentive for AIAL to increase its leverage to take advantage of the anomaly.[24] In other words, if the Commission was to rely on the regulated firm's own leverage value then the regulated firm could increase its own WACC by simply taking on more debt, which would not be in the

[21] Cost of Capital for the UCLL and UBA pricing reviews Final Decision, 15 December 2015, paragraph 144.
[22] TDB report, section 3.
[23] UniServices, Comments on the Commerce Commission's Approach to estimate the Cost of Capital, 2 December 2009, page 91.
[24] Further, AIAL's proposals to substantially increase leverage as indicated by its financing plans demonstrates that the leverage anomaly in the Brennan-Lally CAPM is truly an anomaly and not a reflection of reality, which highlights the importance of resolving the anomaly in the way proposed by Dr Marsden.

AIAL Appendix C (summarised by BARNZ)	BARNZ comment in response to AIAL
	long-term interest of consumers. The reports by NERA and First Economics appear unaware of the regulatory history and incentive value of using the comparator sample beta and leverage estimates rather than an individual firm estimate in the New Zealand context.

Table 2: Responses to other submission points

Submission point	BARNZ response
Assessment framework	
The airport submissions generally argue for an assessment framework for target returns that places more weight on context and judgement than on the particular WACC parameters. NZAA wants an assessment that "engages more directly with the reasons airports provide".[25] AIAL said that: "we did not anticipate the questions would focus exclusively on whether adjustments to individual Commission parameters were appropriate. We anticipated a broader focus – one which asked whether, overall, the rationale and evidence put forward by AIAL supported its target return for PSE3 and justified a return higher than the Commission's mid-point estimate"[26]	We think these views overlook what the Commission's assessment framework does. From our reading of the Draft Report, the Commission clearly understands AIAL's logic and rationale for a higher WACC. However, having understood the rationale, it must be tested. Ultimately the way to test it is to consider whether the case put forward (ie that higher capex leads to higher operating leverage, which justifies an asset beta 0.08 higher than the Commission's estimate) stands up to scrutiny. The best way to do this is to consider whether the evidence supports a beta uplift of that size. If the Commission did not attempt to empirically test whether the evidence supported the increase in beta, we do not see how it could reach a view on whether the target return was reasonable or not. This seems to be what the airports want – to create an assessment framework that is largely subjective and defers to airport judgement, which would of course create an environment where airports could continue to over-charge consumers with impunity. We support the assessment framework set out in the Draft Report and encourage the Commission to resist attempts for it to be watered down to the point where it becomes meaningless. Also, so far no airport has used its 'judgement' or 'broader focus' to set a target return that is lower than the Commission's mid-point. Until an airport does that, it will be reasonable to assume that judgement and broader focus are being used as an excuse to increase prices.
NZAA argues that the assessment should place more weight on the benefits to consumers of the investments being undertaken.[27]	This would mis-direct the analysis. For the most part, parties are not in dispute that the investments are required and will deliver benefits. However, that is not the correct question when assessing the target return. Instead, the question is to what extent the target return is needed to deliver those investments and the resulting consumer benefits. This is, of course, why the Commission is focusing on whether the evidence justifies the increase in beta.

[25] NZAA submission, paragraph 12.
[26] AIAL submission, paragraph 33.
[27] NZAA submission, paragraph 11.

Submission point	BARNZ response
	BARNZ's view is still that AIAL would carry out its investment programme anyway, because it is needed to meet demand and because AIAL's unregulated car parking and retail activities will see increased revenues resulting from the increased passenger volumes facilitated by the new facilities. AIAL itself seems to tacitly concede this. The most that it can say in terms of how consumers would benefit from the higher target return is that it "would provide consumers with a higher degree of confidence that we could deliver on that plan"[28]. To the extent we represent consumers, BARNZ can say that we already have confidence the investment programme will be delivered eventually, although there are currently some concerns regarding deliverability within the originally forecast timeframes – these concerns are being driven by construction issues and debates over the final domestic terminal design, not WACC.
AIAL's submission spends some time arguing that its returns should be assessed on the basis of an acceptable range and that it had not understood that the Commission was moving away from an assessment based on a range.[29]	To BARNZ it was very clear that the Commission was moving away from an approach based on an "acceptable range" given the experience with the previous ID WACC range where all airports set their prices at the maximum of the range. If the Commission was again to institute an acceptable range policy, we would expect to see the same outcome, meaning consumers would always pay prices based on the upper end of whatever range is deemed acceptable. Airlines would oppose the use of a range for this reason. Also, even if the Commission had retained the concept of an acceptable range, we find it hard to believe that a 67th percentile WACC would be within that acceptable range for airports given their dual till business model.
Dual till	
The Airport states that: "At no stage did AIAL seek to quantify the proportion of the aeronautical capital plan that was linked to non-aeronautical benefits"[30]	From these statements BARNZ understands that AIAL may have made a decision to invest in aeronautical assets without directly quantifying the impacts on the commercial till. However, this will have been a commercial decision – ie we expect the airport will have known that in addition to the standard aeronautical return, the investment would have delivered increased revenues to its non-aeronautical businesses. The fact the airport did not seek to quantify the impacts indicates how confident it was that the investments will deliver benefits to the commercial till. In our view, this supports the Commission's position that the dual till is a relevant consideration when assessing AIAL's WACC.

