

Competition Policy for the  
Trans-Tasman Air Travel Market:  
The 2005 ACT Decision and its Implications

by

Tim Hazledine

Department of Economics  
The University of Auckland  
[t.hazledine@auckland.ac.nz](mailto:t.hazledine@auckland.ac.nz)

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ABSTRACT

Qantas and Air New Zealand are seeking regulatory authorisation for a Tasman Networks Agreement that would in effect cartelise their trans-Tasman operations. They cite in support Reasons given by the Australian Competition Tribunal in its authorisation of their previous application to form a 'Strategic Alliance'. The ACT determined that a cartel-like arrangement between these airlines would not substantially lessen competition across the Tasman because of competition from Pacific Blue and Emirates, despite the latter's very small current market share on these routes. This paper examines the ACT's reasons and finds them lacking in economic logic, as well as being inconsistent with the facts of airline market competition in Australasia. The paper suggests that the ACT is not an appropriate forum for hearing civil matters such as this, and proposes an alternative process based rather on the present procedures adopted by the competition commissions of Australia and New Zealand

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## 1. Introduction

In April, 2006, Qantas and Air New Zealand sought regulatory approval for a near-merger of their flying activities across the Tasman Sea. This proposed 'Tasman Networks Agreement' is the latest in a series of interesting and unusual competition and policy events in the Australasian aviation industry that go back at least to the 1996 'single aviation market' agreement (SAM) between the Australian and New Zealand governments (Hooper and Findlay, 1998).<sup>1</sup>

Perhaps most notable was the controversial 2002 proposal, by the same two airlines, that they be permitted to form a 'strategic alliance', which in effect would have cartelised all the markets served by both of them (as well as some currently served only by Air New Zealand). This proposal was firmly rebuffed by both the ACCC and the NZ Commerce Commission (2003), and the decision of the latter was upheld in the NZ High Court (2004). In Australia, however, the airlines' case was taken on to the Australian Competition Tribunal – as a re-hearing, not an appeal – and there it succeeded.<sup>2</sup>

The essence of the ACT's Decision (2005) was two-pronged: first, that the only market currently or potentially served by Air New Zealand that is of significant concern to Australians is the trans-Tasman market, and, second, that permitting the applicants to operate their cartel on that market would not result in a substantial lessening of competition, notwithstanding their combined market share totalling 80% or more.

Their success before the ACT – even though this was not sufficient to negate the effective veto of the NZ High Court<sup>3</sup> -- no doubt encouraged the two airlines to develop their current proposal, which is limited to trans-Tasman routes. And, understandably, their submission in support to the ACCC<sup>4</sup> (TNA, 2006) draws heavily on the substance of the ACT Decision. There is some risk to this, though, as it must now put the spotlight on the Tribunal's reasons and reasoning. Do these stand up to serious scrutiny?

The purpose of this paper is to explain and evaluate the ACT determination that competition in the Tasman market would be not significantly lessened by eliminating competition between the two largest suppliers of air travel services on those routes. It is interesting and important to do this for at least two reasons: the Decision is a matter of current policy concern because it is being recycled by the airlines in support of

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<sup>1</sup> The SAM was expanded into an ASA (Air Services Agreement) between Australia and NZ taking effect in 2000 and formally ratified in 2002 (ACT 2004, at para 79).

<sup>2</sup> The author of this paper was involved at all stages of this case: first with an independent submission to the ACCC and the NZCC (Hazledine, 2003), then in collaboration with the NZ Institute of Economic Research on behalf of Gullivers Pacific Travel in submission to the Hearing held by the NZCC, and then for Gullivers in submission and testimony before the ACT and the NZ High Court. I opposed the cartel proposal.

<sup>3</sup> For obvious reasons, authorisations of arrangements that might affect commerce between Australia and New Zealand normally need approval from both sides of the Tasman.

<sup>4</sup> And to the Minister of Transport in New Zealand. Owing to an oddity in the NZ Aviation Act (1990), deemed 'code-shares' are to be approved by the Minister of Transport and are exempt from the provisions of the Commerce Act under which the NZCC operates.

their TNA proposal, and the Decision, if valid, could have quite far-reaching implications for the appraisal of competition concerns in other markets apparently dominated by a pair of large suppliers. The paper will not consider in any depth the ACCC, NZCC and NZ High Court determinations, partly because there simply isn't space here to do them justice, but also because their carefully considered finding, with respect to the Tasman market, that a cartel-like arrangement between two suppliers holding a combined market share of 80% or more would be likely to substantially lessen competition is an unsurprising, mainstream judgement. It is the ACT decision to the contrary that is striking, and therefore of special interest and relevance.

The next section fills in the background of air travel competition across the Tasman over the past decade. Section 3 reviews and criticises the ACT finding. Section 4 summarises some new empirical evidence on pricing in Tasman and domestic NZ markets in support of the critique. Sections 5 and 6 explore implications: for the use of economics and economists in public benefit competition cases, and for the airlines' current proposal.

## **2. Background**

Air New Zealand and Qantas dominate the Tasman in terms of their combined market share, which has exceeded 90%, but they have been having profitability problems on these routes for the past decade, and it is quite important in the present context to determine the extent to which their current difficulties are the result of their own actions, or are being caused by newcomers to the market, as they claim in their TNA submission.

After decades operating as the cosiest of duopolies -- two government-owned airlines sharing a regulated joint monopoly -- the incumbents were subject to the usual shake-ups of the 1980s and early 1990s liberalisation era, each being privatised and being required to compete, first just with each other, and then, at least potentially, with other locally owned operators permitted to enter the market under the SAM. Also, they were to face very peripheral competition from a shifting fringe of '5<sup>th</sup> Freedom' carriers, these being international airlines basically in the business of flying long-haul routes to and from Australasia, who are permitted under the two countries' aviation policies to carry trans-Tasman customers when their routings include stops in both countries.

The first real shock came in August 1995, when a small charter operator, Kiwi International Airlines, began flying scheduled services to Brisbane and Sydney from its home base in Hamilton, as well as from Dunedin and Palmerston North. These three regional cities had not previously been served by scheduled direct trans-Tasman services. Haugh and Hazledine (1999) document the rather brutal response by the big incumbents. First, Air New Zealand set up a 'fighting brand' low-cost carrier (LCC), Freedom Air, operating out of the same cities and thus bracketing the Kiwi network. Then, when this failed to push out the upstart, Qantas, quickly followed by Air New Zealand, initiated a price war. Kiwi International went into liquidation in September 1996, just over a year after entering the market.

Although the incumbents soon raised their fares after Kiwi disappeared, life on the Tasman market has never quite returned to the 'normal' state of affairs (Cournot-Nash

duopoly) which Haugh and Hazledine identified prior to the disturbance. Instead, in May 1997, Qantas and Air New Zealand abandoned the code-sharing arrangement under which around 40% of their Tasman customers had travelled<sup>5</sup>, joined different global airline alliances, and put on more flights to maintain the attractiveness of their schedules without the code-share – with this additional supply naturally putting downward pressure on prices. Hazledine *et al* (2001) estimate that by the end of 1999 prices were low enough to imply behaviour substantially more competitive than Cournot-Nash, with a ‘conjectural variations parameter’ around -0.5.<sup>6</sup>

We do not have documentation of the course of prices after 1999, but right from the first submission made by the airlines’ economic consultants in support of the ‘Strategic Alliance’ proposal (NECG, 2002) it was close to common ground for proponents and opponents of the airlines’ case that price competition across the Tasman was unusually fierce, such that it has been difficult or even impossible for the incumbents to earn decent profits on these routes.

What is not common ground, of course, is the extent to which this over-vigorous competition is due to entry into parts of the market by the 5<sup>th</sup> Freedom carrier Emirates in August 2003, and then the Low-Cost Carrier Pacific Blue (an operating wing of Virgin Blue) in late January, 2004, rather than being just a continuation of the hostilities between Air New Zealand and Qantas that can be documented back to 1997.

Also contentious is the degree to which hostilities may in fact have abated somewhat over the past two years – that is, since the ACT Hearings in May 2004. The incumbents claim that market life on the Tasman routes is at least as tough as ever; others -- notably Wellington International Airport Ltd in its submission to the ACCC (WIAL 2006) – find signs of significant easing of competitive pressure. These are matters to be dealt with below.

