

RESPONSE TO INVITATION TO COMMENT ON WHETHER THE COMMERCE COMMISSION SHOULD REVIEW OR AMEND THE COST OF CAPITAL INPUT METHODOLOGIES

13 MARCH 2014

1. The Commerce Commission ("**Commission**") published an invitation for parties to have their say on whether it should review or amend the cost of capital input methodologies ("**WACC IM(s)**") on 20 February 2014. The New Zealand Airports Association ("**NZ Airports**") makes this submission on behalf of Auckland International Airport Limited, Wellington International Airport Limited, and Christchurch International Airport Limited (together, "**Airports**").
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Overview

3. NZ Airports acknowledges that the Commission is seeking to respond to requests to review the WACC IMs in an open and transparent manner.¹ We also appreciate the Commission's statement that it places "a high value on the regulatory certainty and predictability provided by Part 4".²
4. As we explain in this submission, we think that the Commission now has a perfect opportunity to demonstrate its commitment to regulatory certainty and predictability by not unduly accelerating consideration of material amendments to the WACC IM. Considering the need for substantive amendments at the scheduled review of the IMs is the best way to give suppliers, consumers and investors confidence that the Commission will continue to seek to deliver the consistency and predictability contemplated by Part 4. We do not think that the Court's decision to uphold the WACC IM causes any uncertainty that warrants immediate intervention.
5. On the other hand, taking steps now to amend just one of the aspects of the WACC IMs identified by the Court as deserving further attention is very likely to decrease the predictability of and confidence in the regulatory regime. In circumstances where there is no compelling reason to bring forward consideration of material amendments, significant doubt would be cast on the ability of IMs to provide the certainty they are meant to achieve.

¹ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraphs 16 to 18; Letter to Commerce Commission from Consumer NZ, EMA and MEUG dated 19 December 2013; Letter to Commerce Commission from BARNZ dated 23 December 2013.

² Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 2.

6. NZ Airports agrees that the Court's comments need to be fully considered at the appropriate time, but it should be as part of the seven-year review of the IMs. There will be numerous other issues to consider at that time, and material change to the WACC IM could result - or not. The resulting WACC estimate could be higher or lower. This element of uncertainty is part of the natural evolution of IMs, and should not be viewed as a deficiency to be remedied by considering immediate change to the IMs when a matter for further consideration is identified.
7. This submission explains our view that there is nothing in the Court's judgment that requires amendments to the WACC IM to be considered now. In particular, as we explain below, we consider that:
 - (a) There is no uncertainty created by the Court's comments that practically needs to be, or that could be, resolved now. The idea of selecting a percentile estimate of WACC above the mid-point is not unique to the Commerce Commission, and has been a reasonably standard practice amongst regulators for some time. The Court made various observations about this approach (as well as other aspects of the WACC IM) which should be taken together as part of a robust IM review process, drawing on the most complete set of information that is available at that time. There is nothing in principle that differentiates the Court's comments on the appropriate percentile estimate from other aspects of the WACC IM that it expressed doubt about (including the use of the Brennan-Lally CAPM model), which the Commission is not proposing to consider ahead of the full review of the IM.
 - (b) The maturity and certainty that is evolving as the Part 4 regime develops is at risk of being undermined if substantial amendments to the IMs are consulted on and/or made outside the seven-year review process, in isolation from other elements of the IM, and in a short time frame that does not provide sufficient opportunity for the development and testing of a robust series of rules and methodologies.
 - (c) The use of the 75th percentile estimate cannot be reviewed in isolation, without also re-opening the whole of the WACC IM (including the current parameter estimates as well as the Commission's decision to make no allowance for factors such as model error and asymmetric risks). Failing to consider the whole IM at the same time as the parts that make up that IM would risk creating a real danger that the overall WACC IM does not meet the Part 4 purpose or the purpose of IMs.
 - (d) The type of analysis proposed by the Court would be very complex. Substantial time would be required to assess whether it is in fact possible to carry out this task and, if so, how it should best be undertaken.

The nature and context of the Court's comments

8. The Commission considers that the Court's comments create uncertainty through an expectation that the Commission may reduce its percentile WACC estimate at some time in the future. The Commission considers that investment incentives are likely to suffer, undermining the "main reason" for the 75th percentile, until it resolves this uncertainty by making a decision on how to respond to the Court's comments.
9. NZ Airports appreciates that the Commission is considering how to respond to judicial comments about an area of its analysis that could be improved in the future, and to what it perceives as investor uncertainty resulting from those comments.
10. However, we think that if the nature of the Court's comments are considered in their full context, it can be seen that the Court did not envisage that the Commission would review the

WACC IM (either in total or discrete individual components) before the scheduled review. Overall, NZ Airports' interpretation of the judgment is that:

