PART 4 INPUT METHODOLOGIES REVIEW 2023

SUBMISSION ON DRAFT DECISION

19 July 2023

INTRODUCTION

1.   This is a submission by the NZ Airports Association ("**NZ Airports**") on the Commerce Commission's ("**Commission**") Draft Decision on the IM Review 2023 ("**Draft Decision**").

2.   Auckland, Wellington and Christchurch Airports are parties to this submission.

3.   The submission focusses on the method used to estimate asset beta ("**asset beta IM**"), as that is the proposal in the Draft Decision that has the most material impact on NZ Airports.

4.   This submission is accompanied by the following independent export reports:

   (a)   "Critique of 2023 IM Draft Decision on Asset Beta for NZ Airports" (July 2023) prepared by Dr Tom Hird of Competition Economists Group ("**CEG**") - NZ Airports requested Dr Tom Hird to provide independent expert advice on the Draft Decision ("**CEG Report**").

   (b)   "Auckland Airport's estimate of beta - prepared for Auckland Airport" (May 2018) by John Earwaker and Dr Harry Bush CB ("**Bush & Earwaker Report 2018**").

   (c)   "Evidence relating to the assessment of the WACC percentile for airports – prepared for the New Zealand Airports Association" (August 2015) by John Earwaker and Dr Harry Bush CB ("**Bush & Earwaker Report 2015**").

5.   There is no confidential information in this submission, and it can be published in full on the Commission's website.

6.   NZ Airport's contact for this submission is:

   Billie Moore
   Chief Executive
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EXECUTIVE SUMMARY

Asset beta

7.   The Draft Decision produces an asset beta estimate for New Zealand airports that is lower than the asset beta calculated in 2016 ("**proposed asset beta IM**"). This contradicts the stark new information about pandemic risk faced by airports, where all reasonable expectations are that asset betas for airports around the world should be higher.

8.   The CEG Report advises that method historically used by the Commission to estimate asset beta ("**existing asset beta IM**") remains the best method to calculate asset beta, which produces an estimate of 0.81.[1] CEPA's calculation using the existing asset beta IM was 0.79.[2] NZ Airports agrees those values are a far more accurate and reasonable estimate of the systematic risk of New Zealand airports in light of pandemic risk. They will produce an estimate of WACC consistent with the principle that airports should expect to earn a

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[1] CEG Report, at paragraph 9.
[2] Cambridge Economic Policy Associates Pty Ltd (CEPA) *Review of Cost of Capital 2022/2023* (29 November 2022) at page 11 [**CEPA Report**]; Commerce Commission *Cost of capital topic paper – Part 4 Input Methodologies Review 2023 - Draft Decision* (14 June 2023) at paragraph 4.48 [**Draft Decision Cost of Capital Paper 2023**].

reasonable return on their investments. Conversely, the Draft Decision will lead to airports being under-compensated for the risks they bear and not earning a fair return on investment.

9.   NZ Airports therefore submits that the existing asset beta IM should be retained, with the exception of the now discredited downward adjustment that was based on an assumption that aeronautical businesses of airports had lower systematic risk than the business as a whole. The benefits of the existing asset beta IM include:

   (a)   It allows for updated data to be included each time an estimate is calculated to produce the most accurate and stable estimate of asset beta for airports in New Zealand (assessed by reference to Auckland Airport's measured asset beta over a long period of time), using a consistent and objective method that is well understood and has been insisted on by the Commerce Commission and accepted by all other interested parties since 2010. It was endorsed by the High Court in 2013.[3]

   (b)   Shock events like pandemics will receive a correct and unbiased weighting in the long run without the need for complex and subjective ad hoc adjustments.

10.   The Draft Decision's proposals to change the asset beta IM appear to be driven by a concern that it will produce a substantially higher estimate of asset beta (and therefore WACC) compared to past IM Reviews. NZ Airports submits that this should not be a cause for radically changing the methodology. Rather, it is a case of a tried and tested method continuing to produce a current estimate of asset beta that accurately reflects the increased systematic risk of airports and produces an objectively fair rate of return for investors that is predictable over the long term when critical aeronautical infrastructure investment decisions are being made.

11.   In contrast, the proposed asset beta IM, with an estimate of 0.55, is materially worse at meeting the purpose of Part 4 and/or the purpose of IMs because:

   (a)   It is an unexpected approach that radically departs from the last 13-plus years of precedent. It requires the exercise of extensive subjective judgement making it impossible for regulated airports, their lenders and their shareholders to predict what will happen at the next IM Review scheduled for 2030. It is therefore not possible to predict the returns that the Commission will find acceptable over the long term from the many billions of dollars of critical multi-generational aeronautical infrastructure investment that regulated New Zealand airports are currently planning;

   (b)   It produces a lower estimate of asset beta compared to the asset beta calculated under the existing asset beta IM in 2016, which is the opposite of the demonstrably increased systematic risk of investing in airports;

   (c)   It is materially less accurate and more volatile compared to the existing asset beta IM.[4] For example, if the proposed sample had been used in 2016, it would have produced an asset beta of 0.50 (after the downward adjustment), which would have been lower than Heathrow Airport which has demonstrably and materially lower systematic risk than regulated New Zealand airports. The Draft Decision assigns a pre-Covid asset beta to New Zealand airports of 0.53, which compares to the UK CAA's estimate of 0.50 for Heathrow. It is not plausible for New Zealand

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[3] *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289, 11 December 2013 at [1568] [**Merits Review 2013**].
[4] CEG Report, at paragraph 32.

airports to have a pre-Covid-19 asset beta below or only marginally above Heathrow Airport.

(d)   There is no evidence to support the Draft Decision's proposed asset beta IM, and such evidence is particularly important given:

   (i)   the material impact of the proposed changes and the likelihood that airports will be under-compensated as a result;

   (ii)   the Commission's clearly established precedent that New Zealand airports cannot be distinguished from the large comparator sample set under the existing asset beta IM; and

   (iii)   The High Court's endorsement of the existing asset beta IM in 2013.[5]

(e)   There is strong empirical evidence to show the following:[6]

   (i)   The proposed asset beta IM uses a very poor comparator sample for New Zealand airports that includes the least comparable airports - other than Auckland Airport, only Zurich is a somewhat close comparator. It is heavily biased towards the largest and lowest systematic risk airports in the world and will produce a considerably less accurate and more volatile estimate. Compared to the large sample under the existing asset beta IM (which reduces the noise from a single company estimate), it provides no benefits over using Auckland Airport itself as the best estimate.

   (ii)   The Draft Decision's approach to Covid-19 adjustments is unreliable – even if it properly applied the UK precedent (which it does not). The complexity of applying adjustments consistently going forward would be unworkable – for example, the Commission should also be considering adjustments for the GFC and Eurozone debt crisis (in addition to other shock events that may arise in the future).

(f)   The Draft Decision will significantly increase regulatory uncertainty. As summarised in the CEG Report:[7]

   ... the NZCC has embarked in a series of *ad hoc* changes to the IM methodology that fundamentally undermines the predictability of the regulatory regime.

(g)   There is a risk that consumers will be worse off in the long run if investment in airport capacity, resilience and quality of service is reduced owing to the unjustifiably low yet unpredictable returns that the Commission will find acceptable over the long term. As noted in the CEG Report, incumbent airlines benefit from a lower WACC because they pay lower aeronautical prices and there is a greater likelihood of airports investing less over time to meet growth in demand, which materially diminishes airline competition and allows airlines to increase air fares.[8] Conversely, customers pay the higher airline fares and suffer from a loss of amenity in the form of poorer terminal facilities and connections, and more flight delays.[9]

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[5] Merits Review 2013 at [1568].
[6] CEG Report, at paragraph 11.
[7] CEG Report, at paragraph 91.
[8] CEG Report, at paragraph 109.
[9] CEG Report, at paragraph 110.

12. NZ Airports also submits that there are material errors in consistency and mathematical logic in the Draft Decision's proposals, and approaches are adopted that are not explained. Without prejudice to NZ Airport's position that the existing asset beta IM should be retained, NZ Airports submits that these errors should be corrected in the following manner:

   (a) On a consistent application of the selection criteria, Vienna, Frankfurt, ADP and Beijing must be excluded and JAT included.[10]

   (b) Give greater weight to Auckland Airport's asset beta, as advised by Bela. If no changes were made to the comparator sample, this would give a weighted average asset beta of 0.78 (without any Covid-19 adjustments).[11]

   (c) Address errors in the calculation of the "long run" pre-Covid asset beta, resulting in an estimate for the Draft Decision sample set of 0.58 (and not 0.53).[12]

   (d) More accurately apply the UK CAA approach to adjusting for COVID-19, resulting in a permanent increase on top of the long run pre-COVID-19 asset beta of the Draft Decision sample set of around 0.09, based on an 18-month duration and a one-in-20-year frequency.[13]

13. If the Draft Decision's approach was applied consistently and accurately, the CEG Report calculates an asset beta of 0.77 to 0.81 on the following basis:[14]

   (a) Update the Draft Decision sample set to exclude Vienna, AdP, Fraport and Beijing, and include JAT.

   (b) For this updated sample set, use two five-year periods ending 31 March 2023, but exclude the 18-month Covid-19 period starting 21 February 2020 (0.75).

   (c) Apply a Covid-19 uplift for 50- and 20-year frequency (0.03 to 0.07).

14. NZ Airports submits that while an estimate in the range of 0.77 to 0.81 is materially more accurate than the Draft Decision, using these (corrected) methods is still materially worse than using the existing asset beta IM due to the uncertainty of how it will be applied in the future and the likely volatility of estimates.

Cost allocation and asset valuation

15. NZ Airports has no comments on the Draft Decision's proposals regarding the cost allocation and asset valuation IMs.

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[10] CEG Report, at paragraph 285 and section 6.3.
[11] CEG Report, at paragraphs 28, 150 and 190, and section 4.4.
[12] CEG Report, at section 2.4
[13] CEG Report, at paragraph 95.
[14] CEG Report, at table 2-7.

ASSET BETA

Overview

16.   Asset beta is a material parameter for the cost of capital IM, and any variation can have a significant impact on allowed returns. Given the criticality of asset beta combined with the fact that the true asset beta is unobservable, it is important for a regulator to provide regulatory certainty and confidence by consistently using a robust estimation methodology.

17.   The existing asset beta IM since 2010 has been accepted by all interested parties as robust. In 2010 there was some limited debate around the edges of the comparator set, but there was consensus on its composition when it was updated in 2016. The High Court also held in 2013 that the existing asset beta IM, including the composition of the comparator sample, was consistent with the Part 4 purpose statement.[15]

18.   The estimate produced by the existing asset beta IM has been 0.6 (or 0.65 without downward adjustment) since 2010. However, it has always been understood that under the existing asset beta IM the relevant data should be updated each time an asset beta estimate is required, meaning that the estimate would likely change over time as new evidence about systematic risk was included in the estimation method.

19.   It is also the case that the existing asset beta IM produces an industry-wide estimate, and the Commission accepts that conceptually asset beta is an airport-specific parameter. Accordingly, justifying an appropriate airport asset beta has been a common topic for airport pricing decisions and reviews since 2010. While there have been debates and points of disagreement between the Commission, airports and airlines over this time, a clear and comprehensive common understanding of how the existing asset beta IM should be applied has been developed. Airports also have a clear understanding of the Commission's expectations for an airport to justify departures from the estimate produced by the asset beta IM. In summary, more than a decade's worth of experience has established a tried and tested asset beta IM – the debates have mostly been around whether the industry-wide estimate it produces is the best estimate for each individual airport.

20.   We also note that the asset beta IM has implications beyond the three regulated airports. Like all of the Commission's IMs, they are a benchmark and can inform pricing consultations for all airports in New Zealand – from Auckland Airport through to small regional airports. Together with this submission, we are providing letters from some regional airports, which state the extent of their concern about the Draft Decision because it will adversely impact their pricing and investment. As small airports with (in many cases) a monopoly airline customer, they are worried about the prospect of being pressured to use an asset beta that is benchmarked against the largest international hub operators in the world.

21.   Outside New Zealand, as demonstrated by the Perth Airport case discussed below, the existing asset beta IM also materially influences Australian airport pricing negotiations.

22.   The proposed changes to existing asset beta IM materially depart from this established precedent. If implemented, it will amount to a material regulatory shock and unwind all of the progress and regulatory certainty that has developed over the last decade. As explained in the CEG Report, the material change in methodology leaves many unanswered questions regarding how asset beta will be estimated in future IM reviews. It is not an exaggeration to say that the industry's understanding of how asset beta should be estimated will be back to square one.

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[15] Merits Review 2013.

23. NZ Airports is concerned that at a time when the aviation industry is embarking on its recovery from perhaps the largest crisis it has ever faced, airports are being told that they should expect to earn less than would have been allowed by IMs established before there was an informed realisation of the types of systematic risk the sector faces from demand shocks.

24. As discussed below, Auckland, Wellington and Christchurch Airports calculate that if they used a WACC with an asset beta of 0.55 as proposed in the Draft Decision instead of the 0.81 asset beta advised by CEG, then this would amount to an immediate reduction in aeronautical charges of around $1.80 to $2.60 per passenger.

25. This contrasts to the significant increases in airfares paid by travellers post-pandemic. Using pre-Covid (2018-2019) and post-Covid (2022-2023) data from AirportsIS (IATA) and CPI data from StatsNZ, NZ Airports has calculated that domestic airfares increased by an average of $65 (or 33%) while international airfares increased by an average $255 (or 36%) (in real terms).

26. Even if airlines were to pass on the per passenger savings to passengers (there is no reason to believe that they would), the impact would be minimal compared to the increases in airfares that can occur if airports do not invest on time to meet demand growth. This has recently been demonstrated when airlines' capacity lagged behind demand following the pandemic period.

27. If critical airport infrastructure investment is restricted in the future owing to the unjustifiably low yet unpredictable long-term returns implied by the Draft Decision's radically changed cost of capital IM for airports, then it risks similar airfare increases for consumers that far exceed any variance in aeronautical charges. This would only the benefit incumbent airlines who over time will continue to increase airfares so that demand falls to match available capacity.

28. At a time when steady and predictable regulation is more important than ever to support recovery and resilience, airports are instead facing new and unanticipated regulatory challenges. NZ Airports has noted the time and resource that has been dedicated to understanding the investment challenges facing the energy sector over the medium to long term. In truth, airports can have little sympathy for energy businesses – they had the privilege of continuing to operate during the pandemic and have plenty of time to plan for disruption on the horizon.

29. A useful contrast to this is the experience of New Plymouth Airport which had its new terminal due to open during the first pandemic lockdown – and instead of celebrating with the community was required to negotiate a debt for equity swap given the lack of revenue to repay the debt. This is a scenario that any airport could face and that the Draft Decision would not properly account for.

30. While it is true that the energy sector provides essential infrastructure, so does the connectivity provided by airports. The value of high-quality international connectivity is particularly prominent as New Zealand seeks to rebound from our enforced isolation. The value of regional connectivity – especially through airports that are lifeline utilities – should not be forgotten.

31. Further, airports are not asking for regulatory concessions to help them recover from the pandemic or to address future investment challenges (as set out in Wellington Airport's response to the Commission's Open letter, airports face significant challenges presented by

climate change and electrification).[16] Instead, airports are asking for certainty by maintaining the regulatory status quo. NZ Airports submits that this is the best way to provide airports with confidence to invest in critical infrastructure for the long-term benefit of consumers.

32.   Nevertheless, to achieve an outcome of an unchanged equity beta of 0.74 for airports today, despite a significant lift in observed systematic risk for airports globally, the Draft Decision proposes to materially change the asset beta (and leverage) estimation methodology. The draft decision is that the asset beta estimate is now 0.55 (or 0.5 if the downward adjustment had been retained). CEPA calculated the asset beta to be 0.79 (or 0.74 with adjustment) if the existing 2016 IM had been used.[17]

33.   NZ Airports cannot identify any reason why the asset beta estimate for airports is lower following the Covid-19 pandemic, and not higher. The asset beta estimate remains the same for the energy sector, which, compared to airports, incorporates a materially higher uplift for pandemic risk. NZ Airports cannot understand the Draft Decision's inconsistent position across the sectors, because it says that following Covid-19:

(a)   airports are less exposed to systematic risk compared to the rest of the economy;

(b)   the energy sector has greater systematic risk exposure to pandemics than airports, despite the fact that energy consumption hardly changed during the pandemic and airports are clearly more exposed to catastrophic demand shock.

34.   Such outcomes are due to there being little or no evidential justification for the proposed changes to the existing asset beta IM. The small amount of reasoning and evidence provided in the Draft Decision does not justify the radical changes proposed. Instead, there is good reason to believe that the proposed asset beta IM will produce an unreliable, inaccurate and volatile asset beta estimate. It is also impossible to predict how the Commission will roll forward this new approach to excluding data and adjusting the remaining data during future IM reviews.

35.   It appears inevitable that Draft Decision's proposed asset beta IM will result in extensive and contentious debate about the proper composition of the sample set at each IM review, since it is open to the exercise of a great deal of subjective discretion. If the objective is to deliver a relatively consistent estimate of asset beta over time (we do not accept that is a valid objective), then ongoing material changes to the methodology will likely be required. Confidence in the regulatory process will be undermined, and regulatory uncertainty greatly increased.

36.   It is illogical and circular to abandon an established methodology because it no longer produces a result considered to be acceptable, but to adopt a new methodology to produce an estimate of equity beta that is the same as estimates produced by the methodology being disregarded. We do not see any basis to believe that the proposed new method and estimate is more robust and/or better promotes the purpose of Part 4.

37.   NZ Airports believes that the Draft Decision will undermine incentives to invest in essential infrastructure – any shift of investment incentives following a regulatory shock of this nature can only be negative. A sobering real-world example is Auckland Airport's experience over the week following the release of the Draft Decision. Auckland Airport advises that:

(a)   investor queries spiked, with the CFO fielding around 20 investor calls;

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[16] Letter from Martin Harrington (Wellington Airport) to Andy Burgess (Head of Energy, Airports, and Dairy Regulation, Commerce Commission New Zealand) regarding the Commerce Commission's open letter to stakeholders (31 May 2021).
[17] CEPA Report at page 11; Draft Decision Cost of Capital Paper 2023 at paragraph 4.48.

(b)   all of the investors that contacted Auckland Airport called urged Auckland Airport to reduce, and in some cases to entirely stop, aeronautical capital investment if the Draft Decision is retained; and

(c)   those investors unanimously lamented that the regulatory certainty they have enjoyed since 2010 is a thing of the past.

38.   Wellington Airport also advises that that uncertainty created by the Draft Decision comes at a particularly difficult time as it was due to commence pricing consultations. It has now paused its initial pricing consultation with airlines as it reflects on the material uncertainty that the draft decision, if implemented, presents for its investment plans. Wellington Airport's separate submission explains that the unexpected, proposed material reduction in the WACC that the Commission considers to be acceptable will have a negative impact on its shareholders' willingness to invest.

The existing asset beta IM is materially better than the Draft Decision IM

History of the asset beta IM

39.   Despite its significance to the WACC IM and for the assessment of airport performance, the existing asset beta IM has been subject to relatively little debate over the years – particularly for the selection of the comparator sample.

40.   As the Commission explained to High Court[18] and confirmed in the 2016 IM Review,[19] the comparator sample includes:

(a)   New Zealand firms from the service in question;

(b)   New Zealand firms from industries with a similar risk profile;

(c)   Overseas firms from the service in question; and

(d)   Overseas firms from industries with a similar risk profile.

