Economic Analysis of Proposed Alliance

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Alliance Leads to a SLC

- The Alliance leads to a Substantial Lessening of Competition (SLC)
- Airfares will be higher and consumers will be injured
- No antitrust authority, e.g. US DOJ, would approve such a merger
- Balancing analysis by NECG based on a number of incorrect assumptions
- Effect on tourism is incorrectly treated

Reply to Dr. Tretheway

- Dr Tretheway's analysis is distorted by an unsupported assumption that Air New Zealand will not make money on its long-haul routes.
  - Air New Zealand's survival would be threatened, according to Dr Tretheway, by increased competition undermining yields on its domestic services.
    - "For Air New Zealand, the impact of LCC entry is likely to be dramatic. I understand that its international services collectively have essentially been break-even at best. In those isolated cases when it has been able to achieve sufficient profitability to cover its costs of capital, it has largely been due to contributions from its domestic services. When an LCC enters the domestic market, an event I view as being virtually inevitable, its domestic yields will plummet." (para 3.3.15)
    - "For Air New Zealand, where the long haul international network has only rarely been able to cover its capital costs, the loss of revenues and profits in the domestic New Zealand and Trans Tasman may seriously undermine its financial viability." (para 3.6.8)

- Whether Air New Zealand is likely to make money in the future, is a matter for business and economic analysis.
- Dr Tretheway does not provide any supporting economic or business analysis for why Air New Zealand would continue to lose money on its long-haul international routes.
  - Condition have changed markedly with the exit of United Airlines (UA) in March 2003.
    - Air NZ is only Star Alliance partner coming from North America
    - Air NZ receives feed from UA, Air Canada and to some extent LH
    - LAX-AKL is now only Air NZ and QF
    - Consistent with 2003 being a good year for Air NZ—"good tailwind"
  -

Entry on US-NZ is Unlikely

- Re-entry by UA or entry by another US carrier extremely unlikely
  - Claim that UA would re-enter is complete speculation
  - Ignores extreme financial deterioration of UA
- Dr Tretheway makes a generalised statement that:
  - "While the FSA product will be sought after by a large portion of travellers, these markets [long haul services] are served by competing FSAs, and the degree of competition intensifies as the distance to be travelled increases." (para 3.6.5)
  - This statement does not hold for Air New Zealand's longest route. Since United exited the AKL – LAX route, Air NZ and QF have operated as a duopoly.

Entry on AKL-LAX is Unlikely

- UA and other US carriers do not have the financial resources to re-enter.
  - American will not enter as it code shares with Qantas.
  - Air Canada code shares with Air NZ and is currently in bankruptcy.
  - Other US airlines are unlikely to enter in the medium run given their financial difficulties and their lack of feed from US origins to Los Angeles and their lack of alliances that would provide the necessary feed.
  - BA code shares with QF and will not undermine its equity stake.
- VBAs or LCCs are unlikely to enter the route, as their business models do not provide the services necessary for a 12 hour flight.

- Absent the Alliance, the duopoly between Air New Zealand and Qantas on this route would seem likely to persist for the foreseeable future.
- Air New Zealand currently has a number of competitive advantages on the AKL-LAX route relative to Qantas:
  - Air New Zealand's cost structure is lower – labour costs for flight staff are reportedly about 50% less than the amount paid to QF crew
  - Air New Zealand is the only airline on which a passenger can fly from London to Auckland via LAX without changing airlines, a convenience which Prof. Willig and Ms. Guerin-Calvert emphasize in their report.

- Demand is currently growing on this route as US and European interest in visiting NZ grows.
  – Visitor arrivals to New Zealand from the Americas and Europe combined now number approximately same as from Australia.
  – A number of passengers would seem to prefer the LAX route to Europe, rather than travelling via Singapore. US passengers would find the trip via Europe to be significantly more expensive and longer.
- The market conditions summarised above, do not support Dr Tretheway's assumption that the AKL- LAX route will be unprofitable for Air NZ over the medium term.
- Market conditions suggest the Alliance will remove competition from one of New Zealand's most important tourist routes.
  – Auckland to Los Angeles would likely become a monopoly route under the Alliance.

Effect of uncertain outcomes: The importance of option value

- Dr Tretheway concludes:
  - "The factual and counterfactual eventually have the same outcome. The only issue is the path to get there: slow and painful without the alliance, or quickly while maintaining and enhancing both the Air New Zealand and Qantas marketing brands." (para 5.3.4)
  - Differing views as to what the future might bring significant uncertainty
- The business and economics literature in the past 15 years has emphasized the value of options:
  - The Commission should realize the value of the Air NZ option because if the Alliance is permitted to go ahead, no chance will exist for re-entry by another New Zealand-based FSA in the future.
  - If the Alliance is not permitted to form, then the Commission can gather further information regarding the performance of Air NZ rather than assuming its demise.
- The immediate and long-term value of this option to consumers in New Zealand is significant.

