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PUBLIC VERSION

Commerce Commission
Final Determination

Determinations pursuant to the Commerce Act 1986 in the matter of an application for authorisation of a business acquisition and in the matter of an application for authorisation of certain restrictive business practices and involving:

AIR NEW ZEALAND LIMITED

and

QANTAS AIRWAYS LIMITED

The Commission: **PR Rebstock**
PJ Taylor
DF Curtin
D Bates QC

Summary of Applications: The subscription by Qantas Airways Limited of up to 22.5% of the voting equity in Air New Zealand Limited pursuant to a Subscription Agreement between Air New Zealand Limited and Qantas Airways Limited (the proposed Acquisition); and

The implementation by Air New Zealand Limited and Qantas Airways Limited of the terms of a Strategic Alliance arrangement which creates a Joint Airline Operation network (the proposed Arrangement)

Final Determinations: The Commission determines to decline authorisation for the proposed Acquisition pursuant to s 67(3)(c) of the Act.

The Commission determines to decline authorisation for the proposed Arrangement pursuant to s 61(6) of the Act.

Date: 23 October 2003

CONFIDENTIAL MATERIAL IN THIS REPORT IS CONTAINED IN SQUARE BRACKETS

EXECUTIVE SUMMARY[1]

Proposed Alliance Between Air NZ and Qantas

1. On 9 December 2002 the Commerce Commission (the Commission) received two interdependent applications for authorisation from Air New Zealand Ltd (Air NZ) and Qantas Airways Ltd (Qantas).

2. The first application by Qantas, made under section 67(1) of the Commerce Act, relates to a proposed "share purchase agreement" whereby Qantas would acquire 22.5% of the voting equity in Air NZ.

3. The second application by Air NZ and Qantas, made under section 58 of the Commerce Act, relates to the proposed implementation of a "strategic alliance arrangement" between Air NZ and Qantas. The strategic alliance arrangement would, among other things, require the two airlines to:

   - create a "Joint Airline Operation". Every Air NZ flight and those Qantas flights to, from, and within, New Zealand would make up the Joint Airline Operation. Its commercial activities would be managed by Air NZ, and which would be overseen by a strategic alliance advisory group comprising three representatives of each airline;

   - coordinate all aspects of the Joint Airline Operation including passenger fares and freight rates, flight schedules, the amount of passenger and freight capacity provided on each sector, code-sharing, marketing, frequent flyer programmes and profit-sharing; and

   - cooperate in relation to other airline operations outside the scope of the Joint Airline Operation.

4. The contractual documents that give effect to the overall commercial arrangements are conditional upon the creation of the alliance under the strategic alliance arrangement. In this executive summary and in the Determinations, the share purchase agreement and the strategic alliance arrangement are collectively referred to as "the proposed Alliance".

5. In addition, Air NZ and Qantas have proposed that Qantas would have the right to be represented by two directors, which it would appoint to Air NZ's board of directors. In turn, Air NZ would have the right to be represented by one director, which it would appoint to Qantas's board of directors.

[1] This Executive Summary is provided for the assistance of readers of the Commission's determinations. It does not purport to completely encompass all details of the Applications, the Commission's investigation of the facts, the Commission's analysis of those facts, the reasons for the Commission's determinations or the determinations themselves. Readers are referred to the body of the reasons for the Commission's determinations for a complete picture.

Framework for Consideration of the Applications for Authorisation

6. For the purposes of the applications before the Commission, the proposed Alliance can be seen in two parts, the proposed share purchase agreement and the proposed strategic alliance arrangement. As stated, the Applicants have advised that these are interdependent and together comprise one business plan, so that one would not occur without the other. The Commission determined to consider the applications together as they are interdependent. Air NZ and Qantas have also sought and agreed to that approach.

7. The two applications represent the proposed Alliance. Therefore, for the most part, the analysis of each application centres upon the same considerations. These include: the factual matrix; the market definitions; the competitive outcomes in the counterfactual and the factual; and the detriments and benefits arising from the business plan, all of which will be determinative of the applications. Nevertheless, the Commission is required to make separate determinations with respect to the proposed share purchase agreement and to the proposed strategic alliance arrangement.

8. In relation to the proposed share purchase agreement, the Commission must determine whether, in any of the markets affected, the proposed share purchase agreement would have, or would be likely to have, the effect of substantially lessening competition and, if so, whether the proposed share purchase agreement would result, or would be likely to result, in such a benefit to the public that it should be permitted.

9. In relation to the proposed strategic alliance arrangement, the Commission must determine whether, in any of the markets affected, the proposed strategic alliance arrangement would result in a lessening, or a deemed lessening, of competition and, if so, whether the proposed strategic alliance arrangement would, in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely to result or is deemed to result, such that it should be authorised.

10. The Commission considers that a public benefit is any gain, and a detriment is any loss, to the public of New Zealand, with an emphasis on such gains and losses being measured in terms of economic efficiency. If the Commission is satisfied that the public benefits outweigh the detriments in each case, it must authorise the proposed Alliance. If the Commission is not so satisfied, then the proposed Alliance must be declined authorisation.

11. The Commission has estimated single-year benefits and detriments, based on year three of the proposed Alliance, but has also considered how detriments and benefits may accrue over an initial five year period under the proposed Alliance. The Commission considers that year three may be regarded as representative of the relative sizes of benefits and detriments that would accrue in one year under the proposed Alliance. The Commission also notes that benefits and detriments may extend beyond a five-year period, but considers that projections beyond this time horizon are too uncertain to be of any value.

Commission Processes

12. In making these Determinations, the Commission has considered and given weight to information and analysis from a wide range of sources. Following its Draft Determination issued on 10 April 2003, the Commission received written submissions from 24 parties, and subsequent cross-submissions from 12 parties.

13. The Commission conducted a conference over six days, beginning on 18 August 2003, to hear oral submissions on the Draft Determinations from 14 parties, and to ask questions of submitters. Much additional information was provided to the Commission at the conference from parties both supporting and opposing the applications for authorisation.

14. During its examination of the applications for authorisation, the Commission has received and taken account of advice received from its own economic and legal experts - Professor Gillen of the Wilfred Laurier University of Ontario, Professor Zhang of the University of British Columbia, Dr M Berry, barrister and Mr H Rennie QC, along with experts employed by Air NZ, Qantas, Infratil and Gullivers Pacific.

15. Having completed its investigation, research, modelling and conference processes, the Commission subsequently weighed and reviewed all the information and analysis it had received during its examination of the applications before reaching its final determinations.

16. Set out below is a summary of the Commission's key reasons for the final Determinations reached.

The Factual and Counterfactual

17. The Commission takes a comparative, rather than an absolute, approach to its consideration of the competition impacts that would be likely to result from a proposed acquisition or arrangement. In doing so, it compares the extent of competition in both the factual and the counterfactual.

18. The factual is the situation likely to arise in the future if the proposed Alliance were to proceed. The counterfactual is the future situation likely to arise in the absence of the proposed Alliance. The counterfactual is not necessarily a continuation of the status quo. Rather, it encapsulates the Commission's pragmatic assessment of what is likely to happen in the absence of the factual.

19. The factual and counterfactual give rise to different states of competition in each of the relevant markets. The Commission carries out a comparison between the factual and the counterfactual in order to make a judgment as to the impact of the proposed Alliance on competition. If a substantial lessening of competition, in the case of an acquisition, or a lessening of competition, in relation to an arrangement, were to arise in any market, the proposed Alliance would require an authorisation in order to proceed.

20. In that case, the lessening of competition in the factual relative to the counterfactual allowed the Commission to determine the amount of detriment that would arise from the

proposed Alliance. As explained above, this detriment would have to be set against the benefit likely to flow from the proposed Alliance, in order to arrive at a conclusion as to whether authorisation was warranted.

The Factual in this Case

21. The Commission considers that in the factual the proposed Alliance between Air NZ and Qantas would take place, and that its key characteristics would be:

- Qantas would subscribe for 22.5% of the voting equity in Air NZ for a consideration of $550 million. The cross-appointment of directors would occur. The Joint Airline Operation would commence, the commercial aspects of which would be managed by Air NZ;

- Air NZ and Qantas would coordinate pricing, capacity, schedules and all other aspects of normal business on both the Joint Airline Operation and on other routes. This would lead to the elimination of the competition currently existing between Air NZ and Qantas;

- Virgin Blue[2] would enter the Tasman market, and subsequently the New Zealand main trunk market, but to a limited extent in the Commission's timeframe;

- competition from other international carriers flying between Auckland and Australia as part of longer international flights would continue; and

- the competition on New Zealand provincial routes offered by Origin Pacific would be reduced due to the cessation of its code-sharing arrangement with Qantas which would cause Origin Pacific to retrench.

The Counterfactual in this Case

22. The Commission considers that the key characteristics of the likely counterfactual are that:

- there would be a gradual recovery in the financial position of Air NZ, and its ongoing financial viability over the short- to medium-term. The Government would continue to be a shareholder in Air NZ. There is uncertainty as to whether sufficient new capital would be available, or whether its retained earnings would be sufficient, to allow the airline to pursue its preferred national/international network strategy;

- Air NZ and Qantas would continue to be competitors on domestic New Zealand, Tasman, Pacific Island, Asian and North American routes, with the capacity of each being expanded in line with market growth;

- there would be entry and gradual expansion by Virgin Blue on Tasman and New Zealand main trunk routes;

[2] Or its New Zealand-based subsidiary, Pacific Blue.

- competition from other international carriers flying between Auckland and Australia, as part of longer international flights, would continue; and
- Origin Pacific would remain in its code-sharing relationship with Qantas, and would continue to provide competition on provincial New Zealand routes.

Differences Between the Factual and the Counterfactual

23. From a competition perspective, the main differences are that Air NZ and Qantas would operate as one airline in the factual but not in the counterfactual, that Virgin Blue would gain a smaller market share in the factual, and that Origin Pacific would have a reduced competitive effect in the factual vis a vis the counterfactual.

Market Definition

24. The markets that the Commission considers are relevant to its examination of the competitive impacts of the proposed Alliance are the following:
    - the New Zealand main trunk passenger air services market, comprising flights between Auckland, Wellington and Christchurch;
    - the New Zealand provincial passenger air services market, comprising New Zealand domestic flights other than those on the main trunk routes;
    - the Tasman passenger air services market, comprising all flights between New Zealand and Australia;
    - the New Zealand to Asia passenger air services markets, comprising both direct flights from New Zealand, and indirect flights from New Zealand via Australia, to and from Japan, Taipei, Hong Kong and Singapore;
    - the New Zealand to the Pacific Islands and beyond passenger air services markets, comprising flights between New Zealand and Fiji, Samoa; Tonga, and Tahiti; between Fiji and Los Angeles, between Samoa and Tonga; and between Tahiti and Los Angeles;
    - the New Zealand to the United States air passenger services market, comprising flights between Auckland and Los Angeles;
    - the other international passenger air services markets, comprising flights between New Zealand and Europe;
    - the domestic freight market;
    - the Tasman belly-hold freight market;
    - the international belly-hold freight markets for the conveyance of freight between New Zealand and Asia, the Pacific Islands, the United States and other international

destinations; and

- the national wholesale travel distribution services market.

Competition Analysis

25. The competition analysis carried out by the Commission is a comparison of the likely state of competition in the factual under the proposed Alliance, with that in the counterfactual without the Alliance. The Commission carried out a qualitative analysis of competition in each market. In addition, economic modelling also assisted the Commission by providing a quantitative estimate of the likely increase of airfares from any lessening of competition between the factual and the counterfactual in each market. The results of the Commission's qualitative and competition analysis of the proposed Alliance are summarised below.

26. The Commission considers, on the balance of probabilities, that there is likely to be a substantial lessening of competition in each of the markets listed below for the reasons given. The Commission also finds that the strategic Alliance arrangement provides for the two competing airlines to agree the price of their air fares. Thus, the strategic Alliance arrangement is an agreement to fix prices. As such it is deemed to substantially lessen competition in each of the relevant markets under s30 of the Commerce Act.

- <u>The New Zealand main trunk passenger air services market:</u> the proposed Alliance would result in the two major suppliers joining forces, and having a market share approaching 100%. It would lead to a reduction in the limited existing competition from Origin Pacific, through its likely retrenchment. Further, the Commission considers that while the entry of Virgin Blue into the market is likely to a limited extent in both the factual and the counterfactual, its entry in the factual would be more limited because of the superior ability of the proposed Alliance to respond to discourage entry and expansion.

- <u>The New Zealand provincial passenger air services market:</u> Air NZ already has a very large share of this market, and the proposed Alliance would result in a reduction in the existing competition from Origin Pacific, through its likely retrenchment. The Commission considers that Virgin Blue would not enter this market in other than a "cherry picking" manner, perhaps to tourist destinations only that could be served by its jet aircraft.

- <u>The Tasman passenger air services market:</u> the proposed Alliance would result in the two major suppliers joining forces, and having a high market share. There would be little constraint from fifth freedom competitors in either the factual or the counterfactual. Like the main trunk market, the Commission considers that the entry of Virgin Blue into this market would be limited in extent, and would not significantly constrain the proposed Alliance.

- <u>The NZ – Asia passenger air services markets:</u> the Alliance would have the effect of removing the existing competitive constraint on Air NZ of indirect flights to Asian destinations on Qantas via Australia. The proposed Alliance would not be constrained by existing competition, or the threat of entry, on the routes between New Zealand and

Japan and Taipei. The proposed Alliance would continue to face competition on the routes between New Zealand and Hong Kong and Singapore. However, as the strategic alliance arrangement is a price-fixing agreement it is deemed to substantially lessen competition on those latter routes through the operation of s 30 of the Commerce Act.

- The NZ – Pacific and beyond passenger air services markets: the proposed Alliance would result in an aggregation in market share between Air NZ and Air Pacific (in which Qantas has a substantial shareholding), and would also have a further competitive effect on other small Pacific carriers, such as Polynesian Airlines, through the loss of Qantas as a code-share partner. As a result the proposed Alliance would not be constrained by existing competition, or the threat of entry on the routes to Fiji, Samoa, Tonga and Tahiti from New Zealand, or on the routes from Fiji to Los Angeles and from Samoa to Tonga. The Alliance would continue to face competition on the Tahiti to Los Angeles route in the factual from Air Tahiti Nui and Air France. However, as the strategic alliance arrangement is a price fixing agreement it is deemed to substantially lessen competition through the operation of s 30 of the Commerce Act.

- The NZ-US passenger air services market: the proposed Alliance would bring together the only two existing competitors, and would be insufficiently constrained by potential competition, with no entry likely within the time period considered by the Commission.

- The international passenger air services markets: the proposed Alliance would be likely to face competition from a number of strong international carriers. The strategic alliance arrangement is, nevertheless, deemed to substantially lessen competition under s 30 of the Commerce Act.

- The Tasman belly-hold freight market: the proposed Alliance would have the effect of substantially lessening competition for the same reasons as set out above under the Tasman air passenger services market.

- The international belly-hold freight market: the proposed Alliance would have the effect of substantially lessening competition for the same reasons as set out above with respect to the NZ-Asian air passenger services markets, the NZ-Pacific and beyond passenger air services markets, the NZ-US passenger air services market and the international passenger air services market.

- The national wholesale travel distribution market: the proposed Alliance would have the ability to restrict access to services, in terms of air fare rates, to independent travel wholesalers. Competition at the airline level would be insufficient to address these concerns, even allowing for the entry of Virgin Blue. As a result the wholesalers owned by the proposed Alliance members would be able to lever stronger market positions.

27. In most of these markets the main competition effect stems from the reduction in the number of competitors either from three to two or from two to one, between the counterfactual and the factual. The existing active competition in the counterfactual between the two major participants, Air NZ and Qantas—which currently have a

combined market share in various markets of up to 100%—would be eliminated in the factual.

28. Therefore, the Commission's qualitative analysis leads to its conclusion that the proposed Alliance would be likely to result in a substantial lessening of competition in the relevant markets.

29. The Commission's quantitative economic modelling of individual markets generated likely average fare increases under the proposed Alliance, relative to the counterfactual, that were consistent with its qualitative conclusions on the substantial lessening of competition in those markets. Table One below shows the expected air fare increases[3] for year three of the proposed Alliance. An ability to raise prices to the extent shown in Table One below suggests the proposed Alliance would achieve a substantial degree of market power, resulting in a substantial lessening of competition. The increases for the last two markets in the Table were not modelled, but were estimated to be at least 5% on the basis that a substantial lessening of competition had been found.

Table One
Expected Average Air Fare Increases in the Factual Compared with the Counterfactual (year three)

Market	Average Air fare increase
New Zealand Main Trunk	17%
New Zealand Provincial	16%
Tasman	16%
Auckland – Los Angeles	14%
Auckland – Nadi	11%
Nadi – Los Angeles	19%
Auckland – Asia	5%+
Other Pacific Routes	5%+

Detriments

30. The Commission found that a substantial lessening of competition would occur in a number of markets as a result of the proposed Alliance. A lessening of competition would be expected to result in economic detriments to the public of New Zealand, in terms of a loss of economic efficiency.

31. To the extent possible, the Commission must attempt to quantify such detriments, and it did so under the headings of allocative, productive and dynamic inefficiency.

Allocative Inefficiency

32. Allocative inefficiency arises from the impact of reduced competition, which in the present case is expected to cause the market price (air fares and freight rates) to be increased above, and market output (number of aircraft seats and volume of freight

[3] Expressed as a percentage of the weighted average air fares supplied by Air NZ and Qantas.

capacity provided) to be reduced below, the level that would prevail in the absence of the proposed Alliance.

33. In these circumstances, a loss arises from:

- the value lost by travellers who would have made flights but no longer do so under the proposed Alliance; and

- the loss of profits of the airlines by not providing those flights.

34. In addition, the higher airfares result in a transfer of income from consumers, who pay the higher fares, to the airlines, who receive them as higher profits. These transfers are not generally counted as a detriment by the Commission. However, the purpose of the Commerce Act is to promote competition for the benefit of New Zealand consumers. Consequently, where such transfers are from foreign consumers to a New Zealand supplier, such as Air NZ, they are considered to be a benefit. Similarly, where New Zealand travellers would pay a higher fare to an overseas-based supplier, such as Qantas, that is considered a detriment. By its nature, air travel involves the supply of services to consumers both from within and outside New Zealand. Accordingly, the economic modelling of allocative inefficiencies in this case took these beneficial and detrimental transfers into account.