### **3. The ACT Determination**

On May 16, 2005, the Australian Competition Tribunal released the ‘Reasons’ for the Determination in favour of the cartel that it had announced more than seven months previously. Although these Reasons (ACT 2005) run to 141 single-spaced pages, and consider many issues, it is fair to say that the case swung on the determination that competition in the trans-Tasman market would not be significantly harmed by the cartel. This is because: (1) the ACT’s interpretation of Australian competition policy is that it is focussed -- as in NZ – on the national interest (rather than on competition *per se*, or efficiency (Hazledine, 2004)), and the Tasman was judged the only affected market where the interests of large numbers of Australian nationals were at

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<sup>5</sup> This code-share was (I believe) a ‘block space’ arrangement, meaning that each airline purchased blocks of seats on the other’s aircraft, and then did their best to fill those seats through independent pricing and marketing of the flight. This is quite different from the augmented code-share proposed under the TNA.

<sup>6</sup> This parameter, which is often used by Industrial Organisation economists to summarise the intensity of price competition in market, takes the value 0 for Cournot-Nash oligopoly (independent behaviour) and -1 for the extreme case of a fully (perfectly) competitive duopoly, in which the sellers have managed to compete away all of their profits.

stake<sup>7</sup>; and (2) with other considerations found to be not substantially important, the allocative loss from a substantial lessening of competition was the major threat to the national interest.

I will argue that the Reasons depend on three economic propositions, about:

- Behaviour of customers
- Behaviour of existing firms
- Behaviour of potential firms

The Propositions are:

**A: Demand at the firm level is highly price-elastic:** ‘The competition for the customer at the margin does not stay with that customer, but those fares necessary to attract the marginal customers will be available to all buyers in the market’ (ACT 2005 para 429; repeated in TNA 2006 section 6.10)

**B: Short/medium term supply is highly price-elastic:** ‘a 10% fare increase would divert so many passengers away from the Alliance [to expanding Pacific Blue and/or Emirates] that such an elevation in fares would be unsustainable’ (ACT 2005 para 353).

**C: Long term supply is inelastic:** ‘We do not foresee a *de novo* committed long-term entrant in the trans-Tasman air passenger services market that could constrain the applicants as being a realistic likelihood over the period of authorisation, being the next five years.’ (ACT 2005 para 416).

The first two propositions are key. I will argue that both are clearly wrong: Proposition A on the basis of fact; Proposition B on the basis of theory (and fact). Proposition C, on entry, may be wrong, perhaps depending on interpretation. It is probably not crucial to the case and I will deal with it first.

### ***Entry unlikely***

Proposition C might seem to contradict the frequent assertions in the Reasons that there are no substantial ‘barriers to entry [*sic*] and expansion’ in the Tasman market (eg, ACT 2005, para 420), but it could instead be reasonably interpreted as meaning that, although entry is not barred, no new firm (or new to this market) would *wish* to enter, given the effective competitive constraint on prices that will be maintained according to Propositions A and B.

In fact it seems that entry into international aviation markets is, from a supply side point of view (ie absent regulatory obstacles) exceptionally easy, in part because the main item of capital equipment is, literally, extremely mobile. There are probably at least fifty established scheduled airlines operating around the Pacific Rim, any of

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<sup>7</sup> The NZ authorities, under the same criteria, were also concerned with the impact of the cartel on the domestic NZ market, and on the Auckland-US route(s). Each of these markets is of a roughly similar size to the Tasman market in terms of revenues for Air New Zealand.

whom would have little operational difficulty in setting up Tasman services. However, there *are* regulatory obstacles – unless they used 5<sup>th</sup> Freedom rights, the new carrier would have to somehow set up an Australian or NZ controlled subsidiary.

In any case, the applicants did not press the point of ease of entry. This may have been because they wished to claim substantial barriers to Air New Zealand re-entering in some way the domestic Australian market, absent the cartel. This is a large market, especially important, of course, to Australians.<sup>8</sup> To put it into perspective, in 2004 airlines carried seven times as many passengers within Australia than across the Tasman, and total revenue-passenger kilometres (RPKs) were nearly four times larger.<sup>9</sup>

The Tribunal deals with the Australian market in thirteen brisk paragraphs, covering just about two pages (ACT 2005, paras 529-541). Yet here there are some interesting revelations. Apparently (para 535) Air New Zealand's directors believed that Qantas's motivation for entering into the cartel agreement was to prevent entry into its domestic market by or through Air New Zealand! It is also reported that (Air New Zealand) 'Board papers relied upon by the [ACCC] evidence [*verb*] the continuing "strategic imperative" for Air New Zealand or another Star Alliance member to enter the Australian domestic market' (ACT 2005, para 539).

It is certainly true that the continent of Australia is a noticeable gap in the Star Alliance network. The proposed cartel had provision for Air NZ/Qantas code-sharing in Australia, which of course would be sensible if the rest of the arrangement were approved. However, in the counterfactual, there must be a significant probability of either entry by Air New Zealand, or -- perhaps more likely -- a code-share between Air NZ and Virgin Blue. The latter would likely have a favourable impact on competition. The current market situation in Australia is of asymmetric duopoly, with Qantas having about twice the market share of Virgin. Virgin's position would be strengthened by getting trans-Tasman feed to and from Air New Zealand. Strengthening the smaller member of an asymmetric duopoly can be expected to result in more competition and lower prices.

The Tribunal would not agree. It did not even believe that *de novo* entry would affect competition in this large market. On the basis of Virgin's business model and the launch of Qantas's LCC Jetstar it was 'satisfied... that the Australian domestic market is competitive [*sic*] and that entry by a third-party carrier would, thus, be unlikely to further enhance competition' (2005, para 540).

The current TNA proposal is restricted to the Tasman. However, it might be judged that having Air NZ and Qantas cooperating to such an extent on these routes would make it less likely that Air NZ will pursue a domestic Australia (and, likely, domestic NZ) code-share with Virgin Blue.

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<sup>8</sup> The domestic Australian market did not even warrant a mention in the NZ High Court Determination, despite the substantial diaspora of expatriate Kiwis living in and presumably travelling around Australia.

<sup>9</sup> Data taken from the BTRE website report about 33 million domestic passengers in 2004, compared with 4.7 million travelling across the Tasman. Domestic RPKs were 40 billion. Tasman RPKs are not given but can be calculated to be around 11 billion by multiplying the number of passengers by the average trip length, which is about 2400kms.

*Short term demand and supply highly elastic*

What I have termed Proposition A states that airline customers are highly price sensitive, so that should the cartel put up prices customers will readily look for another supplier. Proposition B states that alternative supply will be readily forthcoming, from eagerly expanding Pacific Blue and Emirates.

Note first that both these propositions need to hold to validate the Tribunal's decision. If A does not hold because the fringe firms do not offer a product closely substitutable to that of the two FSA carriers, then the latter, having eliminated the competition between themselves (where cross price elasticities are undoubtedly substantial) would be able to raise price without losing lots of customers, however eager the fringe might be (Proposition B) to serve those customers. And even if A did hold, this would not be sufficient to constrain the cartel, should the fringe choose to follow the cartel's price increase rather than aggressively seek to take their market share (B not holding).

The Tribunal was able to maintain and even integrate these propositions to its own satisfaction by means of the concept of the 'marginal customer', or, equivalently here, 'competition for customers at the margin.' This was apparently introduced at the Hearings by the airlines' expert Professor Ordovery, in response to a question from the Tribunal.<sup>10</sup> The concept would exercise an almost bewitching effect upon them. From the point of its introduction into the Reasons at paragraph 350 through to paragraph 465 it appears twenty four times. By paragraph 445 the marginal passenger has become 'all-important', and with this hyperbole the case is in effect won for the applicants, even though the Reasons go on for another three hundred paragraphs or so – the cartel would not dare raise price one penny if this would lose it an 'all-important' customer.