- (a) The comments in the IM judgment were "tentative in-principle" arguments that were "ventured" by the Court in the course of upholding the Commission's approach to the use of the 75th percentile in its IMs for price-quality regulation.³
- (b) The Court would have preferred to see more empirical evidence to support the Commission's use of the 75th percentile, but acknowledged that this approach was supported by the Commission's experts.⁴
- (c) From that starting point, encouraged the Commission to conduct further analysis when it reviewed the WACC IM in order to consider the potential asymmetric costs of over and underestimating the WACC.⁵
- (d) Overall, although the Court (perhaps influenced by the particular views of the sitting economists) expressed some opinions on where it thought this balance may lie, it specifically recognised that its observations suffered from the same lack of empirical support as the Commission's assumptions.⁶ The Court acknowledged that further analysis and experience may support the Commission's original position (or may not).⁷

11. There is nothing in the Court's comments to suggest the Commission should accelerate its review of this aspect of the WACC IMs. In fact, and on balance, a number of aspects of the Court's decision would tend to suggest that the Commission should not rush its consideration of the relevant issues. For example:

- (a) The Court agreed that assessing the presence of asymmetric consequences, and which of these consequences would carry the greatest social damage was a matter for "robust empirical examination, well-guided by theory, of the actual facts of any particular case".⁸ Any consultation and/or amendment process that does not involve a sufficiently robust and fact-specific exercise will not properly give effect to those comments. As we suggest below, it is difficult to see how such a process can be carried out in the indicative timeframes that have been suggested.
- (b) The Court considered it was understandable that the Commission would not wish to run the risk of deterring investment by providing too low a rate of return when establishing the new regulatory regime.⁹ Similarly, we anticipate the Commission would not want to run the risk of deterring investment by reacting with unnecessary haste to "in principle" comments made by the Court at this early stage of the regulatory regime.
- (c) Aspects of the judgment indicate that the Commission should be cautious in deciding whether to amend this particular part of the WACC IM in isolation. These are discussed further below at paragraph 43.
- (d) In relation to the regulated airports in particular, the Court specifically upheld the Commission's approach to the WACC range as consistent with the purpose of

³ IM Judgment at paragraph 1471.

⁴ IM Judgment at paragraphs 1436-1438, 1470.

⁵ IM Judgment at paragraph 1472.

⁶ IM Judgment at paragraph 1482. In this context, the Court's comments, particularly statements that draw on the "normal regulatory imperative" (paragraph 1472), "rational investment choice" (paragraph 1480) and "likely" consequences, (eg paragraph 1480) should be treated with a significant degree of caution.

⁷ IM Judgment at paragraph 1486.

⁸ IM Judgment at paragraph 1486, citing the decision in *Telstra Corporation Ltd (No3)* [2007] ACompT 3 at paragraph 457.

⁹ IM Judgment at paragraph 1482.

information disclosure regulation, and reflecting the complexities of estimating WACC in that context.¹⁰ Although the Commission's approach may be further explored when the IMs are next reviewed, the Court's comments would suggest the Commission should be particularly cautious in reconsidering its approach for information disclosure purposes ahead of that scheduled review. Given the Commission's expressed view that it would be prudent to ensure consistency of its approach between sectors,¹¹ this would suggest that a decision should not be accelerated on this one aspect of WACC ahead of the scheduled review of the IMs.

12. Overall, our interpretation of the judgment is that the Court:
- (a) recognised the importance of choosing an estimate of WACC within a range;
 - (b) was surprised at the lack of evidence to support the Commission's decisions;
 - (c) raised matters that may (or may not) be an issue; and
 - (d) therefore encouraged further consideration of this point in the future by setting out some tentative arguments to demonstrate the value of further assessment.
13. NZ Airports looks forward to participating in that debate - particularly because it will ensure the issue can be considered in light of the complete fact set surrounding the WACC IM, including market information that is available at the time of the review.

The Commission has an important opportunity to reinforce regulatory stability

14. As noted above, the Court's comments signify that there needs to be comprehensive consultation and debate on the appropriate approach to the point estimate of WACC for price-quality path regulation at the next review of the IMs (which may also have implications for the WACC range for ID purposes). It could be higher than the 75th percentile, lower, or the same.
15. This position does not create uncertainty in and of itself and, as should be apparent from the preceding section, NZ Airports was in no way concerned that the judgment created uncertainty that required immediate resolution. Nor does it necessarily create an expectation that the Commission's approach will change in the future. Rather, the Court's comments indicate a preference for the Commission's decisions to be based on robust empirical analysis, well supported by theory. It is therefore of some concern that the Commission's paper only talks of retaining, reducing or removing the "uplift".
16. It is not clear why the possibility of an increase has been discounted at this early stage. For example, the Commission's expert advisor has previously noted that a loss function analysis may very well justify a point above the 75th percentile.¹²

[...] the loss function provides a framework for thinking about where you might choose in that distribution [...]. That kind of analysis, that loss function analysis, while it doesn't tell you what the answer is it does suggest to me that the 75th percentile is probably the lower bound on what you might choose. And you could easily choose something well above that.

¹⁰ IM Judgment at paragraphs 1490-1491.

¹¹ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 35. For the avoidance of doubt, NZ Airports notes that any consistency in **approach** between sectors does not necessarily mean that the **result** (ie the best percentile estimate) will be the same between sectors. As we discuss below, the best estimate of WACC in any particular sector will depend on the particular consequences and potential losses involved with over and under-estimating WACC in that sector.

