7 September 2023

Mr Geoff Brooke
Senior Economist
New Zealand Commerce Commission

By email: im.review@comcom.govt.nz

Dear Geoff,

RE: Part 4 Input Methodologies Review 2023 – Qantas Group Response to CEGS's Cross Submission

The Qantas Group (**Qantas**) appreciates the opportunity to provide a response to the submission made by CEG on 9 August 2023 regarding paragraphs 10, 30 and section 6.2.

Apart from identifying one minor error in Qantas' reply submission, the assertions made by CEG are incorrect and distract from key empirical findings outlined in submissions by Qantas and other non-airport parties. In this submission we address the minor error identified, but note that this does not materially impact our prior submissions.

We make the following comments in response to assertions made by CEG in their submission:

1. Paragraphs 10 and 30

i. We acknowledge that there is value in including both weekly and 4 weekly data in our regression analysis. We have corrected our analysis in this submission, and note that this has resulted in an insignificant impact on the correlation between aeronautical revenue and asset beta.

ii. CEG has incorrectly asserted that there are errors or inconsistencies in how Qantas has applied aeronautical revenue classifications at various airports. CEG has made assumptions on aeronautical revenue, without considering the underlying nature of all revenue streams at airports.

2. New information by CEG in section 6.2

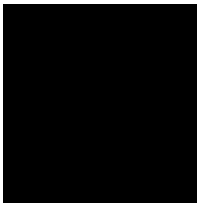
i. CEG's new information confuses correlation and causation, and additionally asserts that non-systematic risk relating to number of routes at an airport is a systematic risk.

ii. Even if CEG's assertions are accepted, there are errors in their analysis. When these errors are corrected, it is clear that there is no correlation between number of routes and airport asset beta.

[redacted]

Further details are set out in Attachment A.

We would welcome the opportunity to discuss any aspect of this submission.



Seb Mackinnon
Head of Commercial Airports

ATTACHMENT A

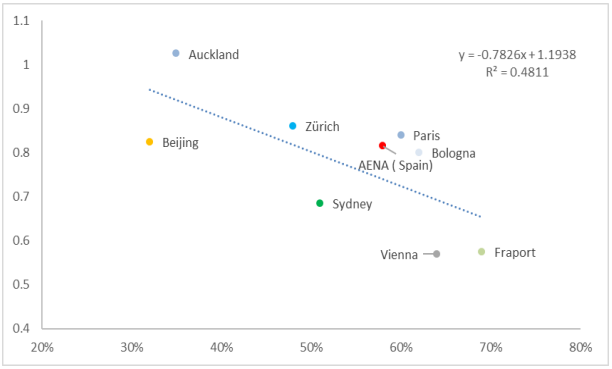
1. Response to paragraphs 10 and 30 of CEG submission

i) Asset beta data inclusion

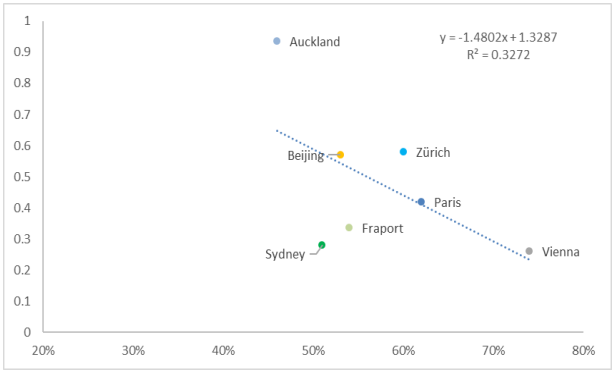
Qantas acknowledges that there is utility in providing both weekly and 4-weekly data in the original regression analysis provided our Submission on the IM Review Draft Decisions on 19 July 2023. We have now adjusted the original analysis to reflect this (see Figure 1 below). The resulting r squared for both 2017-2022 and 2012-2017 period is 0.48 and 0.32 respectively or a ~0.10 reduction to prior estimates, holding aeronautical revenue assumptions constant. The adjusted data still emphatically supports the conclusions in our previous submission.

Figure 1: Amended 5-year asset beta against aeronautical revenue for NZCC basket (including Bologna Airport)

2017-2022



2012-2017



ii) Revenue Interpretation

CEG incorrectly asserts that revenue data used by Qantas is "unreliable".

At most, CEG's assertions are a reflection that different approaches have been taken to classify aeronautical revenue within the various submissions. The most significant assumption underpinning their position is that aeronautical revenue should only include revenue that is earned under a regulated framework. This is flawed:

- Regulated revenue is not consistently defined between countries; and
- In any event, unregulated revenue that directly relates to aeronautical activities can be a relevant and low risk revenue stream for an airport (e.g. leases for engineering hangars and customer lounges, baggage services, etc).