It is worth quoting the paragraph in full, because it provides a reasonably succinct statement of the Tribunal's final position and has been recited approvingly by the airlines in their TNA application (2006, para 4.3):

‘ [I]n the absence of barriers to expansion for Virgin Blue and Emirates, and given the capacity available to Virgin Blue and Emirates, we expect that the Alliance will be promptly and competitively constrained should it seek to raise fares. Such a fare increase would likely be welcomed by the two newer carriers, as it would provide them with the opportunity to increase their market shares without having to lower their own fares, advertise more heavily, or otherwise engage in expensive brand and product differentiation. We do not expect that the Alliance would be so commercially inept as to present Virgin Blue and Emirates with such a golden opportunity to expand at its expense. Commercial self-interest will demand that the Alliance compete heavily for the all-important marginal passenger, and this natural interplay of

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<sup>10</sup> It does not appear anywhere in Prof Ordovery's lengthy written submission (Ordovery 2004).

responsiveness to market forces of supply and demand will not be likely to produce any anti-competitive detriment' (ACT 2005, para 445).

We need to 'unpack' the economic reasoning underpinning this paragraph. First, the idea, which I have termed Proposition A, that customers are very willing to switch from Air New Zealand/Qantas to Pacific Blue and/or Emirates, if the prices differ just a little. Basically, this is saying that air travel is a highly homogeneous (undifferentiated) product like, say, cement: sellers offer close substitutes.

Now, it is not inherently or theoretically implausible that this be so: it is a question of fact. In the next section I marshal some facts about prices and their implications for demand substitutability. I find that there is substantial variation over time and across airlines and routes in the lowest prices charged to Tasman travellers, and that in particular, Air NZ and Qantas are able to charge a substantial premium over Pacific Blue and Emirates, who yet, despite their much lower prices, are unable to raise their individual market shares above single digits, nor to achieve satisfactory load factors on their flights.

That is, the claim made by the applicants in the cartel case (and repeated by them in their TNA submission) that the small market shares of the fringe carriers in fact substantially understates their true market presence seems quite wrong. If anything, the small fringe share overstates the competitive constraint they impose on the large incumbents through demand-side substitutability.

This is enough to invalidate the ACT Decision and with it the TNA proposal, unless substantial benefits could be found to offset the likely lessening of competition. However, the matter should not be left there, because there is the possibility (probability?) that the ACT Decision will be called on again in support of apparently problematic mergers or arrangements, and these perhaps in industries such as cement in which Proposition A does hold tolerably well. That is, we need to deal also with Proposition B.

Suppose the industry *is* cement, or similar. That is, the product is homogeneous and well-informed consumers will not support any persistent price differences. And suppose that there are no barriers to the expansion of the existing sellers – marginal costs are constant with respect to output. And suppose we have four firms in the market: two large with market shares of 40% each; two small fringe firms with 10% each. Now, will it be true in such a situation that the marginal customer will be all-important, in the sense of being able to constrain a cartel of the largest firms from raising price? *No it will not be true.* It is not true because, when the cartel gets its act together and pulls some output off the market to push the price up, the most profitable response by the fringe is to (partially) go along with this. In general, in homogeneous oligopoly, the best response by any firm to a reduction in output by the others is partly free-ride off this by increasing its own output, but not by so much that the price increase is wiped out. *All the firms will welcome an increase in the market price when this is caused as a result of a lessening of competition between a subset of them.*

That is, the best response by the fringe to the cartel's restriction of output is a trade-off: enjoy some of the benefits in the form of higher profit margins (higher prices),



and some through higher market share.<sup>11</sup> Unfortunately, the Australian Competition Tribunal in this matter totally failed to appreciate the basic and indispensable economic concept of the trade-off. They asserted that, because the fringe *could* expand (which I for one didn't really doubt, at least with respect to Pacific Blue), then they *would* choose to do to the full extent so as to wipe-out any price increase. But they won't.

To summarise, the ACT's analysis of the importance of the 'marginal customer' might well warrant the epithet "half-baked". The Tribunal has considered the customer at the margin but ignored the customers within the margin. Yet a cartel deciding whether to shed a customer (at the margin) trades-off the loss of their business against the gain in profit margins earned on infra-marginal customers. And an outside firm deciding whether to take on a marginal customer shed by the cartel trades-off the additional business against the loss in profits on their infra-marginal customers if by so doing it prevents market price from increasing.

### *The merger paradox*

In the interest of completeness, I will note here the 'merger paradox', first identified by Salant, Switzer and Reynolds (1983). These authors proved that, in a symmetric homogeneous oligopoly, the free-rider problem implies a puzzle: in any merger of two independent sellers in a market with three or more firms, the combined profits of the merged entity (if this then behaves as just another single independent competitor) will fall below their joint pre-merger profits, despite the higher market price, because the market share they do lose to the other firms outweighs this. So why then *do* firms merge?

As a matter of fact many -- perhaps most -- mergers do disappoint in terms of post-merger profitability, perhaps because they are driven by other motives -- hubris and/or desire for power (and bonuses) on the part of the managers responsible.

However, in terms of making sense of it within standard oligopoly theory, we have a number of possibilities. The merged firms could realise cost reductions (or could believe they would do so when negotiating the merger). Behaviour in the industry might become more collusive with one fewer competitor. The product may not be homogeneous.

In the airlines situation the merger paradox result does not apply, because the market is not a symmetric oligopoly. Rather, as we know, the merging or cartelising firms currently have around 80% of the total market, and the next two largest firms have around or less than 10% each. To the oligopoly analyst these numbers tell us something. Relative size must itself make sense as the outcome of rational profit-seeking behaviour. In the case of homogeneous oligopoly what it must mean is that the small firms have higher costs, so that they cannot profitably produce for a larger

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<sup>11</sup> In the case of homogenous product oligopoly, with other simplifications such as linear demand and constant marginal costs, it can easily be shown that the outcome of the trade-off is, in a sense, 50:50. What is called the 'best response function' or the 'Cournot reaction function' tell us that for every unit of output that is taken off the market by other firms, a particular firm should increase its own output by one half of a unit – leaving, of course, a net reduction in total industry output and thus an increase in the market price.

share of the market. It can easily be shown that the two largest firms in a homogeneous linear oligopoly with the cost differences implied by these pre-merger market shares would find it profitable to merge.

In the trans-Tasman air travel market the small market share of the fringe is not likely to be cost-driven. It is believed that Pacific Blue has lower costs than either Air New Zealand or Qantas, and it is claimed that Emirates is acting as though it has lower costs, by ignoring certain fixed costs when setting its Tasman fares. What does here explain the asymmetry in shares is product heterogeneity: the product is not homogeneous, and in particular the product offered by the fringe is 'inferior' in the sense that a majority of customers, given equality of price, would choose to travel on Air New Zealand or Qantas (because a majority do choose to do so, even though prices on the large carriers tend to be higher, as we find in the next section).

Thus, it is very hard to come up with a plausible economic model in which it is rational for Pacific Blue (and/or Emirates) to gobble up market share if Air New Zealand and Qantas increase prices, but somehow is not rational for them to expand in the absence of the cartel or TNA.

#### 4. Evidence

One of the remarkable features of the 'Strategic Alliance' (cartel) case is that the airlines 'invested' at least AUD 40million fighting it<sup>12</sup>, of which quite a lot probably went to economists, but none was spent analysing actual empirical data on what goes on in the affected markets, including the Tasman.<sup>13</sup> Yet, as argued in the previous section, the case crucially hangs on the empirical questions of the extent of price dispersion and on the appropriate oligopoly model to use in these circumstances. Here I report empirical analysis undertaken since the ACT Hearing

The Tribunal asserted that:

'because airlines cannot easily discriminate between passengers at the margin and committed passengers, the low fares offered by Virgin [Pacific] Blue and Emirates in their attempts to gain market share at the expense of the Alliance will flow through to all passengers in the market who wish to take advantage of them' (ACT 2005, para 444).