¹² Commerce Commission *Cost of capital workshop transcript (day 2)*, 13 November 2009 at page 225 (Martin Lally).

17. It follows that we are also concerned by the Commission's statement that the "risk to suppliers is more likely to be a downside one".¹³ A review should not be accelerated on the grounds of a starting assumption that a certain outcome will be produced.
18. Although the regime and the methodologies are expected to be relatively stable over time,¹⁴ there has always been the prospect that changes could be made to any aspects of the IMs as part of the seven-year reviews required by the Act. Some flexibility in the regime is necessary. However, while it is open to the Commission to make amendments to its IMs at other times, the prospect of significant and material changes being made through amendments outside of this seven-year review process is of great concern, especially when a key driver for accelerating the review appears to be an assumption about the outcome of the review.
19. In our view, this prospect will drive greater uncertainty for investors and suppliers in the present circumstances, rather than the Court's comments themselves. This is particularly concerning given the Commission's continuing emphasis on developing a robust, stable, and predictable regulatory regime.
20. For example, the Commission has an established process for amendments to and clarifications of its determinations under Part 4. This process indicates the Commission considers its power to make amendments to its determinations (particularly IM determinations) is generally in the nature of error correction. As noted by the Commission:¹⁵
- 4. An important feature of Part 4 of the Act (as amended), particularly for the input methodologies, is promoting certainty for suppliers and consumers. The Commission considers that amendments to the determinations should therefore be generally avoided, and where an amendment is required, be made as infrequently as possible.
 - 5. Prior to making these determinations, the Commission undertook a significant amount of consultation with interested parties, including by consulting on the wording of the determinations. However, the Commission recognises that these determinations are being applied for the first time and are complex. Amendments to the determinations, for example to correct errors, may be required.
 - 6. A regular annual amendment process, consolidating all amendments, should be sufficient. However, more frequent amendments may be necessary during the first year that the determinations are in effect.
- [...]
- 9. Amendments to the determinations are not likely to be made outside of these dates unless an amendment is urgently required.
21. As set out above, there is nothing in the Court's comments to suggest that the review of the WACC IM needs to be brought forward, or that an amendment is urgently required. Further, there is currently no evidence to suggest that the Commission has made an error that needs to be corrected by way of amendment. The Court expressly recognises that its comments were made in the absence of any supporting evidence, and that the outcome of any further empirical analysis that is undertaken may confirm the Commission's current approach.
22. The narrow scope for amendments to IM determinations can be contrasted to the Commission's view of the seven-year review, which it considers requires it to "approach each

¹³ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 34.

¹⁴ Given that a key purpose of the regime and of setting input methodologies is to give greater certainty, transparency and predictability to businesses: see eg Commerce Amendment Bill 2008 (201—1) (explanatory note) at pages 3 and 5.

¹⁵ Commerce Commission *Process for amendments and clarifications of Part 4 determinations*, 8 March 2011 at paragraphs 4-9.

issue with an open mind and to genuinely consult on all possible options".¹⁶ This is the proper process to consider the Court's comments, alongside the robust analysis recommended by the Court.

23. Seen in this context, the Commission now has an excellent opportunity to affirm its public commitment to a stable and predictable regulatory regime by not unduly accelerating consideration of the Court's comments.
24. When the judgment was released, the Chair of the Commission noted that the merits review proceedings had been a lengthy but extremely important process that signalled "a significant step forward in the maturity of New Zealand's regulatory regime".¹⁷ In addition, the Commission has reinforced on a number of occasions that it is important for New Zealand's regulated industries and the consumers of these services that "we can move to the point where there is certainty about the rules that govern prices, quality and information disclosure."¹⁸
25. That maturity and certainty is at risk of being undermined if substantial amendments to the IMs are consulted on and/or made outside the seven-year review process, in isolation from other elements of the IM, and in a short time frame that does not provide sufficient opportunity for the development and testing of a robust series of rules and methodologies. Consulting on the development and implementation of a loss function approach could represent a novel regulatory approach (both within New Zealand and internationally) — doing so outside the scheduled review process is unlikely to promote durability of the Part 4 regime.
26. Finally, we note that another reason put forward for accelerating the review is to avoid the prospect of "locking in" a WACC using the existing IM in relation to the next price resets for electricity lines companies. We anticipate that suppliers subject to DPP/CPP regulation will address that point in depth, so we simply note that we would be very concerned about any steps taken by the Commission for the purpose of circumventing the clear requirements of the Act — especially when those requirements are designed to provide stability and predictability.

Consideration of the 75th percentile cannot take place in isolation

The rationale behind the use of the 75th percentile is broader than an investment "uplift"

27. The Commission characterises the use of the 75th percentile as an "uplift" to promote investment,¹⁹ and states that its main reason for using a WACC estimate above the mid-point for setting price-quality paths was to "increase the likelihood that regulated suppliers have appropriate incentives to undertake efficient investment."²⁰ The Commission considers that the Court's comments create uncertainty that undermines the rationale for the use of the 75th percentile in the first place, and suggests that it should take action to reduce this uncertainty.
28. NZ Airports agrees that using the 75th percentile is an important component of promoting incentives to invest. However we understand that the rationale for selecting a particular WACC

¹⁶ Commerce Commission *Commerce Act Part 4 Funding Review: Commerce Commission Proposal*, September 2013 at paragraph 33.6.