35. The respective merits of three economic models were thoroughly reviewed during the Commission's process, both by the Commission's expert consultants and also by the parties' expert consultants. These models have all been useful to varying degrees, but they have also exhibited a number of problems in design and configuration. The Commission is confident that its own model is the most appropriate for the quantitative analysis of allocative inefficiency in the markets at issue.

36. The Commission's economic modelling revealed that the level of allocative inefficiency and transfers associated with the proposed Alliance, resulting from the impact of reduced competition, was likely to be in the range from $83 million to $110 million in year three with the most likely value being $90 million. This is a measure of the extent to which New Zealand air travellers and producers would be directly adversely affected by the proposed Alliance.

Productive Inefficiency

37. Productive inefficiency measures the extent to which a business's costs are above the minimum necessary to produce a given output. This loss is real in the sense that resources are being wasted that could be used elsewhere in the economy to produce valued outputs, which are foregone because of their unproductive use by the inefficient firm. The excess costs are treated as a welfare loss.

38. A firm in a market suffering from a substantial lessening of competition would be under less pressure to minimise costs and to avoid waste than one in a more competitive market. This is called "slackness" or "x-inefficiency". In addition, the higher profits generated by market power may encourage "rent-seeking" behaviour on the part of its labour force and other input suppliers, which would be reflected in the form of higher remuneration or reduced effort. This form of waste is measured by the value of the resources devoted both

by groups in rent-seeking activities, and by the company in attempting to combat such activities.

39. Both carriers indicated that they suffered from "legacy costs", and both have recently announced plans to substantially reduce costs. This suggests that costs have been excessive in the past, and indicates an intention by both to reduce them in the future. In addition, traditional carriers internationally appear to have suffered from rent-seeking by well-organised employee groups. The Commission also appreciates that where product market competition is weak, other forces may encourage efficiency, such as the threat of takeover (not relevant in this case), and managerial concern that career prospects and reputation could be sullied by association with a poorly managed company.

40. Based on its assessment of the likely outcomes in the factual and counterfactual, the Commission considers that productive inefficiency would be likely to arise in all markets in which there would be a substantial lessening of competition. The Commission has pragmatically settled on the conservative range of 1% to 5% of the estimated variable operating costs of the proposed Alliance's New Zealand-based resources as being an appropriate approximation of the likely range of productive inefficiency that would arise by year three.

41. The Commission considers that this sets the range of $18 million to $91 million (for that one year) for productive inefficiency, within which the most likely outcome is $55 million.

Dynamic Inefficiency

42. Dynamic inefficiency arises when a business or industry is less innovative than it might be. Innovations bring benefits to consumers either through the introduction of improved new products that buyers value more highly ("product innovations"), or through the use of new, lower cost ways of producing existing products ("process innovations"). The proposed Alliance is expected to have a negative impact on dynamic inefficiency because of the reduction in the competitive spur to innovate, compared to the more competitive situation likely in the counterfactual. The removal of competitive pressure on the Alliance would lessen its incentive to innovate in order to match or keep ahead of rivals. Innovation in aviation markets in the past has often been stimulated by competition, often from new entrants.

43. As aviation is a dynamic industry, the Commission is concerned that these losses could be significant. It has three particular areas of concern:

- the lessening of dynamic efficiency generally on the part of the Applicants through the reduction in competition;
- the loss caused by Air NZ's prospective switch between global alliances; and
- the loss resulting from the likely reduced value of accumulated air points holdings.

44. The Commission has quantified the first and last of these detriments by assuming airline costs higher than they would otherwise be in the range of 0.5 to 1.5% per annum in year three. On the basis of Air NZ's total revenues of $3.6 billion, this would give a loss of

between $18 million and $54 million. In addition, the Commission anticipates that there would be substantial losses arising from the transition costs when, as a result of the proposed Alliance, Air NZ would exit the Star Alliance and join the oneworld Alliance. The exact amounts of this component, allowing calculation of the whole range of dynamic inefficiency loss, are confidential.

45. Overall, the Commission considers the losses from dynamic inefficiency would be of the order of $50 million per annum in year three.

Conclusion on Detriments Arising from the Proposed Alliance

46. Table Two below summarises the relevant values by providing the range and the most likely outcome for each category of detriment, and for the aggregate. The Commission considers that the range for total detriments is between $[ ] million and $[ ] million per annum, with the most likely outcome (not necessarily at the midpoint of the range) being $195 million, all measured as at year three.

Table Two
Summary of Annual Detriments, Year Three ($million)

Item	Detriments	
	Range	**Most Likely**
Allocative inefficiency and transfers	110 – 83	90
Productive inefficiency	91 – 18	55
Dynamic inefficiency[4]	[ ]–[ ]	50
Totals	[ ] – [ ]	195

Benefits

47. The Commission has concluded that significant detriments arise from the proposed Alliance. However, if the Commission is satisfied that any public benefits also arising from the proposed Alliance outweigh the detriments, it must authorise the proposed Alliance. Therefore, the Commission must also determine the likely levels of public benefit.

48. Public benefits are any gains to the public that are in accord with the following main principles that the Commission adopts to determine benefits:

- the benefits must be shown to be dependent on the proposed Alliance;
- the assessment of benefits will focus particularly on efficiency gains. These include economies of scale and scope, better utilisation of capacity and cost savings (productive efficency). Efficiencies can also include social and intangible benefits, if these can be shown to be socially efficient;

[4] The Commission's estimate is an intermediate point in a range partly bound by an estimate derived from confidential information. Consequently, the range cannot be disclosed for the purposes of balancing public benefits and detriments.

- net benefits, not gross benefits, are counted. Transfers of wealth are generally not counted; and

- the "public" is the public of New Zealand; benefits to foreigners are counted only to the extent that they also involve benefits to New Zealanders.

49. The Commission examined the benefits that Air NZ and Qantas claimed would arise from the proposed Alliance. These benefits, in descending order of claimed magnitude, are as follows:

- cost savings;
- additional numbers of tourists in New Zealand;
- the continuation of Qantas's purchase of aircraft engineering and maintenance services from Air NZ at existing levels;
- improved aircraft schedules;
- improved freight services;
- new direct flights; and
- other benefits not quantified by Air NZ and Qantas.

50. Qantas would pay Air NZ $550 million as consideration for its 22.5% of the shares of Air NZ. The Commission does not consider such an injection of capital into New Zealand would be a benefit. That is because, in effect, Qantas would purchase a future on-going dividend stream from Air NZ in exchange for that amount. The Commission considers that that dividend stream would net off any beneficial effect from the capital injection.

Cost Savings

51. The Commission is of the view that it is appropriate to make allowance for potential cost savings of the kind claimed by Air NZ and Qantas. As their estimate of cost savings is based on the numbers of aircraft utilised by Qantas and Air NZ and their observable costs, it is a useful starting point for estimating cost savings.

52. The Commission's approach recognised that under the proposed Alliance the coordination of their combined aircraft fleets would provide Air NZ and Qantas with a degree of flexibility in their management of resources, in addition to that which they would possess in the counterfactual. The Commission considered that it is appropriate to assume that, in pursuing higher profits under the proposed Alliance, the airlines would be able to co-ordinate resources in such a way as to accommodate a proportion of natural market growth using their current aircraft capacity.

53. For the purposes of assessing the public benefits of the proposed Alliance, the Commission's view, on the balance of probabilities, is that cost savings would likely be about $30 million per annum. This estimate is based on analysis of a range of data, including confidential data.

Additional Numbers of Tourists in New Zealand

54. Air NZ and Qantas claimed that the proposed Alliance would provide an opportunity for the airlines to co-operate to increase tourism to New Zealand. The spending by these additional tourists is claimed to benefit suppliers to the tourism industry, whose own spending would induce further economic activity. The Applicants claimed to have identified opportunities for increasing tourism in New Zealand by:

    - aligning the expertise and reach of Qantas Holidays with Air NZ's services and brands;
    - providing a greater incentive for Qantas Holidays to sell Air NZ seats and promote New Zealand tourism; and
    - more effective Air NZ and Qantas joint promotion of New Zealand travel.

55. A summary of their calculation of that number is shown in Table Three below. Air NZ and Qantas acknowledged that air fare increases as a result of the proposed Alliance would deter some inbound tourists. However, Air NZ and Qantas claimed that this reduction is countered by 63,277 additional tourists. When these two effects are netted out, Air NZ and Qantas claimed that there would be more than 60,000 additional in bound tourists in New Zealand each year.

Table Three
Calculation by Air NZ and Qantas of Increased Tourism in New Zealand Resulting from the Proposed Alliance

Item	Air Tourist Numbers
Australian tourists deterred by higher air fares under the proposed Alliance	-33,229
Other foreign tourists deterred by higher air fares under the proposed Alliance	-54,485
New Zealanders holidaying at home because of higher air fares under the proposed Alliance	+84,848
Net effect of these price impacts	-2,866
Increased foreign tourists as a result of Qantas Holidays incentive to sell NZ under the proposed Alliance	+50,000
Increased foreign tourists as a result of more effective joint promotion	+13,277
Net effect of improved tourism	+63,277
Net overall effect on tourism	+60,411

56. As can be seen, the additional 60,411 tourists in New Zealand, estimated by Air NZ and Qantas, would result from the net effect of:

- Australian and other foreign tourists being deterred from international travel to New Zealand by higher air fares resulting from the proposed Alliance;
- New Zealand tourists being deterred from holidaying overseas and instead staying in New Zealand; and
- increased foreign tourism due to Qantas Holidays and the airline jointly promoting New Zealand.

57. The Commission considers it is sensible to look at the impact of the Alliance on inbound tourists as a group before moving to separately consider the issue of New Zealanders deterred from overseas travel by high air fares. To do this , the Commission has set out the information provided by Air NZ and Qantas in what it regards as a more appropriate manner, in the first column of Table Four below. This clarifies that the estimate of Air NZ and Qantas that the proposed Alliance would result in 24,437 fewer foreign tourists visiting the country in year three, despite the increased tourism efforts of Air NZ and Qantas. A positive tourism effect is generated only by adding the large number of New Zealanders discouraged from holidaying abroad by higher air fares.

Table Four
Calculation by the Commission of Increased Tourists in New Zealand Resulting from the Proposed Alliance

Item	Tourist Numbers (Air NZ and Qantas's values)	Tourist Numbers (Commission values)
Australian tourists deterred by higher air fares under the proposed Alliance	-33,229	-138,003
Other foreign tourists deterred by higher air fares under the proposed Alliance	-54,485	-34,833
Increased foreign tourists as a result of Qantas Holidays incentive to sell NZ under the proposed Alliance	+50,000	+28,800
Increased foreign tourists as a result of more effective joint promotion	+13,277	+10,622
Subtotal: net effect of these price and promotional impacts on in-bound tourism	-24,437	-133,414
New Zealanders deterred from holidaying overseas because of higher air fares under the proposed Alliance	+84,848	+189,003
LESS those who spend on other than domestic tourism	0	-162,543
Subtotal: balance of those who spend on domestic tourism	+84,848	+26,460
Net overall effect on tourism	60,411	-106,954

58. The second column in Table Four above gives the revised tourist numbers that the Commission consider are more appropriate than those provided by Air NZ and Qantas.

59. The difference between the estimated tourist numbers of Qantas and Air NZ and those of the Commission arise as a result of the following factors:

Numbers Variance

- the Commission's modelling shows that price increases under the proposed Alliance would be larger than those estimated by Air NZ and Qantas. Consequently, the effect on inbound foreign tourists and outbound New Zealanders would be larger than Air NZ and Qantas have estimated;

- Air NZ and Qantas assume that all New Zealanders deterred from overseas tourism under the proposed Alliance due to higher air fares will consume tourism domestically. The Commission's modelling has predicted that 189,003 New Zealanders will be deterred from travelling overseas as a result of the higher air fares resulting from the proposed Alliance. The Commission assumes that 14% of New Zealanders deterred from overseas tourism would consume tourism locally, giving a net increase of New Zealanders holidaying at home of 26,460;

- Air NZ and Qantas assume that all Australian tourists deterred from travelling from New Zealand to an overseas, non-Australian destination would consume tourism in New Zealand. The Commission has assumed that the proportion of Australians deterred from travelling beyond New Zealand who would substitute New Zealand tourism is 16%;

- the estimates of Air NZ and Qantas include the assumption that Qantas Holidays' increased efforts would attract 14,000 additional Australians and 36,000 additional other foreign tourists. The Commission estimated that Qantas Holidays would attract no additional Australians and 28,800 other foreign tourists;

- Air NZ and Qantas assumed that enhanced promotional effectiveness would attract 13,277 other foreign tourists. The Commission assumed that enhanced promotional effectiveness would attract 10,622 other foreign tourists;

Impact on Public Benefit

60. Air NZ and Qantas assume that the spending that New Zealanders deterred from overseas travel would have spent on tourism would be entirely spent on tourism within New Zealand. The Commission assumes that New Zealanders who do spend their money on tourism locally would spend 100% of what they might have spent overseas. However, the Commission also assumes that the 86% of New Zealanders deterred from overseas tourism, who do not spend their money on domestic tourism, would spend 28% on imports. Imports do not represent an increase to the economic welfare of New Zealand producers; and

61. Air NZ and Qantas use a computable general equilibrium model to estimate the benefits to New Zealand of increased local spending. Their model assumed variable employment, and implied that the net benefits to the economy are around 61% of gross expenditure. The Commission has adopted a partial equilibrium approach, and has calculated that the net detriments to the New Zealand tourism industry, and the net benefits to other domestic producers, to be within the range of 2% to 10% of the change in gross expenditure.

62. The Commission acknowledges that some benefits will arise from New Zealanders, deterred from overseas holidays by higher air fares under the proposed Alliance, nevertheless spending their "overseas tourism dollars" on either less expensive travel within New Zealand, or on other types of domestic consumption. The Commission considers the values of such benefits range between $5 million and $20 million in year three.

63. Nevertheless, the Commission does not accept the claim of Air NZ and Qantas that New Zealanders being deterred from overseas travel due to increased air fares under the proposed Alliance, by itself, can be considered, by itself, as leading to an overall benefit to the public of New Zealand.

64. The Commission considers that, rather than there being a public benefit due to increased number of tourists visiting New Zealand, under the proposed Alliance there would be is a net reduction of inbound tourists of 133,414 per year. This would result in a net loss to New Zealand of between $4 million and $18 million per annum in year three.

65. The Commission's welfare estimates given in the tourism section represent only gains and losses to New Zealand tourist suppliers from a change in spending on their products. There remains the issue of the additional welfare loss suffered by New Zealanders who are deterred from overseas travel. New Zealanders whose first preference (overseas tourism) would become too expensive under the proposed Alliance would suffer a welfare loss from having to substitute less-preferred local consumption. However, New Zealanders' welfare losses are partly counted in the section on allocative efficiency. There may be additional detriments suffered by New Zealanders deterred from overseas tourism that have not been represented in the Commission's modelling of the allocative efficiency effects of higher airfares.

Continuation of Qantas's Purchase of Aircraft Engineering and Maintenance Services from Air NZ at Existing Levels

66. Air NZ and Qantas claimed that under the proposed Alliance, Qantas would direct 80% of its subcontracted external engineering and maintenance work to Air New Zealand, compared to 10% absent the proposed Alliance.

67. The Commission accepted that strategic incentives would change under the proposed Alliance, and that this change in incentives could potentially be reflected in Qantas's external purchases of engineering and maintenance services. However, while strategic concerns might increase in importance when Qantas considers which supplier to choose, that did not mean that the importance it attaches to price, proximity, quality and urgency would diminish.

68. For the purposes of calculating net public benefits, the Commission considers that the public benefits attributable to Qantas's engineering and maintenance work carried out by Air NZ as a result of the proposed Alliance would fall within the range $5 million to $10 million per annum in year three. The Commission's estimate of the welfare effects of the engineering and maintenance claim was obtained by reducing Air NZ and Qantas's estimate of a change in gross spending on Air NZ Engineering Services' contracts by 50% to eliminate resource costs. The Commission then reduced the benefit by a further amount of between 20% and 40% because it does not consider, Air NZ and Qantas have correctly stated the difference in Qantas's spending on these services.

Improved Aircraft Schedules

69. The Commission agrees with the submissions of Air NZ and Qantas that the proposed Alliance would result in scheduling benefits arising from improved flight frequencies, enhanced connectivity and additional direct services. The airlines argued that under the proposed Alliance they would schedule their flights more evenly throughout the day at times more suited to a significant number of travellers. They claimed these travellers would benefit from being able to travel at times they prefer, rather than at times dictated by airline competition for the average passenger.

70. In examining this matter, the Commission assumed that on average, business and leisure travellers would receive a 20% gain[5] (applied to an assumed opportunity cost of $100 and

[5] This compares with the 100% gain assumed by Air NZ and Qantas.

$20 per hour for business and leisure travellers respectively) as a result of more conveniently scheduled flights. The application of these values for time savings to the more convenient schedules proposed by Air NZ and Qantas under the proposed Alliance, led the Commission to estimate that scheduling benefits would be about $500,000 per annum in year three.

Increased Freight Services

71. These benefits were claimed by Air NZ and Qantas to result from proposed additional freight services, along with improved scheduling, cost savings and the possibility that the proposed Alliance could operate joint freighter services.

72. The Commission considers that:

- there is no certainty that the proposed additional freight capacity would be realised in practice. The Commission notes that the two airlines made the provision of additional freight service subject to the market supporting the additional capacity. The Commission considers that if the market wished to support additional freight capacity, then increased freight services would be currently provided by Air NZ, Qantas or others. The proposed Alliance would not, in itself, increase the demand for freight services; and

- the reduced competition under the proposed Alliance might result in increased freight rates.

73. As a result, the Commission attaches no public benefits to the proposal, under the Alliance, to provide increased freight services.