41.   The practical implementation of this step has seen the Commission and interested parties identify as many listed airports as possible, and then exclude those with a market capitalisation that is too small and/or who do not truly provide airport services. As set out in the chronology in **Appendix A** and the tracking of the comparator sample over time in **Appendix B**, up until the Draft Decision that has resulted in a relatively stable comparator set since the IM Final Reasons Paper in 2010. In particular:

(a)   The original draft asset beta IM used a comparator set of 10 airports with "very similar exposure to market risk" from France, Thailand, New Zealand, Germany, Austria, Switzerland, Mexico and Australia.[20]

(b)   The 2010 expert reports of SFG and Europe Economics, commissioned by Air New Zealand, argued for an expansion of the sample.[21] Among other reasons, Europe Economics was concerned about "the large number of large airport groups chosen"

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[18] Commission's submissions to Merits Review 2013, Cost of Capital, at paragraph 519.
[19] Commerce Commission *Input Methodologies review draft decisions – Topic paper 4: Cost of capital issues* (16 June 2016) at paragraph 671 and 672.
[20] Commerce Commission *Input Methodologies Airport Services – Draft Reasons Paper* (31 May 2010) at paragraphs
[21] Strategic Finance Group (SFG) *Airport beta estimates: Report prepared for Air New Zealand* (11 July 2010) [**SFG Report**]; and Europe Economics *Report for Air New Zealand by Europe Economics: Critique of Commerce Commission's asset beta analysis* (9 July 2010) [**Europe Economics Report**].

(which is also feature of the sample in the Draft Decision).[22] SFG and Europe Economics argued that Copenhagen, Shanghai and Xaimen airports should be included (all airports which are excluded under the Draft Decision).

(c) The SFG report included a list of comparators that Air New Zealand classified as being most closely comparable to New Zealand airports.[23]   Many of those airports are now excluded under the Draft Decision. Air New Zealand's list included:

  (i) Italian airports (Firenze and Venezia)

  (ii) Japan (Airport Facilities Co Ltd)

  (iii) Chinese airports (Beijing, Guangzhou, Shanghai, Shenzhen, Xiamen)

  (iv) Copenhagen

  (v) Mexican airports

  (vi) Malta; and

  (vii) Istanbul.

(d) Following submissions, the comparator sample in the Commission's final 2010 IM decision was increased to 24 airports. Additional countries represented were Slovenia, Italy, Japan, China, Denmark and Malta.

(e) The High Court in 2013 did not agree with submissions (including from Wellington and Christchurch airports) that the comparator sample should be different to these 24 airports.[24]

(f) Updating the comparator sample in 2016 by applying the same method used in 2010, to produce a sample set of 26, was uncontroversial.[25]   New represented countries were Serbia, Malaysia, India and Turkey.[26]

42. It is therefore clear that:

(a) Historically (and particularly since the High Court decision of 2013), the Commission and interested parties have been very comfortable with a diverse range of countries and airport operators being included in the sample set. That approach was endorsed by the High Court as being the materially better approach.[27]

(b) In order to achieve a lower asset beta estimate, airlines have now reversed their historic position of advocating for a large sample set. It is reasonable to expect that they will reverse their position again and advocate for an expansion from a shrunk sample in the future if that would reduce the asset beta. This feeds into NZ Airports' concerns, as discussed below, that the Draft Decision will open the door to ongoing dispute about how subjective criteria should be applied to compile a

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[22] Europe Economics Report, at paragraph 3.35.
[23] SFG Report, at paragraph 15 and pages 5–6; and see Appendix B for a list of SFG's sample firms and their Air New Zealand classifications.
[24] Merits Review 2013, at [1568].
[25] Commerce Commission *Input Methodologies review decisions – Topic paper 4: Cost of capital issues* (20 December 2016) at paragraph 466.
[26] See Appendix B.
[27] Merits Review 2013, at [1568].

comparator sample – which is exactly the type of argument that the Commission has historically sought to avoid (as also discussed below).

43. In both 2010 and 2016 the Commission used the most recent 10-year period to calculate the asset beta estimate.[28] In 2010 there was some debate around whether the impact of GFC should require adjustments to the estimate (none were made),[29] but in 2016 there was no consideration (by the Commission or interested parties) of whether adjustments were required.

44. We also highlight the following points about the asset beta decision in 2010, to demonstrate the extent to which the Draft Decision appears to disregard previous reasonableness checks conducted by the Commission:

   (a) The 2010 the Final Reasons Paper stated that it was reasonable for the asset beta estimate of 0.60 (or 0.65 without the now discredited downward adjustment) to be above the UK CAA's then estimate for Heathrow Airport of 0.47.[30] NZ Airports submits that the margin between Heathrow Airport and New Zealand airports should now be closer to 0.3 (ie not the approximate margin of 0.2 in 2010);

   (b) The UK CAA considered Heathrow Airport to have low systematic risk even compared to other London airports. There was evidence showing passengers numbers were less affected by 9/11, it had excess demand, and its client airlines were relatively low risk. The UK CAA therefore determined an asset beta of 0.52 for Gatwick and separately Stansted's asset beta was determined to be 0.61 (both of these estimates were recorded in the 2010 Final Reasons Paper).[31] NZ Airports believes that it was reasonable for Stansted to have similar asset beta to New Zealand airports at that time (and expect that Stansted's asset beta would also be higher now);

   (c) If the same margin between Heathrow Airport and New Zealand airports was applied in the Draft Decision (with the 5 basis points downwards adjustment removed), the asset beta for New Zealand airports would be 0.71 (based on an asset beta of 0.53 for Heathrow Airport which, as discussed in the CEG Report, is reduced from the UK CAA's true estimate of 0.615 given the TRS mechanism which shifted most demand risk to airlines).[32] It would be more accurate to use Heathrow Airport's pre-TRS asset beta resulting in an estimate for New Zealand airports of 0.795.

   (d) Based on the approach to reasonableness checks in the past, it is unreasonable for the Draft Decision to now consider that New Zealand airports' systematic risk has materially reduced since 2010 while the UK CAA believes that Heathrow Airport's has increased (even with a very generous regulatory demand risk protection), such that New Zealand airports asset beta should now only be marginally higher than Heathrow Airport or, more importantly, well below Heathrow Airport's pre-TRS asset beta of 0.615.

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[28] Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010), at paragraph E8.48; Commerce Commission *Input Methodologies review decisions – Topic paper 4: Cost of capital issues* (20 December 2016) at paragraph 473.
[29] Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010), at paragraphs E8.49 and E8.30–E8.34.
[30] Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010), at paragraph 6.5.23.
[31] UK Competition Commission *A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd, Appendix F – Cost of Capital* (28 September 2007) at paragraphs 115–117; UK Competition Commission *Review of Stanstead Airport Q5 price control – Appendix L* (October 2008) at L24; and Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010) at paragraphs E8.65–E8.67.
[32] CEG Report, at paragraphs 399 and 400.

Benefits of the existing asset beta IM

Large comparator sample

45.   In the context of rejecting submissions advocating for a smaller comparator set for the energy sector, in the 2016 IM Review the Commission explained the following benefits of using a large comparator sample:[33]

> We have continued using the large energy comparator sample (of approximately 70 companies) as our primary approach to determining asset beta. This is as opposed to making significant refinements to the comparator sample (as suggested by TDB, for Contact) or using separate electricity and gas samples (as suggested by Oxera, for First Gas).
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> **We consider that using the large energy sample has several benefits over the alternative approaches suggested in submissions**. For example, this approach:
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> **limits the need to make subjective judgement calls** regarding whether each of the 74 companies from the draft comparator sample should be included, as required under TDB's approach to refining the comparator sample. In particular, we consider **there is a lack of clarity regarding the thresholds, evidence, and judgement calls** TDB made when excluding companies from the sample;
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> ensures that integrated electricity and gas businesses remain in the sample. In contrast, using separate electricity and gas sub-samples (as suggested by First Gas and Oxera) would exclude potentially useful data. For example, the only New Zealand based company in the sample (Vector) would be excluded; and
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> **maintains consistency and stability with the approach used when setting the original IMs in 2010. Therefore, this reduces the risk of large swings between reviews based on a change in approach, rather than a change in asset beta data**.
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> [Emphasis added and footnotes omitted]

46.   It is unclear to NZ Airports why the Draft Decision has now reached such a dramatically different view on the benefits of large samples. All of the reasons cited in 2016 apply just as strongly now. Accordingly, the Draft Decision's proposed approach to narrow the airport comparator sample will introduce the problems the Commission sought to avoid in 2016:

(a)   increasing the need for subjective judgement calls;

(b)   creating a lack of clarity regarding the thresholds, evidence and judgement calls made to exclude companies;

(c)   undermining consistency and stability with the approach used when setting the original IMs in 2010, by increasing the risk of large swings between reviews based on a change in approach, rather than a change in asset beta data.

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[33] Commerce Commission *Input Methodologies review decisions – Topic paper 4: Cost of capital issues* (20 December 2016) at paragraphs 276–277.3.

47.   NZ Airports has previously provided a report from CEG that explains why a large diverse sample set is best.[34] The Draft Decision states that it does not support this approach on the basis that it "is not standard practice".[35] NZ Airports notes that it has clearly been standard practice to this point – and remains standard practice for other regulated sectors. We return to the evidence on this point in a later section.

48.   The CEG Report explains why the Draft Decision has not affected its view that it remains important to use a large geographically diverse sample:[36]

        (a)   Though AIAL is the best comparator for NZ airports, relying on a large geographically diverse sample (which has delivered estimates similar to AIAL over time) has the advantage of more stability and less sensitivity to noise.

        (b)   Conversely, these benefits are lost with a smaller sample.

        (c)   Further, if the sample is less comparable to NZ airports, which is the case, then the end result is less accuracy and more volatility. The CEG Report calculates that the Draft Decision's sample:[37]

                (i)   is 2.4 times more volatile than the wider sample and 1.4 times more volatile than relying on AIAL alone; and

                (ii)   is 3 times less accurate as a predictor of the AIAL asset beta.

        Reflecting "shock events"

49.   The CEG Report also explains why, despite the Draft Decision, it remains of the view that retaining the 10-year sampling period under the existing asset beta IM, without seeking to make adjustments for "shock" events, is the best approach. In summary:[38]

        (a)   It is the most stable and predictable way to ensure that shock events are accurately incorporated in asset beta estimates over time.

        (b)   Attempting ad hoc adjustments breaches principles of consistency, reliability and predictability, and would make the regulatory regime unworkably complex.

50.   The CEG Report notes that the Draft Decision does not seek to engage with the evidence NZ Airports previously presented demonstrating why the Commission should not seek to make ad hoc adjustments for shock events.[39]

The Draft Decision's proposed asset beta IM is materially worse than the existing asset beta IM

Comparator sample

51.   The Draft Decision does not refer to any independent expert advice on potential changes to how the comparator sample is compiled.[40] That is a notable omission. For a decision of such

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[34] Dr Tom Hird (CEG), "NZCC Comments on asset beta estimates for airports" (February 2023), at paragraphs 152 – 153.
[35] Draft Decision Cost of Capital Paper 2023, at paragraph 4.41.
[36] CEG Report, at section 4.2.1.
[37] CEG Report, paragraph 137.
[38] CEG Report, at section 4.6 and section 9.
[39] CEG Report, at section 9.5.
[40] CEPA was engaged to provide advice on updating the comparator sample in accordance with the existing asset beta IM. Consistent with the certainty and clarity provided by the existing asset beta IM discussed above, its advice was largely uncontroversial (See CEPA Report).

magnitude, NZ Airports considers it would have been appropriate for the Commission to obtain independent advice. That is especially the case when it has commissioned independent experts to provide advice – including responding to other expert reports – on various other WACC topics, including for airports.

52.   If the Commission decides to seek independent expert advice following submissions, then NZ Airports expects that interested parties will be provided with an opportunity to submit on the advice received.

53.   In the absence of independent expert advice, the Draft Decision has relied on the exercise of judgement. In exercising that judgement, it has:

(a)   Removed airports with the eight highest asset betas from the CEPA sample;

(b)   Included seven of the nine airports with the lowest asset betas; and

(c)   Also included Auckland Airport, which is near the middle of the range.

54.   Put simply, the Draft Decision is that the asset beta for New Zealand airports should be derived from the lowest systematic risk (listed) airports in the world.

55.   NZ Airports refers to the CEG Report, which explains that the airports in the Draft Decision's sample have such low asset betas because they very low systematic risk, which reflects a combination of:[41]

(a)   lower risk regulatory regimes which provide greater protection from volume fluctuations; and

(b)   lower risk underlying volatility of demand (due to capacity constraints).

56.   The inevitable result of this exercise of judgement is a material reduction in the asset beta derived from the comparator sample – to an estimate that is based on airport comparators that bear little or no resemblance to the systematic risk of New Zealand airports.

Covid-19 adjustment

57.   It is unclear exactly how the Draft Decision has derived the proposed uplift to non- COVID-19 data of 0.02 to reflect pandemic risk. It purports to the follow the UK CAA approach. However, as explained in the CEG Report and later in this submission, the UK CAA method has not been correctly implemented.[42]

Removal of downward adjustment

58.   The Draft Decision states that it has undertaken analysis that supports the findings by LJK Consulting and CEG that there is no statistical evidence of a positive relationship between asset beta and proportion of revenue that is non-aeronautical. Accordingly, the Draft Decision is that a downward adjustment is not justified.[43]

59.   NZ Airports agrees with this evidence-based approach, and strongly endorses the removal of a downward adjustment that was historically made on assumption rather than evidence.

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[41] CEG Report, at paragraph 191.
[42] CEG Report, at paragraphs 94 - 95.
[43] Draft Decision Cost of Capital Paper 2023, at paragraphs 4.70 to 4.80.

60. If the downward adjustment is not ultimately removed, then the asset beta estimate produced by the proposed asset beta IM will be even less accurate.

61. The remainder of this submission explains why NZ Airports disagrees with the Draft Decisions on the sample composition and Covid-19 adjustment.

Application of the Commission's process and decision-making framework

Key questions and evidence required

62. The Draft Decision does not overtly attempt to apply the Commission's decision-making framework. The Draft Decision does not explain why the proposed asset beta IM is likely to meet one or more of the three overarching objectives of:

    (a)   Promoting the Part 4 purpose in section 52A more effectively;

    (b)   Promoting the IM purpose more effectively (without detrimentally affecting the promotion of the section 52A purpose); and

    (c)   Significantly reducing compliance costs, other regulatory costs, or complexity (without detrimentally affecting the promotion of the section 52A purpose).[44]

63. Under the decision-making framework, key questions when assessing whether to make a change to an IM are whether the current IM is achieving the policy intent and if a change would better meet that policy intent.[45]

64. NZ Airports submits that the policy intent of the asset beta IM is clear – to provide the most accurate and least volatile estimate of asset beta for the regulated entities. Given that asset beta is not observable but has a material impact on achieving the Part 4 purpose, it is important that all interested parties have confidence that the method used is robust and is applied consistently.

65. In assessing this policy intent, the relevant questions under the decision-making framework are:[46]

    (a)   Is there evidence that suggests that the original IM policy decision is no longer promoting section 52A?

    (b)   Have external circumstances changed in a way that disrupts the assumptions underlying the original policy decision and therefore would cause a need for a change? For example, has the industry changed, has relevant economic theory or practice developed? Have other external circumstances changed?

66. The decision-making framework requires the Draft Decision to provide evidence to support the proposed change to the asset beta IM. It also provides that establishing this evidential foundation is of greater importance given that the asset beta IM has a very significant role in the assessment of airports' performance against the Part 4 purpose – and therefore a significant impact on promoting the section 52A and 52R purposes.[47]

67. NZ Airports submits that there is no new evidence in the Draft Decision to demonstrate that:

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44 Commerce Commission *Part 4 Input Methodologies Review 2023 Framework paper* (13 October 2022), at paragraph 3.12 [**Framework**].
45 Framework, at paragraph 3.22.
46 Framework, at paragraph 3.24.
47 Framework, at paragraph 3.47.

(a)   the 2016 asset beta IM is not achieving its intent of producing the most accurate and least volatile estimate of asset beta for New Zealand airports; and/or

(b)   the proposed new asset beta IM produces a more accurate or less volatile estimate.

68.   NZ Airports acknowledges that the Covid-19 pandemic is an external circumstance that justifies consideration of whether changes to the asset beta IM are required. However, as we discuss below:

(a)   The existing asset beta IM will accurately incorporate pandemic type risk over time; and

(b)   the Draft Decision does not include evidence to demonstrate that the proposed changes to reflect pandemic type risks will produce a more accurate estimate of asset beta for airports. In fact, there is strong evidence to suggest that it will be less accurate and more volatile.

69.   The result is that contrary to the express requirements of the decision-making framework, the Draft Decision proposes to adopt an asset beta IM that is materially worse than the existing asset beta IM at:

(a)   Meeting the purpose of Part 4 to promote the long-term interests of consumers (by achieving limbs (a) to (d)); and/or

(b)   Meeting the purpose of IMs to promote regulatory certainty.

70.   The High Court also observed that if an IM in dispute has a significant impact on outcomes, then it will likely be more readily established that one approach is "materially better" than the other at meeting the Part 4 purpose statement.[48] The difference between the existing asset beta IM and Draft Decision has a material impact on WACC. Accordingly, if the High Court accepts NZ Airport's view that the existing asset beta IM is better than the proposed asset beta IM (on the assumption that the Commission adopts this proposal in its final decision), the High Court is likely to accept that it meets the legal threshold of being "materially better", such that the Commission's final determination based on the proposed asset beta IM should be rejected by the High Court.

Part 4 purpose statement

71.   As accepted during the 2016 IM Review and PSE3 pricing review processes, asset beta is (in theory) an airport specific parameter. However as demonstrated by the PSE3 (and prior) pricing review processes, the Commission has imposed on airports an extremely high evidential threshold to justify an airport-specific asset beta that departs from the estimate produced by the existing asset beta IM. For example, in response to Auckland Airport's views that it was different to airports in the comparator set, the Commission said:[49]

> There were significant amounts of analysis and consultation that preceded the setting of our mid-point WACC estimate, including the make-up of the comparator sample. We therefore consider significant weight should be put on this estimate as a starting point for assessing airport returns and any explanation for a higher return should be with reference to this starting point.

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[48] Merits Review 2013, at [167] to [169].
[49] Commerce Commission *Review of Auckland International Airport's pricing decisions and expected performance (July 2017 – June 2022)* (1 November 2018) at paragraphs A197.3 and A200.

….

> Overall, there may be many different factors that affect systematic risk to varying degrees. This means that we are relatively cautious in considering departures from the asset beta used in our mid-point WACC estimate. It is also why we are keen to emphasise the need for airports to provide clear evidence including the consideration of any countervailing effects in justifying a change to asset beta.

72. The significance of the Commission's approach during the PSE3 pricing reviews cannot be over-emphasised. It has established a clear and unequivocal precedent that New Zealand airports have not been able to provide sufficient evidence to distinguish themselves from the systematic risk profiles of the airports in the large comparator set.

73. It now directly contradicts that precedent for the Draft Decision to take the view that the large comparator set is not comparable to New Zealand airports. The proposal to change the method for compiling the comparator set does not demonstrate either the caution or clear evidential basis that the Commission has until recently insisted on.

74. If airports were to apply the Draft Decision's proposed asset beta in their pricing decisions, it would result in materially lower returns on investment compared to the returns that would be acceptable under the existing asset beta IM. To put that in perspective, the mid-point under the current IM represents the Commission's best estimate of reasonable returns. It has stoutly defended that position over many years. The Draft Decision now proposes to reduce the mid-point materially below the Commission's previous estimate of reasonable returns. To achieve that reduction, the Draft Decision has fallen far short of the evidential standard the Commission has imposed on airports who sought to justify returns marginally above the mid-point under the existing asset beta IM.

75. Using PSE3 as a precedent, it can be expected that in future price setting reviews the Commission will continue to apply a stringent evidential standard to airports who seek to justify a return above the Commission's new mid-point (even if those returns are below the mid-point using the existing asset beta IM).