Is it true that airlines cannot price discriminate, that Pacific Blue and Emirates charge low fares and that their fares flow through to Air New Zealand and Qantas passengers? The answers, in short, are: No, Yes and No. The evidence comes from a set of observations on the lowest fares offered on airlines' websites, analysed in Hazledine (2006). This covers more than 10,000 observations of fares for 1001 flights on 29 routes, of which 8 were domestic NZ and 21 trans-Tasman. The NZ flights and Auckland-Sydney were observed for flight dates on eight successive Wednesdays from November 2004 through to early January 2005. The Tasman flights (including, again, Auckland-Sydney) were observed for flight dates on three Wednesdays in late

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<sup>12</sup> Press interview by Qantas Chair Margaret Jackson, reported in *NZ Herald*, March 11, 2006.

<sup>13</sup> There was much quantitative analysis using 'merger simulation models' (see King, 2005), but such models are in essence consumers, not producers of empirical data: they answer "what if?" type questions with models calibrated to fit the already known or estimated 'facts' of market behaviour.

June and July 2005. Lowest fares offered for each flight/date were observed weekly from eight weeks before flight day, and daily or near-daily in the last week before take-off.

It is interesting to look at these data, to observe the patterns of prices over time. Figures 1 to 4 show bar graphs for each trans-Tasman airline of their average lowest fares expressed in each case as a ratio of the fare observed the day before the actual flight date (which usually is the highest fare offered). We can make two inferences from these bar graphs:

- There is substantial inter-temporal price discrimination practiced by Air NZ and Qantas
- There seems to be a difference in the pricing behaviour of Air NZ/Qantas and of Pacific Blue/Emirates

For the two largest carriers, Tasman fares tend to increase over the eight weeks, with an acceleration in the last two weeks before flight date. The last lowest price offered is around 30-40% higher than the lowest price available eight weeks out, on average. Pacific Blue has a much flatter price distribution, as one might expect from a LCC with a relatively simple fare structure. As for Emirates, it too has a relatively flat distribution of prices, though with a slight trough: it seems the best time to purchase a ticket from this airline is three weeks before flight date. These numbers do not support the ACT's statement about the fringe carriers' prices 'flowing through to all passengers in the market'.

Further evidence comes from calculating the average price per kilometre for each flight (that is, the average of the eight observations on lowest price as used to build up the bar graphs of Figures 1 to 4), and using (the logarithm of) these numbers as the dependent variable in a regression model. Hazledine (2006) gives detail on the procedure and results, which are here summarised in Table 1, on which t-statistics are given after the coefficient estimates.

	All routes	Tasman only
Number of observations Available for estimation	972	325
Constant	5.70 (24.6)	4.90 (4.3)
Log(DIST)	-0.44 (-12.5)	-0.38 (-2.5)
HHI	0.38 (4.1)	0.23 (1.2)
PEAKDUM	0.48 (10.9)	-
SOLDDUM	0.15 (7.0)	0.05 (1.5)
XMAS	0.27 (13.2)	0.37 (7.9)
TASMAN	0.22 (3.2)	-
UTIL	-	0.84 (5.7)
QANTAS	-0.18 (-5.5)	-0.10 (-3.3)
EMIRATES	-0.40 (-6.1)	-0.32 (-5.8)
PACIFIC BLUE	-0.28 (-3.4)	-0.31 (-4.4)
R <sup>2</sup> , D-W	0.815, 2.07	0.478, 2.03

Here we show the best regression model for two data sets: the full sample of Tasman and domestic routes, and the subset of just Tasman routes. The explanatory variables are flight distance (DIST -- a major determinant of average cost differences), the often-used Hirschman-Herfindahl Index (HHI) summary statistic of the size distribution or concentration of firms in a market (with firm size measured here by frequency of flights offered on a route), the rate of utilisation of seats on a route (UTIL -- available only for the Tasman routes), and some dummy variables, including one for each of the main airlines.

The relevant results, in summary, are:

- Routes where Air NZ has a monopoly have prices, other things equal, around 20% higher than duopoly routes
- On the Tasman, where differences in market concentration as measured by the HHI are largely due to the presence or not of competition from Pacific Blue and/or Emirates (because Air NZ and Qantas are both present on nearly all these routes), the additional competition does not have a statistically discernible effect on market price, except that
- The airline dummy variables reveal that, holding other factors, including concentration, constant, the lowest fares offered by Qantas are somewhat lower than those of Air NZ, and the fares offered by Pacific Blue and by Emirates are substantially (around 30%) lower.

That is, the empirical evidence shows that the substantially lower fares offered by the fringe (which despite these low fares has been unable to achieve sizeable market shares) do not flow through to the legacy carriers Qantas and, especially, Air New Zealand, whose pricing seems to have a degree of insulation from competition from the fringe.

## **5. Economics, economists and the ACT**

Assessment of the likely impact of a proposed change in the competitive arrangements between sellers in a market is a matter of economic judgement. In the airlines cartel case the Tribunal seems to have seriously misjudged the economics of the matter. If so, what went wrong? In this section I will suggest that the structure itself of the Tribunal's processes is inherently unsuited to the assessment of civil matters requiring unbiased but necessarily imprecise economic judgement, such that, at best, we should expect a high variance in the quality of their decisions. I focus on the role of economists in the case, both as 'experts' hired by interested parties, and sitting on the Tribunal itself. I will attempt a constructive proposal as to how these matters could better be handled.

The Tribunal's process has three substantive stages. First, written submissions are invited and received. This is similar to the process followed by the ACCC and the NZCC (and the NZ High Court), and is not problematic. Second, there is a court

hearing, at which industry witnesses and experts are led and then cross examined by counsel, under the supervision of the presiding judge of the Tribunal. Third, the members of the Tribunal (three in this case) retire to form their judgement, in private.

It is the second and third stages of the process where things can and in this case did go wrong, and which are, I will suggest, inherently unsuited to the assessment of civil economic matters. The problem is not that economics and economists were not involved in all stages of the Tribunal's process, it is how the economics was handled, at and after the Court room proceedings

### *The economist as expert*

All the experts called upon in the ACT airlines hearing were professional economists, and I believe it is correct to say that the submissions and testimony of the economists were key to the case, notwithstanding the quite considerable quantity of informative written and oral material received from airline and travel industry insiders. At the Hearings stage the Tribunal dealt with the experts in what seemed (to me, anyway) a surprisingly ad hoc and even improvisatory manner, and the Tribunal admits in its Reasons to problems arising from this.

Experts are charged with assisting the court, and with being non-partisan, but of course they are themselves charging their clients substantial fees, and there must be a strong mutual expectation that the clients will get value for their money. The ACT attempted, after the fact, to unravel the inherent difficulties of the expert's situation with the following advice:

The role of expert witnesses appearing before the Tribunal is to instruct on areas of specialist knowledge in a manner that is ultimately designed to inform rather than to advocate a particular view. Obviously, parties will call upon experts whose opinions support their view of the case. However, it is not appropriate for an expert witness to act as an advocate for the instructing party at all costs, and professional witnesses should be willing to concede points which, whilst not advancing the case of the party engaging them, they believe to be open as a fair and reasonable assessment on *[sic]* the material before them. (ACT 2005, paragraph 216)

This seems reasonable, but the point in practice may be that the set of points to be conceded that are both materially relevant to the case yet not advancing the client's interest may often be, as economists say, an 'empty box'. Peters and Casey (2005) quote from the transcript of the NZ High Court Appeal the words of the 'shrewd' Rodney Hansen, judge presiding:

One of the difficulties for a simple judge listening to experts as distinguished and erudite as those I have heard from over the last few days is that, while purporting to disagree with one another, you each make perfect sense until I hear from the other one. (from p.848 of the transcripts, High Court, 2004)

The ACT Determination was blunter, singling out particular experts for criticism, in particular charging two – Henry Ergas and me -- with 'partiality and an inability to

express an objective expert opinion'. In my opinion, the problems the Tribunal had in getting objective expertise were rather more widespread.

The Tribunal did make a number of attempts to improve the quality of the information and advice it was getting from the economists. None were very successful. First, it had us meet by ourselves to draft a communiqué listing matters of common ground. The list proved to be rather short -- just a couple of pages, as I recall, and the Tribunal found it disappointingly bland, offering agreement only on 'relatively inconsequential' matters.