New Direct Flights

74. Air NZ and Qantas claimed that the proposed Alliance would result in benefits from travellers' time savings, due to the introduction of new direct flights in addition to the current indirect flights between Auckland and Adelaide, Auckland and Hobart, Auckland and Canberra, and Wellington and Canberra.

75. However, the Commission considers that competition in the counterfactual would also allow one or both airlines to service these direct routes, if it were possible to do so under the proposed Alliance. Based on this uncertainty concerning the relationship between the proposed Alliance and the economic viability of these new direct services, the Commission has assigned nil public benefits to this claim.

Other Benefits

76. Air NZ and Qantas claimed that the proposed Alliance could offer on-line benefits, such as more on-line flight options (which tend to be cheaper than interline flights), a more seamless travel experience for air travellers, shorter journey durations, and improved scheduling. The Commission accepts the Applicants' claim that online benefits would be positive under the proposed Alliance, but considers that their quantification is problematic. Consequently, the Commission will not ascribe an explicit welfare measure to online benefits.

Conclusion on Benefits Arising from the Proposed Alliance

77. Table Five below summarises the ranges and the most likely outcomes for each category of benefit, and for the aggregate, for year three. The Commission considers that the range for total benefits is between $22.5 million and $56.5 million, with the most likely outcome (not necessarily at the midpoint of the range) being $40.5 million.

Table Five
Summary of Annual Benefits, Year Three ($million)

Item	Benefits to the Public	
	Range	**Most Likely**
Additional numbers of tourists[6]	(18) – (4)	(11)
Domestic spending by New Zealanders deterred from overseas travel	5 – 20	13
Cost savings	30	30
Qantas's purchase of engineering and maintenance from Air NZ	5 - 10	8
Improved aircraft schedules	0.5	0.5
New freight services, new direct flights, other benefits	0	0
Totals	22.5 – 56.5	40.5

Balancing the Detriments and the Benefits

78. The determination of the Applications requires a balancing of the public benefits against the detriments. Only where, on the balance of probabilities, the detriments are clearly outweighed by the public benefits could the Commission be satisfied that the proposed Alliance should be authorised. The nature and quantification of the benefits and detriments are summarised in Table Six below. The Commission has estimated single-year benefits and detriments, based on year three of the proposed Alliance.

79. The quantification of benefits and detriments is a process designed to inform the Commission, and to assist it in the application of its judgement. However, in this case there is no overlap in the two ranges of benefits and detriments, and so the quantification process has strongly confirmed the Commission's judgment based on its qualitative assessments.

80. Table Six shows that the proposed Alliance would be likely to generate net detriments in the range $**[ ]** million to $**[ ]** million per annum in year three. The Commission considers that the proposed Alliance would result in overall net detriments of $154.5 million per annum in year three.

[6] Negative benefits arise from tourism and these figures are shown in brackets.

Table Six
Summary of Annual Net Public Benefits ($million) (Year Three)

Item	Range	Most likely
(Detriments)		
• allocative inefficiency and transfers	(110) – (83)	(90)
• productive inefficiency	(91) – (18)	(55)
• dynamic inefficiency[7]	([ ]) – ([ ])	(50)
Sub-total	**([ ]) – ([ ])**	**(195)**
Benefits		
• tourism	(18) – (4)	(11)
• domestic spending by NZers deterred from overseas travel	5 – 20	13
• cost savings	30	30
• engineering & maintenance	5 – 10	8
• scheduling	0.5	0.5
• new freight services, direct flights, online benefits and miscellaneous	0	0
Sub-total	**22.5 – 56.5**	**40.5**
TOTAL NET BENEFITS/(DETRIMENTS)	**([ ]) – ([ ])**	**(154.5)**

Conditions and Undertakings

81. To the extent that the Commission is satisfied that the proposed Alliance would, or would be likely to, result in a substantial lessening of competition and that the benefits of the strategic alliance arrangement did not outweigh the detriments, the Applicants offered conditions relating to:

- access to facilities and aircraft;
- restrictions on the operations of Freedom Air;
- the establishment of a capacity floor;
- the establishment of a price cap on Tasman services;
- the Applicants commencing services on certain new direct routes;
- a commitment to spend a specified amount on implementing the Qantas Holidays' business plan;

[7] The Commission's estimate is an intermediate point in a range partly bound by an estimate derived from confidential information. Consequently, the range cannot be disclosed for the purposes of balancing public benefits and detriments.

- the operation of back of the clock freight services; and
- the establishment of an independent third party to monitor the Applicants compliance with conditions.

82. The Commission considered that a number of the conditions would be difficult or impossible to enforce and those imposing behavioural constraints required an unacceptable on-going level of oversight and monitoring by the Commission.

83. To the extent that the suggested conditions might have been acceptable to the Commission, the Commission considered on the balance of probabilities that they would not be sufficient to materially reduce the competitive detriment arising from the strategic alliance arrangement and nor would they deliver such public benefits so as to mitigate the lessening in competition that would result, or would be likely to result from the strategic alliance arrangement.

84. The Commission did not consider any structural undertakings to divest assets or shares as none were offered by the Applicants.

Overall Conclusion

85. The Commission's conclusions in respect of the benefits and detriments are based on its qualitative analysis of the relevant markets in the factual and the counterfactual, supported by its quantitative economic modelling.

86. On the basis of all of its analysis, the Commission has concluded that the detriments from the proposed Alliance would heavily outweigh the benefits, and as a result that there would be a net loss to the public of New Zealand if the proposed Alliance were to proceed.

87. While some ranges of detriments are confidential, the Commission notes that if the balancing of benefits and detriments is examined in the best possible light, from the point of view of Air NZ and Qantas, by taking the lower end of the detriment range and comparing it to the higher end of the benefit range, a substantial gap remains.

88. The Commission concludes on the balance of probabilities that it is satisfied that:

    - the proposed share purchase agreement would be likely to have the effect of substantially lessening competition in a number of relevant markets, and would not be likely to result in such a benefit to the public that it should be permitted; and

    - the proposed strategic alliance arrangement would result in a lessening of competition, or a deemed lessening of competition (by operation of s 30 of the Commerce Act), in a number of relevant markets, and would not be likely to result in such a benefit to the public that would outweigh the lessening or deemed lessening of competition such that it should be authorised.

DETERMINATION

89. Pursuant to s 67(3)(c) of the Act the Commission determines to decline the application by Qantas for authorisation of the subscription by Qantas of up to 22.5% of the voting equity in Air NZ pursuant to a share purchase agreement between Air NZ and Qantas.

90. Pursuant to s 61(1)(b) of the Act, the Commission determines to decline the application by Air NZ and Qantas for authorisation under s 61 of the Act to implement the terms of a strategic alliance arrangement.

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1 PROCEDURES

THE APPLICATIONS

1. On 9 December 2002 the Commission received two interconditional applications for authorisation by the Commission from Qantas Airways Limited ("Qantas") and Air New Zealand Limited ("Air NZ") ("the Applications"). In one, Qantas was the applicant in relation to a proposed acquisition ("the proposed Acquisition") and the second was by Qantas and Air NZ jointly ("the Applicants") in relation to a proposed arrangement ("the proposed Arrangement"). The Applications were expressed by both applicants to be interconditional. The single overall commercial proposal is the proposed Alliance, elements of which require both of the authorisations sought.

Proposed Acquisition

2. Qantas filed the proposed Acquisition application with the Commission seeking authorisation under s 67(1) of the Commerce Act 1986 ("the Act") for the subscription by Qantas of up to 22.5% of the voting equity in Air NZ pursuant to a Subscription Agreement between Air NZ and Qantas.

Proposed Arrangement

3. Pursuant to s 58 of the Act, Air NZ and Qantas also filed the proposed Arrangement application with the Commission seeking authorisation under s 61 of the Act to implement the terms of a Strategic Alliance arrangement.

4. In summary, the main elements of the proposed Arrangement would create a Joint Airline Operation Network ("the JAO Networks") which, once fully implemented, would be commercially managed by Air NZ in accordance with the proposed Arrangement. All Air NZ flights would be part of the JAO Networks, together with all Qantas flights which arrive into, operate within or depart from New Zealand. The day to day flying operations would remain the responsibility of each airline. There are also extensive reciprocal rights for code sharing on each other's services. By way of example, this would enable Air NZ to obtain feeder traffic from code sharing on flights on Qantas' Australian domestic and international networks connecting to Air NZ flights.

5. In respect of the JAO Networks, the parties would co-ordinate pricing, capacity and all other aspects of the normal business operations of an airline.

6. The two airlines also agree, as part of the proposed Arrangement, that where it would be effective and efficient for them to do so, they would co-ordinate scheduling and pricing and take any action contemplated by the Strategic Alliance Agreement in respect of any service, business or operation on their non-JAO Networks.

7. Air NZ would be able to code-share on flights operated by Qantas that are not part of the JAO Networks where such flights reasonably connect to JAO Network flights.

8. The detail of the proposals contained in the Applications is set out in greater detail in the section of this determination discussing the factual.

9. Air NZ's management of the JAO Networks would be supported by a Strategic Alliance Advisory Group ("SAAG") that would comprise six representatives; three appointed by each airline. The decisions of that group are required to be unanimous. A recommendation of the SAAG would only result in a change in management direction when both Air NZ and Qantas agree that such a change should take place.

10. After taking into account the capacity of Air NZ and Qantas, each airline's net financial performance for the JAO Networks would be compared to allow for the equitable allocation of benefits.

11. Qantas is to appoint two directors to the Air NZ Board and Air NZ is to appoint one director to the Qantas Board.

STATUTORY FRAMEWORK

12. The statutory framework under which the Commission is required to consider the Applications is discussed below.

Proposed Acquisition

13. Section 47 of the Act states:

> (1) A person must not acquire assets of a business or shares if the acquisition would have, or would be likely to have, the effect of substantially lessening competition in a market.
> (2) For the purposes of this section, a reference to a person includes 2 or more persons that are interconnected or associated.
> (3) For the purposes of this section, a person is associated with another person if that person is able, whether directly or indirectly, to exert a substantial degree of influence over the activities of the other.
> (4) A person is not able to exert a substantial degree of influence over the activities of another person for the purposes of subsection (3) by reason only of the fact that—
> (a) those persons are in competition in the same market; or
> (b) 1 of them supplies goods or services to the other.

14. Any person who proposes to acquire assets of a business or shares and considers that the acquisition may breach s 47, can make an Application for an authorisation under s 67 of the Act, the relevant provisions of which provide:

(1) A person who proposes to acquire assets of a business or shares may give the Commission a notice seeking an authorisation for the acquisition.

(2) Subsections (1), (2)(a) and (b), (4), and (5) of s 60 of this Act shall apply in respect of every notice given under subsection (1) of this section as if the notice was an application under section 58 of this Act.

(3) Within 60 working days after the date of registration of the notice, or such longer period as the Commission and the person who gave the notice agree, the Commission shall—

(a) If it is satisfied that the acquisition will not have, or would be likely to have, the effect of substantially lessening competition in a market, by notice in writing to the person by or on whose behalf the notice was given, give a clearance for the acquisition; or

(b) If it is satisfied that the acquisition will result, or will be likely to result, in such a benefit to the public that it should be permitted, by notice in writing to the person by or on whose behalf the notice was given, grant an authorisation for the acquisition; or

(c) If it is not satisfied as to the matters referred to in paragraph (a) or paragraph (b) of this subs, by notice in writing to the person by or on whose behalf the notice was given, decline to give a clearance or grant an authorisation for the acquisition.

(4) If the period specified in subsection (3) of this s expires without the Commission having given a clearance or having granted an authorisation or having declined to do so, the Commission shall be deemed to have declined to give a clearance or grant an authorisation.

(5) The Commission shall state in writing its reasons for a determination made by it under subsection (3) of this s.

(6) A clearance given or an authorisation granted under subsection (3) of this section expires—

(a) Twelve months after the date on which it was given or granted; or

(b) In the event of an appeal being made against the determination of the Commission giving the clearance or granting the authorisation, and the determination of the Commission being confirmed by the Court, 12 months after the date on which the determination is confirmed.

15. Section 67(3)(a) of the Act, when read in conjunction with s 47 of the Act, requires the Commission to give clearance for a proposed acquisition if it is satisfied that the proposed acquisition would not have, and would not be likely to have, the effect of substantially lessening competition in a market or markets.

16. If the Commission is not so satisfied, it may grant an authorisation under s 67(3) (b) of the Act, if the Commission is satisfied that the acquisition will result, or will be likely to result, in such a benefit to the public that it should be permitted. If the Commission is not satisfied that the acquisition will result, or will be likely to result, in such a benefit to the public that it should be permitted, it must decline an authorisation under s 67(3)(c).

17. The onus of proof lies with the applicant to satisfy the Commission on the balance of probabilities that the acquisition is not likely to substantially lessen competition and if

it is likely to do so that the public benefit is such that the Commission should authorise it.[8]

18. Section 67(3) of the Act requires the Commission to issue a decision within 60 working days after the date of registration of the notice, or such other longer period agreed to by the Commission and the Applicants. There is no statutory deadline associated with the authorisation of restrictive trade practices under s 60. The Applicants and the Commission initially agreed an extension to 30 June 2003, subsequently agreed to an extension to 30 September 2003 and most recently agreed an extension to 24 October 2003 in respect of the determination under s 67.

Proposed Arrangement

19. Section 27 of the Act provides:

> (1) No person shall enter into a contract or arrangement, or arrive at an understanding, containing a provision that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
> (2) No person shall give effect to a provision of a contract, arrangement, or understanding that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
> (3) Subsection (2) of this section applies in respect of a contract or arrangement entered into, or an understanding arrived at, whether before or after the commencement of this Act.
> (4) No provision of a contract, whether made before or after the commencement of this Act, that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market is enforceable.

20. Section 30 of the Act provides:

> (1) Without limiting the generality of section 27 of this Act, a provision of a contract, arrangement, or understanding shall be deemed for the purposes of that s to have the purpose, or to have or to be likely to have the effect, of substantially lessening competition in a market if the provision has the purpose, or has or is likely to have the effect of fixing, controlling, or maintaining, or providing for the fixing, controlling, or maintaining, of the price for goods or services, or any discount, allowance, rebate, or credit in relation to goods or services, that are—
> (a) Supplied or acquired by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them, in competition with each other; or
> (b) Resupplied by persons to whom the goods are supplied by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them in competition with each other.
> (2) The reference in subsection (1)(a) of this s to the supply or acquisition of goods or services by persons in competition with each other includes a reference to the supply or acquisition of goods or services by persons who, but for a provision of any contract, arrangement, or understanding would be, or would be likely to be, in competition with each other in relation to the supply or acquisition of the goods or services.

[8] Commerce Commission v Southern Cross Medical Care Society (2001) 10 TCLR 269 (CA).

21. Under s 58 of the Act, a person may apply for an authorisation for contracts arrangements or understandings that breach ss 27, 28, 29, 37 or 38. The relevant part of s 58 provides:

> (1) A person who wishes to enter into a contract or arrangement, or arrive at an understanding, to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so and the Commission may grant an authorisation for that person to enter into the contract or arrangement, or arrive at the understanding.
> (2) A person who wishes to give effect to a provision of a contract or arrangement or understanding to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so, and the Commission may grant an authorisation for that person to give effect to the provision of the contract or arrangement or understanding.

22. Section 61 of the Act provides:

> (1) The Commission shall, in respect of an application for an authorisation under section 58 of this Act, make a determination in writing—
> (a) Granting such authorisation as it considers appropriate:
> (b) Declining the application.
> (2) Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit.
> (3) The Commission shall take into account any submissions in relation to the application made to it by the applicant or by any other person.
> (4) The Commission shall state in writing its reasons for a determination made by it.
> (5) Before making a determination in respect of an application for an authorisation, the Commission shall comply with the requirements of section 62 of this Act.
> (6) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(1) to (4) of this Act unless it is satisfied that—
> (a) The entering into of the contract or arrangement or the arriving at the understanding; or
> (b) The giving effect to the provision of the contract, arrangement or understanding; or
> (c) The giving or the requiring of the giving of the covenant; or
> (d) The carrying out or enforcing of the terms of the covenant—
> as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely to result or is deemed to result therefrom.
> (6A) For the purposes of subsection (6) of this section, a lessening in competition includes a lessening in competition that is not substantial.
> (7) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(5) or (6) of this Act unless it is satisfied that—
> (a) The entering into of the contract or arrangement or the arriving at the understanding; or
> (b) The giving effect to the exclusionary provision of the contract, or arrangement or understanding—
> as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in such a benefit to the public that—
> (c) The contract or arrangement or understanding should be permitted to be entered into or arrived at; or
> (d) The exclusionary provision should be permitted to be given effect to.
> (8) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(7) or (8) of this Act unless it is satisfied that—

(a) The engaging in the practice of resale price maintenance to which the application relates; or
(b) The act or conduct to which the application relates—
as the case may be, will in all the circumstances result, or be likely to result, in such a benefit to the public that—
(c) The engaging in the practice should be permitted; or
(d) The act or conduct should be permitted.

23. As with authorisations under section 67(3), the onus of proof lies with the applicant to satisfy the Commission that the proposed arrangement does not substantially lessen competition or that the arrangement results in such a benefit to the public that it ought to be permitted.

24. This statutory framework has been applied by the Commission and the procedures followed are described below.

COMMISSION PROCEDURES

25. The Applications were registered on 9 December 2002. In accordance with s 60(2)(c) of the Act, notice of the proposed Arrangement application was provided to those parties who were considered to have an interest in the proposed Applications. In addition, the receipt of that application was publicised by media release, and the application was made available in public form for inspection, including inspection on the Commission's web-site.

26. Submissions were requested by 14 February 2003 to assist the Commission in its preparation of its draft determinations and reasons (collectively the Draft Determination), and 79 written submissions were received from the parties listed in Appendix I. Additional information and opinions on the issues raised by the Applications were obtained from a number of parties. These parties are listed in Appendix I.

27. On 10 April 2003, the Commission issued its Draft Determination. In accordance with s 62(2) of the Act, the Commission provided the Draft Determination to the Applicants and interested parties and sought their written submissions on the Draft Determination. Appendix I lists the parties from whom written submissions were received.