The Qantas approach addresses CEG's arbitrary categorisation of revenue by looking at the underlying drivers of revenue to correctly identify an airport's aeronautical services, being the revenue that is directly associated with the operation of aircraft and the use of airport services and infrastructure. This includes:

- Landing fees;
- Passenger service fees;
- Security fees;

- Check-in counter fees and baggage drops;
- Transfer passenger fees;
- Aircraft acceptance; and
- Loading and unloading equipment.

To illustrate this, we have set out in Table 1 below CEG's Fraport example on how Qantas has defined revenue for Fraport Group.

Table 1: Fraport 2022 notes to consolidated statement – revenue (extract)[1]

Revenue (€m)	2022	Qantas Inclusion	Rationale
Aviation			
Airport Charges	618.4	✓	Directly associated with the operation of aircraft and use of airport facilities
Security services	173.7	✓	
Other revenue	36	✓	
	828.1		
Retail & Real Estate			
Real Estate	185.9	×	Non aeronautical service which are not associated with the provision of aircraft operations. (NB: it is likely that some real estate revenue is directly attributable to aeronautical services, however we have not included it given insufficient detail to assess)
Retail	153.6	×	
Parking	78.9	×	
Other Revenue	28	×	
	446.4		
Ground Handling			
Ground services	291.2	✓	Directly associated with the operation of aircraft and use of airport facilities, including check-in and ticketing, transfer paxs, baggage handling, equipment usage[2]
Infrastructure charges	237.5	✓	
Other revenue	21.4	×	
International Activities & Services			
Aviation	594.6	✓	Considered as consolidation of international subsidiaries aeronautical service revenue
Non- Aviation	444.1	×	
Contract revenue from construction and expansion services (IFRIC 12)	331.1	✓	IFRIC 12 accounting standard refers to arrangements between public and private sectors. I.e., The operator builds, operates and finances airport infrastructure in exchange for revenue streams from the grantor (government); For example, the construction of Lima airport's 3rd runway and airside expansion would be interpreted under this standard as an aeronautical charge
	1,369.8		
Total Revenue	**3,194.4**	**2,282**	**Aeronautical revenue (%): 71%** *(rounded down to 70%)*

[1] Fraport 2022 Financial Statements, notes to consolidated statements- revenue

[2] Fraport link to ground services: https://www.fraport.com/en/business-areas/operations/ground-handling.html; and List of Service charges 1 January 2023.

In Table 2 below we have provided further detail behind our 2022 aeronautical revenue classification by port as referenced in CEG's analysis to support the values in our analysis.

Table 2: Qantas estimates of percentage of 2022 aeronautical revenues for ports identified by CEG

Additional filters	Qantas Assumptions
Auckland	Included all aeronautical revenue[3] ($94.7m), and aeronautical rental income ($16m) as its directly attributable to aeronautical services, operational areas; Total aeronautical revenue included: $110.7m
Vienna	Included Airport revenue[4] ($310m),Handling and Security Services ($116.1m) and 50% of Malta airport aero services($25m), Handling includes baggage infrastructure, transfer passengers' fees, check-in counter usage fees and security charges; Total aeronautical revenue included: $ 445m
Frankfurt	*See table 1 for detail*
ADP	Included Aviation revenue[5] ($1,675m) and 70% of TAV and AIG consolidated revenue based on TAV groups 2022 financial statements disclosures[6] and ~60% of industrial service revenue which typically equates to a passthrough cost; Total aeronautical revenue $2,730m

2. Response to analysis of Section 6.2 of CEG submission

i) CEG incorrectly applies non-systematic variables to infer systematic risk

When determining asset beta, the purpose of using a comparator set is to identify stocks that are similar in relative risk and that operate within a similar market or geographical location. This is to ensure that the systematic risk of the comparator set resembles that of the relevant entity.

This principle was outlined in our submission on 9th August and has been consistently applied over time by regulators and by index providers (through country classifications).

To apply this principle, a comparator set is filtered to identify those countries with a development status both empirically and theoretically consistent with the subject entity. CEG's assertions that this approach is inconsistent with best practice is simply incorrect.

In CEG's cross-submission, they have instead attempted to demonstrate the explanatory power of certain airport characteristics on asset beta. There are significant problems with their approach as set out below.

1. Airport characteristics such as number of routes are non-systematic in nature

Asset beta measures an entity's systematic risk. That is, it measures risks that cannot be mitigated through diversification.

On the other hand, non-systematic risk can be mitigated by diversifying investments across various portfolios and asset classes with differing risk profiles.

[3] AIAL 2022 Financial Statements, p. 7
[4] Vienna 2022 Financial Statements. P. 97-98
[5] Groupe ADP Financial results, p. 9-13
[6] TAV 2022 Financial statements, p. 161

CEG claims that airports with a smaller number of routes will typically have higher asset betas than airports servicing a larger number of routes. This approach therefore attempts to attribute non-systematic factors to then explain a higher asset beta for a New Zealand Airport.

The number of routes flown at an airport is driven by a long list of non-systematic factors, including but not limited to the availability of airport business development programmes, airline pricing and network strategies, air traffic rights to desirable destinations, aircraft acquisition programmes and economic conditions in specific regions. These are clearly non-systematic factors, and it is incorrect to assert otherwise.