So then the Tribunal countered by presenting us with a list of remarkably specific questions, on which we each were to cogitate overnight and respond to in the Hearing. These questions mostly asked us to predict the impact of an 'assumed' precisely specified increase in the number of seats supplied by either Virgin Blue or Emirates. It is noteworthy that, two years further on, the assumed increases in capacity have not in general come to pass, but in any case it is doubtful that the Tribunal got much edification from the economists' answers (paragraphs 348-349; 403-404, and 406-407).

Finally, the Tribunal experimented *ad lib* with a system, quickly abandoned, wherein experts were cross-examined by other experts. I believe it fair to say that even those experts whose testimony was most effective before the Tribunal found these arrangements unsatisfactory, and I think they were right.

The basic problem of hired experts being reluctant to bite the hand that feeds them is surely endemic to the situation, never to be 'solved' completely. But it is worth asking whether the difficulties are exacerbated by the particular structure and process of courtroom proceedings. In both the NZ High Court and the Tribunal, these proceedings often seemed to be dominated by the adversarial antics of counsel, whose brief, as everyone knows, is not to add to the enlightenment of the world, but to win the case for their client. Whilst this system may be suited to matters of criminal justice and of litigation, it may not bring out the best in experts asked to assist in making reasonable decisions on administrative matters depending on the likely effect on competition in a market of a proposed merger or practice.

### ***The economist as judge***

In both the NZ High Court appeal and the Australian Competition Tribunal hearing, the highly distinguished presiding judges were assisted by professional economists acting as 'lay' members of the court or tribunal.<sup>14</sup> I can have no doubt that the judges' deliberations in these cases were greatly assisted by the input of their economist colleagues, both of whom have huge experience in competition policy matters. However, there are two possible problems.

The first, and probably lesser difficulty, is that long experience is not the unmixed blessing for professional economists as it no doubt is for learned judges. Economics is a progressive science, bent on continually improving the extent and accuracy of our insights into the functioning of the market system. This means, first, that precedents - so valuable in the law -- are in economics rather perishable, such that the value of

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<sup>14</sup> Ms Kerrin Vautier was the lay member of the High Court, and Professor David Round appeared on the Tribunal. The ACT panel also included Mr G F Latta, a businessman.

knowledge of them tends to depreciate over time, and, second, that senior economists quite often -- even, alas, mostly -- are not skilled in the latest analytical methods, which in economics have tended to become more and more mathematically complex. In the airlines case, the use of quantitative oligopoly models -- also known as merger simulation models -- was problematic for the High Court and for the Tribunal: however, neither of the economist-judges -- both of whom entered the profession at a time when it was still possible to embark on a distinguished career as an economist without first earning the doctorate -- is expert in the use of such models, and the rather grumpy paragraphs in the judgements criticising quantitative oligopoly analysis may somewhat reflect this.<sup>15</sup>

The use (and mis-use) of merger simulation models in this case is important enough to warrant a paper of its own.<sup>16</sup> It is important in particular because such models may in the end have determined the outcome of the case: their predictions of the impact of the cartel on competition were important and perhaps key to the NZCC's determination against the cartel, and this determination was upheld on appeal, notwithstanding the High Court's discomfort with the quantitative approach.

The second problem is this: economics is *hard*. With or without hi-tech mathematical tools, the path to achieving a satisfactory economic analysis of a complex market situation is seldom smooth and straightforward. There will be false starts, dead ends, pitfalls, wrong turnings, errors of judgement and sins of commission and omission along the way. Even the most brilliant economist is unlikely to get there on their own: the process needs consultation, comments, criticism, and even competition, in the sense of the tabling of alternative analyses of the problem.

But all this is unavailable to judges and tribunals once their hearings have closed. The judges must draft their decisions in secretive solitude. Such may be less of a problem for the NZ High Court, which formally is hearing an appeal -- ie, based on points of law. But in the Australian system the ACT deals with the case *de novo*, with the entire burden of economic analysis thrown on a single economist member who is, after the Hearing, unable to even mention the case to any of his or her colleagues, much less expose his thinking to criticisms and suggestions. It should not be surprising if decisions so reached are not robust to criticism.

After studying the ACT decision, I would suggest that what the applicants' experts succeeded most cleverly in doing during the Hearing was to make the economic issues seem *simple* -- too simple, of course, in my opinion. Using the intuitively appealing concepts of 'workable contestability' and 'the marginal customer' they managed to persuade the Tribunal that two airlines with very small shares of the trans-Tasman market -- Virgin Blue and Emirates -- could and would totally dominate the pricing decisions of the two airlines Qantas and Air New Zealand which together have a market share exceeding 80%, such that a cartel between the latter would not materially lessen competition.

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<sup>15</sup> See the NZ High Court decision at paragraph 269, and the ACT decision at paragraph 347. I should note that these models have also been criticised from the other direction, as being not sufficiently technical in their use of sophisticated econometrics and dynamic game theory. See King (2005).

<sup>16</sup> Peters and Casey (2005) deal nicely with some of the methodological issues raised by economists and their models.

Of course, the other experts, including me, had their chances before the Tribunal to refute this proposition, and clearly failed to do so. Fair enough, but I can still doubt whether the underpinnings of the judgement, which may actually have gone further than the Hearings in depending in particular on the half-baked notion of the *all important* [sic] marginal customer, would have survived a robust exchange of independent economic advice, were such available to the Tribunal during its post-hearing deliberations.

### *An alternative professional/inquisitorial process*

There are four general types of competition matters which may at times be of regulatory/judicial concern:

- Matters of guilt or innocence (eg price-fixing)
- Matters of rights and wrongs (assessment of damages)
- Matters of due process (appeal against earlier decisions on points of law)
- Matters of public benefit or detriment (authorisations of mergers or cartels)

The Tribunal/Court system may well be the best available forum for dealing with the first three types of matters. It seems, however, on the basis of the arguments above, to be not well suited to the economic assessment of the likely net benefits of a proposed arrangement such as a merger or, as in this case, cartel.

So is there a better way of handling merger or cartel authorisations, in particular to extract more value from the experts and to firm up the economic foundations of judgements? I suggest that there is, and that something quite like it was in fact deployed at the first stage of the airlines case, when the matter was before the competition commissions of Australia and New Zealand.

The NZCC, having received the application with supporting documentation, called for written submissions. It considered all these materials and carried out its own internal analysis, assisted by outside experts. The upshot, after no doubt vigorous debate within and between its staff and the commissioners, who included amongst them two economists and a QC, was a Draft Determination, on which further comment and submissions were invited. Following the receipt and distribution of these, the NZCC held a Hearing, at which interested parties presented their views.

Experts and others presenting at the Hearing were questioned by the Commissioners, and, at the Chair's discretion, by the NZCC's own economists. Notably, counsel for the parties were not permitted to lead or cross-examine the experts, to their sometimes visible frustration. No doubt telling blows were not landed and witty ripostes remained unuttered as a result, but it is my view, which may be incorrect, that the relatively civil and professional atmosphere of the NZCC Hearing was more conducive to the accumulation of reasoned analysis than was the often confrontational and hostile setting of the ACT courtroom.

In any case, following their hearing the Commissioners retired again to consider the matter internally, with the eventual (actually, quite speedy, in comparison to the ACT) outcome of its Final Determination, which in due course survived appeal to the NZ High Court. The ACCC went through a similar process of draft and final



determinations, but did not hold a hearing, I believe because parties were satisfied that one hearing, before the NZCC, was sufficient.

What I will now suggest is that what could be called the ‘professional/inquisitorial’ method of the Commissions is better suited to handling authorisations than the ‘judicial/adversarial’ process of the Tribunal and the High Court. Nor is it satisfactory to have both systems in operation, as at present. If the Commission is more likely to come up with a sound decision than the Tribunal, what is gained by letting the latter ‘review’ -- actually, re-hear – the issue? The chain of decision making will be only as strong as its weakest link.

That is, why subject decisions on authorisations to any special appeal or review process? Why not make them regulatory matters? These Commissions, and others like them, already have the power to regulate natural monopolies: why not have them regulate unnatural monopolies as well? Of course, ‘mistakes’ will be made, but given (i) that both the NZCC and the ACCC are impartial and honest bodies<sup>17</sup>, with good processes and competencies already in place, and (ii) the not insignificant consideration of the legal and other transaction costs of appeals and litigation, and (iii) that mistakes in these non-criminal matters do not have awful consequences for individuals (eg, wrongful imprisonment), it seems quite plausible that the likely net benefits of such a system would exceed those of the present arrangements.