28. In accordance with s 69B (for the proposed Acquisition) and s 62 (6) (for the proposed Arrangement), the Commission determined to hold conferences, conducted jointly over a series of days ("the conference") in relation to the Draft Determination. After considering the matters required to be undertaken prior to the conference, the interests of all persons, and the representations of some persons including the Applicants, the Commission determined that the conference would commence on 18 August. In the event, the conference extended over the period 18 to 22 August (inclusive) and 25 August 2003. Fourteen parties made oral submissions at the

Conference. The Commission also received a number of supplementary written submissions from these parties during and after the Conference. The parties were:

- The Applicants;
- Virgin Blue;
- Infratil et al;
- Gullivers Pacific;
- Origin Pacific;
- Bon Voyage Travel;
- Christchurch International Airport;
- Invercargill Airport;
- Polynesian Airlines;
- Travel Agents Association of NZ (TAANZ);
- Council of Trade Unions and the EPM Union;
- Consumers Institute;
- Jumpjet Airline; and
- Save Air NZ.

29. In considering the Applications, and in preparing its Draft Determination and these final determinations and these accompanying reasons (hereafter collectively referred to, for convenience, as "the Determination"), the Commission has received and obtained information and received, obtained and originated analysis from a wide range of sources. In the course of this process, it has, amongst other actions:

- reviewed the extensive information and analysis in the Applications, including the economic model submitted by the Applicants economic experts;

- posted public versions of the Applications, initial submissions from interested parties, the Commission's Draft Determination and submissions from interested parties on the Draft Determination, and cross submissions on the Applicants' submission on the Draft Determination on the Commission web-site;

- sought further information and clarification from the Applicants on a range of points;

- sought information from parties making submissions, and from other sources in the aviation industry and related industries including the travel and tourism industries;

- interviewed the Applicants and numerous other parties listed in Appendix I;

- considered submissions from interested parties including economic and other expert evidence presented by them;

- received oral and written information and submissions in the course of the conference;
- sought advice from external legal and economic experts;
- made relevant information, documents and reports available to the Applicants and interested parties, where necessary under expert and solicitor confidentiality undertakings; and
- conducted analysis and modelling, including legal, economic, and competition analysis.

30. Having completed this research and investigation, the Commission has over a number of meetings given full consideration to all the information and analysis. It has weighed and reviewed all elements in reaching its conclusions.

31. The Commission notes that the Applicants also submitted similar applications to the Australian Competition & Consumer Commission ("ACCC") in Australia. While the applications have proceeded in parallel in the two jurisdictions, the Commission has proceeded independently in relation to the Applications in New Zealand. The Commission has at each stage considered the material before it, in the context of the New Zealand legislation.

INTERDEPENDENT APPLICATIONS

32. The proposed Alliance is comprised of two parts: the proposed Acquisition and the proposed Arrangement. The Applicants have advised that these are interdependent and together comprise one business plan, so that one will not occur without the other. The Commission determined in the Draft Determination to treat the Applications together as they were interdependent. The Commission's approach was challenged.

Submissions from applicants and other parties

33. Both before, and at the conference, the Commission received submissions from the Applicants, and from others, on the process adopted by the Commission in dealing with the two Applications.

34. The submission for the Applicants was consistent with, and supported, the process adopted by the Commission. It does not in consequence require further consideration in this Determination. The Commission, in noting this, does not necessarily adopt or concur with all parts of the content of that submission.

35. Of the submissions presented by other persons, the only submission on process which was maintained by the time of the conference was the submission presented on behalf

of Infratil et al. Two issues were raised, one as to the legal form of the Applications, and the other as to the manner in which the Applications had been processed.

36. The issue as to the legal form of the Applications was grounded in the contention that the Commission should have "rejected outright" the "approach taken by the Applicants", who should have been told "to re-file the Applications in the prescribed form". This proposition was not supported by either the Applicants or any other submitter. No actual disadvantage was identified, and the Commission does not agree that the Applications were non-compliant.

37. This submission was based on an erroneous proposition, as it gave no attention to the express power of the Commission in s 60(4) of the Act to receive applications which might be non-conforming with a "prescribed form". While the Commission expects applicants to comply with the prescribed requirements as nearly as may be possible, the commercial reality is that an absolutely precise compliance may not always be possible. Section 60(4) responds to such a situation. In addition, counsel for Infratil et al accepted that the Applications were validly before the Commission and that his concern was in relation to process with respect to future applications in other matters.[9]

38. The submission on process was not put as a challenge to the present Determination. Counsel stated expressly that "it is important that these procedural errors be noted, *so that the Commission can avoid them in future cases*. (emphasis added)."

39. It is not therefore necessary for the Commission to respond to the four points of process raised, in order to determine the present Applications, but as they were considered, a brief response is provided.

40. Contrary to the submission, the Applicants were not permitted to "collapse both Applications into one". Two applications were made, and two applications have been considered, and are now determined.

41. The Commission was said to have granted "timetable extensions outside the parameters contemplated by the Act". This allegation appeared to be based on a belief that, when setting the date of the conference, the Commission acted under s 62(6) without regard to the provisions of s 62(3). The submission speculated that as the Commission did not announce a s 62(3) date as well as the conference date fixed under s 62(6), there had been some failure of process. Section 62(6) contains direct reference to s 62(3) and was part of the basis upon which the Commission set the conference date.

42. The submission claimed that the Applicants had been "allowed to delay with regard to access to confidential information" which is an administrative matter between the Applicants and the submitter, not an issue in the Applications or their determination.

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[9] Transcript p. 882 line 27 to 884 line 1.

43. Finally, it was contended that that the Applicants had been "allowed to claim that special regard must be had to the Government's supposed intentions outside the s 26 mechanism prescribed by the Act". What an applicant or submitter may claim is a matter for them to do, and for the Commission to evaluate. The Commission has taken its own approach, and reached its own view, on the attention it should give to the Government in its various roles. This is considered at paragraphs 56 to 70 of the counterfactual section of these Determination.

Commission's View

44. In summary, the Commission has considered the issues raised but gives no further attention to them, first because they were expressed to be raised only in relation to future process in other applications, and secondly because they do not in any event affect the determination of the Applications.

45. The Commission has not been previously required to consider interdependent applications, such as the Applications under review in this case. The approach the Commission will take to the analysis of interdependent applications will depend on the circumstances of each case.

46. No settled general policy can or should be identified for the future, as every application must be considered on its facts and in the context of the time when it is made. For example, in some cases, the same benefits may not be counted under interdependent business acquisitions and restrictive trade practices authorisation applications, because the claimed benefits may be achievable under the restrictive trade practices application alone. In such circumstances, the achievement of the benefits would not depend upon the implementation of the business acquisition, and accordingly, it would be inappropriate for the Commission to authorise an acquisition, with structural change to the market, if the benefits were achievable through the restrictive trade practice.

47. In the present case, however, the Commission accepts that the Acquisition and Authorisation applications are properly interdependent because:

- the documentation giving contractual effect to the commercial arrangements between the Applicants are expressed to be interconditional. For example, the Subscription Agreement under which Air NZ agrees to issue shares to Qantas and the Reciprocal Board Representation Agreement under which representatives may be appointed to each others board are conditional on the creation of the alliance under the Strategic Alliance Agreement;

- the JAO contemplates business arrangements, including enhanced operations by Air NZ, which would require Air NZ to raise further capital;

- it is contended that Air NZ may in any event need to raise further capital and that the Qantas investment generates benefits which arise from the proposed Acquisition rather than from the associated trade practices;

- the ultimate sharing between the Applicants of revenue and profits which they expect to generate is based on factors which include the shareholding obtained by Qantas in Air NZ;

- the existence of the "Kiwi Share" (which is principally relevant to Air NZ's rights to overseas routes and the manner of operation of those routes) links equity ownership to business operations (trade practices) in a way which would not normally arise in an application to the Commission; and

- despite the criticisms made by some submitters, arguing that there is a theoretical potential for interconnected applications to be used as an artificial device, no such element has been proven to exist in the Applications. The Commission, in this instance, is satisfied that the proposed Arrangement has a real commercial basis and purpose.

48. The Commission is required to make separate determinations with respect to the proposed Acquisition (under s 67(3)) and to the proposed Arrangement (under s 61(6)). Where, as here, these matters arise in the same commercial proposal and represent one interdependent business plan, then for the most part the analysis of each application will centre upon the same considerations. The purpose of the Act requires a practical approach, and the Applicants have also sought and agreed to this.

49. Two preliminary points of difference between the Applications should however be noted. The proposed Acquisition involves a preliminary question concerning the partial acquisition of shares; and the proposed Arrangement requires consideration of a jurisdiction issue which does not apply to the Acquisition application.

PARTIAL ACQUISITION OF SHAREHOLDING

50. The proposed Acquisition involves only a partial acquisition of the shareholding in Air NZ. The Commission is required to consider the impact of that partial acquisition on competition. In assessing the competitive impact the Commission is likely to consider the impact on the competitive constraint that the acquirer has on the target of the acquisition and the enhanced opportunities for coordination, express or tacit. The Commission assesses all relevant issues including the nature of the existing or proposed arrangements between the relevant parties.

51. In the case of the proposed Acquisition, the matters particularly relevant to this inquiry are the ability of Qantas to acquire up to 22.5% of the share capital of Air NZ, and the ability contained in the Reciprocal Board Representation Deed dated 25

November 2002 for Qantas to nominate and appoint up to two directors on the Air NZ Board and for Air NZ to nominate and appoint one director on the Qantas Board.

52. In addition, it is necessary to consider the potential impact of the proposed Arrangement because, as the Applicants say, the acquisition will not occur without the proposed Arrangement being in place. In the event that the Applications proceeded and the acquisition became unconditional the transaction documents indicate (and the Applicants have described) a situation where there will be express coordination between Qantas and Air NZ including the co-location and integration of staff from one company to another.

53. Notwithstanding the impact of the proposed Arrangement, the Commission also had regard to the views of a number of former Air NZ directors interviewed by the Commission on the effect that the proposed Acquisition would have on the operation of the Air NZ's board. Liz Coutts, a former Director of Air NZ, stated that in her view 22.5% would control the company as that level of shareholding would effectively block any initiative contrary to Qantas' wishes and the two directors would mean strategic information would likely be reported to Qantas. [

] Bob Matthews' view, based upon his experience dating from 1988 when Qantas held 19.9% and Brierleys' held 30%, was that a quarter shareholding and two or three directors would be a very hard thing to combat to protect the Air NZ's interests.

54. These comments from the former directors indicate that the proposed Acquisition of itself without the proposed Arrangement would have a significant competitive effect. An analogy can be drawn with the test for determining interconnection or association. Section 47(1) prohibits the acquisition of assets of a business or shares by any "person", if such acquisition would, or would be likely to have, the effect of substantially lessening competition in a market.

55. A person is "associated" with another person if that person is able, whether directly or indirectly, to exert a substantial degree of influence over the activities of the other. In each case this will be a question of fact having regard to factors such as the level shareholding, the ability to appoint directors and other relevant arrangements between the company and the acquirer. Given the matters raised by the former directors, it is likely that not only would coordination between the Applicants be enhanced by the proposed Acquisition but that Qantas would likely have a substantial degree of influence over Air NZ, thus limiting the competitive constraint that Air NZ would have on Qantas.

56. The Commission is not required to reach a conclusion on this point as the Applicants have requested the Commission to determine both the proposed Acquisition and the proposed Arrangement together. The Commission agrees that it is appropriate for the reasons set out above.

57. The remaining matters which require analysis under this application are, on the facts, the same as for the Arrangement application. These matters are summarised in paragraph 62 below.

LESSENING OF COMPETITION

58. There is a preliminary question under the Arrangement proposal, which does not apply to the Acquisition proposal. The Commission must first satisfy itself that the practice, the subject of the application, would or would be likely to result in a lessening of competition before it proceeds to consider whether the claimed benefits would, or would be likely to, outweigh the lessening of competition. Any such lessening of competition, for the purposes of jurisdiction, does not need to be substantial: s 61(6A). Where the Commission finds that the practice in question lessens competition, it will have jurisdiction to proceed to decide whether or not to grant authorisation to the application. Where no such lessening of competition is found, it will decline jurisdiction in respect of the application.[10]

59. While the Commission need only find a lessening of competition for there to be jurisdiction, in the present case, (for the reasons set out in the competition analysis), the Commission has found that the proposed Arrangement involves a substantial lessening of competition in all but two of the relevant markets. Further, the proposed Arrangement is deemed to have such an effect by virtue of s 30, as discussed in paragraphs four to six of the competition analysis section.

60. Accordingly, the Commission has jurisdiction to determine this application under s 61.

61. Apart from this issue, the analysis required of the Arrangement application is the same as that for the Acquisition application.

COMMON ISSUES UNDER THE ACQUISITION AND ARRANGEMENT PROPOSALS

62. Consideration of the following issues, which are common to the two interdependent applications, will be determinative of both of the applications.

- Industry background: The background to the industry provides a necessary factual matrix to assist the competition analysis.

- Market definition: The Commission is required to identify those markets where the aggregation of the activities of the Applicants will likely have a competitive effect in light of the proposed Alliance.

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[10] This is the jurisdiction issue which arises under s 61(6): see Gault on Commercial Law CA58.04.

- The factual: The Commission must assess how the factual (the proposed Alliance) is likely to operate in practice.

- The counterfactual: In order to assess the competitive impact of the proposed Alliance on the identified markets, the Commission must identify the counterfactual situation that would likely exist in the absence of the proposed Alliance.

- Comparison of the counterfactual and factual: A comparison of these two situations will allow the Commission to identify the competitive impact of the proposed Alliance in each of the identified markets and whether the proposed Alliance would substantially lessen competition.

- Detriments: If in the case of the proposed Acquisition, a substantial lessening of competition is found or in the case of the proposed Arrangement, a lessening of competition is found to result in any of the identified markets, the Commission must consider the extent of the detriment that would result from the proposed Alliance.

- Public benefits: The Commission may authorise the proposed Alliance if the public benefit arising directly from it would outweigh the detriment.

63. The following analysis considers the issues, described in paragraph 62 above, which are determinative of both the Acquisition and Authorisation applications.

2 THE PARTIES

64. The airlines relevant to this matter are described below. A schedule of all routes flown by the airlines likely to be affected by the proposed Alliance is attached as Appendix II.

AIR NZ

65. Air NZ comprises a group of companies. Its total revenue for the year ended 30 June 2003 was $3.6 billion. It earned a profit before tax of $220.3 million and profit after tax of $165.7 million. Air NZ has total assets of $3.7 billion.

66. Air NZ's issued capital is $1.89 billion. The largest shareholders are set out in Table 1.

Table 1
Largest Air NZ Shareholders

Shareholder	**No of Ordinary Shares**	**% of ordinary Shares**
NZ Government	2,166,666,667	74.11
Anafi Investments Ltd (BIL International Ltd)	229,475,728	7.85
Singapore Airlines Ltd	189,166,545	6.47
National Nominees New Zealand Ltd	40,104,261	1.37
Westpac Banking Corp (NZCSD)[11]	21,012,039	0.72
Citibank Nominees (New Zealand) Ltd (NZCSD)	17,575,381	0.60
HSBC Nominees (NZ) Ltd (NZCSD)	13,971,456	0.48

67. Air NZ operates domestic trunk and regional air transport services throughout New Zealand. Its domestic operations comprise 20% of its total airline (passenger and cargo) business. Its domestic passenger flights account for 23% of its total flight revenue. Air NZ National operates eleven B737 aircraft between the main centres of Auckland, Wellington, and Christchurch and significant regional centres such as Dunedin, Hamilton and Queenstown. Air NZ Link (which includes Eagle Aviation Ltd, Air Nelson Ltd and Mount Cook Airline Ltd) operates regional services. In November 2001, Air NZ rebranded its domestic operations as "NZ Express", which offers economy class only and provides no food service. During the year, Air NZ flew 5.8 million passengers domestically.

68. Air NZ operates international services to and from Auckland, Wellington, Christchurch and Queenstown airports. Air NZ's international operations represent 80% of its total airline business. Air NZ International operates a fleet of 747, 767 and 737 aircraft on routes to Australia, the Pacific, Asia-Japan, and the Atlantic. It

[11] New Zealand Central Securities Depository Ltd

has just started replacing the 737s and 767s on the Tasman routes with 15 new Airbus A320 aircraft.

69. Freedom Air is a wholly owned subsidiary of Air NZ and is included in the proposed Alliance. It operates four Boeing 737 aircraft across the Tasman, offering about 50 return flights a week to four destinations in Australia from Auckland, Hamilton, Palmerston North, Wellington, Christchurch, and Dunedin.

70. Air NZ's short haul international operations include 162 return flights a week across the Tasman to five destinations, and 34 return flights a week to seven destinations in the Pacific. Air NZ flew 2.3 million passengers on its short haul routes during the 2002/2003 year. Tasman services produced 20% of Air NZ's total flight revenue. Its Pacific services accounted for 31% of total flight revenue.

71. Air NZ has announced a new "Tasman Express" service across the Tasman to commence on 29 October 2003. Air NZ states that the new service will have an average reduction of 20% on the full range of lead-in fares including business class compared to the current lowest year round fares, with a quarter of all seats being in the lowest fare range. It has also announced 11 new Tasman flights effective from 29 October 2003. There will be six extra flights to Melbourne – four from Auckland and two from Christchurch, three extra flights from Christchurch to Sydney and two extra flights from Christchurch to Brisbane.

72. Air NZ's long haul international services involve flights to nine destinations within Asia, North America and Europe. During the 2002/2003 year Air NZ flew 1.5 million passengers on its long haul routes. The long haul services accounted for 26% of total flight revenue. In April 2003 Air NZ suspended its Sydney-Los Angeles service. However, frequency on the Auckland-Los Angeles route is scheduled to increase from 14 non-stop Boeing 747 services a week to 19 services a week from November 2003.

73. Table 2 below shows Air NZ's operating statistics in terms of revenue passenger kilometres (RPKs), available seat kilometres (ASKs) and load factor for the year ended 30 June 2003 compared with the year ended 30 June 2002.