¹⁷ Commerce Commission media release: *Commerce Commission welcomes judgment on merits of its input methodology determinations*, 12 December 2013.

¹⁸ Commerce Commission media release: *Commerce Commission input methodology processes upheld by High Court*, 23 December 2011. Comments have also been made in a number of other media releases about the importance of input methodologies to provide certainty: see eg *Commission welcomes Supreme Court ruling on input methodologies* (15 November 2012), *Final step in setting regulatory rules* (23 December 2010). We also note that key themes in the Commission's presentations to the Downstream Conference on 6 March 2014 included durability, certainty, predictability, and incremental improvement over time. Conversely, it was noted that radical change would undermine durability.

¹⁹ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 19.

²⁰ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 21.

percentile for regulatory use (such as the 75th percentile) is wider than the Commission's statements in its discussion paper would imply.

29. The starting point is that estimating WACC is inherently uncertain. Error is introduced into the estimate through the choice of model (model error), and the difficulties and uncertainties involved in estimating each parameter to input into that model (parameter error).
30. In light of these uncertainties, it is not possible to determine the "true" value of WACC, or of each of the parameters. At best, a regulator can aim to derive a plausible range for the WACC estimate, and to then select the most robust WACC estimate for a particular regulatory purpose in a way that minimises the overall expected losses to society of getting that estimate wrong.²¹
31. Questions of judgement are made throughout this process. In short, estimating WACC is more an art than a science: a complex task involving the significant exercise of judgement, open to the possibility of error and to a range of views on the best approach.²²
32. In line with these general observations, the Commission has previously expressed a range of views about the use of a percentile range, and of the rationale for the use of the 75th percentile in particular.
33. For example, in the IM Reasons Papers:
 - (a) The Commission noted the prospect of error given that it is not possible to know the true cost of capital.²³ It noted that it must make an allowance for the potential errors that are reasonable in the particular circumstances in which the cost of capital is to be used, while producing a range that is meaningful and of practical use in assessing profitability or determining price-quality paths.²⁴
 - (b) The Commission considered the best way to derive this plausible range, including considering analytical and simulation approaches. On balance, it considered that an analytical approach (using qualitative and quantitative assessments of standard error, making assumptions about correlation between parameters, and deriving an overall standard error for the cost of capital distribution) was preferable.²⁵
 - (c) The Commission considered that it was necessary to balance the risk between setting the cost of capital too high or too low, and that it was required to make an assessment as to the consequences of error.²⁶
 - (d) The Commission went on to note that its choice of the precise percentile estimate of the cost of capital that is used for each regulatory instrument is informed by a number of factors, including:²⁷
 - (i) the purpose of Part 4 (ie promoting the long-term benefit of consumers);

²¹ At the outset, this suggests that referring to the use of the 75th percentile as an "uplift" misstates the concept. This terminology carries an assumption that the 50th percentile estimate is automatically the "right" estimate to use for all purposes, and particularly for determining what is a "normal return". This does not recognise the uncertainty and imprecision involved in estimating WACC and determining what a normal return may be in any given circumstances. As the Commission is well aware, NZ Airports believes that the WACC IM, even using the 75th percentile, is likely to under-estimate the true WACC.

²² IM Judgment at paragraph 1491.

²³ Commerce Commission *Input methodologies (airport services) reasons paper*, 22 December 2010 ("**Airports IM Reasons Paper**") at paragraph E11.3.

²⁴ Airports IM Reasons Paper at paragraph E11.4-11.7.

²⁵ Airports IM Reasons Paper at paragraph E11.1-11.41

²⁶ Airports IM Reasons Paper at paragraph E11.52.

²⁷ Airports IM Reasons Paper at paragraph E11.53. See also Commerce Commission *Input methodologies (electricity distribution and gas pipeline services) reasons paper*, 22 December 2010 at paragraph H11.54.