What about the role of the experts? Of course interested parties cannot be prevented from hiring economists and others to bolster their case, but perhaps incentives would better be aligned in the cause of creating light not heat if the parties were to be tithed, with a matching dollar for each dollar they spend on their consultants going to the Commission to hire its own experts to act *qua amicus curiae*.

## **6. Two Years On: the Tasman Networks Agreement proposal**

On April 13, 2006, being just about two years since they had made their final written submissions to the Australian Competition Tribunal and the NZ High Court in support of their ‘Strategic Alliance’ proposal, Qantas and Air New Zealand came back to the ACCC with their application for authorisation to enter into a ‘Tasman Networks Agreement’ (TNA, 2006). This was summarised as follows on the ACCC website:

*The TNA involves the coordination of activities between the Applicants in respect of any flight operated on their ‘trans-Tasman Network’ in the areas of scheduling and planning of flights (including the allocation of capacity), pricing of passenger services, code sharing, processing of passengers and baggage, and coordinating of minimum inflight offering and cargo services (as determined from time to time).*

In economic terms, then, the proposal was for another cartel, though this restricted to the Tasman routes. In summary support of the TNA, the airlines claimed that:

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<sup>17</sup> Ross Jones (2002, p430) claims, I believe reasonably, that it ‘would be acknowledged by even the [ACCC’s] most strident critics that the Commission has not been captured by the industries which it regulates’. Note that regulatory capture is inherently less likely to be a problem in one-off authorisation situations, compared to the ongoing dealings involved with a statutory ‘industry’ regulator.

‘The Tasman is an intensely competitive market...[t]he lower cost airlines – Emirates... and Virgin Blue – effectively set fare levels on the Tasman, with intense competition occurring for price sensitive travellers (or “marginal” passengers). Competition for marginal passengers is not confined to those customers and extends to all passengers. The fare levels set to attract the marginal passenger are available throughout the market.’ (TNA, 2006, paras 1.4, 1.5)

Quotes and near-quotes like this from the ACT Decision appear throughout the TNA application and are the core of the airlines’ argument that eliminating independent competition between them would not result in significantly higher air fares. But as we have seen above, the ‘marginal passenger’ fares are not available throughout the market. Emirates and Pacific Blue’s fares are actually substantially lower than those available from Air New Zealand and Qantas, on average (largely due to the latter’s greater use of inter-temporal price discrimination), such that even without including those business and other travellers who voluntarily purchase higher price tickets (with fewer restrictions), the majority of travellers across the Tasman choose to fly on Air NZ and Qantas and to pay more to do so than they would on Emirates or Pacific Blue. Such is actually explicitly recognised later in the Application in the following passage:

‘Emirates leverages its marginal cost advantage to sell approximately 87% of its seats in its low priced lead-in and tactical fare classes. In contrast, Qantas and Air NZ, without the ability to deploy aircraft on a marginally costed basis, sell approximately [RESTRICTION OF PUBLICATION CLAIMED] of their seats in lead-in and tactical fare classes...Not only does Emirates offer such a high proportion of total fares at its lead-in and tactical fares...’ (TNA, 2006, paragraph 9.24)

This does not rule out the entire *distribution* of prices being lower as a result of competition between the carriers, and indeed we would expect this to be so, though as Hazledine (2006) finds, it is hard to build a model – given the low market shares of Emirates and Pacific Blue, despite their lower prices – in which the bulk of this competition is not driven by independent competition between Qantas and Air NZ, which, as noted above, has often been quite fierce on the Tasman routes over the past decade.

There is some evidence that price competition between the large carriers has eased somewhat since the ACT decision. Wellington International Airport Ltd, in their submission on the TNA (WIAL 2006, paragraphs 20, 42, 102) claim that prices have increased significantly, though they show no supporting data for this.<sup>18</sup> I can report that the lowest prices offered on the Auckland-Sydney route by Qantas and Air New Zealand, exclusive of increases in the fuel cost surcharge, were a bit more than 10% higher in May 2006 than in November 2004, eighteen months earlier. Given that May is a month of unusually low capacity utilisation for the airlines, and that prices tend to be lower at such times, this is consistent with significant real price increases over this

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<sup>18</sup> I have not seen these numbers but I believe they come from observations of fares for ex-Wellington flights offered on airline websites.

period. It would be good to have regular monitoring of prices charged on these and other routes.

If, then, pricing pressure has been relaxed somewhat since 2004, why are the airlines still so keen to form a cartel? It may be that one of the applicants is more keen than the other, but in any case both claim that there is now a severe problem of excess capacity on most of the Tasman routes, which could be relieved if they were to be allowed to coordinate reductions in seats flown while offering code sharing facilities on the remaining flights to avoid damaging their networks.

In their submissions in support of the 2002 Strategic Alliance proposal, the airlines predicted a fearsome 'war of attrition' on the Tasman if they were not permitted to cartelise their activities, with Qantas in particular aggressively adding unnecessary capacity to the routes. This proposition was not taken very seriously by the authorities (with the possible exception of the ACT), and it has clearly not (yet) come to pass, in the two years of 'counterfactual' that we have already experienced.

However, the addition of capacity from Pacific Blue and Emirates may have caused Air NZ and Qantas some difficulties, despite the quite strong recent growth in the Tasman market, on which total passenger numbers have increased by more than 7% annually, on average, since January 2001 (see Appendix). BTRE data do show a gradual but fairly steady decline in seat utilisation rates since 2001 for Qantas and Air NZ (Appendix), though this could be due to increases in fares. Note that with around 46 daily return flights across the Tasman on the nine main routes, of which Air NZ and Qantas have about one third each, a continuation of 7% annual market growth with no change in their schedules would be for each of them the equivalent of removing the capacity of one daily return flight each year from their schedule (ie, 365 actual return trips) in a static market.

Of course, there are alternatives to the TNA. Are there not opportunities for setting up code sharing arrangements (not necessarily restricted to being between Air NZ and Qantas) which could enable reductions in capacity without compromising independent competition on marketing and pricing? And why can't they just adjust capacity unilaterally, as independent competitors normally do and as they have done in the past? The airlines anticipated this question, and respond as follows:

'The consequences of a network carrier unilaterally removing capacity from a market, such as the Tasman, would be to cede competitive advantage to the competing airline's network while effectively marginalising its own network ... consumers (particularly business passengers) are more likely to choose the network airline that offers more destinations and frequencies.' (Qantas and Air NZ 2006, paragraphs 3.8, 3.9)

To the extent that this statement holds true, it provides corroboration for the findings of this paper and of Hazledine (2006), to the effect that the fringe airlines Pacific Blue and Emirates do not appear to offer strong competition for the network carriers on the Tasman. The real problem faced by Air NZ and Qantas is each other, as it has been in the past. Whether this can justify unusual regulatory relief in the form of an officially sanctioned cartel is another matter.