76. The effect, therefore, will be to drive airports towards lower yet unpredictable long term returns – an outcome inconsistent with the Part 4 purpose for the following reasons:

   (a)   The decision has focussed on limiting what are (now) perceived to be excess profits allowed under the existing asset beta IM, at the expense of promoting investment (but noting the Draft Decision is actually silent on the Part 4 purpose).

   (b)   Key economic principles in the decision-making framework, used to guide promotion of the Part 4 purpose, are the expectation of Financial Capital Maintenance (FCM) and the recognition of asymmetric consequences of over and under investment.[50]

   (c)   Previous work on the WACC percentile demonstrates that the Commission accepts that in the context of the uncertainty in setting allowable returns that provide regulated entities with the expectation of earning a reasonable return (ie achieving FCM) it is better to err towards limb (a) (investment) rather than limb (d) (limit excess profits) of the purpose statement.

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[50] Framework, at paragraphs 4.20 to 4.22.

(d)   NZ Airports is not asking the Commission to prefer limb (a) over limb (d) of the purpose statement. We agree that each outcome under the section 52A purpose statement should be promoted in a balanced way (as held by the High Court). The existing asset beta IM does so (as held by the High Court). Our concern is that in proposing the new asset beta IM, the Draft Decision is heavily favouring limb (d) at the expense of limb (a) – contrary to the principles of FCM and asymmetric consequences.

(e)   In promoting the long-term benefit of consumers, the minimal impact on consumers of an airport earning above the Commission's (new) view of excess returns should be carefully measured against the potentially material adverse impact on consumers if an airport does not have sufficient incentives to invest.

(f)   In the long term, the cost to the consumer of under-investment is significantly greater than the cost of excess profits because:

   (i)   If airport capacity is not delivered in time to meet demand, due to market constraints airfares can rise by far more than the impost of airport charges. This is because the consumer pays for airport services through airfares, of which aeronautical charges make up a small portion of the ticket price.

   (ii)   If an airport earns excess profits but does invest in capacity in time to support demand growth, the impact on the end airfare will be far lower than in if airport capacity is constrained.

   (iii)   There is limited competition in the New Zealand domestic air travel market. The majority of routes are monopoly routes – meaning that benefits from lower aeronautical charges are unlikely to flow through to end consumers, but rather support airline profitability.

(g)   The CEG Report advises that a likely consequence of an airport not investing in time to meet growth in demand is that airfares will increase. It further advises:[51]

   > In this context it is important to understand that airlines' and airlines customers' incentives are not aligned in relation to setting the regulated WACC for airports. Airlines have a strong incentive to argue for a lower WACC (lower than the airport's cost of capital) because this benefits them in two ways:
   >
   > • First, by undermining investment in new capacity, the airlines get to charge higher prices for flying through the airport; and
   >
   > • Second, the airlines pay a lower price for using the capacity.
   >
   > By contrast, customers lose in two ways:
   >
   > • First, they have to pay the higher airline fares; and
   >
   > • Second, they suffer a loss of amenity in the form of poorer terminal facilities and connections as well as more flight delays.

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[51] CEG Report, at paragraphs 109 - 110.

(h)   Such issues were also addressed by Dr Harry Bush and John Earwaker for NZ Airports in 2015, where the authors concluded:[52]

> Our report therefore considers that the asymmetric effects of WACC mis-estimation on investment, which the Commission identified for gas and electricity businesses, will also be present for airports. Airport-airline consultation and the existence of the dual till cannot be relied upon to counter any tendency to under-investment from mis-estimation.

(i)   Dr Bush and Mr Earwaker also pointed out that while the costs to consumers of underinvestment by airports might not be as apparent as for the energy sector, they are likely to be more pervasive and longer lasting:[53]

> Service reliability is likely to be one aspect of a more general service shortfall across a range of dimensions, including delay, reduced choice of destinations, reduced frequency of service, higher airfares and poorer airport ambience and service quality. The manifestation of such shortcomings will be less in particular events (though they may occur) than in incremental degradation as capacity development fails to keep up with demand. While these shortcomings may be less apparently catastrophic than a major outage, their impacts are likely to be more pervasive and longer lasting. They will also have knock on effects to the wider regional or national economy, which will find itself both less well connected and at higher cost. These costs will be related to both the degree of under-investment and its strategic importance to the interconnected logistics of an airports operation. However, as the London examples show, there is the possibility for under-investment to have very significant costs, for passengers in particular. That these are less obviously demonstrable than a major outage in other sectors should not detract from their potential importance.

(j)   This evidence remains just as relevant now, so we are resubmitting it with this submission for the Commission's consideration.

(k)   Recent experience of post-pandemic airfares provides a current demonstration of the impact on airfares when demand exceeds supply. Latest airfare data for New Zealand shows that inflation adjusted airfares in New Zealand on average have increased by around a third, up $65 for domestic, and $255 for international airfares, with seat capacity yet to return to pre-pandemic levels.

Six months ended[54]	Nominal		Real	
	Domestic	International	Domestic	International
April 2019	$163	$595	$194	$706
April 2023	$257	$959	$259	$961
Change ($)	*$94*	*$363*	*$65*	*$255*
Change (%)	*57.6%*	*61.0%*	*33.5%*	*36.1%*

(l)   By way of comparison, the Draft Decision's asset beta, relative to that proposed by CEG, would result in aeronautical charges being $2.21 lower in the 2024 financial year on average across the three regulated airports.[55]
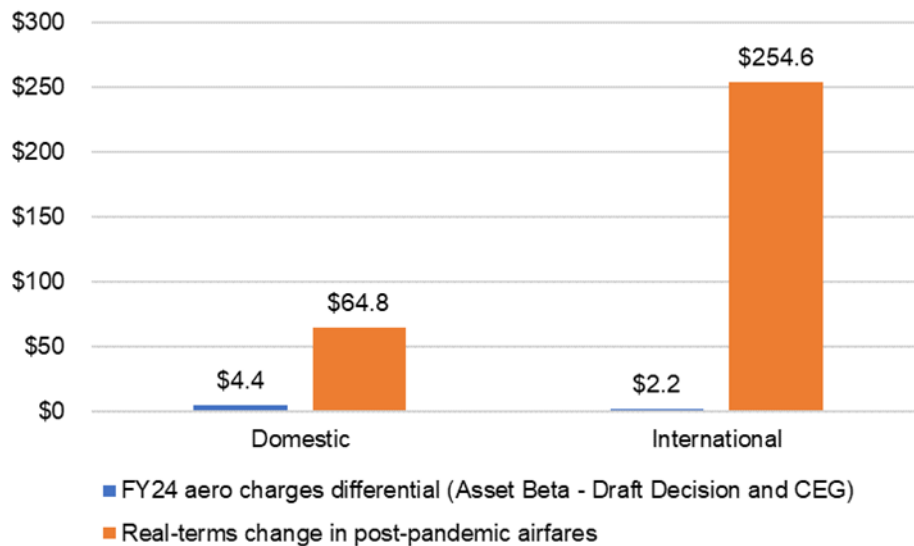
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[52] Bush & Earwaker Report 2015, at page 5.
[53] Bush & Earwaker Report 2015, at pages 6-7.
[54] Source: AirportIS (IATA)
[55] These calculations have been performed by NZ Airports using publicly available data for Auckland, Wellington and Christchurch airports.

FY24[56]	AKL	CHC	WLG
Closing Pricing RAB ($m)	1,730	493	627
Passenger Forecast (m / pax)	18.4	6.4	5.8
Revenue differential ($m)	41.1	11.7	14.9
Revenue differential per passenger (CEG vs Draft Decision)	$2.2	$1.8	$2.6

(m)   Even reflecting that for domestic passengers the $2.21 differential would apply twice per flight (ie, at both the departure and the arrival airports), the direct impact on the consumer of rising airfares amid current airline capacity constraints is far greater (well over ten times greater) than the implicit higher prices they would pay under the 2016 asset beta IM versus the Draft Decision. The potential long term costs to consumers of underinvestment arising under the Draft Decision asset beta materially outweigh the short term potential benefits of lower airport charges.

(n)   We have referred to the implicit aeronautical charges paid by consumers above because it is unrealistic to expect that savings are passed through to consumers in their entirety. This point was considered by the Australian Productivity Commission in its 2019 Inquiry into the Economic Regulation of Airports:[57]

> Airlines that have the ability to price discriminate have little incentive to pass on cost reductions to passengers — their pricing decisions are based on what passengers are willing to pay, not solely on the cost of providing the service. Airlines only benefit from reducing their ticket prices if it leads to people changing their behaviour in ways that increase profits. If an airline already has high rates of capacity utilisation at current ticket prices it has little incentive to reduce airfares, even if airport charges fall.
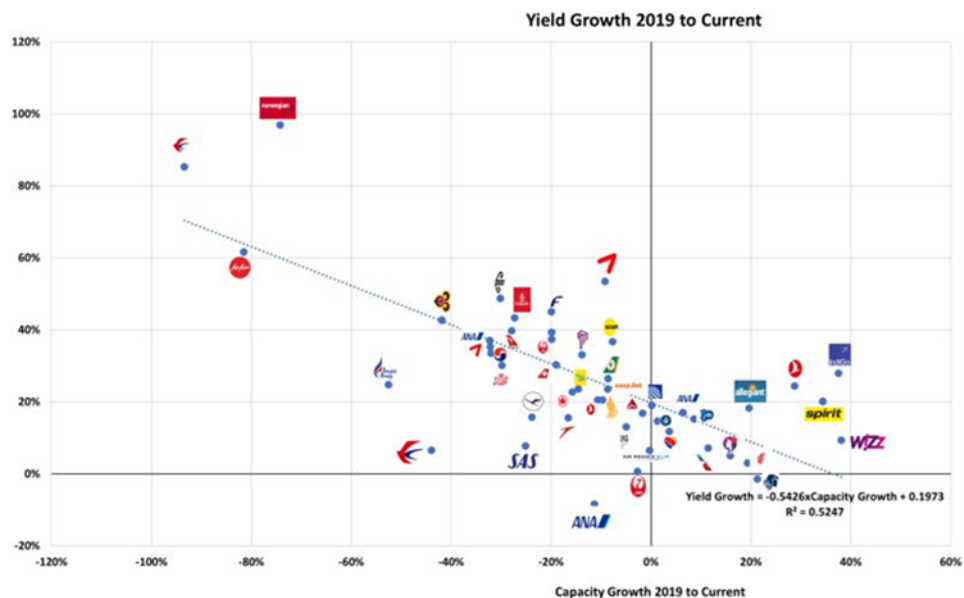
> Contrary to the claim made by the airlines and A4ANZ, airfares could be higher if, for example, anticompetitive behaviour successfully delayed necessary airport investment, and this resulted in congestion.

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[56] Based on Price Setting Disclosures, AIAL Pricing Decision June 2023, reflects difference between post-tax WACC of 7.19% (Draft Decision) and 8.90% (CEG).
[57] Productivity Commission 2019, Economic Regulation of Airports Inquiry Report, p. 306

(o) Accordingly, there is a high likelihood that the Draft Decision, if implemented, will only serve to increase the profitability of airlines and will likely increase air fares and reduce consumer choice over the long term. In considering whether this is consistent with the purpose of Part 4, the Commission must consider the long-term benefit of all consumers (not just airlines). Passengers and shippers will clearly benefit from future investment by airports. It is far from clear that they will receive any benefit from lower aeronautical charges (which could be at the expense of beneficial investment).

(p) To demonstrate how pronounced this issue is in New Zealand, independent analysis indicates that relative to pre-pandemic, Air New Zealand yields have increased by ~50%, where its seat capacity has reduced by ~30%.[58] This increase in yields is above the trend for airlines globally. This could be attributed to the relatively low levels of competition in the New Zealand domestic market which is dominated by Air New Zealand. In these market conditions, it is far less likely that reduced aeronautical charges would result in reduced airfares, as airlines are able to set airfares based on passenger willingness to pay.

[59]

Source:

(q) If the Draft Decision is maintained on the basis that the existing asset beta IM would result in excess airport profits (NZ Airports disagrees this is the case), then the final reasons paper should set out how it has considered how limiting those perceived excess airport profits under the existing asset beta IM could impact on the long-term benefit of all consumers, relative to the risk of the impacts of a new asset beta and WACC estimate that can only reduce the incentives for airports to invest.

77. In the past the Commission has adopted a view that under ID regulation for airports there is less need to be concerned about asymmetric consequences principles – a key reason being

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[58] Dr Tony Webber, Airline Intelligence & Research, 2023
[59] Dr Tony Webber, Airline Intelligence & Research, 2023

that airports have freedom to use their own pricing WACCs.[60] NZ Airports disagreed with this reason at the time, and the Commission's approach to price reviews following the 2016 IM review shows that in practice it does not accept that airports have freedom to use airport specific WACCs that seek to address the risk of asymmetric social consequences produced by the IM mid-point estimate.

78.   If the Commission was to change its approach by committing to a position that airports can choose a different asset beta in pricing - including because they have adopted a more reliable estimation methodology - then it would perhaps be more acceptable for the Commission to not be overly concerned about FCM and asymmetric social consequences. Based on experience, we have no confidence that such an approach will be followed.

79.   In conclusion, NZ Airports submits that:

   (a)   The existing asset beta IM contributes to a WACC estimate that has been held by the Commission and High Court to meet the Part 4 purpose – including by limiting excess profits.

   (b)   The proposed asset beta IM will contribute to a WACC estimate that can only reduce incentives to invest, with no evidence that it will limit excess profits (in fact, NZ Airport's position is that it will result in under recovery in breach of FCM). It therefore does not promote the long-term benefit of consumers.

Purpose of IMs – certainty

80.   NZ Airports submits that there are two related reasons why the proposed asset beta IM will be materially worse than the existing asset beta IM at promoting the purpose of IMs (section 52R):

   (a)   There will be a significant regulatory shock if the Draft Decision is finalised. The Draft Decision applies a great deal of subjective judgement. There is a clear risk that the application of judgement in the future will lead to different decisions at the next and subsequent IM reviews;

   (b)   The proposed asset beta IM itself is less certain. Under the existing asset beta IM, it is possible for airports to estimate asset beta with reasonable certainty at any point in time. Any points of debate in the past have been at the margins about whether delisted airports should be excluded (eg Sydney), whether new information about a comparator suggests that it is not engaged in airport services, and whether newly listed airports should be included. As discussed below the Draft Decision has now opened an entirely new and contentious debate about whether firms are "close" comparators – the outcome of which can have a material impact on the asset beta estimate. Further, a small sample set increases the risk of volatility and material changes in asset beta estimates in future reviews. It is also unknown how Covid-19 type adjustments will be applied in the future. These unknowns contribute to the risk in limb (a) that the Commission will continue to change the methodology.

81.   The CEG Report raises many questions about how decisions will be made in future IM Reviews – none of which are answered by the Draft Decision.[61] For example, in the context

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[60] The result in the 2016 review was that it decided to only publish a WACC mid-point and not a percentile above the mid-point.
[61] CEG Report, at section 9.

of the proposed changes to the 10-year estimation window (discussed further below), the CEG Report advises:[62]

> The draft decision implements an *ad hoc* departure from both the original 2010 IM and the 2016 IM that undermines the predictability of the regulatory regime. It moves away from allowing the most recent data to feed into the asset beta estimate and, instead, superimposes a new concept of:
>
> > *"the long term airport asset beta of 0.53"*
> >
> > *The long term pre-COVID-19 average of 0.53".*
>
> *....*
>
> However, the draft decision instead reached back to 1 October 2007 to form an estimate of "*the long-term airport asset beta of 0.53*". This raises questions in relation to how the asset beta will be set in future IMs.
>
> > a. Was this a conscious choice to abandon the past regulatory precedent of using the most recent data to estimate asset betas in favour of a new precedent to try and estimate "a long-term airport asset beta"? Or
> >
> > b. Is the 2023 IM estimation method to be considered an *ad hoc* response to COVID-19 and the 2030 IMs can be expected to revert back to 2010 and 2016 precedent?
>
> ...
>
> The answers to these questions are critical to whether the IMs provide regulatory certainty to suppliers. However, the draft decision does not address them in any way. It is, in my view a serious shortcoming of the draft decision that it adopted an *ad hoc* approach that discarded many aspects of valuable regulatory precedent and also did not discuss what its 2023 decision meant for future IM decisions.
>
> In this regard I note the quote from the draft decision reproduced above to the effect that:
>
> > *"We consider that specifying the equity beta in the IMs provides certainty for suppliers and that, on balance, this should be given more weight than determining an estimate of the equity beta that on average compensates suppliers for systematic risk over a long period of time."*
>
> I do not consider that this is a complete, or accurate description of the certainty that the IMs should, and until now largely have, provide. Suppliers and all stakeholders obtain little certainty from an IM number if that number is to be generated by an unpredictable process from one IM to the next. Similarly, stakeholders gain little in the way of certainty by fixing a number for asset beta in the IMs that is not an accurate estimate of asset beta.
>
> For the IMs to provide certainty of value to stakeholders then that value must come from certainty about what the process will be for estimating asset beta and certainty about whether that process will deliver accuracy.

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[62] CEG Report, at paragraphs 481, 485, and 488-491.

82.   To be clear, NZ Airports is not submitting that section 52R prevents the Commission from changing the existing asset beta IM. Rather, our submission is that given the material impact of the change, section 52R requires the Commission to meet a high evidential threshold to justify changes, and to ensure that any new IM is designed in a manner that is objectively capable of promoting certainty over time. NZ Airports submits that the Draft Decision has does not meet that threshold.

No new evidence to support smaller sample

83.   The Draft Decision refers to some evidence that is believed to support of the proposed approach of selecting a smaller comparator set. The following explains why the evidence referred to by the Draft Decision:

(a)   is not new evidence; and/or

(b)   does not support the Draft Decision's proposed approach to selecting the comparator sample.

TDB Advisory advises of a potential problem

84.   The Draft Decision states that TDB Advisory advised it of "a potential problem with our existing method".[63]

85.   In response, NZ Airports submits that:

(a)   TDB has not provided any new evidence. In the 2016 IM Review it made essentially the same submission for the energy comparator set. The Commission rejected that submission;

(b)   In any event, the Draft Decision does not follow the approach advised by TDB.

86.   TDB Advisory's submission on the selection of the comparator sample amounted to three paragraphs. It did not provide analysis or evidence to support its position. TDB Advisory said that "on balance" it would prefer a smaller sample of more similar firms be used. It also suggested that in the Commission's sample, "the smaller operators that have primary responsibility for just one airport are likely to be more similar to their NZ counterparts than the very large, and often regional or even national, operators that are also included in the sample." Put simply, TDB Advisory's advice was that the largest airport operators should be removed from the sample.

87.   The Draft Decision has done exactly the opposite of what TDB Advisory suggested. It has not addressed the perceived problem that TDB Advisory alerted the Commission to. The Draft Decision has chosen the largest international hub operators with global operations that are the least comparable to New Zealand airports. To briefly illustrate:

(a)   Beijing is reportedly the world's busiest airport. It would meet TDB Advisory's criterion of a "very large" airport that should be excluded.

(b)   Aeroports de Paris (ADP) owns three Paris airports and has significant holdings in other jurisdictions. Charles de Gaulle alone is the 9th busiest airport in the world – and the busiest in the EU. The UK CAA uses it as a close comparator to Heathrow (below AENA and alongside Fraport and Zurich). Its inclusion directly contradicts TDB Advisory's advice.

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[63] Draft Decision Cost of Capital Paper 2023, at paragraph 4.32.

(c) AENA manages 46 airports in Spain (and indirectly 16 airports in Europe and America). The UK CAA uses it as the closest comparator to Heathrow. Its inclusion directly contradicts TDB Advisory's advice.