Table 2
Air NZ Operating Statistics

	RPKs (Billions)		ASKs (Billions)		Load Factor (%)	
	2003	2002	2003	2002	2003	2002
Domestic NZ	2.6	2.4	3.6	3.6	72.2	66.8
Short Haul	4.7	4.8	6.2	6.4	75.0	74.3
Long Haul	14.3	13.6	19.2	18.7	74.9	72.7

74. As well as operating its own international air services, Air NZ provides ground handling, loading and engineering line maintenance services on the ground at international airports in New Zealand to overseas airlines that require them. Air NZ

Cargo Services earned revenue of $296.1 million in 2002/2003. Cargo capacity in 2002/2003 increased 7.6% to 1.3 billion Available Tonne Kilometres (ATKs) and cargo capacity increased 8.3% to 76.1 million Revenue Tonne Kilometres (RTKs).

75. Air New Zealand Engineering Services (ANZES) provides maintenance services to Air NZ and several other airlines internationally. Revenue for 2002/2003 was $532.9 million compared to $532.1 million for 2001/2002.

76. In addition to its Star Alliance involvement, described below, Air NZ has alliance or code-sharing agreements directly with the following airlines: Singapore Airlines, United, Air Canada, Lufthansa, British Midland, Mexicana, JAL, Aircalin and EVA Air.[12]

QANTAS

77. Qantas comprises a group of companies. Its total revenue for the year ended 30 June 2003 was A$11.4 billion, an increase of A$0.4 billion or 3.7% over the previous year. Passenger revenue increased by 3.1% with RPKs growing 2.8% and yield deteriorating 5%. Cost per ASK, excluding the impact of foreign exchange, increased by 1.2%. Profit before tax was A$502.3 million and net profit was A$343.5 million. Its total assets are $16.97 billion. And its issued and paid up capital is A$3,757.9 million.

78. Qantas is the world's 15th largest airline measured by RPKs. The airline services 142 destinations in 32 countries worldwide with 194 aircraft, carrying almost 20 million passengers per annum.

79. In late October 2002 Qantas introduced Australian Airlines which operates direct services between Sydney, Melbourne, Cairns and the Gold Coast and various destinations in Asia including Singapore, Bali, Sabah, Hong Kong, Taipei and Japan.

80. In addition to its oneworld involvement, described below, Qantas has alliance or code-sharing agreements directly with the following airlines: British Airways, JAL, Aircalin, Fin Air, South African Airways, Asiana Airlines, Vietnam Airlines, Air Vanuatu, Air Niugini, Air Pacific, Polynesian Airlines, Air Tahiti, Norfolk Jet, Alaska Airlines, American Airlines, Lan Chile and EVA Air.[13]

81. Qantas holds 46.32% of the shares in Air Pacific. Air Pacific is also a party to the proposed Alliance.

82. British Airways ("BA") holds 18.93% of the shares in Qantas. BA may therefore fall within the definition of an interconnected or associated person for the purposes of s 47 of the Act. In the present circumstances, the Commission does not need to

[12] Schedule 4 to the Applicant's s 58 Application provides a more detailed summary of the agreements.
[13] *Ibid.*

conclusively determine this issue because BA does not have a direct presence in any of the markets that are relevant to these Determination and so has no competitive effect.

83. After the collapse of Tasman Pacific Airlines which traded under franchise as Qantas NZ in April 2001, Qantas began operating domestic services in New Zealand in its own right (via a New Zealand subsidiary JetConnect) between the major centres. Qantas currently operates code-sharing with Origin Pacific Airways ("Origin Pacific") to provide services to some regional centres. JetConnect is currently in the process of expanding its operations in New Zealand.

84. Qantas has also recently increased its services in New Zealand and on the Tasman, introducing flights from Queenstown to Auckland and 27 JetConnect return flights on the Tasman in place of flights previously operated directly by Qantas.

85. Qantas has recently announced a reorganisation involving the establishment of eight stand-alone businesses and a programme to reduce its cost base by A$1 billion over two years.

OTHER RELEVANT PARTIES

Virgin Blue Airlines (Virgin Blue)

86. Virgin Blue is a low-cost Australian domestic airline and part of the worldwide Virgin Group owned 49% by Patrick Corporation, 49% by the Virgin Group and 2% by other shareholders. It is the only solely low cost carrier (LCC) operating domestically in Australia. It operates a fleet of Boeing 737 aircraft to key domestic locations in Australia.

87. Virgin Blue has just announced that it will commence operations on the Tasman under the brand Pacific Blue on 1 February 2004. It will initially operate daily services between Christchurch and Brisbane and main trunk services in New Zealand. It has plans to expand services between New Zealand and other key destinations in Australia.

88. Pacific Blue will have its New Zealand head office in Christchurch.

89. In September 2003 Virgin Blue announced a restructured shareholders agreement including an issue of new equity capital of $A400 million which it said would give Virgin Blue a healthier balance sheet and put it in a stronger position to respond to action by its competitors.

90. Throughout this Determination Virgin Blue and Pacific Blue will both be referred to as "Virgin Blue".

Origin Pacific

91. Origin Pacific is a regional airline operating from Nelson and is 100% New Zealand owned. It was established by Robert Inglis who had previously founded Air Nelson (which was subsequently sold to Air NZ). Origin Pacific was initially launched in 1997 as an air charter service, but now operates scheduled services between major cities and regional centres. Origin Pacific expanded significantly after the collapse of Ansett NZ and Qantas NZ, acquiring a number of aircraft previously operated by those airlines on regional routes. It operates a fleet of 18 aircraft and serves 14 destinations throughout New Zealand.

92. In July 2001 Origin Pacific entered into an agreement with Qantas which included [ ]

93. The arrangement on the Christchurch – Wellington route [ ] It had intended commencing a direct daily Hamilton to Christchurch flight in October, but after it had announced this flight, Air Nelson (owned by Air NZ) also announced a daily flight on the same route starting on the same day and departing at much the same time. Origin Pacific has now cancelled its plans for that route.

Other Provincial Operators

94. There is a range of very small operators such as Soundsair and Great Barrier Airlines.

Asian Carriers

95. The following Asian based carriers operate on some of the same international routes as Air NZ.

Cathay Pacific Airways ("Cathay Pacific")

96. Cathay Pacific is Hong Kong's international airline serving over 80 destinations worldwide. It has over 60 aircraft in service, and carries over 12 million passengers per annum. Cathay Pacific flies ten times a week from Auckland to Hong Kong.

Singapore Airlines

97. Singapore Airlines operates air services to Singapore seven times a week from Auckland and five times a week from Christchurch. It is one of the world's leading

passenger and cargo carriers, operating a fleet of over 90 aircraft in 90 cities in 40 countries. The Singapore Government owns part of the airline. The airline carries over 12 million passengers per annum worldwide.

Thai Airways

98. Thai Airways is Thailand's designated flag carrier, carrying 18 million passengers per annum using over 80 aircraft. The Thai Government owns the majority of the airline. It operates daily services from Auckland, via Brisbane, to Bangkok.

Malaysia Airlines

99. Malaysia Airlines flies to 110 cities across six continents annually. It operates four direct services a week to Kuala Lumpur from Auckland and three via Brisbane. The Malaysian Government owns part of the airline.

Garuda Indonesia ("Garuda")

100. Garuda carries 6 million passengers per annum. It operates two flights a week from Auckland, via Brisbane, to Bali.

Korean Air

101. Korean Air operates daily services from Auckland to Incheon. Internationally, Korean Air operates 119 aircraft and carries 22 million passengers per annum.

EVA Air

102. EVA Air (an airline based in Taiwan) previously operated direct services to Taipei. It has now ceased those flights and code-shares on Air NZ.

Royal Brunei Airlines ("Royal Brunei")

103. Royal Brunei is wholly owned by the Government of Brunei Darussalam. It flies to 23 destinations across Asia, the Middle East, Australia and Europe. On 27 October 2003 it will commence flights from Brisbane to Auckland four times a week.

Pacific Islands Carriers

104. The following Pacific Island-based carriers operate on the same routes as Air NZ.

Polynesian Airlines

105. Polynesian Airlines is Samoa's national airline. It operates four direct services a week from Auckland to Samoa, two services to Samoa from Auckland via Tonga and one service a week from Wellington to Samoa via Tonga. It operates three services a week to Samoa via Sydney and code-shares on Qantas from Auckland to Melbourne two times a week.

Air Tahiti Nui

106. Air Tahiti Nui code-shares twice a week from Auckland to Sydney on Qantas and operates twice weekly return services from Auckland to Tahiti to Los Angeles (on which Qantas code-shares).

Royal Tongan Airlines ("Royal Tongan")

107. Tonga's airline flies return services Auckland to Tonga four times a week and two services a week Auckland – Sydney – Tonga. It also flies once a week from Auckland to Rarotonga return.

Air Pacific

108. Air Pacific is 46.32% owned by Qantas and 53.68% by the Fijian Government, and is Fiji's national airline. It operates nine return services a week to Nadi and two a week to Suva from Auckland. Qantas code-shares on the Nadi flights. Air Pacific also flies four times a week from Nadi to Los Angeles and three times a week from Los Angeles to Nadi.

Air Caledonie International ("Aircalin")

109. Aircalin operates two return services a week between Auckland and Noumea. Air NZ code-shares on those flights.

Other Carriers

Aerolineas Argentinas

110. Aerolineas Argentinas operates return services twice a week from Sydney, via Auckland, to Buenos Aires.

Lan Chile

111. Lan Chile operates three services a week from Sydney, via Auckland, to Santiago. Qantas code-shares on Lan Chile.

United Airlines

112. United Airlines until recently operated on the New Zealand–Los Angeles route. Although it has withdrawn from flying on this route itself, it continues to code-share on Air NZ on the route. Although it is currently in Chapter 11 bankruptcy protection, it continues to operate internationally.

Emirates Airline ("Emirates")

113. Emirates, which is based in Dubai, flies to 67 destinations in 47 countries in Europe, the Middle East, the Far East, Africa, Asia, Australia and New Zealand. On 2 August it commenced flights into New Zealand with daily return flights from Auckland to Sydney and Melbourne. On 26 October 2003 it will start daily flights from Auckland to Brisbane.

3 INDUSTRY BACKGROUND

INTRODUCTION

114. The purpose of this section is to provide an overview of the international aviation industry, and of the industry in Australasia, in light of the regulatory environment in which it operates.

REGULATORY BACKGROUND

Introduction

115. Since 1983, New Zealand domestic aviation markets have been open to foreign-owned airlines provided they meet safety regulations. Any airline (domestic or foreign-owned) can start up and fly domestically; no air licence is needed from the Ministry of Transport ("MOT'). The only requirement is for an air operator certificate from the Civil Aviation Authority (CAA). The provision of international air services is restricted as a result of the regulation of international freedom (air) rights and foreign ownership restrictions.

International Obligations

116. The primary international means of regulating the aviation industry are twofold: the directives of the International Civil Aviation Organisation ("ICAO"), and the agreement and enforcement of bilateral Air Service Agreements. New Zealand is required to comply with the directives of ICAO, and is also party to a number of Air Service Agreements ("ASAs"). Both of these forms of regulation have some impact on the operation of civil aviation in New Zealand.

ICAO

117. ICAO, an inter-government organisation, was established in 1947 following the introduction of the "Convention on International Civil Aviation" ("the Chicago Convention").[14] The Chicago Convention has been ratified by 185 countries, including New Zealand. It imposes obligations regarding many aspects of air transport operation on signatories.

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[14] The Chicago Convention is in 4 parts and has 96 Articles. Part 1 deals with Air Navigation, Part 2 establishes ICAO, Part 3 covers International Air Transport, and Part 4 details further administrative matters. The convention also has 18 Annexes, which contain more detailed recommendations and standards.

118. Although the Chicago Convention provides for ICAO to play a part in the economic regulation of international air transport, the organisation has traditionally not focused on that area, preferring instead to concentrate its efforts on matters affecting aviation safety and security. ICAO's main priorities are to ensure safety and security in the operation of international civil air transport by policies, which take three forms: binding obligations in the Chicago Convention; Statements to Contracting States; and Advisory Manuals[15].

119. ICAO's main purpose is to develop international standards and recommended practices for the safe and efficient conduct of international air transport. It is the responsibility of each member country to ensure that the minimum standards are applied. However, ASAs usually recognise this responsibility in both of the bilateral partners, who agree to accept the certification and licensing of the carriers registered in each country.

120. The Convention and its articles include the following:

- Article 1 (Sovereignty), which recognises that every State has complete and exclusive sovereignty over the airspace above its territory.

- Article 6, which provides that no scheduled international air service may be operated over or into, the territory of a contracting State, except with the special permission or other authorisation of that State.

- Article 7 (Cabotage, which is the right of one country to carry traffic between two points within the territory of another country). The Article provides that each contracting State has the right to refuse cabotage rights to aircraft of other contracting States. Should permission be granted, it cannot be limited to only one other State.

- Article 10, which provides that, where regulations of a State require it, aircraft which enter the territory of that State must land in that State (and not just cross it). Aircraft which land in the territory of a contracting State are required to land only at an airport designated by that State for the purposes of customs and other examination. Similarly, on departure from that State's territory the aircraft must also depart from an appropriately designated airport.

- Article 68, which provides that each contracting State may designate the airports, and air routes, that any international air service may use within its territory.

Bilateral System—ASAs

121. Article 1 of the Chicago Convention provides for complete and absolute sovereignty to each nation over the air space above its territory, and consequently, confirms the

[15] See www.icao.org.

legal authority for states to grant and exchange "Aviation Rights of Passage" (commonly known as freedoms) to other states. Such rights are exchanged through inter-governmental agreements, known as ASAs. ASAs are usually negotiated bilaterally and generally comprise an Air Service Agreement, a Memorandum of Understanding ("MOU") and/or an exchange of letters. They are sometimes accompanied by other less formal and less transparent understandings.

122. The fundamental principle of the bilateral system is that of bilateral reciprocity, whereby countries exchange rights on the basis of 'equality of opportunity'. This essentially means that two countries agree to exchange equal rights of access for their own carrier in the other's market. The precise form of any bilateral agreement depends on the negotiations between the two party countries.

123. ASAs cover matters such as the routes that may be flown, the freedoms granted, the capacity (frequency and aircraft types) that may be offered by airlines, how many airlines may operate, and how tariffs (prices) may be regulated. They also include a series of 'doing business' rules such as rights for airlines to repatriate funds, be exempt from customs and excise duties, and gain access to terminals and ground handling services. These provisions generally facilitate the operation of international air services between countries by seeking to minimise the potential for anti-competitive practices.

124. Under the bilateral system, international air transport between two countries does not take place unless it is expressly permitted by an ASA, in contrast with most other products, where trade does take place unless specifically restricted. Although it provides a mechanism to facilitate trade in air services, the system limits competition in, and the growth and development of, international air services by having provisions in ASAs that restrict the services provided by international carriers between sets of countries.

125. Restrictions, imposed bilaterally within the international framework of ASAs, mean that the international airline industry is highly regulated:

> The bilateral system restricted where airlines fly, the number and frequency of flights they operate, their ownership and access to equity, what types of aircraft they use, and how much they charge. It influences the nature of competition between airlines by controlling market entry and the quantity and variety of rights allocated to particular airlines.
>
> . . .
>
> Regulation of entry, frequency, capacity, routes and prices keeps fares up and impedes the development of new travel products. Relaxing of such restrictions would lead to greater competition, reduced fares, new routes and destinations, and improved quality of service.[16]

126. Air rights are needed by an airline, regardless of whether it is operating a service itself or by code-sharing[17] with another airline. Air rights are traffic rights (rights to uplift passengers and cargo), not airline rights.

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[16] Productivity Commission, *International Air Services Inquiry*, Melbourne: Productivity Commission, 1998, pp. xxvi-xxvii.

127. Non-scheduled services (including charters) generally fall outside the bilateral system, although some ASAs contain provisions relating to them.

Freedoms of the Air[18]

128. The bilateral system allows a country to grant various "freedoms of the air" to the carrier of another country, in exchange for similar rights for its own carrier (principle of "equality of opportunity"). These freedoms include the airlines of the two countries being able to fly to, from, between and beyond each country. There are nine distinct 'freedoms' that states can confer. These freedoms provide the backbone for negotiating capacity rights between countries under each ASA and are detailed below.

129. The first freedom is the right of an airline of one country to fly over the territory of another country without landing. For example:

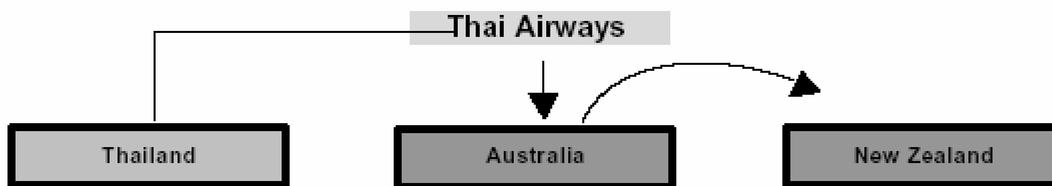
130. The second freedom is the right of an airline of one country to land in another country for non-traffic purposes such as refuelling or maintenance, while en route to another country. For example:

131. The third freedom is the right of an airline of one country to carry traffic (passengers, cargo or mail) from its country to another country. For example:

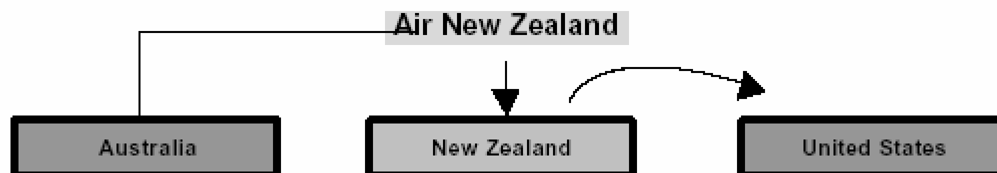
[17] Codesharing involves an airline assigning its own code to (selling seats on) a flight operated by another airline.
[18] Schedule 3(a) to the Applicant's section 58 Application provides a detailed summary of the various freedoms of the air, including examples.