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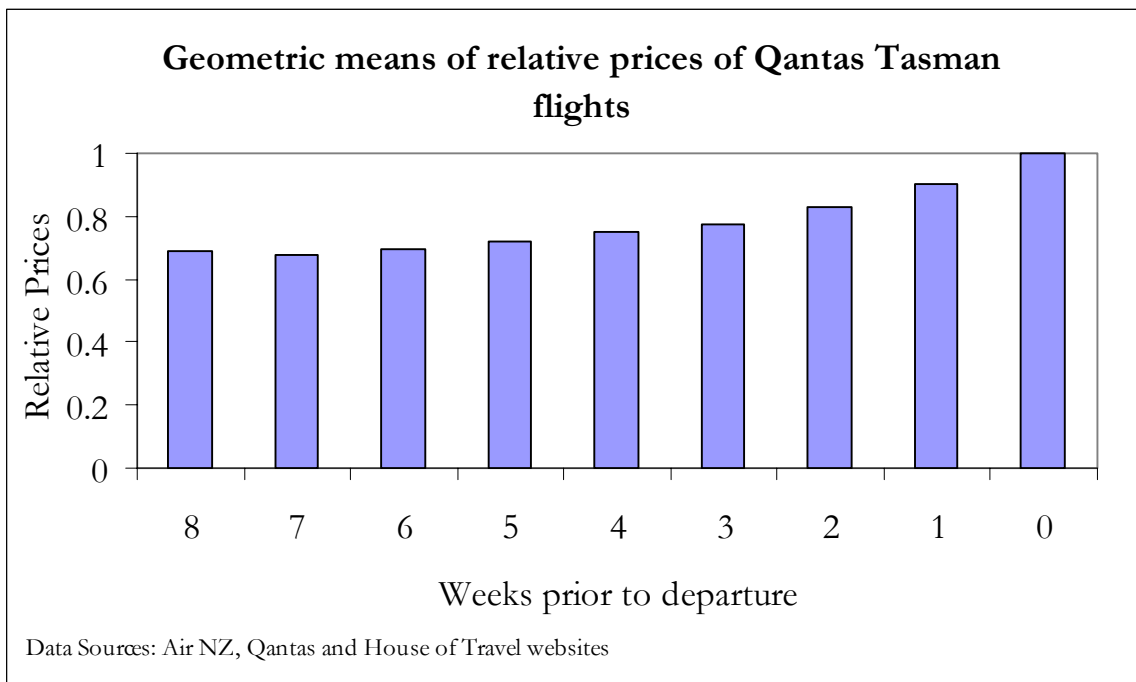
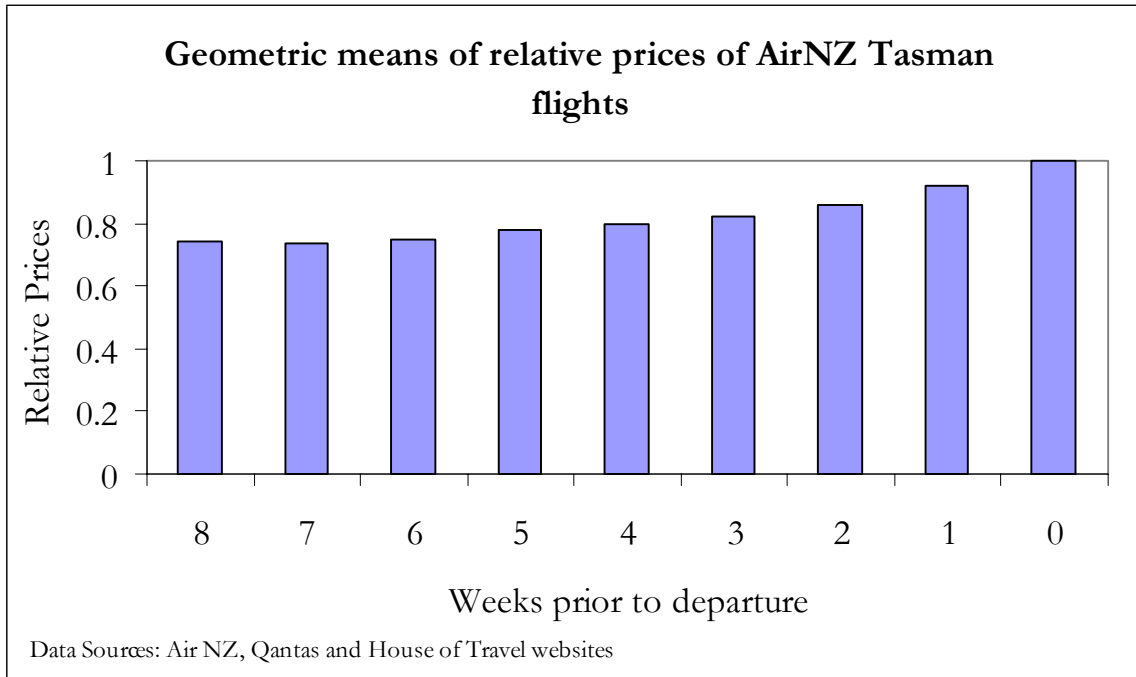
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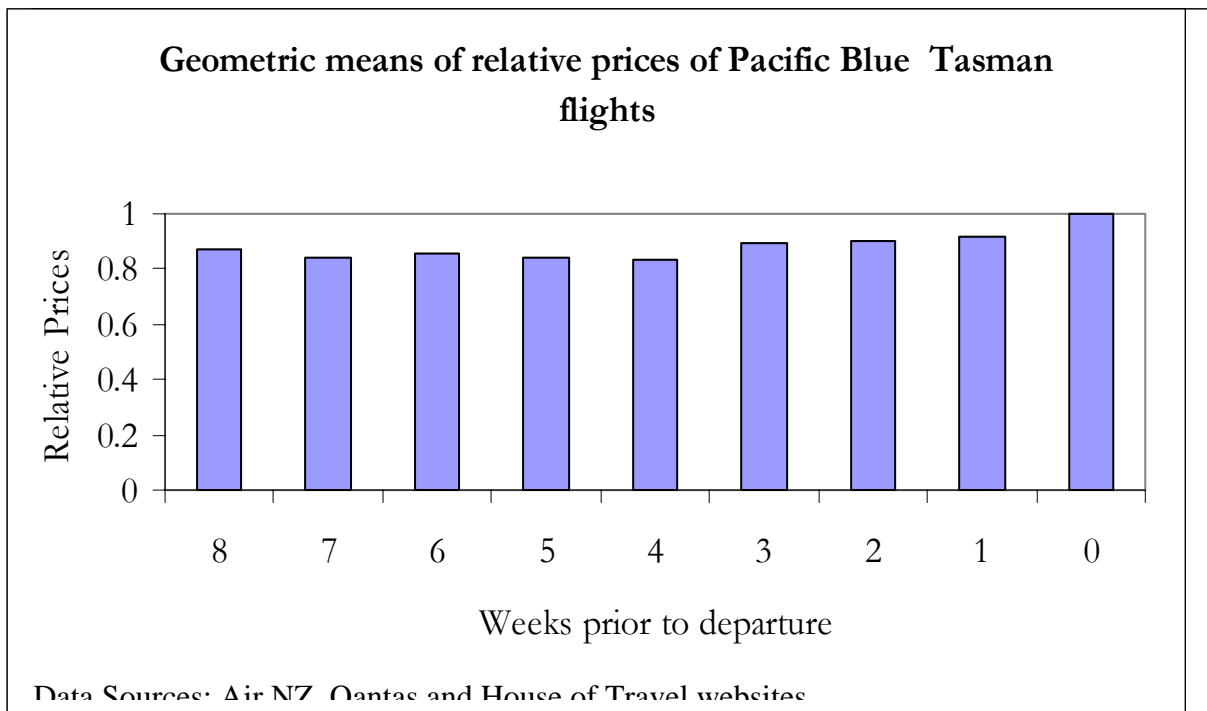
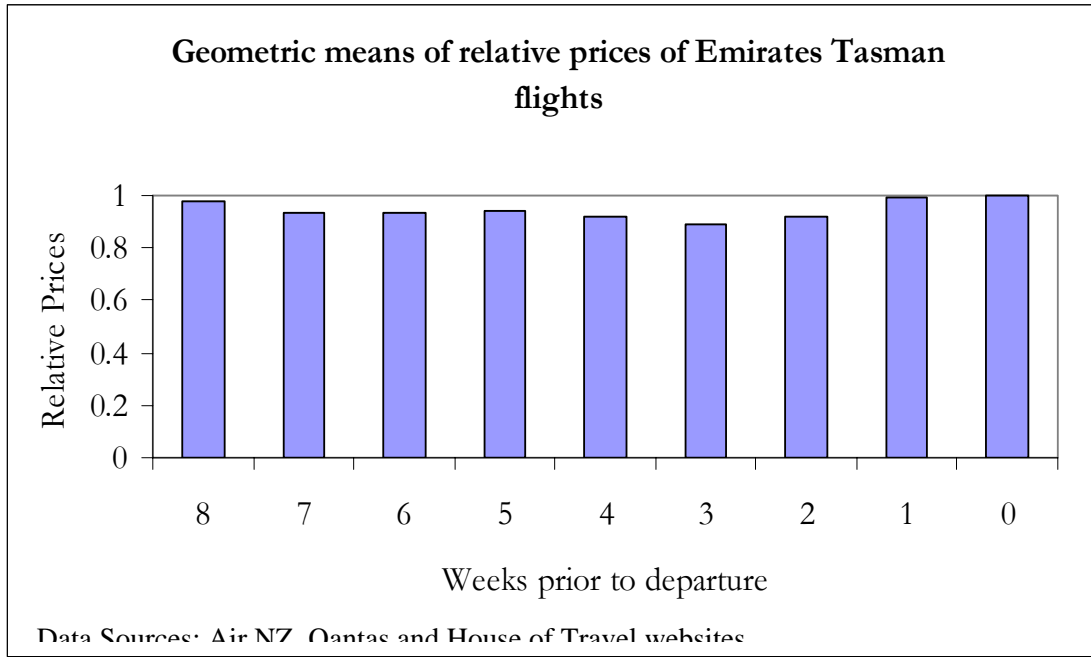
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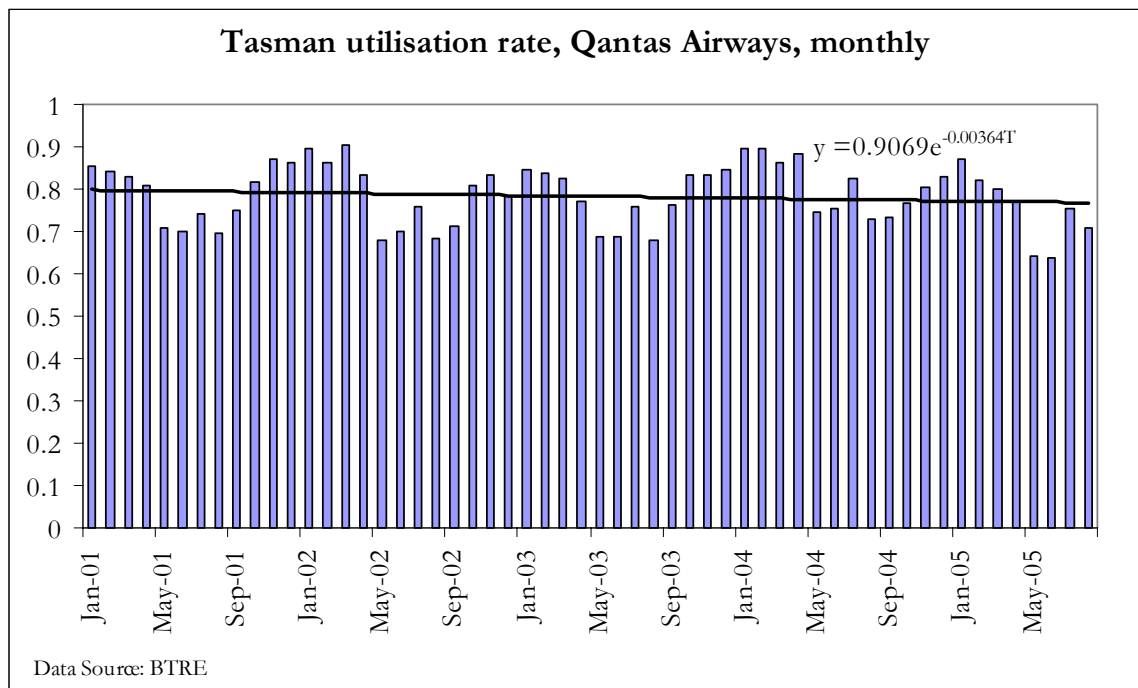
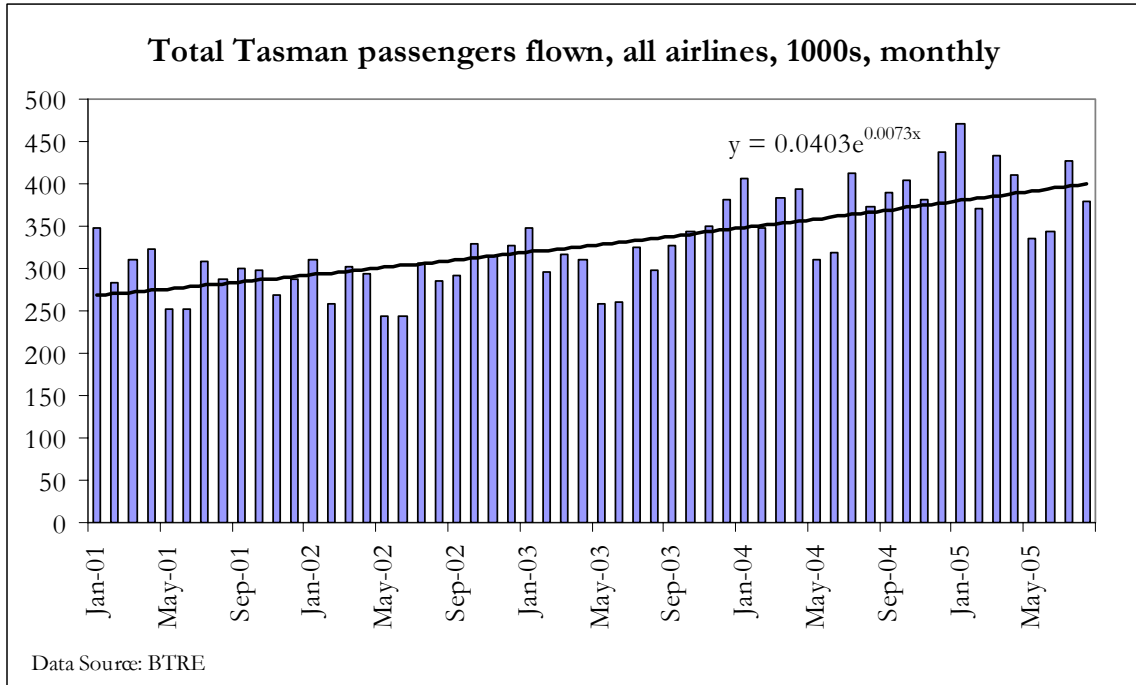
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*Figures 1-4 follow:*