(d) Flughafen Zurich AG, in addition to Zurich, owns airports in India and South America. The UK CAA places some weight on it alongside ADP and Fraport to compare to Heathrow. This suggests that TDB Advisory would consider it to be a large operator that is not comparable to New Zealand airports.

(e) Fraport operates 28 airports around the world. Frankfurt is a major European hub. The UK CAA uses it as a close comparator to Heathrow (below AENA). Its inclusion in the sample directly contradicts TDB Advisory's advice.

88. TDB Advisory submitted on the energy asset beta comparator set in the 2016 IM review. Its views then were largely the same as its views for airports now – energy comparators in the sample should look like the NZ regulated lines businesses. It made the same argument about there being a "trade-off" between a large sample for reliability versus comparability. TDB Advisory thought the comparator set for the energy sector should be reduced to eight.

89. The Commission firmly (and in our view correctly) rejected TDB Advisory's proposal in that case (as referred to above).

Qantas evidence

90. The Draft Decision states that it "broadly agrees with Qantas' proposal".[64]

91. NZ Airports was alarmed by this statement. Qantas does not refer to independent expert advice to support its proposal. Qantas does state that it supports the TDB Advisory submission but, as discussed above, the TDB Advisory advice does not support Qantas' or the Draft Decision's proposals.

92. We are also concerned that Qantas' submission is not only contrary to the Commission's well-established historic position, it reverses the position in previous airline submissions (as discussed above) that the sample set should be large.

93. It is notable that the expert evidence on asset beta recently provided on behalf of Qantas to the Supreme Court of Western Australia, which largely advocated the same positions on a small comparator sample, was firmly rejected by the Court (discussed below).

94. In those circumstances, we would have expected the Draft Decision to engage more extensively with the weight of expert evidence and judicial and regulator precedent in support of the large comparator sample (discussed below) and not simply accept a (late) submission from an airline that has a clear motive for the asset beta to be as low as possible in both New Zealand and Australia.

95. Ultimately, the sample of eight comparator airports recommended by Qantas is almost the same sample that the Draft Decision proposes to adopt (the Commission includes Auckland Airport instead of Bologna). Our reasons for opposing the Qantas submission are therefore the same as our reasons for opposing the Draft Decision.

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[64] Draft Decision Cost of Capital Paper 2023 at 4.43.

Evidence from other regulators does not support NZCC's small sample

96.   The Draft Decision refers to reports of overseas regulators and claims that they indicate a preference to have a sample of relatively close comparators.

97.   In response, NZ Airports submits that the reports referred to do not support the Draft Decision's approach to sample selection. A careful review of the decisions of those regulators reveals that:

    (a)   the regulators use different methods to estimate asset beta and/or are using comparators in a different way; and

    (b)   there is support for use of a larger sample set.

The UK CAA

98.   The Draft Decision refers to the UK CAA's recent decisions for regulation of Heathrow Airport.[65]

99.   As an overarching point, as explained more fully in the CEG Report, Heathrow Airport is a very low systematic risk airport (particularly from a volume risk perspective), and it is difficult to identify an airport that could be any less comparable to New Zealand airports.[66] Further, the UK CAA estimated a pre-pandemic asset beta for Heathrow of 0.50, which compares to the draft decision of 0.53 for New Zealand airports. This alone should cause the Commission to seriously reconsider the reasonableness of its proposed approach.

100.   It is important to understand the history and context for how the UK CAA estimates an asset beta for Heathrow Airport. The UK CAA does not take an average from a comparator sample set in order to estimate an asset beta for Heathrow Airport. It follows a different approach to get the best estimate of the airport subject to regulation. During the review of Auckland Airport's PSE3 price decision, the Commission received a report by Dr Harry Bush and John Earwaker, which explained that historically the UK CAA focusses on the asset beta of Heathrow Airport itself. That report is enclosed for convenience.

101.   For the H7 decision, the UK CAA explained that it needed to increase the use of comparators because Heathrow Airport's observed asset beta is now too old (even though Heathrow Airport was delisted some years ago, the UK CAA had continued to use historic estimates prior to H7).

102.   When seeking comparators to Heathrow Airport, the UK CAA looked for airports that were most similar to Heathrow Airport – for example, a large international hub, similar geography (Europe), and subject to similar regulation. The UK CAA noted that there are no particularly close comparators due to differences in operational characteristics such as volume and composition of traffic, or differences in regulatory frameworks. The UK CAA therefore does not use an average asset beta from a sample – it applies weightings based on its judgement of an airport's similarity to Heathrow Airport.

103.   If the Draft Decision had followed the UK CAA approach (and the TDB Advisory advice as discussed above) then it would start with the asset beta of Auckland Airport as the best indicator of asset beta for New Zealand airports and would exclude major European hubs.

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[65] UK CAA "Economic Regulation of Heathrow Airport Limited: H7 Final Decision" (March 2023).
[66] CEG Report, at section 2.5.1.

Such an approach is also consistent with the CEG Report advice that more weight must be given to Auckland Airport if a small comparator set is used.[67]

104. To be clear, NZ Airports is not suggesting that the Draft Decision should have followed the UK CAA method (albeit it would be better than the proposed method). Our point is that the approach of the UK CAA provides no reasonable basis to justify the smaller comparator set proposed by the Draft Decision – which does not seek to ensure that the comparator airports look like New Zealand airports and simply takes an average without applying weightings based on a careful assessment of airport comparability.

AER

105. The Draft Decision notes that the AER excludes international energy companies from its sample even though it has only one firm in its sample that is currently listed.[68]

106. The Draft Decision's observation is correct, on its face, for the time being. The AER is clear that its aim is to achieve the closest comparators to Australian regulated energy firms. The Draft Decision does not follow that rationale with its proposed comparator sample for airports. NZ Airports also notes the following observations made by the AER in its report, which shows that it recognises the need to expand its comparator set:[69]

> The recent delisting of SKI and AST means that 8 of the 9 firms in our comparator set have now been delisted, with only APA remaining. Some stakeholders, especially energy network businesses, suggested that our existing comparator set is outdated and should be expanded to include international energy firms and/or domestic infrastructure firms. The Independent Panel noted that 8 regulated network companies having been acquired by private investors since 2006 shows that the revenue streams offered by regulated network businesses are attractive to investors.
>
> We consider our existing comparator set to be appropriate for the time being. While it may have diminished since the 2018 Instrument, it still includes 3 firms (APA, Spark, AusNet) with at least 4 years of data out of the most recent 5 years. Therefore, we consider our existing comparator set to be sufficiently reflective of contemporary market conditions for the purpose of the 2022 Instrument. The Independent Panel agreed with our choice of comparator set, as did APA.
>
> **We recognise the need to develop a revised approach in the future. The Independent Panel recommended that we provide details on the nature of future research that we propose to conduct or commission on the potential use of international comparators as well as other methodologies.** To this end, we propose to undertake further analysis to understand the degree to which international energy firms are comparable to domestic firms. We may examine differences in firm structure, regulatory framework, local economy and other factors that may result in difference in systematic risk exposure between domestic and international energy firms. This may help us to determine what adjustments we could make to international estimates, so as to make better use of these estimates to inform our beta estimate. We may also consider other sources of information, such as domestic infrastructure firms and other regulators' methodologies.

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[67] CEG Report, at section 4.1 and paragraph 151.
[68] Draft Decision Cost of Capital Paper 2023, at paragraph 4.38.2.
[69] AER, "Rate of Return Instrument Explanatory Statement" (February 2023), at page 179.

[Emphasis added]

107. NZ Airports notes that the AER is proposing to undertake robust analysis to understand which international firms are good comparators, and what adjustments it may need to make to estimates derived from international comparators. This is a level of analysis that appears not to have been undertaken for the Draft Decision's selection of a smaller sample of comparators.

108. NZ Airports also notes that the AER rejected the Commission's comparator set for the energy sector, because it includes unreliable international comparators. The AER was concerned that they may not be "pure play" entities like those it regulates (concerns that have also been raised directly with the Commission in the past). The Draft Decision is not proposing to change the energy sector comparators in response to AER's views – and 2016 IM Review decision expressly rejects concerns that its international comparators for energy are not "pure play".[70] It would therefore appear that the Draft Decision is not consistent in its application of international regulatory precedent across the airports and energy sectors.

109. NZ Airports submits that, like the UK CAA, the AER provides regulatory precedent for using the regulated entity and/or domestic comparators from the same country for estimating asset beta where that is possible. It is not precedent for moving from a large geographically and operationally diverse sample set of comparators to a small international set of comparators without undertaking robust analysis to ensure that the firms in the comparator set are truly comparable.

ERA

110. The Draft Decision states that the ERA only includes energy companies from Canada, New Zealand, United Kingdom and United States. We understand that the reference is to the ERA's 2022 gas rate of return instrument review.[71]

111. NZ Airports notes that the ERA's 2018 determination used domestic comparators only. The ERA explains that the inclusion of international comparators in 2022 was necessary due to domestic delistings.[72] So, in fact, ERA has recently **expanded** its comparator set. Again, the ERA's approach is precedent for using domestic comparators when there is a sufficient number to provide reliable data. It is not precedent for using a smaller sample international comparators without undertaking robust analysis of whether the firms are truly comparable.

112. It is also apparent that the ERA is in fact using a large sample of comparators:[73]

> For the 2022 draft gas instrument the ERA developed an international comparator sample **of 58 firms**. The ERA considers that these firms are sufficiently comparable to the benchmark firm to contribute to the development of a robust estimate of equity beta for the purposes of the 2022 final gas instrument.

> [Emphasis added]

113. NZ Airports submits that the ERA report is precedent to support the Draft Decision's approach to the energy comparator sample but is not precedent to reduce the sample of airports from 26 to eight.

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[70] Commerce Commission *Input Methodologies review draft decisions – Topic paper 4: Cost of capital issues* (16 June 2016) at paragraph 478.
[71] Footnote 139 is incorrect.
[72] ERA, 2022 gas rate of return instrument review, at paragraph 922.
[73] At paragraph 1038.

<u>Fibre IMs</u>

114.   The Draft Decision cites the Fibre IMs in support of its proposal.[74]

115.   NZ Airports submits that there is nothing in the final Fibre IMs decision that suggests that in that case the Commission was seeking to narrow the countries used to ensure comparability with New Zealand fibre companies – with the exception of Turkey. The main issue it encountered was finding companies that look like regulated fibre providers in New Zealand (eg "pure play"). The Commission included 68 firms in the comparator sample. Given the range of countries in the comparator sample, and the number of firms, the approach in the Fibre IM provides no basis for reducing the airport comparator set.

<u>Energy comparator sample</u>

116.   The Draft Decision notes that the energy comparator sample in the 2016 IM Review used firms from New Zealand, United States and the United Kingdom.[75]

117.   It is not clear what weight is placed on this factor.

118.   It is clearly not new evidence that justifies a change in approach for the airport sector. To the extent it is a relevant factor (NZ Airports submits it is not) it should have resulted in a different approach being taken to the airport comparator sample in 2016. In fact, the energy comparator sample was also confined to those three countries, plus Australia, in 2010.[76] Accordingly, the historic approach to the energy comparator sample should have no bearing on new proposals for the airport comparator sample.

119.   Further, while there may only be three countries represented in the energy comparator sample, it still amounts to about 55 firms. It therefore does not provide justification for a comparator set of 8 firms for airports.

120.   It is also notable that, similar to the TDB Advisory submission in 2016 discussed above, the Commission continues to receive independent expert advice that it should consider reducing the energy comparator set, to ensure that it contains close comparators.[77] Contrary to its proposal for airports, the Commission continues to resist the same advice for the energy sector.[78]

Conclusion on regulatory precedent cited in the Draft Decision

121.   Following its survey of regulators, the Draft Decision's conclusion "is that it is common practice among regulators to ensure companies in the sample are trading in markets that are comparable to the host country, that is have similar systematic risk".[79]

122.   As set out above, that is not a reasonable conclusion to draw based on the regulatory precedent referred to by the Draft Decision. It does not consider the full picture of the approach adopted by other regulators – who focus on ensuring that the firms in the sample

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[74] Draft Decision Cost of Capital Paper 2023, at paragraph 4.39.
[75] Draft Decision Cost of Capital Paper 2023, at paragraph 4.40. Although at paragraph 4.86 the Commission states that the energy sample also included companies from Australia – most of which remain in the sample for the draft decision.
[76] Commerce Commission *Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper* (22 December 2010) at paragraph X33.
[77] See for example, Oxera,"Review of the NZCC's WACC-setting methodology", 31 January 2023, at page 35.
[78] The Commission rejects Oxera's advice on the basis that it is not practical to restrict the sample to companies that are regulated in a similar way as in New Zealand – see paragraph 4.88 of the Draft Decision Cost of Capital Paper 2023. We do not read Oxera's advice as only suggesting that the sample be reduced on regulatory comparability grounds – that was a practical example of its more general point that many US-based utilities are unlikely to be comparable to New Zealand companies.
[79] Draft Decision Cost of Capital Paper 2023, at paragraph 4.41.

are truly comparable based on the characteristics of the company in question and its regulatory settings (in addition to country/market conditions). Further, even it was accurate, it does not provide a reasonable basis for the Draft Decision to change the approach to sample selection after 13 years of established precedent. The Commission decided in 2010 to follow an approach that was different to approaches taken by other regulators at the time, by compiling the broadest possible sample set.

Evidence from other regulators and courts not considered in the Draft Decision

123. Within the international regulator reports cited in the Draft Decision, there is evidence in support of larger international comparator sets. NZ Airports submits that a careful review of this evidence, considered against the Commission's historic approach of preferring a larger international comparator sample, should lead to a conclusion that a smaller sample set should not be adopted.

124. NZ Airport's view, as discussed above, is that the regulatory precedent in support of the smaller international comparator set in the Draft Decision is very weak – and in some respects does not support that approach. It is therefore easily outweighed by the following evidence in support of the existing asset beta IM.

125. The ERA made the following observations about the value of international comparators:

> The ERA notes that international comparators are commonly used by other regulators to estimate equity beta:
>
>> • IPART uses a broad selection of stocks that includes international firms as it considered that it is likely to be "more objective, more likely to yield statistically reliable estimates, and more resistant to problems caused by companies dropping out of the sample over time.
>>
>> • The QCA stated that there is not "a sufficient number of listed Australian firms for us to draw upon in order to determine reasonable betas" and any country-specific effects on beta estimates can "be limited by using a sample of relevant firms from a cross-section of countries where possible".

126. It also stated the following about the advantages of international comparators:[80]

> The ERA considers that using international comparators has the following advantages:
>
>> • An extended sample size results in equity beta estimates that are reliable and less sensitive to individual equity beta estimates of the Australian energy network sample.
>>
>> • Using international samples is a more robust approach over time, given that there is currently only one listed Australian energy network.
>>
>> • Other regulators have been using international comparators for their equity beta estimation, largely driven by the difficulty in finding a sufficient number of comparable businesses to estimate equity beta using a purely domestic sample.

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[80] ERA at paragraph 1039.

127.   The full reasoning by IPART referred to by ERA above is as follows:[81]

> One of the main weaknesses of our current approach for estimating the equity beta is that the selected proxy companies may not represent a benchmark firm well, leading to an inaccurate estimate. To address this weakness, we have decided to use the broadest possible selection, but exclude thinly traded stocks in line with feedback from Frontier Economics (on behalf of SDP). We agree that a broad sample method is more objective, more likely to yield statistically reliable estimates, and more resistant to problems caused by companies dropping out of the sample over time (for example, because they become de-listed).

128.   Relevant reasons from the QCA are as follows:[82]

> Consistent with the domestic-style CAPM that we employ, **the starting place for an appropriate set of comparators is domestically listed businesses. However, our approach in recent reviews has been to expand our consideration of comparators to include relevant international businesses.** This approach has allowed us to increase the sample size of comparator firms available to us, while also allowing us to use comparators from industries that are not publicly listed in Australia, such as regulated water firms.
>
> …
>
> However, we consider that continuing to use an international sample of firms (alongside domestic firms) is preferable, as relying purely on Australian firms to form comparator sets for the entities subject to our regulatory regime is problematic. We are not confident that there are a sufficient number of listed Australian firms for us to draw upon in order to determine reasonable betas. **In particular, any industry sample would comprise a very small number of firms, which could result in beta estimates fluctuating by large margins from review to review. This does not provide regulatory predictability.**
>
> **An advantage of using a larger sample of firms is that the impact of any one seemingly anomalous beta estimate is not significant when taking an average or median beta from all the firms in the sample. This would not be the case when relying on a very small sample of firms**. The potential loss of comparator firms from delisting as a result of mergers and acquisitions would only exacerbate the above issues.
>
> [Emphasis added]

129.   The Draft Decision also does not consider that the existing asset beta IM has recently been adopted by an Australian court. In *Perth Airport v Qantas Airways,*[83] the Supreme Court of Western Australia endorsed the large comparator sample used by the Commission. In that case, Dr Hern provided expert evidence on behalf of Qantas, and advocated for an approach that used Sydney Airport as the primary comparator, with other "close comparators" being AdP, Frankfurt, Vienna, Zurich and Auckland. The Court described Dr Hern's approach as not being based on regulatory precedent, but instead was "somewhat bespoke". The Court said the following about Dr Hern's approach:[84]

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[81] IPART, Review of our WACC Method, February 2018, at page 7
[82] Rate of return review, February 2021, at pages 71 to 72.
[83] *Perth Airport v Qantas Airways* [No 3] [2022] WASC 51.
[84] *Perth Airport v Qantas Airways*, at [264] to [265].

There are a number of difficulties with Dr Hern's approach. First, Sydney Airport and a number of the Tier 2 comparator airports do not in fact appear to be 'best' comparators to PAPL. This emerges both from consideration of the nature of the airports (for example, in terms of size, international hub status, extent of international operations and passenger numbers) and in the course of undertaking the relative risk assessment (for example, customer concentration risk).

Secondly, at a conceptual level, the views presented by Dr Hern regarding the necessity for similar country risks are unpersuasive. Thirdly, the sovereign credit rating threshold Dr Hern employs to determine countries with similar risks to Australia appears arbitrary and to be a technique not generally employed by regulators. Dr Hern only identifies a Singaporean energy regulator, an Italian energy regulator and a Spanish energy regulator as having explicitly used sovereign credit rating criteria to select relevant comparators

130.   Accordingly, the court preferred Dr Hird's evidence, which used the Commission's large comparator set to estimate asset beta:[85]

It is preferable to start from Dr Hird's and the NZCC's sample set of 26 comparator airports for which asset beta estimates are available. As agreed between Dr Hird and Dr Hern, it is then appropriate to exclude the six illiquid and delisted airports, resulting in a sample set of 20 airports.

131.   The court then makes the following decision on asset beta for Perth Airport:[86]

Having preferred the methodological choices adopted by Dr Hird and arrived at a final comparator set of 19 airports, this results in a range of estimated asset betas from 0.34 to 1.01, with an average of 0.72.

I accept PAPL's relative risk has likely increased since the last regulatory determination of its asset beta at 0.7. Having considered all of the experts' evidence, including as to demand risk and other measures to be considered in the context of the relative risk assessment, I conclude PAPL has higher demand risk than the average of the comparator set. I conclude the best estimate of asset beta for PAPL is 0.75.

132.   NZ Airports submits that the decision of the Supreme Court of Western Australia was logical and reasonable. In particular, it decided that a small comparator set that was very similar to the set proposed in Qantas submission to the Commission and in the Draft Decision was not comparable to Perth Airport. After carefully considering evidence on demand risk, it accepted that Perth Airport was relatively riskier than the average of the Commission's large comparator set (which was the appropriate set to use). We believe Perth Airport is comparable to New Zealand airports, so that the Draft Decision's proposed asset beta of 0.55 for New Zealand airports compared to 0.75 for Perth Airport is unreasonable.