[28] AIAL submission, paragraph 131h.
[29] AIAL submission, paragraphs 20, 50, 101b.
[30] AIAL submission, paragraph 136b i.

Submission point	BARNZ response
"The capital plan for PSE3 will involve considerable disruption to and displacement of unregulated activities – the extent of which we didn't fully understand at the time we set prices"[31]	AIAL's logic now seems to be that it should get a higher WACC *because* AIAL didn't calculate the impact of the capital plan on its non-aeronautical business and thus couldn't explain this impact to investors or work out to what extent the aeronautical capital plan is beneficial to its non-aeronautical business. We don't agree. Passengers should not pay more on the grounds that AIAL did not fully analyse the effects of its investment programme.
"We think it would have been extremely difficult for us to credibly explain to investors why they should support an investment plan of this size and scale at a generic return … simply because there is also a non-aeronautical side to AIAL's business."[32]	Our response is that it would have been easier for AIAL to explain this matter to investors had AIAL chosen to do the work to assess the impact of the capital plan on its non-aeronautical business.
AIAL states: "The Commission has assumed that nearly all of AIAL's investment plan for PSE3 will deliver non-aeronautical benefits. That's not the case. Throughout the price setting disclosure and in our pricing decision reasons paper we described how the culmination of reduced resilience caused by significant growth internationally and domestically (including the new regional competitor) and the need to replace the domestic terminal are key drivers of the proposed unprecedented capital investment"[33]	We were surprised by this argument. The Airport may claim that the drivers for investment are asset replacement and resilience, but this cannot hide the underlying facts that: • AIAL's own demand forecasts show very large growth in passenger volumes are expected – the 10-year demand forecasts included in the price setting disclosures expect a 35% increase in passenger volumes over that time. The Airport's 2014 MasterPlan expected passenger volumes to triple by 2044. • These forecast passenger volumes cannot be accommodated within the current footprint (even within PSE3, as some parts of the airport are at or beyond capacity). Investments such as the new domestic processor, the expanded arrivals and biosecurity area and additional gates, stands and taxiways are needed to accommodate the passenger volumes • A new runway, when built, can only be expected to facilitate increased passenger and cargo volumes over time. It is unarguable that the capital programme will deliver additional customers to AIAL's non-aeronautical businesses and this will (or at least should be) a relevant consideration for AIAL's board when making investment decisions.

[31] AIAL submission, paragraph 136b iv.
[32] AIAL submission, paragraph 139.
[33] AIAL submission, paragraph 136b ii.