- If Dr Tretheway is wrong in his prediction of the future, then by declining the Application, the Commission will have met its statutory purpose by protecting "competition in markets for the long-term benefit of consumers within New Zealand".
- If Dr Tretheway proves correct, then by declining the Application, the Commission would have ensured that consumers benefited from competition in the interim.
- In either case, consumers are better off if the Applications are declined.

Reply to Dr. Winston

- Dr. Winston does a "fare regression" and finds a negative effect of Virgin Blue (VB).
  - I used data supplied to me by the Commission—ended up with 1429 observations.
    - 22 more observations than MW—Prof. Winston could not explain difference
    - Need to be somewhat cautious
  - I found that results are very sensitive to specification
  - Put in year effects and found demand (GDP) now significant
  - Effect of other airlines is statistically significant and negative.
- I now find that VB effect and Ansett effects are not statistically different
    - Dr. Winston found effect of VB decrease by about 30% when he includes extra variables similar to my specification test

Anti-competitive Effect of Alliance

- Well known in US that 3 or more airlines lead to lower fares than when 2 competitors exist
- I used Dr. Winston's data to test for the effect in Australia
  - I found that presence of an additional airline led to a significantly negative effect beyond Ansett and VB
  - Without the Alliance will have Air NZ, QF, and VB and with the Alliance will have Air NZ and VB
  - To the extent that Australian (and US results apply) airfares will be significantly higher in NZ
- The approximate effect is 4%-5% higher fares
- Proposed authorisation is anti-competitive and further harms consumers
    - I agree with Dr. Winston that competition should be allowed to take place, undistorted by promises to the Commission not to compete "too much"

Reply to Prof.Willig and Ms. Guerin - Calvert

They claim Alliance opens opportunity for airlines to:

- Provide online itineraries
- Coordinate schedules

Consumer benefits estimated if airlines:

- Reduce prices on interlined services by 21% to 25%
- Spread flights (rather than wing-tip)

Primary difficulty with analysis:

- Assumes dominance does no harm
- Ignores long-haul routes (with little prospect of VBA entry)

- Commission should presume dominance harms consumers
  - Alliance market share 100% on most routes where currently often have competition
  - Most competition models would have prices increasing where Alliance replaces current competition
  - Rivalry drives service innovation over time
- Competition authorities wary of same route Alliance
  - US Dept Justice generally opposed network overlap mergers (recently rejected United – US Air merger)
  - European Commission concerned where merger between only competitor on particular routes
  - Alliance is “wrong type of alliance”

Previous US Decisions on Alliances

- US Transportation Research Board (Special Report 255):
  - **"Domestic Alliance Among Major Carriers**

    Although DOJ has not disapproved of mergers between carriers that have no significant carrier network overlap—for example, the purchase of Reno Air by American Airlines—it generally has opposed mergers when networks overlap or when the two carriers could develop into significant competitors in the future"

- Most recent example: DOJ stopped proposed merger of UA and US Air

Economic Basis of NECG Model is Incorrect

- Use assumption of Cournot model
- Inconsistent with facts and testimony
- Cournot assumes homogeneous product with no differentiation
- Differentiation is very important for FSAs to exist
  - Dr. Tretheway's evidence regarding difference between Air Canada and Canada West trips
  - Importance of frequent flyer programs and alliances (Star)
  - Ms Guerin-Calvert also testified to differentiation between FSAs and VBAs
- Evidence on importance of "brand name"—reason given for allowing Alliance rather than letting market outcome determine the future
  - No role for brand name in Cournot model

Models with Product Differentiation Behave Very Differently

- Not as much competition typically—Nash-Bertrand competition.
  - I have published numerous papers on subject: "Competitive Analysis with Differentiated Products," (1994) and numerous other papers (1997, 2000,2002)
  - Approach has been adopted by US DOJ and FTC
- Air NZ and QF are "closest competitors"—higher cross price elasticities than with VBAs
  - FSAs compete more closely against each other than with VBAs
  - Nash-Bertrand models demonstrate price effect of merger is higher with closer competitors
- Thus, anti-competitive effect is considerably higher than NECG model assumption of Cournot