The Draft Decision's shrinking of the sample is materially worse than the existing IM

133.   In this section we address why the proposed shrunk sample is materially worse than the large comparator sample method used since 2010. Key reasons are that the smaller sample:

(a)   is less comparable to the systematic risk profile of New Zealand airports;

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[85] *Perth Airport v Qantas Airways*, at [266].
[86] *Perth Airport v Qantas Airways*, at [279] to [280].

(b)   Is less accurate and precise; and

(c)   Is more volatile over time, including because it requires the exercise of subjective judgment

The sample set is less comparable to New Zealand airports

134.   In a section above we highlighted the regulatory precedent that shows:

(a)   Regulators seek to form a comparator set by identifying firms where operational and regulatory factors make them as closely matched as possible to the entity(s) being regulated. Preferably these will be domestic comparators in the same sector.

(b)   If there are insufficient domestic comparators, then the benefits of a broader international comparator sample include reduction in estimation noise and less volatility in estimates over time.

135.   NZ Airports submits that the proposed shrunk sample set is materially worse than the larger sample set produced under the existing asset beta IM, because it loses the benefits of the large comparator set without any offsetting advantage of ensuring that the comparators are more closely matched to New Zealand airports. To the contrary, the comparators chosen are the least comparable airports in the broader set.

136.   As further explained in the CEG Report, this is because the smaller sample contains airports that all have lower systematic risk than New Zealand airports – evidenced by their sampled asset betas which are all materially lower than Auckland Airport. If the sample set was truly more comparable to New Zealand airports, then it would be reasonable to expect the asset beta of comparators to be clustered around Auckland Airport.[87]

137.   A key reason that airports in the sample have lower systematic risk is that, perhaps with the exception of Zurich and Vienna, they have high-capacity constraints and low demand risk compared to New Zealand airports.[88] The CEG Report analysis of Capacity Utilisation Index ("**CUI**") shows that:[89]

(a)   Airports in the smaller sample rank highly on the CUI. In particular, Frankfurt, Adp and AENA own (or partially own) 6 out of the 11 most congested airports in Europe.

(b)   New Zealand airports have a low ranking on the CUI. They are all in the lower half. None of the airports in the smaller sample are in the lower half.

138.   The CEG Report also demonstrates that:

(a)   New Zealand airports have a significantly lower number of flights compared to others in the smaller sample. To demonstrate, Zurich is the smallest airport above Auckland Airport, and has 59% more flights. Frankfurt and AdP have almost 200% more flights than Auckland Airport and Beijing just over 300%.[90]

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[87] CEG Report, at paragraph 133.
[88] CEG Report, at paragraph 222.
[89] CEG Report, at paragraph 226 - 227.
[90] CEG Report, at figure 5-6.

(b)　　Most airports in the small sample have lower passenger volatility compared to Auckland Airport over the 10 years to 2019 - exceptions are AENA and Vienna.[91]

(c)　　Auckland Airport has more than double the average volatility of passenger numbers to GDP volatility than the rest of the small sample.[92]

(d)　　The airports in the smaller sample are materially more diversified that New Zealand airports in terms of the variety of airlines operating at the airports, and the origins/destinations served.[93]

139.　　In summary, the CEG Report advises that:[94]

> ...
>
> In my view, the NZCC has clearly not identified the "most comparable" airports to AIAL and New Zealand airports. Rather, the NZCC has identified a narrow sample that has the lowest asset betas in the wider 2016 IM sample (the only exceptions are the four airports that the NZCC has identified as illiquid (Toscana, Bolgna, Copenhagen and HNA).

The smaller sample is less accurate

140.　　The CEG Report explains that the most accurate sample set will be closest to Auckland Airport's asset beta over time. That is because:[95]

(a)　　Auckland Airport is the best comparator for New Zealand airports;

(b)　　The sample set cannot be Auckland Airport alone because of estimation noise;

(c)　　The best sample set will therefore have similar asset betas over time to Auckland Airport, thereby removing the noise around Auckland Airport's estimate while still ensuring an accurate estimate for New Zealand airports.

(d)　　The benefit of a larger comparator set is the noise in each comparator's asset beta tends to cancel out and the average asset beta is more stable (and therefore allows for use of shorter estimation periods such as 10 years).

141.　　The CEG Report empirical analysis shows that the larger comparator set under the existing asset beta IM is materially better at tracking Auckland Airport's asset beta over time (from 2005 to 2023).[96] NZ Airports submits that it is therefore materially better at estimating an accurate asset beta for New Zealand airports.

142.　　In contrast, the CEG report shows that over the same time period, the Draft Decision smaller sample is materially worse at tracking Auckland Airport's asset beta – and is substantially below it since 2009. NZ Airports submits that it is therefore materially less accurate (ie more unreliable) as an estimator of New Zealand airports asset beta. It is also not surprising that a sample set made up of some of the lowest systematic risk airports in the world produces

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[91] CEG Report, at paragraph 232.
[92] CEG Report, at paragraph 234.
[93] CEG Report, at paragraph 240 - 242.
[94] CEG Report, at paragraph 134.
[95] CEG Report, at paragraphs 117 - 122.
[96] CEG Report, at paragraph 186.

an asset beta that is materially and consistently below Auckland Airport's. As noted in the CEG Report:[97]

> These facts suggest that the draft decision sample is an extremely poor sample to combine with AIAL. There is considerable sacrifice in terms of accuracy and there is no benefit in terms of reduced volatility.

> This is strong empirical evidence why I consider that maintenance of the 2010 and 2016 IM sample selection methodology is superior to the draft decision sample selection methodology.

143.   The CEG Report goes on to demonstrate that compared to the large comparator set, the Draft Decision sample asset beta is:[98]

(a)   2.4 times more volatile than the larger comparator sample (and 1.4 times more volatile than relying on Auckland Airport alone); and

(b)   3 times less accurate is a predictor of the Auckland Airport asset beta.

Exercise of judgement will contribute to volatility

144.   The Draft Decision states that a mechanistic method (precise thresholds) has not been used when applying the criteria for reducing the sample set. Instead, the Commission has "applied judgement based on the information across the indicators when considering whether to exclude a firm from our comparator sample".[99]

145.   NZ Airports has reviewed Appendix A in the Draft Decision and has found that there is little transparency as to how the criteria have been applied. NZ Airports is concerned that there is a very real risk that, contrary to the purpose of IMs, the proposed asset beta IM will require the exercise of a great deal of subjective discretion, which could result in material changes to the comparator sample at future reviews. There can be little certainty about the rules that will be applied to determine an asset beta estimate for airports, and there can be little confidence that the asset beta estimate is accurate.

146.   NZ Airports makes the following comments on the specific criteria applied to remove firms from the sample.

<u>Remove firms that operate in markets that are substantially different to New Zealand.</u>

147.   NZ Airports notes that the Draft Decision uses the FTSE equity country classification and market risk premium as indicators.

148.   The Draft Decision appears not to have considered that the High Court rejected arguments that Mexico and China airports should be excluded from the 2010 comparator set on the grounds that they were developing countries:[100]

> We find PwC's "developing country" argument unpersuasive. Mexico has, after all, been a member of the OECD for almost 20 years and to classify China's economy as "developing" may be true, but says little beyond stating the obvious.

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[97] CEG Report, at paragraphs 130 – 131.
[98] CEG Report, at paragraph 137.
[99] Draft Decision Cost of Capital Paper 2023, at paragraph 4.44.
[100] Merits Review 2013, at [1568].

149.   The Draft Decision to now apply market classification criteria to exclude Mexican and Chinese comparators directly contradicts the High Court precedent. NZ Airports submits that this means there is a heavy onus for the Draft Decision to provide new evidence to justify a departure from the High Court precedent.

150.   Not only is there an absence of such evidence, but as noted in the CEG Report, applying the FTSE Russell classification system to exclude countries misunderstands the nature of the system. It is not based on the level of development in the country but, rather, the ease of operation for equity fund managers. Such factors are not relevant to determining the reliability of beta estimates.

151.   The CEG Report advises that the purported correlation between the FTSE Russell classification system and MRP varies depending on what year's survey by Fernandez et al is used. For example if the 2021 survey is used, there is no correlation. If the 2022 survey is used (which only became available in June this year), then there is a correlation – but it should have led to airports from Mexico, China and Malaysia being included in the sample. In short, it is unsound and arbitrary to seek to exclude airports on the basis of country risk, and will invite regulatory gaming.[101]

152.   The CEG Report also identifies the following discrepancies in the Commission's application of this criterion:

   (a)   Almost 75% of Fraport AG's total operations are in countries with FTSE Russell classifications that the Commission has deemed not comparable to New Zealand and where the Commission has excluded airports from its sample on this basis. Further, given the geographic diversity of its operations, its asset beta will be biased downwards compared to a standalone German airport.[102]

   (b)   The same analysis applies to ADP.[103]

   (c)   Chinese airports should not be excluded on the basis of market comparability (as above, this aligns with the view of the High Court). But if the criterion was to be applied consistently Beijing Airport would not be distinguished based on the country where it is listed (Hong Kong). It is a Chinese airport subject to the same country risks as all other Chinese airports.[104]

Remove firms that have unusually variable asset beta estimates

153.   The Draft Decision reviews bid-ask spreads, percentage of shares traded (free float %), and variability in asset beta across estimation method as indicators.

154.   Further to our comments above about lack of transparency, it is not possible to assess whether this criterion has been applied on a consistent basis. It is notable, for example, that Vienna remains in the sample with a bid-ask spread of 0.77% (materially higher than some excluded firms) and free float of 10% (materially lower that some excluded firms).

155.   We refer to the CEG Report, which advises that this is also an unsound basis on which to exclude airports, as it cannot be consistently applied.[105] It was also noted that it is unclear

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[101] CEG Report, at paragraph 288 - 291.
[102] CEG Report, at paragraph 338.
[103] CEG Report, at paragraph 340.
[104] CEG Report, at paragraphs 344 - 348.
[105] CEG Report, at sections 6.1 and 6.3.

why the Draft Decision analysis is largely a test of variability of daily estimates, when daily estimates are not given weight by the Commission when it estimates asset beta.[106]

156. We also refer to the CEG Report, which advises that it is not clear how the Draft Decision's criteria were applied consistently given that:

(a) Vienna would be excluded for its bid-ask spread of 0.77% (among other reasons), noting that HNA has been excluded for its bid-ask spread of 0.63%.[107]

(b) It is not clear why HNA, with a free float percentage of 77%, is excluded and Vienna is included with a free float percentage of 10%.[108]

(c) Vienna is clearly at the high end of asset beta variability based on all of the Commission's criteria.[109]

(d) Grupo Aeroportuario del Sureste (excluded) has lower average variability than Beijing (included). If only the first period pre-pandemic is included in the analysis then the following excluded firms would have lower variability than Beijing:[110]

(i) Shenzen (0.09 vs 0.16);

(ii) Guangzhou (0.12 vs 0.16);

(iii) Xiamen (0.02 vs 0.16);

(iv) Airports of Thailand (0.02 vs 0.16);

(v) Grupo Aeroportuario del Sureste (0.07 vs 0.16); and

(vi) Grupo Aeroportuario del Pacifico (0.14 vs 0.16).

Remove firms that have unusual business financing structures

157. The Draft Decision has used negative leverage as an indicator of an issue.

158. NZ Airports refers to the CEG Report's advice that this is an unjustified criterion, as there is nothing anomalous about an airport having more liquid assets on hand than debt. The CEG Report also explains that high leverage should be of greater concern when identifying comparators, as it indicates an airport with low demand risk - as is the case for many of the airports in the smaller sample set.[111]

Remove firms with business characteristics that are not comparable to a major airport operating in New Zealand

159. It is not clear to NZ Airports what airports have been excluded on these grounds. It appears that, following CEPA's advice, Japan Airport Terminal has been excluded because around 75% of its revenues are non-aeronautical.

160. The CEG report advises that JAT "passes all of the NZCC criteria". Further:[112]

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[106] CEG Report, at paragraph 305.
[107] CEG Report, at paragraph 325 and figure 4-1.
[108] CEG Report, at paragraph 330.
[109] CEG Report, at paragraph 333.
[110] CEG Report, at paragraph 304.
[111] CEG Report, at section 6.1.4.
[112] CEG Report, at paragraph 37(c) and section 2.3.3.

(a)   the apparently high non-aeronautical revenues are due to JAT owning its own terminal retail outlets; and

(b)   when measured on a share of profit basis, which is most relevant for determining influence on stock prices and beta, JAT has low non-aeronautical operations relative to the Draft Decision's sample.

161.   NZ Airports notes that the Supreme Court of Western Australia accepted evidence that JAT should be included in an update of the Commission's comparator set.[113]

There are better small samples than that adopted in the Draft Decision

162.   While NZ Airports does not support the approach proposed in the Draft Decision, if it is to be applied it should be applied consistently and accurately. As discussed above, TDB Advisory's view was that the comparator set should include smaller airports most comparable to New Zealand airports. As discussed in the CEG Report, while not recommended (the large comparator sample remains best), there are better smaller samples than the small comparator sample in the Draft Decision:[114]

(a)   Zurich and Auckland Airport should be the primary comparators. They are the most similar to New Zealand airports in terms of regulatory regime and operating environment (capacity utilisation, standalone airport, airport size, country size and topography, passenger volatility measures). A sample of Auckland Airport and Zurich produces a very stable estimate and is a more accurate estimator for Auckland Airport (and therefore New Zealand airports) compared to the Draft Decision sample.

(b)   The next most comparable airports are AENA and Sydney, and could potentially form a sample. However, AENA's major airports are very different (as above, the UK CAA uses it as the primary comparator for Heathrow) and Sydney is capacity constrained.

Exclusion of COVID-19 impacted data overlaid with Covid-19 adjustments

Overview

163.   Instead of taking the average from the last 10 years of data as was done in 2010 and 2016, the Draft Decision adopts an entirely new approach to use of historical data, as follows:

(a)   Using 13 years of data from periods between 2007 and February 2020 (ie pre-Covid), a "long term asset beta" of 0.53 is calculated;

(b)   Using an adjustment approach purportedly based on UK CAA precedent, an uplift of 0.02 is calculated to incorporate future pandemic risk.

164.   NZ Airports does not dispute that Covid-19 has impacted asset beta. It is not a surprise that given the new market evidence on the extent of airports' exposure to demand shocks, airports now exhibit greater systematic risk compared to the market as a whole.

165.   As illustrated by the sectors subject to this IM review, while electricity and gas lines businesses of course experienced disruption through the pandemic, they were essential services that continued to provide services at a level that was unaffected by lockdowns. In

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[113] *Perth Airport v Qantas Airways*, at [267].
[114] CEG Report, at section 6.4.

contrast, as noted above, the aeronautical operations of airports were reduced to almost zero during periods of lockdown.

166.   For the reasons set out in the CEG Report, NZ Airports remains of the view the existing asset beta IM will be materially better at accurately reflecting shock events such as pandemics over time because:[115]

(a)   Using the two most recent five-year periods will accurately incorporate relevant data and give it the correct weight over time – for example, Covid-19 data will exit the sample in due course, but pandemic data will be incorporated at frequency that matches actual occurrences.

(b)   It is impossible to make consistent, rigorous and reliable ad hoc adjustments over time. As submitted above and advised by CEG, the existing asset beta IM is the best method to accurately incorporate "shock events" into estimates of asset beta. The Commission's proposal is materially worse.

The "long run pre-Covid" asset beta

167.   The Draft Decision calculates a pre Covid-19 asset beta of 0.53 (using the new smaller sample). It appears to take comfort that this is similar to the UK CAA's pre-Covid-10 asset beta of 0.5 for Heathrow Airport.[116] For all of the reasons explained above, NZ Airports submits that this should be a cause of concern – only an estimate materially (eg at least 0.20) above the asset beta for Heathrow Airport should provide comfort (as has been the case in the past).

168.   As explained in the CEG report, there are approaches in the Draft Decision's calculations that are very difficult to understand:[117]

(a)   It excludes 5 months of data unaffected by Covid-19 from 1 October 2017 to 28 February 2018.

(b)   It excludes 18 months of data after the end of the period that the Draft Decision has identified as being affected by Covid-19.

(c)   It includes data beginning in October 2007, which is 15.5 years before March 2023 rather than the 10 years used by the Commission in 2010 and 2016.

169.   CEG says it does not understand:[118]

(a)   Why the Commission did not simply take estimates for a five-year period ending February 2020.

(b)   Why the Commission split up the pre Covid-19 period into two five-year periods and a two-year period.

(c)   Why the Commission had the five-month gap of data.

170.   While NZ Airports does not support the Draft Decision's approach of calculating a "long run pre-Covid" asset beta, if the approach is retained then these anomalies should be

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[115] CEG Report, at section 9.1
[116] Draft Decision Cost of Capital Paper 2023, at paragraph 4.59.
[117] CEG Report, at paragraph 423.
[118] CEG Report, at paragraph 424.

addressed. The CEG Report calculates a correct "long run pre-Covid" asset beta of 0.58 (and not 0.53).[119]

The Covid-19 "uplift"

171.   NZ Airports shares the CEG Report's view that it is not clear how the Draft Decision arrives at a proposed uplift of 0.02. It appears that the Draft Decision has sought to follow UK CAA precedent – but has done so incorrectly.[120]

172.   As explained in the CEG Report, if the Draft Decision adhered to the established 10-year estimation window with no adjustments, it would have resulted in a very similar uplift (0.09) provided by the UK CAA for Heathrow (0.115 prior to a downward adjustment to account for the traffic risk sharing (TRS) mechanism).[121] The difference is that the Commission's existing asset beta IM would produce a temporary uplift (because the Covid-19 period would eventually exit the estimation window), while the UK CAA's is permanent.[122]

173.   NZ Airports believes that any uplift for New Zealand airport should be higher than the uplift provided for Heathrow Airport, as discussed below. We do not understand how the Draft Decision concludes that the Covid-19 uplift for New Zealand airports (0.02) should instead be materially lower than the uplift provided for Heathrow Airport.

UK CAA precedent

174.   The Draft Decision notes that the UK CAA analysis suggests that the amount added to the pre-Covid 19 beta is in the range of 0.04 to 0.14. It then refers to TDB Advisory advice that, using the same methodology for Auckland Airport data, the uplift should be in a range of 0 to 0.08.[123]

175.   The Draft Decision then undertakes separate calculations on Auckland Airport's asset beta to arrive at a range of 0.01 to 0.04.

176.   These results are very difficult to understand. The Draft Decision says that Auckland Airport's pre-Covid asset beta is 0.82, which compares to 0.5 for Heathrow Airport. A method that produces a materially lower uplift for an evidentially riskier airport seems illogical.

177.   The Draft Decision then runs the calculation on the 0.53 pre-Covid sample beta and arrives at an uplift of 0.03 as an upper value. Given that the Draft Decision says that the UK CAA arrived at an uplift of 0.04 to 0.14 from an asset beta of 0.5 for Heathrow Airport, it appears that something has gone materially wrong in the application of the UK CAA method.

178.   The CEG Report advises that the uplift provided to Heathrow Airport was in fact 0.115,[124] which adds to our concern that the uplift methodology must have been incorrectly applied to the Draft Decision beta of 0.53 to only achieve 0.03 as an upper value.