2. Correlation does not equal causation

A statistical correlation between two variables does not mean that one causes the other (causation). For example, the fact that someone wears a red jumper on a day that is sunny is not evidence that it was sunny because that person wore a red jumper on that day, or that it will be sunny every time someone wears a red jumper in the future.

CEG has attempted to assert causation by saying that a non-systematic variable (airport routes) is a good predictor of a systematic outcome (asset beta).

ii) In any event, there are fundamental flaws in CEG's analysis

Even if one were to accept CEG's assertion that the number of routes is a strong predictor of asset beta, there are fundamental flaws in their analysis.

Key errors made by CEG are described in detail below. Amendment of these errors results in an r squared of 0.02, as set out in Table 3.

Table 3: Qantas regression analysis on number of routes[7] vs asset beta[8]

Sample	Intercept	Coefficient *(per 100 routes)*	P-value on coefficient	R^2	F-stat	df
CEG Analysis - Sample A	*1.24*	*-0.20*	*0.00%*	*0.75*	*41.02*	*14*
Adj1: Replicated CEG	1.21	-0.19	0.00%	0.68	32.52	15
Adj2: Average routes per port	1.11	-0.18	0.00%	0.50	14.99	15
Adj3: CEPA sample set	0.99	-0.17	1.56%	0.23	6.81	23
Adj4: Routes per million departing passengers	0.74	0.28	50.14%	0.02	0.47	23

1.'Setting A' in CEG submission generates an r squared of 0.68 (not 0.75 as claimed)

Qantas has not been able to re-produce the results presented in Figure 6-1 of CEG's submission. Using CEG's definition of *'Setting A' from their cross-submission*, we have calculated an r squared of 0.68 (Adjustment 1 in Table 3), which is significantly below the 0.75 in CEG's analysis. It is possible that a reason for the variance may be driven by the omission of Vietnam[9], despite CEG identifying it as being included in their analysis.

7 Diio Mi schedule data; IATA DDS passenger and ticketing data.

[8] CEPA (2023), Cost of Capital inputs.

[9] Vietnam does not appear on CEG's "Setting A" chart

2.CEG does not apply a consistent definition of number of routes, particularly for conglomerates

When assessing CEG's route data, we noticed the number of routes has been based on the largest port in each airport conglomerate with no consideration for the variance between number of routes at each constituent airport.

For example, CEG has used a total route value for AOT of 180. This is comparable to the number of direct routes operated at Bangkok in 2019. However, AOT has 6 airports in its portfolio – with the average number of routes across all these airports at about 78.[10]

We have amended this flaw for AOT and other airport groups, by taking an average number of routes for all ports in each conglomerate's portfolio. This results in a lower r squared of 0.50 (Adjustment 2 in Table 3). This adjustment is essential to properly compare CEG's sample set with airports in New Zealand.

3. CEG has undertaken its analysis with a selection of 16 airports

At paragraphs 130 and 148 of its most recent submission, CEG reiterates that the NZCC should retain the 2016 airport comparator set of 26 airports.

However, in its regression analysis CEG includes 16 airports and airport groups.[11] Where CEG's analysis includes airport groups, it has only chosen the largest airport in that group.[12]

If CEG were to be consistent with its proposal that NZCC retains a comparator set of 26 airports, it would have included all of those airports in its regression analysis.

We have made an amendment to CEG's regression analysis to correct this inconsistency in their approach. We only do this to respond to their assertions, noting that we do not agree that with CEG's assertion that numbers of routes represents a systematic risk nor to their position on relevant airport comparator sets.

This adjustment results in a lower r squared of 0.23 (Adjustment 3 in Table 3), suggesting a less significant correlation between number of routes and asset beta than CEG's sub-set of ports.

4. Adjusting for varied passenger volumes between each port

Even if one were to accept that the number of routes at an airport represents systematic risk, a better predictor would consider the number of passengers per route to reduce the risk of thin or small routes generating distortions in the data. This approach would also be more likely to capture systematic risk because it would better capture macro-economic activity in that market.

Figure 2 demonstrates the low correlation between average number of routes per million passengers served and asset beta. The resultant r squared is 0.02 (Adjustment 4 in Table 3).

The data presented in Figure 2 also debunks CEG's theory that Auckland Airport is high risk because it has a small number of routes. In fact, this shows that Auckland Airport has a small number of high volume routes (and indeed has similar quality routes to Sydney, Frankfurt and Beijing). We note that

[10] Diio Mi schedule data; IATA DDS passenger and ticketing data

[11] Setting A of CEG analysis, 2 additional ports (SYD, AENA) included in Setting C

[12] CEG states in its submission (para 143) that it only includes the largest airports because of a lack available data. Such data is readily available in Diio Mi.

higher volume routes can be more resilient to economic shocks than small or thin routes and are therefore lower risk.

Figure 2: Adjusting for passenger volume ("Adjustment 4")