132. The fourth freedom is the right of an airline of one country to carry traffic from another country to its own country. For example:

133. The fifth freedom is the right of an airline of one country to land in a foreign country, pick up and deliver traffic, and then fly to a second foreign (intermediate) country. Fifth Freedom rights are confined to flights that originate or terminate in the airline's home country. For example:



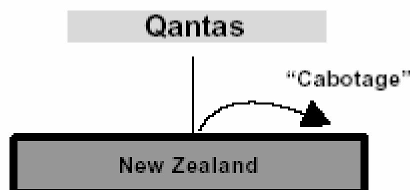
134. The sixth freedom is the right of an airline of one country to carry traffic between two other countries via its own country. A sixth freedom is effectively a combination of two sets of third and fourth freedoms. For example:



135. The seventh freedom is the right of an airline of one country to operate flights between two other countries without the flight originating or terminating in its own country. For example:

136. The eighth freedom (also known as cabotage) is the right of an airline of one country to carry traffic from one point in another country to another point in the foreign country on a flight originating in the airline's home country. For example:

137. The ninth freedom is the right for an airline of one country to carry traffic from one point in another country to another point in the same foreign country without a requirement that the flight originates in an airline's home country. For example:



Substantially Owned and Effectively Controlled

138. The bilateral system assumes that each country has its own "substantially owned and effectively controlled" designated national flag carrier. Only designated airlines can exercise a country's air rights under ASAs. There is no internationally accepted definition of what constitutes 'substantial ownership and effective control', but in New Zealand and Australia (for Qantas) it is defined as being where foreign ownership is not more than 49 per cent, a single foreign airline owns not more than 25 per cent, and all foreign carriers own not more than 35 per cent. There are no preset limits for other Australian airlines – in the case of Ansett, Air NZ was permitted to own 49%. As a matter of policy, New Zealand will not designate as a New Zealand airline an airline that is not substantially owned and effectively controlled by New Zealand nationals.

139. Currently, the only New Zealand designated airlines are Air NZ and Freedom Air (to Australia and Fiji), and the only Australian designated airlines are Qantas and Virgin Blue.

140. Different ASAs contain different criteria for designation of an airline. Some are more liberal than others. Criteria included are of four types: place of incorporation ("POI"), principal place of business ("PPB"), substantial ownership ("SO") and effective control ("EC"). Table 3 (provided by the MOT) summarises criteria included in each of New Zealand's ASAs.

Table 3
Criteria of New Zealand's ASAs

POI, PPB & EC (19)	**POI & PPB** (2)	**SO & EC** (25)
Australia,[19] Austria, Belgium, Brunei, Chile, Cook Islands, Denmark, Hong Kong,[20] Ireland, Malaysia,[21] Mexico, Norway, Peru, Samoa, Singapore, Spain, Sweden, Tonga, United States	Macau, Taiwan	Argentina, Brazil, Canada, China, Fiji, France, Germany, India, Indonesia, Italy, Japan, Korea, Luxembourg, Nauru, Netherlands, Niue, Papua New Guinea, Russia, Solomon Islands, South Africa, Switzerland, Thailand, United Arab Emirates,[22] United Kingdom, Vanuatu

141. To date, the restrictions on the ownership of international airlines contained in the bilateral system have effectively prevented airlines from merging across national boundaries, and so competitive pressures encouraging them to offer comprehensive, worldwide networks of routes have found expression in the formation of alliances between them.

New Zealand's ASAs

142. New Zealand currently has ASAs with a total of 46 countries. ASAs are negotiated in New Zealand by the MOT, which also allocates air rights to airlines. The MOT desires agreements to be as liberal as possible, as agreements open markets for trade and tourism. The 1985 International Aviation Policy of the New Zealand Government (restated in 1998) is intended to foster growth in tourism, trade and the aviation industry. Many ASAs have been negotiated because of the wider benefits to the economy. Any origin-destination (OD) traffic between two countries is considered by many countries internationally to be primarily the rights of the airlines in those two countries. When negotiating ASAs, the MOT considers what reciprocal advantages or benefits can be obtained from intermediary countries.

143. New Zealand, unlike most other countries, does not start negotiations from the most restrictive position, from which concessions are negotiated, but rather starts from an "open skies" position and introduces restrictions only when compelled to do so by the other side. New Zealand has also been prepared to negotiate on cabotage.

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[19] Separate criteria apply to SAM airlines operating only within and between New Zealand and Australia. These airlines are not "designated".
[20] The designating government is to be in position to exercise regulatory control over designated airlines.
[21] The 1997 MOU states that it is current policy not to designate an airline that is not SO and EC.
[22] It is understood that the SO requirement would not be applied in respect of New Zealand airlines.

144. There are no restrictions imposed from the New Zealand side of ASA negotiations on which airports may be serviced; its approach is to leave the choice to the foreign airline's commercial assessment, although sometimes the foreign government specifies the airport to be used. Thus ASAs generally do not impinge upon either Air NZ's or a foreign airline's ability to substitute between New Zealand airports.

Open Skies Agreements

145. In negotiating ASAs, New Zealand has a preference for open skies agreements. Such agreements aim to remove most of the traffic and market access constraints and reduce the extent of government involvement in the aviation industry. They generally permit unrestricted services by the airlines of the countries involved to, from and beyond the other's territories, without prescribing where carriers fly, the number of flights they operate and the prices they charge. As stated by the Applicants in Schedule 3(b) to their s 58 Application:

> Although there is no uniform definition of Open Skies and the precise provisions of Open Skies vary from arrangement to arrangement, it generally involves the removal of restrictions and access to each country's markets, including unlimited rights to intermediate and beyond points. Restrictions on capacity and frequency, ability to code-share and routes (including points of access) are also removed. However, restrictions often remain on foreign ownership and control of designated airlines, ability to operate domestic flights in the other country (cabotage) and, in some cases, the ability to fly from the other country to a third country (Fifth Freedom).

146. New Zealand currently has negotiated 12 open skies agreements, the most important being with the United States. The other open skies agreements that New Zealand has entered into are based on the United States model, but include more liberal terms such as the inclusion of passenger and cargo seventh freedom and cabotage rights. Open skies agreements also exist with Australia, Brunei, Chile, the Cook Islands, Luxembourg, Malaysia, Peru, Samoa, Singapore, Tonga, and the United Arab Emirates. These open skies agreements have removed most of the barriers with regard to routes and capacity.

Multilateral Agreement for Liberalisation of Air Transportation

147. A number of countries (Brunei, Chile, Peru, Samoa, Singapore, and the United States) have signed a multilateral open skies agreement with New Zealand, known as the Multilateral Agreement for Liberalisation of Air Transportation ("MALIAT") which came into force on 21 December 2001. The MALIAT means that any airline owned and controlled in any of the countries party to the agreement can fly to and from countries party to the agreement without constraint, and also within a country in the case of those that have signed a protocol to that effect (namely New Zealand, Singapore, Brunei and Chile).

Australasian Single Aviation Market

148. The current ASA between Australia and New Zealand was signed in 2002, and provides for a Single Aviation Market ("SAM").

149. SAM arrangements define the requirements for an airline to be authorised as a SAM airline - basically that an airline is substantially owned and controlled, and operated, in Australasia. Specifically, there must be no more than 49% foreign control, the head office and operational base must be in Australia or New Zealand, the chairperson of the board must be a citizen of either country, and the board of directors must be controlled by citizens of either country.

150. The 1996 SAM arrangements created, for Australasian (SAM) airlines, a single market between Australia and New Zealand. In practical terms, this means that travel between the two countries is like travel within one country. Any New Zealand or Australian-owned, controlled and operated airline can operate within and between New Zealand and Australia without restriction. SAM airlines (which must also be controlled in New Zealand or Australia) can also fly to and from New Zealand and Australia internationally using existing air rights (in addition to the Tasman). The SAM arrangements also permit cabotage, thereby allowing Air NZ to fly routes domestically between city pairs within Australia, for example.

151. The only designated passenger airlines at present are Qantas, Virgin Blue, Air NZ and Freedom Air. Asian Express (a freight operator) is also a SAM airline.

152. While the SAM arrangements liberalise domestic and Tasman services, other international services are still governed by the bilateral agreements between the two countries and foreign counterparts. Even though Australia and New Zealand are a SAM within their borders, looking from the outside they are still two separate countries. For example, for Qantas to be able to fly internationally out of New Zealand to Los Angeles, it must have the necessary air rights under the Australia-New Zealand ASA. Seventh freedom rights are not covered in the SAM arrangements, except for designated cargo airlines. Similarly, Air NZ cannot base an operation in Australia to fly to third countries, but can fly from New Zealand through Australia to third countries (the same applies to Qantas). Fifth freedom beyond rights beyond both countries are unlimited.[23]

International Air Service Licences

153. To ensure that scheduled aviation services to and from New Zealand are operated in accord with bilateral arrangements, airline companies must hold an international air service licence issued under New Zealand's Civil Aviation Act 1990 (as amended in 1996). The licence is issued by the Minister of Transport for New Zealand airlines

[23] Beyond rights are the right of an airline to fly to another country then beyond to a third country picking up passengers in the second country (a form of Fifth Freedom rights).

or, in the case of foreign airlines, the Secretary of Transport. The licence prescribes the routes and capacity that may be operated by the airline concerned. This requirement is additional to a safety certification required by the CAA.[24] To operate services only between New Zealand and countries party to open skies agreements, an airline only requires an open aviation market licence.

154. Where there are quantitative capacity constraints under an ASA, rights are applied for by airlines. These are allocated by the International Air Services Commission ("IASC") in Australia, and by the Minister of Transport in New Zealand. Rights under ASAs are allocated for an unlimited time period, but operate on a "use it or lose" it principle. If there are no prospects of another airline operating, then the MOT takes the approach of allocating all rights to the airline that seeks them (rather than the rights not being used). Where there are open skies, rights are unlimited.

155. The exercise of air rights takes into account multi-country rights allocation. For example, if there is an open skies agreement between A and B and between A and C, then an airline can fly between B and C under open skies. All countries that have open skies agreements with New Zealand can fly on the Tasman routes in theory. Any constraints that remain are due to any Australian ASA with that country.

156. If an airline's New Zealand domestic operation is part of the international air services network of a foreign airline, then the airline needs cabotage rights to undertake the domestic operations (requiring MOT approval). Only Australia, Ireland, Singapore and Brunei have these rights at present.

Competition Implications of Bilateral System

157. Although growth in demand has been strong for passenger services, airlines internationally have been hampered in meeting this growth by the bilateral system of regulation. In particular, it often prevents them from operating efficient networks through the following: capacity and route constraints (preventing spreading of route development and fixed costs); lack of beyond rights (which leads to an inability to hub out of foreign airports); break of gauge restrictions (inability to change plane size for beyond leg); inability to merge; and limits on foreign investment. Airlines have been forming alliances and using code-sharing as a partial means of breaking free from these constraints. The aim is to provide a "seamless" service via a comprehensive network of routes to all parts of the globe.

158. ASAs generally include provisions aimed at promoting competition or reducing the potential for anticompetitive practices in the airline industry. Australia's ASAs generally include a fair competition clause and/or a commercial opportunities clause which seek to remove potential impediments to market access and improve the effectiveness and/or profitability of international air services. These provisions often

[24] More details are provided in: Commerce Commission, *Decision No. 278: Air New Zealand Ltd/Ansett Holdings Ltd*, Wellington: Commerce Commission, 3 April 1996, pp. 10-14.

refer to commercial and related activities such as ground handling, currency conversion and remittance of earnings, employment of non-national personnel, sale and marketing of international air transport and computer reservation systems. However, ASAs do not generally include provisions dealing specifically with the application of competition law.

Domestic Safety and Security Regulation in New Zealand

Civil Aviation Act 1990

159. The primary legislation in New Zealand for dealing with civil aviation safety and security is the Civil Aviation Act 1990 ("the CA Act").[25] The purpose of the CA Act is to promote aviation safety through establishing rules of operation and divisions of responsibility, and to ensure that New Zealand's obligations under international aviation agreements are implemented.

160. The CAA, an independent Crown entity, was established by the Civil Aviation Amendment Act 1992. The principal function of the CAA is to undertake activities which promote safety in civil aviation at a reasonable cost, It is headed by a five-member authority and reports directly to the Minister of Transport.

161. The CAA establishes and monitors compliance with safety and security standards, and issues certificates to those intending to engage in aviation-related activities. Aviation operators are required to achieve a set standard before they can be certified to operate. The CAA undertakes regular reviews of the civil aviation system to promote the improvement and development of safety and security.

162. The CAA also provides the following services: advice to the Minister of Transport; promotes safety and security in civil aviation through providing information, advice and education programmes; provides search and rescue services; and acts on behalf of the Crown in respect of ICAO.

Air Operator Certificate

163. An airline requires an Air Operator Certificate ("AOC"), issued by the CAA as a condition of entry. The CAA requirements relate to safety and operational matters. An operator must be able to demonstrate to the CAA that it can satisfactorily service and operate the aircraft, with sufficient infrastructure, i.e. with manuals, skills, training, staff and management. The CAA's test is whether the operator of an aircraft who is providing the domestic air transport services in New Zealand would be safe and competent.

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[25] This Act replaced the *Civil Aviation Act 1964*.

164. There are two types of AOC: Part 119 New Zealand AOC, and Part 129 Foreign AOC. Airlines operating domestically in New Zealand should have a Part 119 AOC, as should New Zealand airlines that operate internationally to and from New Zealand. This varies but should take between two and nine months to be issued. Foreign airlines that fly internationally to and from New Zealand need only a Part 129 AOC (where recognised by the CAA). The Part 129 AOC process only involves the CAA checking the overseas safety approvals already obtained by the airline.

165. While an airline strictly requires a New Zealand AOC to operate regular domestic operations, an anomaly in the wording of Part 129 allows an airline with a Part 129 foreign AOC to operate to/from and within NZ. The wording was intended to provide for a flight domestically between two cities tying into international legs and not full/regular domestic operations (cabotage operations). In practice, the CAA will allow an airline with a Part 129 AOC to operate domestically for six months before they are required to have a New Zealand (Part 119) AOC. Qantas operated for one year on its Part 129 AOC before having its New Zealand domestic subsidiary JetConnect obtain a Part 119 AOC.

166. Negotiations have been taking place between New Zealand (CAA) and Australia (Civil Aviation Safety Authority) for an arrangement (aimed to take effect in December 2003) between the safety bodies that will mean that any SAM airline operating domestically in New Zealand or Australia (certified by either country's safety body) can operate in the other country domestically without needing to be certified there. However, this agreement will not provide for full mutual recognition, as aircraft will have to be managed and controlled in the country in which they are registered.

Section 88 CA Act

167. Section 88(2) of the CA Act provides that the Minister of Transport has the discretion to authorise arrangements (for example code-sharing) involving the carriage by air of persons, cargo and mail:

- between New Zealand and any place outside New Zealand; and
- between places outside New Zealand if that carriage is purchased, sold or arranged in New Zealand.

168. Section 88(4) of the CA Act details the competition law concerns that the Minister of Transport is directed to consider in determining whether or not to exercise his discretion to grant an authorisation. The Minister of Transport may not authorise any provision of any contract, arrangement, or understanding, that has any of the following purposes or effects:

- provides that any party to it may directly or indirectly enforce it through any form of action by way of fines or market pressures against any person, whether or not that person is a party to the contract, arrangement, or understanding;

- has the purpose or effect of breaching the terms of a commission regime issued under s 89 of the CA Act;

- unjustifiably discriminates between consumers of international air services and the access they have to competitive tariffs;

- so far as it relates to tariffs, has the effect of excluding any supplier of international carriage by air from participating in the market to which it relates;

- has the purpose or effect of preventing any party from seeking approval, in terms of s 90 of the CA Act, or the purpose of selling international carriage by air at any other tariff so approved; or

- prevents any party from withdrawing without penalty on reasonable notice from the contract, arrangement, or understanding.

169. However, the Minister of Transport must not decline to make an authorisation if such an action would have an undesirable effect on international comity between New Zealand and another state.

Section 91(1) CA Act

170. Section 91(1) of the CA Act provides that ss 27 to 29 of the Act do not apply to negotiating and concluding tariff or capacity-fixing arrangements under section 88 of the CA Act. Section 91(2) provides that Ministerial Authorisations under section 88 of the CA Act are specific authorisations for the purposes of s 43 of the Act. Section 43 of the Act provides that nothing in Part II of the Act relating to restrictive trade practices applies to any matter that is specifically authorised by any other enactment.

171. Section 88 of the CA Act is not being used in the case of the proposed Alliance from Air NZ and Qantas.

Civil Aviation Rules

172. The Minister of Transport, pursuant to s 28 of the CA Act, has introduced Civil Aviation Rules which set out the safety and security regulatory framework within which civil aviation in New Zealand is to operate. The Rules deal with areas including regulation of aircraft, personnel, airspace, and aerodromes. The Rules generally follow the standards and recommended practices established internationally by ICAO, subject to some limited modifications to meet local conditions.

INDUSTRY OVERVIEW

International Air Transport Association ("IATA")

173. IATA is an international trade association representing the interests of over 230 airlines offering scheduled services. IATA provides a forum for determining various technical, operational and commercial standards. This allows carriers to coordinate scheduling of flights and to interline. It also operates a clearing house for inter-airline debts arising from interline traffic.

174. Traditionally, air fares and cargo rates were negotiated and agreed at IATA traffic conferences, and subsequently approved by governments under ASAs. The focus of the IATA tariff conferences is now on 'reference fares', mainly to facilitate interlining (connecting passengers between two airlines on the same ticket) and to determine how money from the sale of an interline ticket should be divided between the airlines operating the services. As a result, the fares negotiated and agreed at IATA tariff conferences usually do not reflect the final fares paid by consumers.