179.   As identified in the CEG Report, it appears that a key reason for the Draft Decision producing materially different results is that the UK CAA modelling used assumptions of 17 months (lower bound) and 39 months (upper bound) for the duration of a pandemic.[125] In

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[119] CEG Report, at section 2.4.
[120] CEG Report, at paragraphs 94 - 95.
[121] CEG Report, at paragraph 95.
[122] CEG Report, at paragraph 380.
[123] Draft Decision Cost of Capital Paper 2023, at paragraphs 4.60 to 4.61.
[124] CEG Report, at paragraph 368.
[125] CEG Report, at paragraph 433.

contrast, the Draft Decision has used periods of 3 months and 18 months, which has a material downward impact on any uplift. The Draft Decision does not identify any factor that would suggest New Zealand airports are exposed to pandemic events of substantially shorter duration compared to Heathrow Airport. NZ Airports submits that such factors do not exist.

180.   The CEG Report identifies further flaws with the Draft Decision's application of the UK CAA precedent, as summarised below:[126]

> I consider that this analysis has the following problems:
>
> a. It proceeds as if the NZCC is following UKCAA methodology but it is not doing so. Instead, the NZCC is applying an incorrect time based weighting scheme which fails to correctly weight for periods of higher market volatility (as the UKCAA method does). This is:
>
>> i. explained in section 8.2.2 below;
>>
>> ii. corrected in section 8.2.3 below.
>
> b. The draft decision has arbitrarily adopted assumptions about the upper and lower bound frequency and duration of pandemics with little external support. There is the suggestion that these come from the UKCAA but this is not correct.
>
>> i. The Flint/UKCAA method does adopt 1 in 50 and 1 in 20-year probabilities but it combines these with assumptions of 17 months and 39 months duration respectively. By contrast, the NZCC combines these with assumptions of 3 months and 18 months respectively.
>>
>> ii. The NZCC assumptions are much more aggressive (lower duration leads to lower uplift) than the UKCAA assumptions which are, already, arbitrary. I discuss this more in section 9.5. The inevitable lack of rigor around these estimates is an important reason why I do not consider that an adjustment should be attempted (relying as it does on unknowable assumptions);
>>
>> iii. Moreover, the NZCC method is internally inconsistent. If the NZCC were to adopt an assumption of a 3-month COVID-19 event then its long run pandemic-free average asset beta should be estimated by excising just 3 months of data. In which case, while its uplift would be smaller its long run average would be higher. The same applies to the 18-month duration assumptions.
>
> c. The NZCC also does not discuss the other aspects of the UKCAA compensation for pandemic risk that would be equivalent to a 0.4 pandemic uplift to asset beta if applied to New Zealand airports. This is discussed in detail in Appendix F below.
>
> [Footnotes omitted].

181.   The CEG Report then calculates uplifts with a correct application of the UK CAA methodology, as follows:

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[126] CEG Report, at paragraph 433.

(a)   For Auckland Airport, the upper bound of the uplift would be 0.11 (not 0.04) with an adjusted asset beta of 0.94 (not 0.86).[127]

(b)   For the Draft Decision Comparator sample, the upper bound of the uplift would be about 0.07 (not 0.03).[128]

(c)   For the broader comparator sample, the upper bound of the uplift would be 0.06 (applied to a pre-Covid average of 0.72).[129]

182.   The CEG Report also points out that the UK CAA provided additional compensation for Heathrow Airport, as follows:[130]

(a)   a 0.115 direct uplift to asset beta.

(b)   A TRS mechanism that heavily insulates Heathrow Airport from demand risk. The UK CAA therefore reduced the asset beta by 0.085 to 0.53 (meaning that the 0.115 uplift effectively became much smaller net of TRS).

(c)   Additions to the RAB and annual allowance for pandemic costs.

(d)   Adopting a lower-than-expected outturn forecast of passenger numbers.

183.   The CEG Report calculates that the additional compensation is equivalent to a 0.28 asset beta uplift, resulting in a 0.40 permanent asset beta equivalent uplift.

184.   NZ Airports submits that the UK CAA's approach to ensure Heathrow Airport is fairly compensated for pandemic risk stands in stark contrast to the Draft Decision, which reduces the compensation that would otherwise be available under the existing asset beta IM.

Energy sector

185.   NZ Airports submits that the uplift provided to airports is unreasonable when compared to the uplift the Draft Decision proposes to apply to the energy sector. The following demonstrates the inconsistency in approach:[131]

(a)   The Draft Decision estimates the long run pre-Covid asset beta for the energy sector to be 0.31 (0.53 for airports).

(b)   It estimates asset beta for the ten weeks of the first Covid-19 lockdown to be 0.6 (0.93 for airports).

(c)   For May 2020 to September 2022 the estimate is 0.34 (0.7 for airports).

(d)   From October 2021 to September 2022 the estimate is 0.36 (0.56 for airports).

186.   If the Draft Decision followed that same approach for airports and the energy sector, it would apply an uplift of 0.01 to achieve an asset beta of 0.32 for energy companies.[132]

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[127] CEG Report, at tables 8-2 and 8-3.
[128] CEG Report, at table 8-4.
[129] CEG Report, at table 8-4.
[130] CEG Report, at section 2.5.1, paragraphs 368 and 401, and Appendix F.
[131] CEG Report, at section 2.5.2; Draft Decision Cost of Capital Paper 2023, at paragraph 4.119
[132] Draft Decision Cost of Capital Paper 2023, at paragraph 4.122.

187.   However, the Draft Decision proposes to use an asset beta of 0.35 for the energy sector because otherwise its method would result in an asset beta much lower than the asset beta for the last two five-year periods (0.36).[133]

188.   The result is that the Covid-19 uplift for the energy sector is effectively 0.04 and therefore twice the size of the airport uplift – and this is an even larger percentage (13% versus 4%) increase given how much lower the energy asset beta is.[134] NZ Airports cannot understand why the Draft Decision effectively finds that pandemic risk has a bigger impact on systematic risk of energy companies than airports.

189.   We also refer to the CEG Report on this point, which advises that there is inconsistency between the approach to the airport and energy sectors, and notes that the approach to the energy sector suggests that the uplift methodology for airports is unreliable.

190.   NZ Airports submits that the comparison between the two sectors demonstrates that the Draft Decision's proposed methodology cannot be applied consistently to produce sensible results. It is an unreliable methodology that produces illogical results.

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[133] Draft Decision Cost of Capital Paper 2023, at paragraph 4.124.
[134] CEG Report, at paragraphs 77 and 78.

COST ALLOCATION

191.   The Commission has proposed drafting improvements to the cost allocation IM. The intention is to simplify and clarify the drafting or better implement the original intent, as follows:[135]

   (a)   Replace 'proportion of a quantifiable measure' with 'ratio' in the definitions of 'asset allocator', 'cost allocator', 'proxy asset allocator', and 'proxy cost allocator'; and

   (b)   Remove the reference to 'quantifiable measure' from the requirements of how proxy cost and asset allocators are used.

   (c)   Clarify that asset and cost allocators as used to 'proportionally' allocate values.

   (d)   Require any proxy allocator to be consistent with similar measures (within a disclosure year and from year to year) and reasonable.

   (e)   Amend the definition of operating costs:

      (i)   To exclude pecuniary penalties

      (ii)   To exclude the cost of appeals under the Commerce Act

      (iii)   To remove the erroneous reference to pass-through costs and recoverable costs in the list of exclusions.

192.   NZ Airports has no comments on these proposed changes.

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[135] Commerce Commission *Report on the IM Review 2023 – Part 4 Input Methodologies Review 2023 – Draft decision* (14 June 2023), decisions CA05, CA11, CA12 and CA14.

ASSET VALUATION

193.   The Commission proposes the following changes:[136]

    (a)   Refine clause 3.7(3) of the IMs to clarify that the requirement to revalue all land valued in accordance with Schedule A as at the same date does not apply to non-pricing land assets which are rolled forward at CPI;

    (b)   for commissioned assets:

        (i)   add the related party asset valuation rules from the EDB and GPB IMs:

            (aa)   incorporate relevant auditing and accounting standards by reference

            (bb)   amend the definition of arm's-length transaction, related party and related party transaction;

            (cc)   amending the value of commissioned assets

            (dd)   ensuring that GAAP applies on an arms-length basis to the valuation of assets acquired from related parties.

        (ii)   require that the value of a commissioned non-land asset that, before its commissioning date, the airport acquired from another regulated supplier as works under construction, is limited to the sum of:

            (aa)   the costs of the other regulated supplier in constructing those works;

            (bb)   any additional costs of the airport in constructing the asset;

        (iii)   remove the reference to "limited to" in clause 3.9(1)(d) so that assets acquired from another regulated supplier and used by the regulated supplier in the supply of regulated goods and services must always be valued at the unallocated closing RAB value of the asset.

        (iv)   Allow for depreciation for aeronautical assets in the year of acquisition or commissioning.

194.   NZ Airports has no comments on these proposed changes.

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[136] Commerce Commission *Report on the IM Review 2023 – Part 4 Input Methodologies Review 2023 – Draft decision* (14 June 2023), decisions AV41 and AV50.

APPENDIX A – CHRONOLOGY OF AIRPORTS COMPARATOR SAMPLE SETS

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
Setting of initial airport IMs – 2010		
Commerce Commission Input Methodologies Airport Services - Draft Reasons Paper 31 May 2010	**Approach to assessing the equity beta** • The Commission indicates it will use a portfolio of comparable businesses that have "very similar exposure to market risk" to estimate a regulated, industry service wide equity beta.[137] **Comparator Sample Set** • The Commission stated that:[138] The only New Zealand airport that is listed on a stock exchange is AIAL. The Commission therefore included nine international overseas firms that operate airports in its sample of comparable firms. • It did not elaborate further on its selection methodology. • See Appendix B for the list of comparable firms selected by the Commission in the draft 2010 reasons paper.	Sample size: 10 Median from sample: 0.71[139] Downward adjustment: 0.06 Asset beta: 0.65[140] Leverage: 40%[141] Equity beta: 1.08

Europe Economics
 	
Report for Air New Zealand by Europe Economics: Critique of Commerce Commission's asset beta analysis
	Critiquing the Commission's comparator sample set
	
	• In this report, Europe Economics critiques the asset beta in the Commerce Commission's Draft Reasons Paper. It focuses on the appropriateness of the Commission's chosen sample set, analyses asset beta estimates for the firms in that sample and considers whether to change the sample.[142]
	
	• Europe Economics identified the following risk factors that could affect an airport's exposure to systematic risk:[143]
	    o Large investment programmes
	    o Proportion of domestic passengers
	    o Exposure to non-aeronautical events
		Sample size: 13
		
		Median from sample: 0.66
		
		Adjusted asset beta: 0.60.[151]

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[137] Commerce Commission *Input Methodologies Airport Services - Draft Reasons Paper* (31 May 2010) at paragraphs 6.9.5 and 6.9.10.
[138] At paragraph 6.9.11.
[139] At paragraph 6.9.47.
[140] At paragraph 6.9.50. The Commission did not consider it necessary to make an adjustment to the unadjusted asset beta to account for regulatory differences in 2010.
[141] At paragraph 6.9.64.
[142] Europe Economics Report at paragraph 1.3.
[143] At paragraphs 3.30 and 3.31.
[151] At paragraph 5.3.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
9 July 2010	o Political environment (eg, policy changes like taxes) o Whether the comparator is a single airport or group of airports • Europe Economics argued for exclusion of the Thai and Mexican airports because the regulatory environment is not stable compared to New Zealand: It is arguable that certain of the airports in the comparator group might be subject to relatively high politico-regulatory risk. For example, it is not clear that the regulatory environment in Thailand or Mexico should be regarded as stable and predictable as that in New Zealand – in particular, we are not convinced it is appropriate to include so many Mexican airports within the comparator group.[144] … We believe that including three Mexican comparators over-weights the significance of Mexico as a source of comparator data. The inclusion of three Mexican comparators tends to raise the median. Yet it is reasonable to imagine that Mexican airports will be exposed to higher betas than New Zealand airports, since the elasticity of demand for air travel tends to decline with GDP per capita, so at higher GDP per capita the responsiveness of air travel to downturns in GDP will be less.[145] • Europe Economics noted that the asset betas of New Zealand's three international airports were situated in the middle of the comparator set, showing that the comparator set gave "some support" for the unadjusted asset beta:[146] … both Wellington and Christchurch are primarily domestic airports. This is in contrast to the majority of the comparator set which comprises of airports dealing with a large proportion of international traffic. Since domestic traffic is typically argued to be associated with higher systematic risk, it is natural to regard this as a factor tending to favour Wellington and Christchurch lying higher within the comparator group. … although there might be a case that the New Zealand airports perhaps lie somewhere below the median of this comparator set, it does not appear that the key factors of difference demonstrate decisively that the New Zealand Airports lie towards either the top or the bottom of the comparator set … The comparator with the closest overall turnover to the New Zealand airports (Grupo Aeroportuario del Pacifico) has an asset beta of 0.65, also. It thus appears to us that, although it has some weaknesses, this comparator set provides at least some support for an unadjusted asset beta in the region of 0.65.	

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[144] At paragraph 3.32.
[145] At paragraph 5.1(b).
[146] At paragraphs 3.33–3.34.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES

Arguments for alternative comparators

- Europe Economics did not consider the comparator set chosen by the Commission to be appropriate:[147]

> As explained above we do not consider the comparator set chosen by the CC in which to calculate the service-wide asset beta to be particularly good comparators for the three New Zealand airports. This is due to a number of reasons including the large number or large airport groups chosen; the inclusion of airports from countries which may face very different systematic risks resulting from the financial/political environment and the low number of airports with high proportions of domestic traffic included.

> We therefore consider in the next section the effect of expanding the comparator set to include a number of other airports.

Expansion of the comparator sample set

- Europe Economics argued for the inclusion of Copenhagen Airports A/S, Shanghai Pudong International Airport and Xiamen International Airport Group Co Ltd to the Commerce Commission's existing comparator sample:[148]

> **Copenhagen Airports A/S** is the listed company that owns and operates the airports at Kastrup and Roskilde. The airport is Scandinavia's main airport, i.e. the transfer airport for air traffic between other parts of the world and the many national and regional airports in Scandinavia and the area south of the Baltic Sea. At the end of December 2008, Macquarie Airports Copenhagen ApS held 53.7 per cent of the share capital of Copenhagen Airports A/S, and the Danish State held 39.2 per cent of the share capital. The remaining part of the shares is held by private and institutional investors. The number of passengers in 2009 was 19.7 million. Turnover in 2009 was NZ $868 million.

> **Shanghai Pudong International Airport** is a major international hub in Asia. A total of 31.9 million passengers passed through the airport in 2009, making the airport the third busiest in mainland China. There were 17.5 million international passengers handled in 2007. There are currently two main passenger terminals, and there are plans for the building of a third passenger terminal, a satellite terminal and two additional runways by 2015, raising capacity to 80 million passengers a year. Turnover in 2009 was NZ $748 million.

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[147] At paragraph 3.35.
[148] At paragraph 3.38.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	Xiamen International Airport Group Co Ltd is a state-owned conglomerate affiliated directly with the Xiamen Municipal Government. It manages three airports, namely, Xiamen Gaoqi Airport, Fuzhou Changle Airport and Longyan Guanzai Mountain Airport. Its core business is ground handling services for civil aviation, with supplementary businesses covering commerce and trade, hotel, advertising, investment, and real estate development. - Xiamen Gaoqi International Airport is a regional and international hub. In 2005 it handled a total of 6.28 million passengers and 201,300 tons of cargo and mail. The inbound and outbound international passengers totalled 1,173,300. - Fuzhou Changle International Airport is an international hub. In 2003, Fuzhou airport handled 3.39 million passengers. - Longyan Guanzaishan Airport is a regional airport targeted mainly to tourists, with a handling capacity of 140,000 passengers and 800 tons of cargos. • Europe Economics found that the inclusion of these three comparators and use of data from May 2010 rather than September 2009[149] lowers the mean of the comparator set slightly to 0.70 and the median to 0.66 (rather than 0.71).[150] • See Appendix B for the list of comparable firms proposed by Europe Economics.	
Strategic Finance Group (SFG) Airport beta estimates: Report prepared for Air New Zealand 11 July 2010	**Critiquing the Commission's comparator sample set** • SFG's report focused on the Commission's draft equity beta estimate of 1.08. By taking a larger, less discriminate sample of firms, SFG showed that the selection of firms (whether based on firms comparable to AIAL or firms that are not) affected the equity beta estimate. Its calculations demonstrated that the equity beta, if calculated on AIAL-comparable firms, ought to be lower at 0.79.[152] **Comparator Sample Set** • In broad terms, SFG's approach was:[153]	Sample size: 31 firms. Mean asset beta: 0.53 (all firms)[157] or 0.48 (only firms comparable to AIAL)[158]

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[149] At paragraph 5.2(c).
[150] At paragraph 3.40 and 3.39, Table 3.2.
[152] SFG Report.
[153] At paragraph 3.
[157] At paragraph 13.
[158] At paragraph 16.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES

	… to begin with all firms that are classified as operating in the airports, flying fields and airport terminal services industry and for which sufficient data is available. We then apply a classification system provided by Air New Zealand to identify those firms that are most comparable to Auckland International Airport.
	
	• SFG's methodology was to:[154]
	
	… begin by using the Osiris database to identify the set of all firms that are classified as operating in the airports, flying fields and airport terminal services industry (SIC 4581). We then obtain monthly stock returns for each of these firms from the Datastream database. In all cases, stock returns include dividends and capital gains, as is standard. Our final sample of potentially comparable firms is constructed as follows:
	   a. The initial sample of firms classified as operating in the airports, flying fields and airport terminal services industry was comprised of 44 firms;
	   b. Six firms were then removed from the sample because there were no returns data available from Datastream;
	   c. One firm was removed from the sample because there were no market returns (for Kuwait) available from Datastream;
	   d. A further six firms were removed from the sample because they are thinly traded on OTC markets;
	   e. Our final sample is therefore comprised of 31 firms classified as operating in SIC 458.
	
	Classification of comparable firms
	
	• Air New Zealand supplied SFG with a classification of the firms in the set of potential comparable firms:[155]
	
	Firms that Air New Zealand considers to be closely comparable to Auckland Airport are signified as 'C.' Those that are considered to be less comparable (e.g., because they involve a substantial amount of activity outside airport terminal services) are signified as 'N.' Those firms for which Air New Zealand is unable to make a categorical classification are signified 'U.'
	
	• See Appendix B for SFG's list of comparable firms and their Air New Zealand classifications.
	
	SFG's conclusions
		Leverage: 40%[159]
		
		Equity beta: 0.88 (full sample), or 0.79 (only firms comparable to AIAL)[160]

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[154] At paragraph 6.
[155] At paragraph 15.
[159] At paragraph 13.
[160] At paragraph 18.

- SFG made the following findings:[156]

  The average asset beta of those firms that are classified as being most comparable to Auckland Airport (i.e., those classified as "C") is 0.48. This corresponds to a re-levered equity beta (assuming 40% debt financing) of 0.79.

  The average asset beta of those firms that are classified as being not uncomparable to Auckland Airport (i.e., those classified as "C" or "U") is 0.55. This corresponds to a re-levered equity beta (assuming 40% debt financing) of 0.92.

  In summary, the re-geared equity beta estimates are:

    a. 0.88, based on the full sample;

    b. 0.79, based on those firms that are considered to be most comparable to Auckland Airport; and

    c. 0.92, based on those firms that are considered to be not uncomparable to Auckland Airport.

  These estimates can be compared with the Commission's estimate of 1.08, which is based on the Commission's smaller set of comparable firms.

  …

  Our beta estimates for the firms used by the Commission are generally very close to the Commission's estimates. This indicates that our process of estimating beta is commensurate with the process used by the Commission and generally produces closely comparable results. Consequently, any difference in final beta estimates will result only from differences in the set of comparable firms that are used. In this regard, we note that:

    a. If a larger set of firms that are classified as operating in the airports, flying fields and airport terminal services industry (SIC 458) are used, the resulting equity beta estimate is lower than that adopted by the Commission; and that

    b. The Commission has provided no detail on how it has selected the firms in its set of comparables.