- (ii) the fact that, in a workably competitive market, not all risks can be passed on to the consumer, and some will have to be managed by the firms themselves;
 - (iii) the risk that the true (but unobservable) cost of capital is above the estimated mid-point WACC;
 - (iv) the risk that CAPM and the simplified Brennan-Lally CAPM may underestimate the returns on low beta stocks;
 - (v) the risk that the use of a domestic CAPM (simplified Brennan-Lally) may lead to higher estimates of the cost of capital than the international CAPM and that international investors can be viewed as the key marginal investors;
 - (vi) the impact on potential subsequent investment by service users and the potential impacts on dynamic efficiency; and
 - (vii) the risk of error in estimating individual parameters of the simplified Brennan-Lally CAPM including beta and the TAMRP.
- (e) For price-quality path regulation, the Commission considered that it should adopt a cost of capital estimate that was above the mid-point as it considered the costs from the point of view of consumers associated with underestimation of the cost of capital in the Part 4 regulatory setting were likely to outweigh the short-term costs of overestimation.
34. In addition to these factors, more recent statements by the Commission indicate that it considers the 75th percentile estimate to be broader than investment incentives only. For example:
- (a) The Commission's recent decision on the Orion CPP application indicates that the Commission considers the 75th percentile is not just an error margin. In this decision, the Commission stated that the practical effect of using the 75th percentile WACC estimate is to provide a "buffer" for the risks and losses associated with catastrophic events.²⁸ This differs considerably to the Commission's approach at the time it set the IMs, where it considered that it was neither necessary nor appropriate to account for asymmetric risks in the WACC IM.²⁹ These comments suggest that the Commission now considers the 75th percentile is also intended to compensate for costs that its IM analysis assumed would be included as cashflow/expenditure (such as asymmetric risks, including of catastrophic events).
 - (b) As part of its analysis of the effectiveness of information disclosure regulation under section 56G of the Act for the three regulated airports, it was suggested by the Commission that the use of the 75th percentile was in part intended to cover variations between the systematic risk of individual airports. For example, in the context of a discussion of the appropriate asset beta for Christchurch Airport, Commissioner Duignan noted that:³⁰

²⁸ Commerce Commission *Setting the customised price-quality path for Orion New Zealand Limited: Final reasons paper*, [2013] NZCC 21 (29 November 2013) at paragraphs C25-29.

²⁹ Airports IM Reasons Paper at paragraph E12.13. The Commission's recent approach also differs from the Court's approach in the IM Judgment, which appears to assume there is no interaction between the 75th percentile estimate and the appropriate treatment of asymmetric risks: see, for example, IM Judgment at paragraphs 1717, 1734.

³⁰ Commerce Commission *Christchurch Airport section 56G conference transcript*, 24 May 2013 at page 60 (per Commissioner Duignan).

I just note, the Commission of course to the extent it allowed a 75 percentile, that matter, which on the other hand, you know, there's the question of when you apply it, but that is in some sense intended to cover variations, because clearly each airport will have subtle variations and that is why that sort of exercise is done.

[...]

I just note that the standard deviation that is actually embedded in our 75 percentile calculation is 0.11, in other words, which is equivalent to a beta of 0.71, but we don't just translate it, it's a more complex calculation.

- (c) These comments also suggest that the Commission's individual parameter estimates may have been influenced by the fact that it proposed to add an error margin at the final step of developing and/or applying the WACC IM.

35. As can be seen, the Commission's previous rationale for the use of a percentile estimate above the midpoint has encompassed both the reasons for establishing a WACC range, and the factors that guide the selection of a point from that range for a particular purpose. This rationale has included:

- (a) uncertainty about the unobservable, "true", WACC;³¹
- (b) the choice of model used in the WACC estimation;³²
- (c) the error between the (unknown) best approximation of a parameter estimate and the true value of that parameter;³³
- (d) general concepts of risk allocation between suppliers and consumers;³⁴
- (e) provision for asymmetric risks, including from catastrophic events;³⁵
- (f) variations between regulated suppliers within a particular sector (including variations in the systematic risk of those suppliers);³⁶ and
- (g) the social consequences of over and under-investment.³⁷

36. The "in principle" comments by the Court relate to the last of these factors only, and suggest that the Commission's assumptions in this respect should be better tested by evidence in the future.

37. NZ Airports would anticipate that the Commission would seek to consider each part of its previous rationale and method for both establishing the cost of capital range, and selecting a point from that range, when considering the Court's comments. This approach will be important to ensure that the interactions between the 75th percentile estimate and the balance of the WACC IM are fully explored and considered. This type of robust and thorough analysis

³¹ Airports IM Reasons Paper at paragraph E11.3

³² Airports IM Reasons Paper at paragraph E11.5

³³ Airports IM Reasons Paper at paragraph E11.5

³⁴ Airports IM Reasons Paper at paragraph E11.5.

³⁵ Commerce Commission *Setting the customised price-quality path for Orion New Zealand Limited: Final reasons paper*, [2013] NZCC 21 (29 November 2013) at paragraphs C25-29.

³⁶ Commerce Commission *Christchurch Airport section 56G conference transcript*, 24 May 2013 at page 60 (per Commissioner Duignan).

³⁷ See, for example, the Wellington Airport final section 56G report, where the Commission noted that the 75th percentile estimate "allows for the uncertainty of estimating the true cost of capital and in light of the direct consequences of estimation error on pricing and investment": Commerce Commission *Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport: Section 56G of the Commerce Act 1986*, 8 February 2013 at paragraph E31.

would be the best way to promote predictability and stability about the rationale for the Commission's approach moving forward.

38. It is clear that this task extends well beyond simply considering whether an "uplift" is required to promote investment.