175. Participation in fare coordination is optional, with approximately 100 of IATA's 230 members participating.

Alliances

176. The formation of international alliances between airlines has been a feature of the last decade. An airline's alliance with global or regional partners (sometimes involving equity) can enable it to interface networks to provide seamless travel, or to share facilities or services, yielding synergies. An alliance can be an easier way for an airline to gain economies of scope and scale than by creating its own networks abroad or becoming a 'mega-carrier' through mergers and acquisitions (which are often prevented by the bilateral system of air rights regulation).

177. There are demand-side forces driving alliance formation, an important one of which is seamless travel. Consumers favour airlines serving a large number of cities with high frequencies and integrated schedules and operations. In order to attract more passengers in the increasingly competitive environment, a major airline needs to offer convenient services to almost every destination in the world. As alliance partners link up their networks and provide seamless services, they are able to expand their service network beyond their own territories. In addition, through alliances, the partners can obtain access to attractive airports, and provide services on thin markets by pooling traffic when a single carrier alone cannot provide services profitably. Another motivation for alliance formation is to obtain feed traffic. A successful linkage of alliance partners' networks would allow them to feed traffic to each other, and thus increase the load factor on their flights. Each partner may be able to increase flight frequency it can offer to its customers without actually increasing its own flight frequency.

178. Alliances can also potentially reduce unit costs by allowing the partners to take advantage of operational or cost economies, increased traffic density and economies of scope. Economies of density can be achieved if an alliance partner is able to serve the same amount of traffic at a lower cost, with its network size held constant. Joint use of airport facilities and ground staff, joint advertising and promotion, joint purchase of fuel and other items, joint development of systems and software, and joint handling of baggage transfer, etc. will result in economies of density. Network expansion and mutual traffic feeding allow alliance partners to achieve cost savings through utilization economies. This will allow partners to operate higher frequency and/or to use larger aircraft, which in turn, reduce unit cost. Economies of scope can be achieved if alliance partners link up their existing networks so that they can provide efficient connecting services for new origin-destination markets.

179. Other demand side reasons for alliances are improved service quality and broader choice of itinerary. Frequency, schedule convenience and convenience of on-line connections are major dimensions of an airline's service quality. A properly executed alliance will improve service quality by increasing flight frequencies available to customers, offering more convenient flight schedules, and by increasing the proportion of on-line connections. The partners also coordinate flight schedules to minimize waiting time for connecting passengers, and ease inconvenience associated with making connections by locating arrival and departure gates close by each other. An alliance carrier can also offer more variety of itinerary and routing choices to its passengers than non-aligned carriers of similar size can.

180. A particularly important market power advantage can arise from alliance formation through the control of capacity. In an alliance involving two parallel routes or networks an increase in market share and market power potentially enhances the ability to charge higher prices.

181. At present, there are four major international air alliances, with members as follows:

- Star Alliance established May 1997 – Air Canada, Air NZ, All Nippon Airways, Austrian Airlines, Asiana Airlines, British Midland, Lauda Air, Lufthansa, Mexicana, Scandinavian Airlines (SAS), Singapore Airlines, Spanair, Thai Airways, Tyrolean Airways, United Airlines and Varig. US Airways recently joined Star Alliance due to its domestic alliance with United Airlines.

- oneworld established September 1998 – Aer Lingus, American Airlines, British Airways, Cathay Pacific, Finnair, Iberia, Lan Chile, and Qantas.

- SkyTeam established June 1999 – AeroMexico, Air France, CSA Czech Airlines, Delta Air Lines, Korean Airlines and Alitalia. In October 2003, KLM and Air France signed an agreement, which is subject to regulatory approval in several countries and the EU, whereby Air France would purchase KLM and this would move KLM and potentially Northwest and Continental Airlines into the SkyTeam alliance.

- Wings—KLM/Northwest established 1989 – KLM, Malaysia Airlines, Northwest Airlines, Japan Air Systems, Martinair, Kenya Airways and Surinam Airways. The "Wings" alliance does not exist as a brand name.

182. Together these four alliances carry 69% of the global international passenger traffic and account for 43% of international passenger flights worldwide.[26]

183. There was a fifth alliance called *Qualiflyer* but this was dissolved in 2001 after the collapse of two members, Swissair and Sabena. Other Qualiflyer members included Air Littoral, AOM/Air Liberte, Crossair, LOT Polish Airlines, Portugalia, TAP Air Portugal, Turkish Airlines and Volare Group.

Code-Sharing

184. Code-sharing is a practice where an airline, by agreement, purchases blocks of seats on another airline's flight, and sells those seats to passengers under its own brand name. The net effect is that a passenger buying a ticket from airline A can end up flying a sector on airline B, along with airline B's passengers. Both airlines' official designation codes apply to the flight. An airline might also sell blocks of seats without putting its brand on the ticket.

185. The benefit to an airline of a code-sharing arrangement is that it is an economical way to make a flight available to passengers, without bearing all the costs of running an aircraft. An airline will use code-sharing to provide better frequency of flights on a route, which is important for it to gain market share, and to create demand.

186. Code-sharing can be used on routes that are 'thin', i.e. where there is insufficient passenger demand to sustain two airlines' operations. Two separate flights on a 'thin' route might suffer lower load factors (more empty seats) and hence reduced profit yield, whereas one code-shared flight, with fewer seats for each airline to fill, could have higher load factors, and hence better profits. The net result is the ability to maintain frequency of service without the cost of unused capacity. In addition, the cost of running a second flight will be eliminated.

187. Alternatively, code-sharing can be used where capacity on a route between two countries is artificially limited by agreement. An airline can increase the frequency of available flights through a code-sharing arrangement with another airline, without having to exceed its quota.

Airline Service Models

188. The demand for air transportation is a derived demand. People want to get from A to B for business, family and vacation reasons. The demand in the markets is

[26] Credit Suisse First Boston, *Global Airlines,* May 2002, p 3.

influenced by a variety of factors: fare levels, service quality, convenience and seamlessness of routes, the overall health of the economy, and the competitive environment for air services. The rapid growth in air travel over the last few decades reflects general economic growth, declining real air fares, changes in the rules governing trade, such as under the World Trade Organization and the liberalisation of markets, both domestic and internationally. Another factor has been the shifts in the structure of economies from manufacturing to service economies as service industries are more aviation intensive than manufacturing.

189. The financial fortunes of airlines depend on their business/service model and how they have organised themselves in their networks. The business model will drive their product, process and internal organisation. Full service carriers ("FSAs") have a complex product aimed at attracting high yield business passengers. They offer flight meals, beverages and entertainment, executive lounges, priority check in, frequent flyer programmes, business class and first class. This results in complex and costly processes and a costly hub-and-spoke network.

190. Other carriers, niche and LCCs (also referred to as value based airlines) such as Virgin Blue, Southwest, Westjet and Ryanair have a simpler product and thus simpler processes and organizations. LCCs utilise their lower cost base to drive low fares and maximise profits. The low fares offered also stimulate demand for LCC services, which are offered on short-haul, point-to-point routes. No two LCCs are the same, but elements included in their business models typically include the following:[27]

- no 'frills' (no 'free' on-board meals or beverages, executive lounges, priority checkin, frequent flyer programmes etc.);
- a single aircraft type (many LCCs have a young fleet);
- concentration on short-haul, point-to-point travel, (although new generation aircraft are extending the range serviced by LCCs);
- a high proportion of direct ticket sales (which ensures LCCs are not necessarily reliant on, or captive to, third-party distributors and the associated higher distribution costs);
- higher aircraft and staff utilisation, achieved via a range of the following:
    - single class of seats, which increases the number of seats per plane;
    - no heated food, which means the aircraft does not require a galley, allowing more seats, fewer cabin staff, and weight and cost reductions;

[27] Section 58 Application, pp 27-28.

- faster turnaround time, by virtue of a combination of all or some of:
  - no interlining or code-sharing – aircraft do not have to wait for connecting inbound services;
  - utilising uncongested, secondary airports, which reduces the risk of delays and taxi time;
  - not carrying freight (which takes time to load and unload);
  - not offering on-board catering facilities, which take time to load; and
  - not having a seating allocation, which encourages a faster check-in;
  - the opportunistic use of secondary airports, which generally have lower landing and other charges, and will give priority to the LCC operations;
  - relatively flexible working practice by industry standards; and
  - a high level of outsourcing of maintenance and other operations.

191. Different business models will lead to different cost levels due to both complexity of product and the incentives to keep costs under control. A key cost driver is the choice of network. For FSAs, hub-and-spoke networks are considered to add value on both the demand and cost side. On the demand side, passengers value broad geographic and service coverage, with multiple frequencies to a large number of points and better connections. On the cost side, any increase in the number of passengers on a network reduces unit costs.

192. FSAs have adopted a business model that is costly, complex, subject to cyclical swings and highly risky, due to its dependence on higher yield business traffic. Recent events such as September 11, 2001, the Iraq war and SARS impacted heavily on many FSAs. In addition many of these firms have not been able to control their costs, not simply because their product is more complex, but also because they have not had sufficient cost pressures.

193. In contrast, LCCs concentrate on having limited networks with the main focus on point-to-point (or origin-destination (“OD”)) routes of no more than four to five hours flying time. The profitability of each route is assessed on a stand-alone basis, without regard to possible feed traffic. While the success of LCCs derives in part because their low fares attract new customers into the market, it often comes at the expense of weaker FSAs. In smaller markets, where the amount of high-yield traffic is insufficient to sustain more than one full service network carrier, LCCs have (in recent times) contributed to the demise of weaker FSAs, which are forced from the market by high costs and a shrinking revenue as they price to compete with the LCC.

194. Despite a recent downturn in demand for air travel, business still requires aviation as a business tool and there is still high yield traffic in the market. However, markets have changed, with business travel having become more fare and time elastic. The value this traffic places on very high frequency and minimum connect times at hubs

has diminished. There is also the reality that LCCs are not a transitory phenomenon, but are here to stay and are sustainable.

4 MARKET DEFINITION

INTRODUCTION

195. Section 3(1A) of the Act defines a market as:

> . . . a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.

196. In *Telecom Corp of NZ Ltd v CC* the High Court established the following principles in the approach to defining markets: [28]

> First, and most generally, we seek to identify the area or areas of close competition of relevance for the application(s). In other words, we seek to identify the constraints upon the price and production policies of firms or divisions of firms whose conduct is of relevance for the matters litigated.
>
> Secondly, competition may proceed both through substitution in demand and substitution in supply in response to changing prices or, more comprehensively, the changing price-product-service packages offered…The mental test that prompts a summary evaluation of the evidence is to ask how buyers and sellers would likely react to a notional small percentage increase in price of the products of interest.
>
> Thirdly, the market is a multi-dimensional concept – with dimensions of product, space, functional level and time.

197. In the Court of Appeal decision on Port Nelson delivered by Gault J, the approach to market definition was further explored:[29]

> Generally a market will be identified by reference to the activities of those engaged in commerce, the structures underlying their activities and the perceived susceptibility to change in the medium-term future. In other words what competitors are doing or might reasonably be expected to do indicates the market in which they are participants.

198. Gault J cited with approval from the judgement of French J sitting in the Full Court of the Federal Court of Australia in *Singapore Airlines*:[30]

> ...market designation….involves a choice of the relevant range of activity by reference to economic and commercial realities and the policy of the statute. To the extent that it must serve statutory policy, the identification will be evaluative and purposive as well as descriptive.
>
> …It is a focusing process and the Court must select what emerges as the clearest picture of the relevant competitive process in the light of commercial reality and the purposes of the law.

[28] *Telecom Corp of NZ Ltd v CC* (1991) 4 TCLR 473, 501-502.
[29] *Port Nelson Limited v Commerce Commission* [ ] 3 NZLR 554, 560.
[30] *Singapore Airlines Limited v Taprobane Tours WA Pty Limited* (1992) 14 ATPR 41-159, 40,170 and 40,172.

199. For the purpose of competition analysis, a relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry, could impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the '*ssnip* test'). For the purpose of determining relevant markets, the Commission will generally consider a *ssnip* to involve a five percent increase in price for a period of one year.

200. The Commission defines relevant markets in terms of five characteristics or dimensions:

- the goods or services supplied and purchased (the product dimension);
- the level in the production or distribution chain (the functional level);
- the geographic area from which the goods or services are obtained, or within which the goods or services are supplied (the geographic extent); and
- the temporal dimension of the market, if relevant (the timeframe); and
- the customer dimension of the market.

201. Market boundaries should be drawn by reference to the conduct at issue, the terms of the relevant section and the policy of the statute.[31] A market definition so wide that it would thwart the provisions of the Act should not be used. Moreover, the process of defining markets is inevitably an imprecise one, since transactions in the economy do not fall neatly into a series of discrete and easily observable markets. In any case, it may not often be necessary – or practical – to identify the precise boundaries of the activities included in the market.

202. The concept of a market is thus considered to be an instrumental one, in which the exercise of defining the market is not an end in itself, but is to be regarded as a purposive exercise intended to cast light on, or to assist with the analysis of, the conduct at issue.

Product Dimension

203. Both demand-side and supply-side factors are generally considered in defining market boundaries. Broadly speaking, a market includes products that are close substitutes in the buyers' eyes on the demand-side, and suppliers who produce, or are able easily to substitute to produce, those products on the supply-side.

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[31] *Telecom Corporation of New Zealand Limited v Commerce Commission* (1991) 4 TCLR 473, 499-500.

204. The Commission takes the view that the appropriate time period for assessing substitution possibilities is the longer term, but within the foreseeable future.[32] The Commission considers this to be a period of one year, which is the period customarily used internationally in applying the *ssnip* test to determine market boundaries. The Commission will take into account recent, and likely future, changes in products, relative prices and production technology in the process of market definition.

Demand-Side Substitution

205. Close substitute products on the demand-side are those between which at least a significant proportion of buyers would switch when given an incentive to do so by a small change in their relative prices.

206. Initially, markets are defined for each product supplied by two or more of the parties to an acquisition. Unequivocal substitutes are combined. For each initial market so defined, the Commission examines whether the imposition of a *ssnip* would be likely to be profitable for the hypothetical monopolist. If it were, then all of the relevant substitutes must be incorporated in the market. If not, then the next most likely substitute good or service is added to the initial market definition, and the test is repeated.

207. This process continues until a combination of products is found that defines the product dimension of a relevant market, namely, the smallest combination of goods or services for which a *ssnip* would be profitable.

208. On the demand-side, the technical viability of one good or service as a substitute for another must be assessed. However, even where another product may technically be suitable as an alternative for the product in question, its price may be so much higher that it may be a poor substitute in an economic sense, at least for the great majority of buyers. The Commission has regard to relative prices, quality and performance when assessing whether they are, in fact, close substitutes in the eyes of buyers.

Supply-Side Dimension

209. Close substitute products on the supply-side are those between which suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk costs, when they are given a profit incentive to do so by a small change in their relative prices.

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[32] In *Tru Tone Ltd v Festival Records Retail Marketing Ltd* [   ] 2 NZLR 351 Smellie J approvingly quoted an earlier decision of the Commerce Commission in *Edmonds Food Ind Ltd v W F Tucker & Co Ltd* (Decision 21, June 1984) where the Commission had stated that: "A market has been defined as a field of actual or potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive".

THE APPLICANTS' VIEW

210. In their initial submission and subsequent submission the Applicants stated that from a commercial perspective, they treat the whole of the Australasian market as the natural base for their operations. However, the Applicants submitted that, having regard to previous regulatory determinations in New Zealand and Australia, other overseas precedent and the analysis set out in the NECG Report, for the purposes of the Applications, the relevant markets are:

(a) the markets for the provision of passenger air services:

(i) on New Zealand main trunk routes (routes between Auckland, Wellington and Christchurch) (the New Zealand Main Trunk Market); and

(ii) on New Zealand provincial routes[33] (the New Zealand Provincial Market),

(collectively the New Zealand Domestic Markets);

(iii) on routes between New Zealand and Australia (the Tasman Market);

(iv) between New Zealand and the Pacific Island and South East Asia holiday destinations - this includes Fiji, Samoa, Kingdom of Tonga, Cook Islands, Tahiti, Vanuatu, Noumea, Norfolk Island, Honolulu (Hawaii Islands), Bali, and destinations within Malaysia and Thailand (the Asia/Pacific Destinations Market);

(v) between New Zealand and the United States (the USA Market); and

(vi) a number of other international markets,

(collectively, (i) to (vi) above are referred to as the Passenger Air Services Markets);

(b) the markets for the provision of:

(i) time critical air freight services between points in New Zealand (the New Zealand same-day Freight Market); and

(ii) international air freight services to or from New Zealand (the International Air Freight Market),

(collectively the Freight Markets); and

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[33] Qantas indirectly competes with Air NZ on certain provincial routes by way of a code-share with Origin Pacific.

(c) associated markets, including the markets for:

(i) the provision of travel distribution services in New Zealand (the Travel Distribution Services Market);

(ii) the provision of engineering and maintenance services in New Zealand (the Engineering Services Market);

(iii) the provision of Computer Reservation Systems (CRS) and Global Distribution Systems in New Zealand (the CRS Market); and

(iv) the provision of terminal and ground handling services in New Zealand (the Terminal Services Market),

(collectively, the Associated Markets).

THE COMMISSION'S VIEW

211. The Commission considers that there would be material aggregation in the following services: passenger air services; air freight services; and travel distribution services. Accordingly, these will be reassessed in light of submissions and cross submissions received in response to the Draft Determination and the additional information received by the Commission since the Draft Determination.

PASSENGER AIR SERVICES

Product Dimension

212. As in *Bodas*[34]*,* the Commission is of the view that there is a distinct product market for air passenger services. Although for some very short haul routes some substitution to other forms of transportation may occur, e.g. Blenheim to Wellington, the Commission considers that such substitution would not constrain the profitable imposition of a *ssnip* by a hypothetical monopolist.

213. The more relevant question is whether the market for passenger air services should be further disaggregated into two distinct markets, namely for business and for VFR (visiting friends and relatives) /leisure passenger air services.