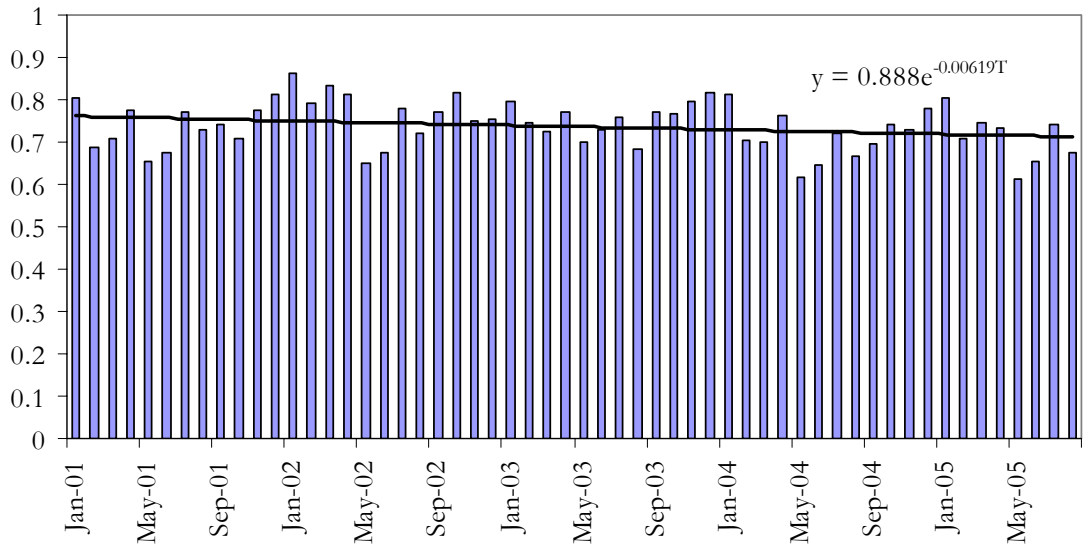
# Appendix





HAZ

### Tasman utilisation rate, Air NZ, monthly



Data Source: BTRE