The percentile estimate cannot be considered in isolation from the "two-tier" proposals

39. The Commission has acknowledged the possibility that, even if it ultimately decided on a percentile estimate below the 75th percentile, there may be justification for an estimate higher than the 75th percentile to apply for new investment (the "two-tier" proposal).³⁸

40. However, the Commission states that consideration of the two-tier proposal would need to be deferred until the comprehensive review of the IMs.³⁹ NZ Airports agrees. The two-tier proposal is a contentious area. As far as we are aware, no regulators have adopted this approach to date. For example, the recent study by the Queensland Competition Authority referred to in the Commission's discussion paper notes that it is not aware of any other regulator that has investigated the issue in as much detail, and concludes that it would be premature to adopt the concept until a large number of implementation issues had been investigated and were resolved.⁴⁰

41. In our view, the fact that the Commission cannot undertake a review of the two-tier approach ahead of the scheduled review of the WACC IM reinforces the uncertainty that will be created if the Commission reviews the 75th percentile estimate in isolation.

42. For example, assume the Commission decided to consult on the appropriate percentile estimate of WACC now, and reached a view that the 65th percentile was appropriate. The prospect of a further review of the WACC IM in two years time, with a consideration of the two-tier proposal, creates uncertainty that a higher percentile estimate (perhaps 80-90%⁴¹) may be introduced for new investment in the near future. This "up-side uncertainty" for investors may in fact cause a delay in investment in the interim, contrary to the Commission's desire to ensure the appropriate investment incentives are in place now.⁴²

The choice of percentile cannot be considered in isolation from other aspects of WACC

43. To maintain its current robust approach to setting the IMs, we would anticipate that the Commission will continue to have regard to the overall WACC IM in terms of its consistency, coherency, and commercial reality. In our view, to focus solely on the Court's comments in relation to the 75th percentile and to consider amendments to this aspect of the IM in isolation would make it difficult for the Commission to do so. It will also fail to achieve the Commission's objective of removing uncertainty. Some further comments made by the Court are relevant in this respect. For example:

- (a) As acknowledged by the Court, the possibility of model error arising from the Commission's choice of model (ie the simplified Brennan-Lally CAPM) was a consideration in the Commission's decision to adopt the 75th percentile estimate of

³⁸ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 28 and footnote 28.

³⁹ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 33.

⁴⁰ Queensland Competition Authority *The split cost of capital concept: Information paper*, February 2014 at page 1.

⁴¹ For example, at footnote 28 the Commission quotes Professor Dobbs' view that there may be a strong case for percentile values in the high 80s or 90s for new investment.

⁴² Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 33.

the WACC for price-quality regulation.⁴³ The Court notes elsewhere in its judgment that the Commission may give consideration to alternatives to that model in the future (given the acceptance of the leverage anomaly).⁴⁴ In its recent consultation paper for WACC under the UBA and UCLL Final Pricing Reviews, the Commission appears to discount that possibility,⁴⁵ and certainly has no plans to accelerate consideration of the issue. We understand that some interested parties have asked the Commission to accelerate consideration of the 75th percentile issue, but otherwise we see no principled basis for proposing different treatment of the various matters that the Court suggested should be reconsidered. A decision on the model to be used when setting the cost of capital, and the model error associated with that choice, would be highly relevant to determining the best estimate of WACC having regard to the uncertainty involved in the estimation process. As such, the most robust approach is for these issues to be considered together, when the Commission conducts its full review of the WACC IMs.

- (b) The Commission's reasonableness checks for the electricity and gas sector (the sectors to which the Court's comments relate) used a range of domestic and international WACC estimates to assess whether the WACC IM produced a commercially realistic estimate at the 75th percentile. The judgment indicates the Court took substantial comfort from these checks that the overall level of the WACC IM (at the 75th percentile) was reasonable,⁴⁶ and that this impacted its consideration of whether particular parameter adjustments proposed by appellants were materially better than the Commission's approaches.⁴⁷ This suggests that attempting to consider the appropriate percentile estimate in isolation from an assessment of the overall commercial reality of the WACC IM (including parameter estimates) presents additional concerns.
- (c) The Court acknowledged that the impact of an IM can be considered as the sum of the impact of its parts.⁴⁸ In this way, failing to consider "the whole" as well as "the parts" would risk creating a real danger that the overall WACC IM does not meet the Part 4 purpose or the purpose of IMs (separate to any claim that the particular approach to the WACC percentile is "materially better" under the Act).

- 44. Further, we note that under the loss function approach contemplated by the Court and discussed by the Commission in its paper, data is needed to estimate **both** the uncertainty of the WACC, and the ratio of asymmetric costs, to draw a conclusion about the appropriate percentile estimate in order to minimise expected losses.⁴⁹
- 45. The Commission has a current estimate of the uncertainty in its WACC IM through the standard error of its WACC estimate (based, in turn, on the standard errors of its WACC parameters). Little is known at this stage about how the Commission will approach its estimation of the WACC, including both the form of the CAPM and the parameter estimates, when it conducts the full review of its WACC IMs. Having said this, even if the Commission makes no changes to the use of the Brennan-Lally CAPM and/or its analytical approach, it would be anticipated that the various processes used to derive the parameter estimates (such as asset beta, debt premium, and TAMRP) and the standard error of those parameter estimates would be updated to reflect

⁴³ IM Judgment at paragraphs 1683-1684.

⁴⁴ IM Judgment at paragraph 1646.

⁴⁵ Commerce Commission *Determining the cost of capital for the UCLL and UBA price reviews: Technical consultation paper*, 7 March 2014 at paragraphs 41-43.