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[156] At paragraphs 17–19 and 25.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
Jeff Balchin (PwC) Analysis of airport asset betas 3 August 2010 (NZAA Cross-submission)	**Comparator sample set** • PwC's preferred sample size is 8 firms which gives a median asset beta of 0.71, as shown in the table below:[161]	Sample size: 8 Median asset beta: 0.71[164] Median equity beta: 0.95[165]

PwC preferred sample:

Airport	Observations	Equity Beta	Gearing	Asset Beta
SAVE SpA	60	0.97	12%	0.86
Aeroports de Paris	47	0.95	26%	0.70
Auckland International Airport	84	0.96	25%	0.72
Copenhagen Airports A/S	84	0.51	21%	0.40
Flughafen Wien	84	0.87	15%	0.74
Flughafen Zuerich AG	84	1.19	48%	0.61
Fraport AG	84	0.88	16%	0.74
MAP Group	84	1.15	46%	0.62
Mean		**0.94**	**26%**	**0.68**
Median		**0.95**	**23%**	**0.71**

Comparator Sample Set

• PwC's identification methodology for selecting the comparator sample was as follows:[162]

> After commencing with the largest sample, we would scrutinise the activities that are undertaken by the listed entity remove firms for whom owning and operating an airport is not a dominant activity. This left a sample of 19 firms.

> We would then focus on the firms from western economies, given that this would deliver firms that are subject to a similar mature institutional (legal) and economic framework as exists in New Zealand. This left a sample of 10 firms.

> Lastly, we would exclude firms that have fewer than three years of observations and that have a market capitalisation of less than USD200 million over the last 5 years …The result of this step resulted in the exclusion of a further two firms leaving a sample of 8.

• PwC considered firms from developing countries, such as Mexico and China, should be excluded from the set of comparable firms:[163]

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[161] Jeff Balchin (PwC) *Analysis of airport asset betas* (3 August 2010) at page 9.
[162] At pages 6–7.
[163] At page 12.
[164] At page 29.
[165] At page 29.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	At the outset we note that we consider there to be grounds to exclude all firms from developing countries from the set of comparable firms. This is because the different institutional and market environment in those countries compared to New Zealand means that there can be less confidence that the relationship between the economic returns to an airport in a developing country and the market as a whole is a good proxy for the relationship that would exist in New Zealand. However, in terms of priority, we consider there to be a greater case for excluding the Chinese firms from the sample than those in Mexico – this is because we find it less plausible that the relationships in the economic returns between firms in a centrally planned economy would translate directly into a market economy.	

Commerce Commission
 	
Airports Input Methodologies Reasons Paper
 	
22 December 2010
	Final asset beta
	
	• The Commission's final decision in relation to the comparator sample set and asset beta was as follows:[166]
	
	    Using data from AIAL and 23 international listed airports, the Commission has estimated the asset beta for airport services at 0.60. The Commission's estimate is in the middle of the range of independent estimates of airport asset betas.
	
	• The Commission noted the changes in its final decisions compared to the sample of 10 airports in its draft reasons paper:[167]
	
	    At the time of the Draft Reasons Paper the Commission estimated the asset beta of 0.65 for airports based on analysis of the monthly data over five years for 10 airports (AIAL plus nine overseas airports). Since then, the Commission has undertaken extensive further analysis of relevant asset betas … The Commission's empirical analysis included: …
	
	        • … a much larger sample of 24 airports (AIAL plus 23 overseas airports). Small companies were excluded to ensure any thin trading in their shares could not affect the estimates of the asset beta.
		Sample size: 24
		
		Unadjusted asset beta: 0.65[172]
		
		Downwards adjustment: 0.05
		
		Adjusted beta: 0.60[173]
		
		Leverage: 17%[174]
		
		Equity beta: 0.72[175]

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[166] Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010) at paragraph X32.
[167] At paragraph 6.5.21.
[172] At paragraph E8.118.
[173] At paragraph E8.119.
[174] At paragraph X33.
[175] At paragraph X33.

- The Commission concluded that 0.60 was a reasonable asset beta:[168]

    As a result of the extensive further analysis undertaken by the Commission, with a much larger sample, the Commission concluded that a reasonable estimate of the asset beta for the larger sample of airports is 0.60.

Comparator Sample Set

- In relation to the process of identifying comparable firms, the Commission noted the following:[169]

    The Commission has carefully considered the submissions received and has undertaken further analysis on the appropriate beta … In particular, the Commission has … identified additional comparable airport companies for inclusion in the analysis.

    …

    The only New Zealand airport that is listed on a stock exchange is Auckland International Airport Ltd. The Commission therefore included overseas firms that operate airports in its sample of comparable firms. Given the size of the resulting sample, the Commission did not consider it necessary to consider overseas firms from other industries with a similar risk profile.

    Overseas firm that operate airports were identified based upon the Bloomberg classifications "Airport Development/Maintenance" and "Transport – Services". Any firms with either insufficient history as a listed entity (i.e. too few available data points) or a market value of equity below US$100 million (i.e. small entities) were excluded from the sample.

    For the remaining firms in the sample, to further assess comparability, Bloomberg's "Segment Analysis" information was used to assess the nature and extent of aeronautical versus non-aeronautical services provided. As a result, any firms which the Commission did not consider were sufficiently comparable were also excluded from the sample. Table E18 displays the selected comparative airports sample.

- See Appendix B for the Commission's final list of comparable firms.

Reasonableness checks

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[168] At paragraph 6.5.22.
[169] At paragraphs E8.39 and E8.42–E8.44.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	• The Commission compared the asset beta for airports with other asset beta estimates to demonstrate that its estimate is reasonable:[170] To assess the reasonableness of the asset beta estimate, the Commission has compared the results of its asset beta analysis across a range of estimates of the asset beta from other sources. • In relation to overseas regulators and their approaches to airports' asset beta, the Commission notes the following:[171] In the 2007 Heathrow and Gatwick price control review, the UK Competition Commission estimated the asset betas (using debt beta of 0.1) of the two airports to be 0.47 and 0.52 respectively. As a cross check, the UK Competition Commission evaluated asset betas from other international airports. The average asset beta from these other international airports was 0.44 with a range of 0.20 to 0.88. The Commission notes that its own beta estimates for airports differ from those estimated by the UK Competition Commission. Although all estimates have been derived using the same econometric techniques, the time horizons and periodicities differ. Specifically, the UK Competition Commission used one year worth of weekly observation covering the period July 2006 to July 2007. In a report to the UK CAA on the 2008 Stansted price control review, the UK Competition Commission estimated the asset betas of Stansted to be 0.61. As a cross check, the Competition Commission evaluated asset betas from other international airports. The average asset beta from these other international airports was 0.46. In its 2009 price review of the Dublin Airport Authority the Commission for Airport Regulation decided that an asset beta for airports was in the range of 0.5 to 0.7 and decided on a 0.61 point estimate of the asset beta in estimating the cost of capital for Dublin Airport Authority. … In order to ensure that the asset beta is a fair measure of the underlying risk associated with Airport services, the IMs considers it appropriate to accept an unadjusted asset beta monthly estimate of 0.69 (weekly of 0.60) before any other adjustments are made.	

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[170] At paragraph 6.5.23.
[171] At paragraphs E8.65–E8.68, and E8.71.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	High Court Merits Review – 2013	
Wellington International Airport Ltd & Ord v Commerce Commission [2013] NZHC 3289 11 December 2013	**High Court's comments on the Commission's 2010 comparator sample** • In relation to WIAL / CIAL's submissions on the Commission's comparator sample set, the HC noted the following (with Mr Hodder representing WIAL/CIAL):[176] In oral argument, Mr Hodder criticised the Commission's airport comparator sample. He did so on the basis of a PwC report, prepared in August 2010 for the NZAA. … Mr Hodder's submission was that PwC's criticism of that broader sample was a proxy for criticising the Commission's broader sample as used to finally determine its estimate of the airport sector asset beta and leverage. … PwC would exclude nine of the airports in the Commission's sample including, particularly, all Mexican and Chinese airports on the basis that those are 'developing countries' … Thus, Mr Hodder argued, PwC's criticisms of the samples used by SFG to produce lower beta estimates than the Commission's draft estimate, was a criticism that applied also to the lower estimate the Commission had produced based on its broader sample. At the end of the day, Mr Hodder's submission was that we were entitled to give weight to that (PwC) evidence. Doing so would support the proposition of WIAL/CIAL that the Commission's estimate, 0.65, was adequate but conservative. • The High Court was not persuaded by WIAL / CIAL's proposed asset beta, in particular finding PwC's developing country argument unpersuasive, and endorsed the Commission's broader sample:[177] Having considered that evidence, we are not persuaded that WIAL/CIAL's proposed asset beta would produce a materially better Airports cost of capital IM. We find PwC's "developing country" argument unpersuasive. Mexico has, after all, been a member of the OECD for almost 20 years and to classify China's economy as "developing" may be true, but says little beyond stating the obvious. Moreover, the range of sample information commented on by PwC itself in its report (for example Europe Economics' sample compared to that of the Commission) shows, in our view, that the Commission's sample took something of a middle ground in terms of those that were advocated before it.	WIAL/CIAL argued that PwC's sample should be followed: • Sample size: 8 • Asset beta: 0.71 • Equity beta: 0.95 This was rejected by the High Court in favour of the Commission's 2010 sample (see above).

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
First Airport IM review – 2016		
NZ Airports Association Submission on Additional Evidence for Cost of Capital Input Methodologies 5 February 2016	**Asset beta comparator sample** • NZ Airports made the following submissions in 2016, in relation to the Commission's approach of using the largest possible comparator sample, (referring to the Bush/Earwalker report prepared in support):[178] NZ Airports expressed concerns with the Commission's approach to the comparator sampling in 2010. However, we recognise that, as part of the Merits Review proceedings, the Commission's approach of a larger global sample was endorsed by the High Court. We understand that a key rationale for increasing the sample set from 10 (in the draft decision) to 25 (in the final decision) was to provide the most robust estimate possible. In these circumstances, NZ Airports expects the Commission to maintain its existing approach of using the largest possible comparator sample of airport operators to estimate the asset beta. Doing so will provide regulatory certainty, which best gives effect to the purpose of Part 4 and the IM. We recognise that the Commission's original sample of 25 firms, assembled in 2010, has been subject to changes in ownership structure. For example, some airport companies have since been de-listed and others may have been subject to M&A activity; some may no longer be characterised as airport operators or owners. Inevitably, it will need to be considered how this impacts on the sample. As a general principle, we support an approach that minimises any change to the greatest extent possible, to provide comfort that the asset beta will not be subject to ongoing volatility due to changes in the sampling method each time it is reviewed. NZ Airports encourages the Commission to provide stakeholders with transparency, as well as the opportunity to comment, on any proposed updates to the sample as part of this process. NZ Airports also invites the Commission to consider how it might give more weight to Auckland Airport's asset beta with its overall framework. As highlighted in the Bush/Earwaker Report attached to NZ Airport's August Problem Definition submission, airports are a heterogeneous set of investments compared to the Commission's use of a relatively homogenous sample of electricity and gas distributors subject to revenue cap regulation, with broadly similar risk profiles. The airports' different operating characteristics, as well as differences in prevailing	

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[176] Merits Review 2013 at [1561]–[1562], [1565] and [1567].
[177] At [1568].
[178] NZ Airports Association *Submission on Additional Evidence for Cost of Capital Input Methodologies* (5 February 2016) at paragraphs 8–13; and see Bush/Earwaker *Evidence Relating to the Assessment of the WACC Percentile for Airports* (August 2015).

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	economic conditions and regulatory frameworks, make it difficult to obtain an accurate empirical beta estimate which is applicable to all regulated suppliers of airport services in New Zealand. To mitigate against the inevitable heterogeneity of the airports in a global sample, Auckland Airport's observable asset beta readily provides a good empirical indicator of the risks faced by airport operators in the New Zealand ID-regulated market. That is, we think it is reasonable for the Commission to consider Auckland Airport's observed beta as a broad cross-check as to whether the estimate produced by the Commission's comparator sample is a fair reflection of the systematic risk faced by the three New Zealand airports (in addition to the other crosschecks it carries out within its six-step process). NZ Airports also invites the Commission to consider the impact that the heterogeneity of airports will have on the standard error estimate for asset beta. As further noted in the Bush/Earwaker August Report, the standard error that applies to the three regulated New Zealand airports should be materially higher than the standard error in the Commission's electricity/gas distribution estimate to account for that heterogeneity.	
Commerce Commission Input methodologies review draft decisions – Topic paper 4: Cost of capital issues 16 June 2016	**Asset beta** • The Commission proposed to use an asset beta of 0.58 for airports, which was lower than the value of 0.60 that the Commission determined in 2010, based on updated data of the Commission's revised airports comparator sample.[179] **Comparator Sample Set** • The Commission's methodology is largely the same as the one it applied in 2010, resulting in a selection of 26 firms. Four companies from the 2010 sample were excluded because of acquisitions or de-listings and five new firms were added.[180] • The Commission used the following steps to select its sample set:[181] The first step in our process is to identify relevant comparable firms for inclusion in our sample. We have followed largely the same approach to identifying the comparators for our sample as we did for the 2010 IMs.	Sample size: 26 Average comparator sample: 0.63[183] Downward adjustment: 0.05[184] Asset beta: 0.58[185] Leverage: 19%[186]

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[179] Commerce Commission *Input methodologies review draft decisions – Topic paper 4: Cost of capital issues* (16 June 2016) at paragraph 393.
[180] At paragraphs 398.1 and 398.2, table 6.
[181] At paragraphs 395–398.
[183] At paragraph 404.
[184] At paragraph 420.
[185] At paragraph 420.
[186] At paragraph 423.

		Equity beta: 0.72[187]
	To identify relevant comparable firms for inclusion in the sample, we used Bloomberg's security finder to search for firms with 'Airport' in the description. In 2010, on the other hand, we used the 'Airport Development/Maintenance' and 'Transport – Services' ICBs to identify airports for our sample – however these classifications appear to no longer exist. We then used Bloomberg company descriptions and 'Segment Analysis' information to assess the nature and extent of each company's business, and excluded any firms from the sample that we did not consider were sufficiently comparable. Consistent with our 2010 decision, we have also only included companies that had at least five years of trading data, and a market value of equity of at least US$100m. This resulted in a sample of 26 firms, which are listed in Attachment B. 21 of the firms in our updated sample were also included in the 2010 sample. • See Appendix B for the Commission's list of comparable firms. Note that the same sample set was uncontested and therefore also used for the Commission's final reasons paper. • **Attachment B**: further details regarding airports asset beta comparator sample	

Table 30: Descriptions of companies in airports asset beta comparator sample

Ticker	Name	Bloomberg description
000089 CH Equity	Shenzhen Airport Co	Shenzhen Airport Co., Ltd. provides airport terminal ground passenger transportation and cargo delivery services. The Company also leases airport lounge, designs and publishes advertisements, and offers air ticket agency services.
357 HK Equity	HNA Infrastructure Company Ltd	HNA Infrastructure Company Ltd provides airfield services, terminal facilities, ground handling services, passenger and cargo handling services. The Company also leases commercial and retail space at the Meilan Airport, operates airport-related business franchising, advertising, car parking, tourism services, and sells duty-free and consumable goods.
600004 CH Equity	Guangzhou Baiyun International	Guangzhou Baiyun International Airport Co., Ltd. operates the Guangzhou Baiyun International Airport and provides related transportation services, including ground, passenger, storage, airplane maintenance and repair, and other services. The Company also provides food, space rental, and advertising services.
600009 CH Equity	Shanghai International Airport	Shanghai International Airport Co., Ltd. operates Pudong Airport and Hongqiao airport in Shanghai. The Company provides a full range of services including air traffic control, terminal management, cargo handling, advertising, space rental, and other related services.
600897 CH Equity	Xiamen International Airport C	Xiamen International Airport Co., Ltd. operates and maintains Gaoqi Airport. The Company provides terminal transportation service, maintains airport waiting halls, operates airport shopping malls, as well as offers advertising and airport mechanical engineering services.
694 HK Equity	Beijing Capital International	Beijing Capital International Airport Company Limited operates both aeronautical and non-aeronautical business in the Beijing airport. The Company provides aircraft movement and passenger service facilities, safety and security services, fire-fighting services, and ground handling services. In addition, Beijing Capital operates duty free and other retail shops and leases properties.
8864 JP Equity	Airport Facilities Co Ltd	AIRPORT FACILITIES Co., LTD. manages and leases airport facilities at Haneda Airport in Tokyo and at Itami Airport in Osaka. The Company constructs, operates, and maintains air-conditioning, water supply, and sanitation systems for airport facilities. The Company also manages Narita International Airport facilities through its subsidiary.

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[187] At paragraph 423.

Bloomberg ticker	Company	Description
9706 JP Equity	Japan Airport Terminal Co Ltd	Japan Airport Terminal Co., Ltd. constructs, manages and maintains passenger terminals and airport facilities at Haneda and Narita airports. The Company operates parking-lots, souvenir shops, and duty-free stores. Japan Airport Terminal, through its subsidiaries, manages restaurants and in-flight meal services.
ADP FP Equity	Aeroports de Paris	Aeroports de Paris (ADP) manages all the civil airports in the Paris area. The Company also develops and operates light aircraft aerodromes. ADP offers air transport related services, and business services such as office rental.
AERO SG Equity	Aerodrom Nikola Tesla AD Beogr	Aerodrom Nikola Tesla AD Beograd operates an international airport near Belgrade, Serbia. The airport serves passengers traveling to European and Middle Eastern destinations. The Company offers ground handling of aircraft, passengers, goods and mail; runway maintenance; advertising space rental; and maintenance of airport utilities and power infrastructure.
AIA NZ Equity	Auckland International Airport	Auckland International Airport Limited owns and operates the Auckland International Airport. The Airport includes a single runway, an international terminal and two domestic terminals. The Airport also has commercial facilities which includes airfreight operations, car rental services, commercial banking center and office buildings.
AOT TB Equity	Airports of Thailand PCL	Airports of Thailand Public Company Ltd. operates the Bangkok International Airport (Don Muang) and the New Bangkok International Airport (Suvarnabhumi).. The Company also operates provincial airports in Chiang Mai, Chiang Rai, Hat Yai, and Phuket.
ASURB MM Equity	Grupo Aeroportuario del Surest	Grupo Aeroportuario del Sureste S.A.B. de C.V. operates airports in Mexico. The Company holds 50 year concessions, beginning in 1998, to manage airports in Cancun, Cozumel, Merida, Oaxaca, Veracruz, Huatulco, Tapachula, Minatitlan, and Villahermosa.
FHZN SW Equity	Flughafen Zuerich AG	Flughafen Zuerich AG operates the Zurich Airport. The Company constructs, leases, and maintains airport structures and equipment.
FLU AV Equity	Flughafen Wien AG	Flughafen Wien AG manages, maintains, and operates the Vienna International Airport and the Voslau Airfield. The Company offers terminal services, air-side and land-side cargo handling, and the leasing of store, restaurant, and hotel airport building space to third party operators and businesses.
FRA GR Equity	Fraport AG Frankfurt Airport S	Fraport AG Frankfurt Airport Services Worldwide offers airport services. The Company operates the Frankfurt-Main, Frankfurt-Hahn and other German airports, the airport in Lima, Peru, and the international terminal in Antalya, Turkey. Fraport also provides services to domestic and international carriers including traffic, facility and terminal management, ground handling, and security.
GAPB MM Equity	Grupo Aeroportuario del Pacifi	Grupo Aeroportuario del Pacifico SAB de CV operates and maintains airports in the Pacific and central regions of Mexico.
GMRI IN Equity	GMR Infrastructure Ltd	GMR Infrastructure is an infrastructure company with interests in airports, power and roads. The Company is developing a greenfield international airport at Hyderabad, and is also operating, managing and developing the Delhi airport. Additionally, it is involved in development and operation of power plants and road projects in India.
KBHL DC Equity	Kobenhavns Lufthavne	Kobenhavns Lufthavne A/S (Copenhagen Airports A/S - CPH) owns and operates Kastrup, the international airport in Copenhagen, and Roskilde airport. The Company provides traffic management, maintenance, and security services, as well as manages the Airport Shopping Center and airport projects. Kobenhavns Lufthavne also has investments in airports in Mexico, England, and China.
MAHB MK Equity	Malaysia Airports Holdings Bhd	Malaysia Airports Holdings Berhad is an investment holding company. The Company, through its subsidiaries, provides management, maintenance, and operation of designated airports. Malaysia Airports also operates duty-free and non-duty free stores as well as provides food and beverage outlets at the airports.
MIA MV Equity	Malta International Airport PL	Malta International Airport PLC operates the Malta International airport.
OMAB MM Equity	Grupo Aeroportuario del Centro	Grupo Aeroportuario del Centro Norte, S.A.B. de C.V. (OMA) operates international airports in the northern and central regions of Mexico. The airports serve Monterrey, Acapulco, Mazatlan, Zihuatanejo and several other regional centers and border cities.
SAVE IM Equity	SAVE SpA/Tessera	SAVE SpA operates the Marco Polo Airport in Venice, Italy. The Company operates through a concession from Italy's Ministry of Transport.
SYD AU Equity	Sydney Airport	Sydney Airport operates the Sydney, Australia airport. The Company develops and maintains the airport infrastructure and leases terminal space to airlines and retailers.
TAVHL TI Equity	TAV Havalimanlari Holding AS	TAV Havalimanlari Holding AS is an airport operator. The Company operates in airports in Turkey, Georgia, Tunisia, Macedonia, Saudi Arabia and Latvia. TAV Havalimanlari provides service in all areas of airport operations such as duty-free, food and beverage, ground handling, IT, security and operations.
TYA IM Equity	Toscana Aeroporti SpA	Toscana Aeroporti S.p.A. is the management company for Florence and Pisa airports. The Company offers flights around the world.