Submission point	BARNZ response
	We note the Airport's 2014 MasterPlan indicated that the future airport would include "new multi-storeyed car parking buildings" and "a new terminal plaza with shops, hotels and businesses".[34] It seems the Airport is planning for commercial facilities that will be able to handle additional quantities of air travellers.
AIAL: "Theoretically, if the dual till was driving our investment incentives in the way the Commission assumes, Auckland Airport should prefer the quickest and least costly method to deliver additional capacity – even where this is not the quality that our customers prefer"[35]	This would be a very narrow focus for AIAL to take. AIAL has a commercial interest in providing a good passenger experience, or many passengers would choose not to use Auckland Airport as a destination in future. However, if this is the approach AIAL takes, it may explain the poor service quality issues that airlines and passengers are currently experiencing at the airport. But the evidence does not suggest that a higher WACC would fix the problems, because we are experiencing these problems at the end of and just after PSE2, during which the airport enjoyed pricing on the basis of a 75th percentile WACC despite a lower operating leverage.
AIAL: "If the Commission maintains its view that the theoretical benefits offered by the dual till are relevant to assessing the appropriateness of Auckland Airport's target return, it must also consider the costs to that business that are driven by the investment plan…"[36]	The Airport argues that aeronautical investment is disrupting non-aeronautical activities. This may well be true, but the reverse also applies. Recent expansions to the duty free and other retail offerings in the terminal have caused disruption to the aeronautical operations of the airport. Similarly, a cargo building used by many airlines is to be removed shortly and replaced with additional car parking. The aeronautical and non-aeronautical business operations are co-located and thus investment in one area is likely to have an effect on another. But, to be frank, we are not sure where this argument goes. The question at hand is still whether the dual till provides a sufficient incentive for investment such that aeronautical investment will be likely to go ahead at a mid-point WACC. It is clear that the capital plan is needed to accommodate passenger growth and this growth will deliver additional revenues across both tills. Therefore it is reasonable for the Commission to take that potential growth for the commercial till activities into account when considering the risk of under-investment in aeronautical assets that may result from setting a WACC at a particular level.

[34] AIAL 2014 MasterPlan, 'Airport of the future: Our vision for the next 30 years".
[35] AIAL submission, paragraph 136b iii.
[36] AIAL submission, paragraph 136b iv.

Submission point	BARNZ response
Future pricing decisions	
AIAL states: "We are not saying that a "generic uplift to guard against under-investment" is necessary in all cases and for all time"[37]	Airlines are pleased to hear this. However, the airport still has not made any commitment to reduce its target return in future when operating leverage is lower. Until the airport does this, we would not take these claims very seriously.
Conduct v. outcomes	
NZAA argues that in assessing whether airports' performance will promote consumers' interests, evidence of airport conduct is important[38]	Airport conduct does matter, but it is not the most relevant consideration here. The Purpose of Part 4 is to promote "**outcomes** consistent with outcomes produced in competitive markets" [emphasis added]. It is the outcomes in terms of the price paid and service delivered that most matters to consumers, not how professionally an airport has conducted a consultation process. The focus of the Commission's review should be on outcomes, with conduct as a secondary factor.
Leased services	
AIAL has argued that the process for setting prices for licenses and leases follows standard commercial practice that is consistent over time and well understood by the customers involved and that the returns will vary over a lifecycle that differs from standard aeronautical charges.[39]	In recent weeks, several airlines have come to BARNZ with concerns that they have been told by AIAL that their leased costs are going to increase dramatically by **BCI [ ]**. Information provided by AIAL to explain these increased costs seems to have been limited and feedback from our members is that they did not understand the basis for the price increases. We do not know whether these increased leased costs were included in the PSE3 forecast revenues (and so support the target 7.9% return) or are in addition to that return and so will lead to even higher returns for leased services over PSE3. We think this issue highlights a gap in the current disclosure regime. Given the nature of the leased services, it would not be practicable for the Airport to apply a building blocks pricing approach over a fixed five-year pricing period as it does for priced aeronautical services. However, we believe additional information disclosure should be required for leased services so parties have greater confidence that the charges they are paying are reasonable. Currently forecast and actual lease revenues are disclosed, but the associated costs are not. We suggest that a more detailed disclosure comprising the following items would be helpful: a. In the price setting disclosures: i. Total expected revenues from and costs of leased services over the pricing period

[37] AIAL submission, paragraph 140.
[38] NZAA submission, paragraph 11c.
[39] AIAL submissions, paragraphs 150a and 152b.

Submission point	BARNZ response
	ii. The forecast value of leased assets over the pricing period iii. Expected return for leased services over the pricing period iv. The proportion of leases by number and value that are due for renewal each year in the pricing period. v. The number of new leases expected over the pricing period b. In the annual disclosures: i. Actual revenues from and costs of leased services in each year ii. Actual return on leased services (comparable to post-tax and vanilla WACC estimates) iii. The actual value of leased assets in the year iv. The proportion of leases by number and value that were renewed each year v. The number of new leases (excluding renewals) in each year vi. Where leases are renewed, the basis on which the new charges were set (eg market valuation assessment, inflation, etc) vii. The average percentage change in the prices for leased services in that year (only for those services where prices changed in the disclosure year) viii. The reasons for variances between forecast and actual values relating to leased services.