⁴⁶ IM Judgment at "outcome" (page 405).

⁴⁷ IM Judgment at "outcome" (page 405).

⁴⁸ IM Judgment at paragraph 169.

⁴⁹ See eg Ian Dobbs *Setting the regulatory allowed rate of return using simulation and loss functions - the case for standardising procedures*, Competition and Regulation in Network Industries, Vol 9, No 3, 2008 at page 243.

the information available at that time. This may change the overall standard error of the Commission's WACC IM.

46. Changes in the overall uncertainty or standard error of the WACC IM will influence the WACC distribution and the WACC margin arising from various loss ratios under a loss function analysis. This suggests that the appropriate time to consider any such loss function approach or analysis is at the time the Commission next consults on the balance of the WACC IM.

The nature of the asymmetric cost analysis will be extensive and complex

47. Assuming it were possible and desirable to carry out the necessary empirical analysis now, which we do not consider to be the case, significant work would be required to do so. This does not appear to be achievable given the Commission's proposed timetable for submissions. In particular, we note that:

- (a) There is no opportunity in the Commission's indicative timetable for parties to put forward meaningful evidence ahead of the draft determination. The Commission's invitation paper gave parties three weeks for submissions, and appeared to invite feedback on both:
 - (i) the preliminary question of whether the Commission should respond to the Court's comments; and
 - (ii) the substantive question of what evidence there may be in support of either the 75th percentile or credible alternatives.

Three weeks is barely sufficient time to scratch the surface of the theory and the developments in the literature over the past few years, let alone compile robust evidence and empirical analysis supported by sufficiently rigorous economic expert evidence. If the Commission does ultimately decide to consult on proposed amendments to take into account the Court's comments at this stage, despite our strong reservations with that approach, the Commission needs to allow sufficient time for robust economic analysis to be undertaken and put to the Commission before any draft determination is made.

- (b) Empirical analysis such as a loss function approach would require attempts to estimate the ratio of the loss involved in under-estimation of WACC to the loss involved in over-estimation of WACC. Doing so in the way contemplated by the Court (eg adding flesh to the concept of the loss function) appears to be a novel task for a regulator, in an environment where the regulator is likely to be at a considerable information disadvantage. This reinforces the need to consider the issue at a time and over a sufficient period to allow full consultation with all regulated entities across the full range of sectors, as well as interested parties.
- (c) As has previously been noted, "actually trying to measure the degree of asymmetry in this loss function is very difficult".⁵⁰ Further, it has previously been recognised that the loss function would vary considerably from industry to industry, as the social cost of shortcomings of investment would vary.⁵¹ As such, figuring out the "best" estimate of WACC for a particular regulatory purpose would necessitate different analysis (and likely different outcomes) for the different regulated sectors (given the different costs and benefits involved. This is unlikely to be a "one-size fits all" process that can be completed by the Commission on a cross-sectoral basis. This necessarily increases the

⁵⁰ Commerce Commission *Cost of capital workshop transcript*, 13 November 2009 at page 214 (Jeff Balchin).

⁵¹ Commerce Commission *Cost of capital workshop transcript*, 13 November 2009 at page 223-224 (Professor Bowman). See also IM Judgment at paragraph 1467.

time that any consideration of the Court's comments will take, and suggests that these comments are best given effect to when other sector-specific information is before the Commission as part of its seven-year review of the IMs.

- (d) Airports are significantly different businesses to network utilities. The factors that are important to passengers vary widely, and are not confined to questions of service reliability and price (as might be the case in the network sectors). Availability of flights, destination choice, convenience, processing speed and the nature of the airport environment are all key value drivers for passengers. The consequences of over or under-estimating the WACC estimate on these key passenger outcomes will be an important part of considering how best to minimise the overall expected losses of getting the WACC estimate wrong. Further, the nature of the relationship between airports and airlines as immediate consumers will be relevant to the analysis. As we have noted previously, this is, in general, a high quality relationship given airports and airlines are partners in the growth and success of the aviation industry and work together in a number of key areas to achieve mutually beneficial outcomes. This adds another layer of complexity to any empirical analysis. Fully considering such factors is likely to be a complex and lengthy process.
- (e) The Commission should be very cautious of any assumption that it can conduct a cost/benefit analysis of the regulated market only, and that it is not required to look further afield to identify the flow-on consequences and societal costs of over and underinvestment in regulated infrastructure. This is particularly the case in the airport sector, where investment has a considerable flow-on effect for the productivity of the travel, tourism and trade sectors. The cost of under-investing in airport infrastructure will require extensive examination, including assessing the societal cost of "low probability, significant loss" events (including safety failures and security breaches).
- (f) It is naturally tempting for parties to see the debate before the Commission as a choice between the use of the 50th percentile estimate, and the use of the 75th percentile estimate. At this early stage, this simplification should be resisted. Theoretically, the "best" estimate to minimise the overall expected losses to society could fall anywhere on the WACC distribution. The possibility of a point estimate higher than the 75th percentile should be equally valid.