Cournot Assumption is Inconsistent with the Facts

- Under Cournot with different costs, share is inversely related to costs.
  - See mathematical analysis (next page)
- It was claimed that in Australia that QF has about 80% on routes and VB has about 20%
  - With a market elasticity of approximately 1.0 (for example) QF's costs should be about 25% as high as VB's
  - However, facts are exactly the opposite where VB has costs significantly less than QF
- What has gone wrong? QF offers a differentiated product—not the same as VB
  - Also true in US and Europe
  - Travelers have heterogeneous preferences and needs which leads to differentiated products

$$\frac{c_1}{c_2} = \frac{s_1 - m}{s_2 - m}$$

$$p_1 = c_1 \frac{\eta_1}{\eta_1 - 1} = c_1 \frac{\frac{m}{s_1}}{\frac{s_1 - m}{s_1}} = c_1 \frac{m}{s_1 - m}$$

Effect on Prices and Tourism

- North America is a substantial source of tourists
  - Spend considerably more than tourists from Australia
  - Likely to be largest source of tourist revenue
- AKL-LAX is only US route to NZ
  - Currently only Air NZ and QF
  - Will be “merger to monopoly” in this market
  - Very unlikely US entry—Alliance claim that UA would enter in year 3 is pure speculation and is contrary to UA’s current financial condition
- Economics predict that prices will increase by about 42%
  - Used market price elasticity of 1.7 (consistent with NECG assumption)

- Price effect on US tourist demand
  - Tourism from US on LAX-AKL decreases by about 45%
    - Could be partly offset by increased promotion—higher profit margins increase incentive for promotion
    - However, extremely unlikely to offset price increase
    - Airline advertising for NZ is only a small amount of total
  - NECG person said they assumed prices would not increase and increase by only a small amount (10%) in year 3
      - Completely unheard of in economics in "merger to monopoly" situation—assumes economic irrationality of Air NZ and QF. Inconsistent with NECG's own Cournot model.

Effect on Tourism Quantified

- The outcome is anti-competitive and a SLC
  - “Air NZ is at heart of NZ tourism industry”
    - Importance of tourism industry to NZ
    - Among largest export $ earner
- 260,000North American tourists per year
  - Spend on average $3900
- Reduction in number of tourists: 58.5K to 117K
- Using NECG multiplier of 1.0 leads to welfare reduction of $228 million to $456 million
  - Even if I use a multiplier of 0.5 I find a range of $114 million to $228 million welfare loss

NECG tourism effect of confidential counterfactual

NECG Model

- Immediate retrenchment of Air NZ from long-haul (and other routes)
- Disproportionate reduction in promotion expenditure
- Estimate welfare impact of reduced tourism

NECG concludes:

- In NZ interest to keep Air NZ flying long-haul routes

Difficulty with Analysis

- Retrenchment from cash positive routes implausible
- Inconsistent with Air NZ statements “maintains routes while cash positive”
- Partial analysis – e.g. didn’t deduct savings
- Wrong policy conclusion
  - Makes argument for direct government funding of promotion, not for bending competition rules

NECG tourism effect of non-confidential counterfactual

NECG model:

- Increase in capacity under counterfactual
- Reduced tourists due to price increase and capacity reductions in factual
- More than offset by 50,000 + 13,300 tourists found by Qantas Holiday
- Apply multipliers to estimate benefit

Difficulty with analysis

- Likely price increase on major tourist routes (e.g. LAX – Auckland) understated
  - NECG assumes 0% for 2 years and 10% thereafter
  - Inconsistent with economics and with Cournot model
- Detrimental impact of Alliance on tourism understated
- Net additional tourists by Qantas Holidays implausible

Qantas Holidays stretch target

- 35% increase in package tourists to New Zealand in year 1
- 6% increase in Qantas Holidays revenue
- Outside Qantas Holidays core expertise (outbound from Australia 50% of revenue)
- Owner has conflicting incentive (does better when Qantas Holidays sells trips to Australia on Qantas).
- Increase assumed on routes where prices increased and capacity reduced relative to counterfactual

Productive Inefficiency

- Alliance leads to dynamic economic inefficiency
  - Rent capture and rent protection expenditures by labour unions
    - Economic waste under assumption of full employment
  - Higher costs of FSAs importantly affected by labour costs and restrictive work rules
  - Market outcome will “fix” the problem
- Alliance will have market power with rent capture by labour unions.
  - QF executive said competitive response required costs to decrease by 20% when fares dropped
    - Said QF required unions to become more productive
- Demonstrates absence of productive efficiency

Conclusion

- Will lead to a substantial SLC even if VB enters
- Prices will be significantly higher in NZ and possibly trans-Tasman
- Prices will be significantly higher in one of most important markets: AKL-LAX. "Merger to monopoly"
- Significantly negative effect on tourists from North America
- In my view US would never allow this type of merger (e.g. United and US Air in 2000).