The Commission removed four companies from the 2010 sample because of acquisitions / delisting (in red) and added in five new companies (in green), providing a total of 26 firms. Table 6 illustrated these decisions:[182]

Table 6: Changes in our airports asset beta comparator sample since 2010

Bloomberg ticker	Company	Reason for removal/addition
AELG SV Equity	Aerodrom Ljubljiana dd	Acquired.
AFI IM Equity	Aeroporto Di Firenze Spa	Acquired.
FGX AU Equity	Future Generation Investment	Nothing to indicate they have holdings in airport assets.
GEM IM Equity	Gemina Spa	Acquired by ATL IM Equity.
AERO SG Equity	Aerodrom Nikola Tesla AD Beogr	Operates an airport in Serbia.
GMRI IN Equity	GMR Infrastructure Ltd	Involved in operating two major Indian airports as well as other activities.
MAHB MK Equity	Malaysia Airports Holdings Bhd	Investment holding company that owns subsidiaries that run airports.
TAVHL TI Equity	TAV Havalimanlari Holding AS	Airport operator at numerous airports.
TYA IM Equity	Toscana Aeroporti SpA	Management company for two airports.

Commerce Commission	**Comparator Sample Set**	Comparator sample: 26

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[182] At paragraphs 398.1 and 398.2, table 6.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
Input Methodologies review decisions - Topic paper 4: Cost of capital issues 20 December 2016	• The Commission's final sample used the same identification methodology and comparator sample set it had proposed in the 2016 draft decision.[188] • See Appendix B for the Commission's final list of comparable firms. • Reflecting on the draft decision, the Commission noted that:[189] In its submission on the draft decision, NZ Airports stated that "[i]t is appropriate for the Commission to update its asset beta comparator sample, given the passage of time since the 2010 IMs were determined" and "[w]e also agree with the Commission following the same approach to sampling (eg a broad sample set) to the extent possible". We have retained the same comparator sample as the draft decision, given we received no submissions suggesting companies be added or excluded. We also considered applying a percentage of days traded liquidity filter, consistent with our approach to the energy comparator sample. Data on the percentage of days traded for the companies in the airports sample, for the 2011-2016 period, is shown in Figure 11 below. We have not excluded any companies from the airports sample, based on the percentage of days traded. Toscana Aeroporti (TYA IM Equity) had the lowest percentage of days traded over the 2011-2016 period, at 88%. We consider that this is not an obvious outlier which should be removed from the sample (unlike Jersey Electricity in the energy sample, which was only traded on 36% of days over the sample period).	Average asset beta: 0.65[190] Downward adjustment: 0.05[191] Adjusted asset beta: 0.60[192] Leverage: 19%[193] Equity beta: 0.74[194]
Second Airport IM review – 2023		
Cambridge Economic Policy Associates Pty Ltd (CEPA)	**Calculating the asset beta** • In this report, CEPA found that applying the same methodology for finding the comparator sample asset beta would, this time around, produce an initial asset beta estimate of 0.79. CEPA therefore	Comparator sample: 24

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[188] Commerce Commission *Input Methodologies review decisions – Topic paper 4: Cost of capital issues* (20 December 2016) at paragraphs 460–463. See Commerce Commission *Input methodologies review draft decisions – Topic paper 4: Cost of capital issues* (16 June 2016) at paragraphs 395–398.
[189] At paragraphs 465–467.
[190] At paragraph 473.
[191] At paragraph 486.
[192] At paragraph 458.
[193] At paragraph 489.
[194] At paragraph 489.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES

Review of Cost of Capital 2022/2023
 	
29 November 2022
	uses an updated method of calculating the asset beta for the most recent data period (2017-2022).[195]
	
	• CEPA was asked to apply the 2016 methodology but not to advise on what the asset beta should be.[196]
	
	• In relation to the effect of changes to the comparator sample, CEPA notes:[197]
	
	    There appears to have been a marked increase in asset beta in the most recent period (2017-2022). This includes the period impacted by Covid, which may have increased betas for airports.
	
	    There are three new airport comparators included in the most recent sample period [AENA, Airports Corporation of Vietnam, and Aeroporto Guglielmo Marconi di Bologna]. Their removal has an immaterial difference on the averages for 2017-2022 producing average betas of 0.78, 0.86 and 0.84 for daily, weekly, and four-weekly respectively.
	
	    Sydney Airport was previously included in the Commissions sample but was delisted in February 2022. We have included beta estimations as at 30/01/2022 in the appendix. Including Sydney Airport makes no material changes to the overall average.
	
	Comparator Sample Set
	
	• CEPA "largely follows" the Commission's 2010 approach to selecting the comparator sample set.[198]
	
	• CEPA selected a sample of 24 firms.[199] Table 2.1 demonstrates the changes made to the Commission's 2016 sample set:[200]
		Unadjusted asset beta: 0.79[202]
		
		Downward adjustment: 0.05[203]
		
		Adjusted asset beta: 0.74[204]
		
		Leverage: 15%[205]
		
		Equity beta: 0.88.[206]

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[195] CEPA Report, at pages 11-12.
[196] Commerce Commission *Cost of Capital topic paper: Part 4 Input Methodologies Review 2023 – Draft Decision* (14 June 2023) at paragraph 4.27.2.
[197] CEPA Report, at page 11.
[198] CEPA Report, at page 6.
[199] CEPA Report, at pages 7 and 52–54.
[200] CEPA Report, at pages 6 and 7.
[202] Commerce Commission *Cost of Capital topic paper: Part 4 Input Methodologies Review 2023 – Draft Decision* (14 June 2023) at paragraph 4.48.
[203] At paragraph 4.48.
[204] At paragraph 4.33.1.
[205] At 4.33.1.
[206] At 4.33.1.

Table 2.1: Summary of change in airport sample

Bloomberg code	Name	Reason for exclusion/inclusion
SAVE IM	Venice Airport	Delisted 2017
SYD AU	Sydney Airport	Delisted 2022
8864 JP	Airport Facilities Co	Not involved in regulated airport operations
9706 JP	Japan Airport Terminal Co.	Low percentage of aeronautical revenues
TAVHL TI	TAV Havalimanlari Holding	Aeroports de Paris purchased 46% stake
AERO SG	Aerodrom Nikola Tesla	Concession sold to Vinci

Bloomberg code	Name	Reason for exclusion/inclusion
AENA SM	AENA	Operates a portfolio of airports in Spain and across the globe
ACV VN	Airports Corporation of Vietnam	Operates a portfolio of airports in Vietnam.
ADB IM	Aeroporto Guglielmo Marconi di Bologna	Operates an airport in Italy

Source: CEPA analysis of 2016 NZCC Input Methodologies

- CEPA made the decision to remove six firms from the Commission's 2016 sample set: Airport Facilities Co, Japan Airport Terminal co, Belgrade Nikola Tesla Airport, Venice Airport, Sydney Airport, and TAV Havalimanlari Holding. Their reasons were as follows:[201]

  Airport Facilities Co (8864 JP) is a Japanese company primary involved in real estate leasing in airports and other related airport infrastructure such as air conditioning and water. Airport Facilities Co was included the Commission's 2016 Airport comparator sample. After a review of their business operations, we have not included it in our 2022 comparator sample. 79.3% of its net sales are attributed to its 'Real Estate Business'. This involves the "leasing of real estate as multi-purpose general buildings, hangars, maintenance plants, apartments, and hotels in airports in Japan and abroad and regions along the railway line connected to the airport". The remainder of its revenues come from 'Area Heating & Cooling Business' and 'Water supply & Drainage Service and Other Business'. We do not consider these business operations relevant enough to the fee based, regulated aeronautical operations of the rest of our sample.

  Japan Airport Terminal Co (9706 JP) is a Japanese company involved in the management of several Tokyo airports including Haneda, Narita and Kansai Airport. Japan Airport Terminal Co has a low percentage of its total revenue from aeronautical sources, just 23% in 2018. Approximately 60% of revenue comes from merchandise sales at stores in the domestic and international terminals. Aeronautical revenues of 23% are in line with other firms which we haven't included in our sample and which the Commission previously didn't include such as Esken (27%), Ferrovial (34%) and Atlantia (7%).

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[201] At page 7.

TITLE & DATE OF PAPER	KEY DEVELOPMENTS	KEY OUTCOMES
	In 2018 the concession for Belgrade Nikola Tesla Airport (AERO SG) was granted to Vinci Airports. Under the agreement AERO SG still owns the airport assets but receives an annual concession fee from Vinci who is responsible for operating the airport. Other businesses previously included in the Commission's 2016 sample which we have excluded are Venice Airport (SAVE IM) and Sydney Airport (SYD AU) both of which have been acquired and subsequently delisted, as well as TAV Havalimanlari Holding (TAVHL TI) which ADP (included in our sample) purchased a 46% stake in. • See Appendix B for CEPA's list of comparable firms.	

APPENDIX B – OVERVIEW OF AIRPORTS COMPARATOR SAMPLE SETS

2010 CC DRAFT DECISION[207]	2010 EE REPORT (AIR NZ)[208]	2010 SFG REPORT (AIR NZ)[209]	2010 CC FINAL DECISION[210] ENDORSED BY THE HIGH COURT[211]	2016 CC IM REVIEW[212]	2023 CEPA REPORT[213]	2023 CC DRAFT DECISION[214]
10 firms	**13 firms**	**31 firms**	**24 firms**	**26 firms**	**24 firms**	**8 firms**
1. Aeroports de Paris (France)	1. Aeroports de Paris (France)	1. Aeroports de Paris (France) (U)	1. Aeroports de Paris (France)	1. Aeroports de Paris (France)	1. Aeroports de Paris (France)	1. Aeroports de Paris (France)
2. Airports of Thailand (Thailand)	2. Airports of Thailand (Thailand)		2. Airports of Thailand (Thailand)	2. Airports of Thailand (Thailand)	2. Airports of Thailand (Thailand)	
3. AIAL (NZ)	3. AIAL (NZ)	2. AIAL (NZ) (C)	3. AIAL (NZ)	3. AIAL (NZ)	3. AIAL (NZ)	2. AIAL (NZ)
4. Fraport (Germany)	4. Fraport (Germany)	3. Fraport (Germany) (C)	4. Fraport (Germany)	4. Fraport (Germany)	4. Fraport (Germany)	3. Fraport (Germany)
5. Flughafen Wien (Austria)	5. Flughafen Wien (Austria)	4. Flughafen Wien (Austria) (U)	5. Flughafen Wien (Austria)	5. Flughafen Wien (Austria)	5. Flughafen Wien (Austria)	4. Flughafen Wien (Austria)
6. Flughafen Zuerich (Switzerland)	6. Flughafen Zuerich (Switzerland)	5. Flughafen Zurich (Switzerland) (C)	6. Flughafen Zuerich (Switzerland)	6. Flughafen Zuerich (Switzerland)	6. Flughafen Zuerich (Switzerland)	5. Flughafen Zuerich (Switzerland)
7. Grupo Aeroportuario del Centro Norte (Mexico)	7. Grupo Aeroportuario del Centro Norte (Mexico)	6. Grupo Aeroportuario Del Centro Norte (Mexico) (C)	7. Grupo Aeroportuario del Centro Norte (Mexico)	7. Grupo Aeroportuario del Centro Norte (Mexico)	7. Grupo Aeroportuario del Centro Norte (Mexico)	
8. Gruporto Aeroportuario del Pacifico (Mexico)	8. Gruporto Aeroportuario del Pacifico (Mexico)	7. Gruporto Aeroportuario del Pacifico (Mexico) (C)	8. Gruporto Aeroportuario del Pacifico (Mexico)	8. Gruporto Aeroportuario del Pacifico (Mexico)	8. Gruporto Aeroportuario del Pacifico (Mexico)	
9. Grupo Aeroportuario del Sureste (Mexico)	9. Grupo Aeroportuario del Sureste (Mexico)		9. Grupo Aeroportuario del Sureste (Mexico)	9. Grupo Aeroportuario del Sureste (Mexico)	9. Grupo Aeroportuario del Sureste (Mexico)	
10. Macquarie Airports (Australia)	10. Macquarie Airports (Australia)					
	11. Copenhagen Airports AS (Denmark)	8. Copenhagen Airport AS (Denmark) (C)	10. Kobenhavns Lufthavne (Copenhagen Airport AS, Denmark)	10. Kobenhavns Lufthavne (Copenhagen Airport AS, Denmark)	10. Kobenhavns Lufthavne (Copenhagen Airport AS, Denmark)	

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[207] Commerce Commission *Input Methodologies Airport Services, Draft Reasons Paper* (31 May 2010) at page 224, table 6.13.
[208] Europe Economics *Report for Air New Zealand by Europe Economics: Critique of Commerce Commission's asset beta analysis* (9 July 2010) at pages 14–18.
[209] Strategic Finance Group (SFG) *Airport beta estimates: Report prepared for Air New Zealand* (11 July 2010) at pages 5 – 6. Note that SFG applies Air New Zealand's classification of comparator firms: C = Closely comparable to AIAL, N = Less comparable to AIAL, U = Unclassified.
[210] Commerce Commission *Airports Input Methodologies Reasons Paper* (22 December 2010) at pages 303 – 305, and table E18.
[211] *Wellington International Airport Ltd & Ord v Commerce Commission* [2013] NZHC 3289 at [1568].
[212] Commerce Commission *Input Methodologies review draft decisions – Topic paper 4: Cost of capital issues* (16 June 2016) at pages 188 - 190, and table 30; and Commerce Commission *Input Methodologies review decisions – Topic paper 4: Cost of capital issues* (20 December 2016) at pages 241 – 244 and table 32. Note that the Commission followed the same approach for airports in its draft and final decision of the 2016 IM Review.
[213] CEPA Report at pages 52 - 54.
[214] Draft Decision Cost of Capital Paper 2023 at paragraph 4.45.

2010 CC DRAFT DECISION[207]	2010 EE REPORT (AIR NZ)[208]	2010 SFG REPORT (AIR NZ)[209]	2010 CC FINAL DECISION[210] ENDORSED BY THE HIGH COURT[211]	2016 CC IM REVIEW[212]	2023 CEPA REPORT[213]	2023 CC DRAFT DECISION[214]
	12. Shanghai Pudong International Airport (China)	9. Shanghai International Airport (China) (C)	11. Shanghai International Airport (China)	11. Shanghai International Airport (China)	11. Shanghai International Airport (China)	
	13. Xiamen International Airport Group (China)	10. Xiamen International Airport Group (China) (C)	12. Xiamen International Airport (China)	12. Xiamen International Airport (China)	12. Xiamen International Airport (China)	
		11. Airport Facilities (Japan) (C)	13. Airport Facilities (Japan)	13. Airport Facilities (Japan)		
		12. Aeroporto Di Firenze (Italy) (C)	14. Aeroporto Di Firenze (Italy)			
		13. SAVE (Italy) (C)	15. SAVE (Italy)	14. SAVE (Italy)		
		14. Guangzhou Baiyun International Airport (China) (C)	16. Guangzhou Baiyun International Airport (China)	15. Guangzhou Baiyun International Airport (China)	13. Guangzhou Baiyun International Airport (China)	
		15. Malta International Airport (Malta) (C)	17. Malta International Airport (Malta)	16. Malta International Airport (Malta)	14. Malta International Airport (Malta)	
		16. Shenzen Airport Co Ltd (China) (C)		17. Shenzen Airport Co Ltd (China)	15. Shenzen Airport Co Ltd (China)	
		17. Tav Havalimanlari Holdings AS (Turkey) (C)				
		18. Beijing Capital International Airport (China) (C)	18. Beijing Capital International Airport (China)	18. Beijing Capital International Airport (China)	16. Beijing Capital International Airport (China)	6. Beijing Capital International Airport (China)
		19. MAP Group (Australia) (U)	19. MAP Group (Australia)			
		20. Beijing Airport High-Tech Park (China) (N)				
		21. DBG Derichebourg (France) (N)				
		22. Dynacorp International (USA) (N)				
		23. Generale Mobiliare Interessenze Azionarie (Italy) (N)				
		24. Infratil (New Zealand) (N)				

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		25. Korea Airport Service (Korea) (N)				
		26. Multiplus SA (Brazil) (N)				
		27. Singapore Airport Terminal Services (Singapore) (N)				
		28. Aerodrom Ljublijana (Slovenia) (U)	20. Aerodrom Ljublijana (Slovenia)			
		29. Japan Airport Terminal (Japan) (U)	21. Japan Airport Terminal (Japan)	19. Japan Airport Terminal (Japan)		
		30. Malaysia Airports Holdings Berhad (Malaysia) (U)		20. Malaysia Airports Holdings Berhad (Malaysia)	17. Malaysia Airports Holdings Berhad (Malaysia)	
		31. Societa Aeroporto Toscano Galileo Galilei (Italy) (U)				
			22. Australian Infrastructure (Australia)			
			23. Gemina (Italy)			
			24. Hainan Meilan International Airport (China)	21. HNA Infrastructure Company Ltd (Meilan, China)	18. Hainan Meilan International Airport (China)	
				22. Aerodom Nikola Tesla AD Boegr (Siberia)	19. Aerodom Nikola Tesla AD Boegr (Siberia)	
				23. GMR Infrastructure Ltd (India)	20. GMR Infrastructure Ltd (India)	
				24. TAV Havalimaniari Holdings AS		
				25. Toscana Aeroporti SPA	21. Toscana Aeroporti SPA	
				26. Sydney Airport (Australia)		7. Sydney Airport (Australia)
					22. AENA (Spain)	8. AENA (Spain)
					23. Airports Corporation of Vietnam	

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					24. Aeroporo Gugilelmo Marconi di Bologna (Italy)	