48. Finally, we note that choosing an estimate above the 50th percentile is accepted good regulatory practice in New Zealand and overseas.⁵² In this context, we note that:

- (a) The Court readily formed the view that the Commission's approach is unusual compared to overseas practice,⁵³ which is surprising given that this view was not (given the frozen record constraints that applied to the appeal) underpinned by a thorough review of overseas practice.
- (b) The Commission proceeded on the assumption that the 75th percentile estimate was appropriate throughout its IM decisions. Although we have not reviewed the record in its entirety at this stage, we expect that the absence of evidence regarding the 75th percentile was due to suppliers relying on the fact that it was established practice in New Zealand, and there was no reason to depart from it. NZ Airports' understands that it is common for regulators in Australia to proceed on the belief that they are selecting a point above the mid-point estimate for similar reasons to those advanced

⁵² See, for example UK CAA *Estimating the cost of capital: a technical appendix for the economic regulation of Heathrow and Gatwick from April 2014: Notices of the proposed licences*, CAP 1140, January 2014 at section 7. See also Australian Productivity Commission *Economic Regulation of Airport Services*, 14 December 2011 (Inquiry Report no. 57), page 126-127.

⁵³ IM Judgment at paragraph 1477.

by the Commission, and that this has also been the practice of other UK regulators. However, establishing and testing the practice of overseas regulators will require considerable time. As the Commission notes, the appropriate time to review the developments in regulatory theory and practice, and to canvass aspects that were not given much attention during the IM consultation, is at the next scheduled review of the IMs.⁵⁴

49. Taking these factors into account, we are surprised at how readily the Commission appears to be willing to reconsider the current position. We would therefore encourage the Commission to think more critically about whether the "tentative in principle" arguments put forward by the Court are in fact correct (in the same way it appears willing to engage with and dismiss the Court's comments on the use of the Brennan-Lally CAPM, for example).

Conclusion

50. In conclusion, NZ Airports' strong view is that the Commission should decide not to take any action in response to the Court's comments ahead of its seven-year review of the IMs. In our view:

- (a) The nature of the Court's comments do not create uncertainty in and of themselves. It is the prospect of material changes to the IMs outside the seven-year review that creates uncertainty. The Commission has an excellent opportunity to demonstrate that it is committed to a stable and predictable regime by noting that it is aware of the Court's comments, and will consider these alongside the recommended empirical analysis and robust evidence recommended by the Court in its next scheduled review of the IMs. We encourage the Commission to take that opportunity.
- (b) The use of the 75th percentile estimate cannot be reviewed in isolation, without also re-opening the whole of the WACC IM (including the current parameter estimates as well as the Commission's decision to make no allowance for factors such as model error and asymmetric risks). This is because the rationale for the use of that percentile estimate in the past is intrinsically linked to the whole of the WACC IM. In particular, recent statements by the Commission indicate that:
 - (i) the Commission considers the 75th percentile is also intended to compensate for costs that its IM analysis assumed would be included as cashflow/expenditure (such as asymmetric risks, including catastrophic events);⁵⁵
 - (ii) the use of the 75th percentile estimate is, in part, intended to cover variations between the systematic risk of different regulated suppliers within the same sector;⁵⁶ and
 - (iii) as a result, it now appears that the Commission's individual parameter estimates (as well as its decisions not to account for certain factors in its WACC IM) may have been influenced by the fact that it proposed to add an error margin at the final step of developing and/or applying the WACC IM.
- (c) The 75th percentile estimate of WACC was a key part of the reasonableness checks undertaken by the Commission to assess the commercial reality of its WACC IM for

⁵⁴ Commerce Commission *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies*, 20 February 2014 at paragraph 28.

⁵⁵ Commerce Commission *Setting the customised price-quality path for Orion New Zealand Limited: Final reasons paper*, [2013] NZCC 21 (29 November 2013) at paragraphs C25-29.

⁵⁶ Commerce Commission *Christchurch Airport section 56G conference transcript*, 24 May 2013 at page 60 (per Commissioner Duignan).

the electricity and gas sectors. Both the Commission and the Court placed importance on these checks as providing an indication of the reasonableness of the overall WACC IM at the 75th percentile, which influenced the Court's approach to considering the parameter adjustments proposed by the appellants.

- (d) Similarly, giving consideration to the appropriate percentile estimate to minimise the expected losses to society cannot be divorced from a detailed consideration of the uncertainty in the WACC, which is best suited to take place at the scheduled seven-year review (when the uncertainty in the WACC through model and parameter error will be reviewed by the Commission).
- (e) The process undertaken by the Commission to evaluate the degree of any asymmetry of costs is likely to be an extensive and novel process, requiring economic expert evidence to compile and analyse a range of information about the likely consequences and expected social losses in each particular regulated sector. The type of analysis proposed by the Court would be very complex, and would require substantial time to assess whether it is in fact possible to carry out this task and, if so, how it should best be undertaken. It is difficult to conceive of how this information can be gathered and analysed with sufficient robustness in the indicative timeframes proposed by the Commission, particularly given the limited opportunities for interested parties to put forward information and analysis. Further, the likely sector-specific nature of the issues suggests that this process is best considered when other sector-specific information is before the Commission as part of its scheduled IM review.