214. In the Draft Determination the Commission decided that despite the differentiation in demand characteristics between business and VFR/leisure passengers, it was appropriate to consider them as belonging to one market for the purposes of

[34] Commerce Commission Decision No. 278, *Air New Zealand/Ansett Holdings/Bodas Pty Ltd*, 3 April 1996, para 125.

considering the Applications. The differential impacts of the proposed Alliance on business and VFR/leisure services were considered in the Draft Determination in the analysis of the impacts on competition and benefits and detriments. For the purposes of this analysis VFR passengers and leisure passengers (tourists) will be considered as one and referred to as 'leisure'. Whether there are separate markets for leisure and business passengers is considered below.

Demand-side Substitution

215. In their initial submission the Applicants submitted that there are not separate customer markets for passenger air services, and hence no relevant distinction should be made between business and VFR passengers, or economy and business/first class passengers. They pointed out that the Commission in *Bodas* stated:

> The Commission does not believe that the domestic air services markets should be separated into categories for business and VFR *[Visiting Friends and Relatives]* travellers. Rather than each passenger type constituting separate markets, the Commission believes that they are different segments of the same markets.

216. The Applicants also referred to the ACCC's view in the Tripartite determination[35] that "different passenger types (business/leisure) represent different segments of the passenger services market", rather than representing different markets. The Applicants further claimed that passengers demonstrate a range of demand characteristics, relating to time sensitivity, flexibility in regard to ticket conditions, complexity of itinerary, and product quality. Further they stated that "business" and "leisure" are merely labels that reflect a passenger's reason for travelling, they do not reflect uniform demand characteristics, and as such are not appropriate market delineators.

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217. NECG also performed a critical loss analysis that purportedly demonstrated that, even if there were some customers who were not willing to substitute between fare types, the cross-section of customers who are willing to substitute is significant enough to prevent a price increase by a hypothetical monopolist, and thus defeat a *ssnip*. The Applicants claimed accordingly, that the existence of some passengers who are not willing to substitute between fare types does not support a conclusion that these passenger types are in separate markets, nor that there are separate markets for different fare types.

218. In response to the Draft Determination NECG, although agreeing with the final conclusion, disagreed with the Commission's underlying analysis, stating that the Commission erred in the application of the appropriate test for substitution, incorrectly categorised business travellers with respect to their sensitivities to price and frequency, and incorrectly assessed the scope for supply-side substitution.

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[35] Ansett/Air New Zealand/Singapore Airlines Air Alliance (The Tripartite Alliance) (1997) ATPR (com) 50,265.

219. The Applicants continued by stating that if the Commission did not dispute NECG's critical loss analysis, then the Commission should have concluded that demand-side substitution alone brings all customers into a single product market.

220. Critical loss is defined as 'the decrease in sales resulting from a particular price increase that is just large enough to make that price increase unprofitable'.[36] In responding to the Applicants' comment, the Commission first notes that recent literature has identified concerns with the way critical loss analysis has been applied, in that it often ignores other relevant economic factors in the following ways:[37]

- If a firm sets its price to maximise profits, the resulting contribution margin provides information about the price elasticity of demand it faces, and hence about the amount of sales it would lose from a price increase. For example, a large margin would imply an inelastic demand, and hence limited price responsiveness on the part of buyers (limited availability of substitutes). In these cases a *ssnip* would be expected to lead to a small amount of sales lost.

- In applying the critical loss analysis, the focus should not be limited to the impact of the *ssnip* on the profit earned on the product in question, but must also include the impact on the profits earned on all of the products under the firm's control, to the degree that they are substitutes or complements (as measured by the cross-price elasticity of demand). For example, to the extent that one or more of these other products are substitutes, the more likely the loss of profit earned on the product to which the *ssnip* is applied will be offset by the profit earned on these other products to which customers switch. In other words, a *ssnip* could be unprofitable for the product in question, and yet profitable overall for the hypothetical monopolist.

- Alternatively, for homogeneous product industries, large margins arise only if competitors face capacity constraints. If a fringe firm's supply elasticity is low, this would reduce the loss of sales when the firm increases its price.

221. In the Commission's view, NECG's approach to applying critical loss analysis to airline markets to show that business and economy class passengers probably do not fall in separate markets, is questionable for the following reasons:

- NECG arguably defined the candidate markets too narrowly, by equating business travellers with business class passengers. The Commission understands that many business passengers travel on economy class tickets, albeit at relatively high fares. Focusing on seating class alone also ignores other factors that may distinguish the business travel market from the leisure market. Airlines supply other services to businesses that they do not supply to leisure travellers, such as corporate ticketing.

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[36] K.L.Danger & H.E.Frech III, *'Critical Thinking about Critical Loss in Antitrust'*, The Antitrust Bulletin/Summer 2001, 339, 341.

[37] See: Michael L. Katz and Carl Shapiro, "Critical Loss: Let's Tell the Whole Story", forthcoming in *Antitrust*, 2003, and references cited therein.

- NECG provided evidence that on a sample of four routes for April 2002, the business class passengers carried by Qantas as a percentage of all OD passengers were only 5.6% and 6.1% on two Tasman routes, and 0.9% and 1.5% on two NZ domestic routes. NECG used this evidence to argue that even if a *ssnip* were to cause all business class passengers to switch, their numbers would be too low to be likely to cause the hypothetical monopolist to cancel flights. As the flight schedules would then be fixed, the costs that are variable costs are low, and the contribution margin is high. Arguably, this approach overstates the size of the contribution margin, and biases the inquiry towards a finding of low critical loss (and hence of one market rather than two).

- NECG incorporated the impact on profits of business class passengers who might switch to economy class on the same airline in line with the 2nd bullet above, but argued incorrectly that "this assumption is conservative because it leads to higher critical loss estimates". The Commission considers, as noted above, that the correct approach is to incorporate the internal impact of switches between the firm's substitute products. However, NECG made the valid point that such switching passengers could displace other economy class passengers, so that this source of off-setting benefit could be watered down.

- NECG found that its estimated critical loss factors were low. To check the plausibility of this finding, it examined whether there might be constraints on the substituting of economy class seats for business class seats on either the supply-side, in the form of the unavailability of alternative seats, or on the demand-side, through the poor acceptance by business passengers of economy cabin seating, but found none. However, this analysis failed to consider the low price elasticity of demand implied by the large contribution margins found.

222. For the reasons outlined above, the Commission is of the view that the argument for not identifying distinct product markets is not well supported by NECG's critical loss analysis.

223. Further, the Commission is of the view, in accordance with information received from interviews with other airlines, travel agents, consumers and other interested parties, that although the same demand characteristics may be shared by different types of passengers, some demand characteristics are generally attributable to particular passenger segments and not to others. These characteristics are broadly categorised for business and leisure passengers as follows:

- Business passenger characteristics:
  - time sensitivity; considerable emphasis placed on flight frequency and scheduling;
  - travel at beginning and end of the day;
  - demand fare flexibility;
  - want direct routes;

    - do not want weekend stops;
    - less concerned about price – less elastic demand; and
    - more concerned about air-points, comfort, service etc.

- Leisure passenger characteristics:
    - less time sensitive;
    - like stopovers, particularly backpackers;
    - will accept restrictions and penalties on changing fares;
    - price is primary factor in choice of airline (willing to be trade lower price for convenience) – more elastic demand; and
    - not so concerned with air-points, full service, etc.

224. The Commission acknowledges that there may be a spectrum of passenger types (as reflected in airlines' ticket classes), and the importance of the particular demand characteristics is likely to be weighted differently in each case. The literature on air passenger market definition also suggests that some characteristics may vary and be dependant upon other factors. For instance, there is some suggestion that the importance placed on non-stop flights is inversely related to flight distance.[38]

225. Based on the matrix of factors above, the Commission considers that there is differentiation between business and leisure passengers, particularly in regard to price and flight frequency, and this is further emphasised by the ability of airlines to successfully price discriminate between the two segments. The Commission considers that business fares are unlikely to act as a disciplining factor on leisure fares as leisure passengers generally have a greater flexibility with respect to time and a greater discretion over the necessity to travel. Leisure fares, may in some circumstances, act as a disciplining factor on business fares, but such an influence would be dependant on the levels of service and frequency being comparable.

226. Thus the Commission concludes that from a demand perspective business and leisure passenger products do exhibit a significant degree of differentiation.

Supply-Side Dimension

227. In the authorisation of joint services between Qantas and BA assessed by the ACCC in May 2000, the ACCC found that the high proportion of business passengers travelling under corporate contracts and within loyalty programmes tended to operate against supply-side substitutability. They would not readily switch to an alternative airline.

228. The Applicants submitted in response to the Draft Determination that corporate contracts and loyalty schemes do not represent material obstacles to obtaining the

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[38] Crocioni, 'Defining Airline Markets: A Comparison of the U.S. and EU Experiences', *The Antitrust Bulletin,* Spring 2000, p 23.

custom of a business traveller, as evidenced by Virgin Blue's recent successes in targeting these customers in Australia.

229. Virgin Blue advised the Commission that the number of corporate clients it serves has grown substantially in the past year due to increases in flight frequency and scheduling adjustments. Virgin Blue now offers comparable frequencies at a lower price which has some bearing on the cost-benefit analysis of the business customer, in that their immediate cost savings from lower fares have to be weighed against the longer term loss of benefits of loyalty schemes. However, as discussed below in the competition analysis, the Commission considers that loyalty schemes and corporate contracts do act as barriers to targeting the business customer, particularly for new entrants and for those that do not have the frequency of flights necessary to provide a comparable alternative for the business traveller.

230. In the Applications, the Applicants submitted the following supply-side substitution arguments support a conclusion that both business and leisure passengers fell within a single product market:

- the supply-side complementarities make it artificial to regard different passenger types as falling within distinct markets, due to the economies of scope in servicing a wide range of customers;
- the ease with which airlines can substitute to targeting different customer types; and
- substitution between customer groups (i.e. revenue management).

231. The Commission accepts that there is some validity to the argument that supply-side substitution exists, to the extent that a carrier that provides a satisfactory business product can relatively easily also provide a satisfactory leisure product. However, the Commission is of the view that substitution is more difficult in the other direction, in that there are some significant obstacles to the provision of a service to meet the frequency, timing and routing demands of the business traveller. The Commission has been advised by industry participants that a successful business offering depends on adequately meeting the majority of demand-side characteristics exhibited by the business traveller.

232. The Commission considers that many of the costs incurred by airlines are the same for business and leisure and that, as indicated by NECG in its initial submission, the servicing of a wide range of customers may help to smooth out the seasonal fluctuations in demand, increasing capacity utilisation and lowering unit costs.

233. The Commission is of the view that there is a degree of supply-side substitution between business and leisure offerings, yet the degree of the substitution possibilities depends on factors such as frequency, scheduling and routings which take time to develop, particularly for new or developing entrants.

Conclusion on Product Dimension

234. The Commission is of the view that there is differentiation between business and leisure passenger air services products, particularly on the demand-side. However, for the purposes of considering the competition effects of the proposed Alliance, it is proposed to consider them as being two segments of a differentiated product market, rather than as separate markets. The Commission is of the opinion that such an approach is warranted due to a degree of supply-side substitutability between the two segments, and to the fact that the impact of the proposed Alliance on the two segments may be similar in some instances.

235. Furthermore, there is difficulty in meaningfully separating the two segments for the purposes of the competition analysis. The unavailability of discrete data, particularly in regard to New Zealand domestic travel, makes it difficult to attempt such a distinction. The boundaries of the differentiation gap are also becoming less clear with the recent introduction of Air NZ Express class, and the emergence of added value services from low cost carriers on a user pays basis. These factors ultimately make the meaningful application of a *ssnip* difficult on both a theoretical and practical basis.

236. Further, the Commission is of the view that such a distinction is unnecessary for the purposes of the analysis as any differing impacts of the proposed Alliance on business and leisure products can be taken into account in the competition analysis and the assessment of benefits and detriments. These differences have been distilled in the modelling carried out below by weighting the different demand price elasticities of the two segments to reflect the impact that the two passenger types have, and by introducing imperfect substitutability between the products of the incumbents and the LCCs.

Geographic Dimension

237. The Applicants originally submitted that the relevant geographic markets for passenger air services were:

- New Zealand Main Trunk (Auckland, Wellington and Christchurch);
- New Zealand Provincial (covering all other domestic routes);
- Tasman;
- New Zealand – Asia/Pacific Destinations;
- New Zealand – USA; and

- other international markets.

238. In its submission on the Draft Determination, NECG, on behalf of the Applicants, stated that its initial report presented evidence that it believed indicated that the relevant market was a broader Australia-New Zealand market and that this better captured the commercial reality and ease with which airlines can expand once they have established themselves in the region.

239. The Applicants submitted in the Applications that, based on the Open Skies and SAM agreements between New Zealand and Australia, which removed some regulatory barriers to entry in some circumstances, together with the ease of supply-side substitution, a broader Tasman market was appropriate for the analysis.

240. Alternatively, there is authority to support the approach of individual city pair routes as being the correct geographic markets in airline cases. The reasoning behind this is that travellers, in most instances, have little flexibility in terms of their origination and destination. The Commission considers that, in principle, such an approach is correct, but for the purposes of competition analysis in this case, it is more appropriate to aggregate city pairs into geographic groups, consisting of groups of city pairs that will be impacted similarly by the proposed Alliance. The Commission found support for this approach in the testimony of Professor Robert D. Willig who stated at the Commission conference that "if the routes are … pretty much the same in terms of the elements that should go into the competition analysis, then it is valid to analyse them together".

241. The Commission is also of the view that the theoretical and empirical evidence no longer suggests that airline markets are perfectly contestable and is of the view that actual rather than potential competition determines effective competition and influences fare levels.[39]

242. Although expansion across the Tasman has occurred, it has not occurred as regularly as the Applicants suggest with only limited occurrences of sustained presence in both markets. Australia and New Zealand also have smaller carriers that provide an important role in servicing domestic routes that are limited by their size and their fleet to the domestic market that they serve.

243. Accordingly, the Commission is of the view that there is not a single Australasian market. The competitive restraint imposed by potential entrants based in Australia is more accurately assessed as part of the competition analysis, where a full assessment of the barriers to entry that exist can be examined.

244. The Commission is of the view that the functional and temporal dimensions are not relevant to the analysis of the air passenger markets.

[39] See: Crocioni, '*Defining Airline Markets: A Comparison of the U.S. and EU Experiences*', The Antitrust Bulletin, Spring 2000, 15; A.S. Joskow, G.J. Werden and R.L. Johnson, 'Entry Exit and Performance in Airline Markets', *International Journal of Industrial Organization* 457, vol. 12, 1994, p.457.

245. The dimensions of the relevant domestic and international geographic groups are discussed below.

New Zealand Domestic Markets

246. In *Bodas*, the Commission adopted three domestic passenger air services markets:

- main trunk routes (between Auckland, Wellington and Christchurch);
- provincial routes (between provincial airports serving cities such as Dunedin and Hamilton through to smaller communities); and
- tourist routes (to and from tourist destinations such as Rotorua and Queenstown).

247. The Commission found that the distinction between main trunk and provincial routes was readily apparent, with each having different characteristics in terms of the number of passengers carried, and the size and type of aircraft used to maintain sufficient service frequency. The same distinction is still largely apparent today. The main trunk routes represent about 80% of the total domestic passenger numbers. The main trunk routes are usually serviced by jet aircraft, whereas smaller turbo-prop aircraft are often used on the provincial routes.

248. Although some jet aircraft do service Dunedin and Queenstown, as NECG pointed out in its original submission, the frequency is much less and volumes are much lower. For these reasons, the Commission concludes, as in the *Bodas* decision, that the main trunk comprises of routes between Auckland, Wellington and Christchurch. Because of the lack of demand-side substitutability, each city-pair route is regarded as a separate market. However, because of their otherwise similar characteristics, and for ease of analysis, they are here grouped together.

249. In *Bodas* tourist routes were distinguished because they were seen as having different customer base from main trunk and provincial routes, and because airlines appeared to differentiate tourist routes from provincial routes by the existence of direct flights between centres. However, it was acknowledged that “there have been some changes which now make the distinction between these markets less apparent”.

250. In respect of the current Applications, the Commission accepts the Applicants’ submission that there is nothing material to be gained from the separation out of a distinct tourist market, and that consideration of a single provincial market is appropriate. Accordingly, the Commission is of the view that routes which consist of at least an origin or destination other than Auckland, Wellington or Christchurch are appropriately grouped together to form the provincial market.

Conclusion on New Zealand Domestic Markets

251. The Commission considers that the aggregation of similarly affected New Zealand domestic city-pair routes leads to the conclusion that, for the purposes of the present Determinations, two New Zealand domestic geographic markets are relevant for air passenger services:

- the New Zealand main trunk market (routes between Auckland, Wellington and Christchurch); and
- the New Zealand provincial market (all other New Zealand domestic routes).

Tasman Routes

252. The relevant Tasman routes are those that connect Auckland, Wellington, Christchurch, Hamilton, Dunedin, Palmerston North and Queenstown with Sydney, Melbourne, Christchurch, Cairns, the Gold Coast and Perth.[40] It should be noted that not all the New Zealand centres are connected to all the Australian centres, and the frequency of services varies. For example, the only route out of Queenstown is to Sydney, which is only operated by Qantas during the winter months.

253. The Applicants submitted that, having regard to both the SAM and the Open Skies arrangement, and to the ease with which suppliers can substitute (or shift supply) to alternative city-pairs, a trans-Tasman Market is the narrowest market that might reasonably be considered.

254. As the Commission has established above, and consistent with the submission given by Professor Willig at the Commission conference, the correct starting point is city-pairs in the delineation of markets. The next step is to aggregate these markets into groups where the considerations are the same for the purpose of the competition analysis.

255. In *Bodas* and Decision 229A,[41] the Commission concluded that the Tasman market can be distinguished from other international routes by the different market participants and regulatory conditions and that it was appropriate to identify the Tasman market as a separate market. A further differentiating factor was the smaller aircraft used in the Tasman market as compared with long haul routes. The Commission is still of this view that these factors still are largely applicable today and in addition the greater frequencies of flights and the ability, in some cases, for a day-return trip are also relevant..

[40] See Appendix II for the airlines that fly these routes and the frequency of flights.
[41] Qantas and Others/Air NZ.

256. The Commission in the *Bodas* determination also considered that nothing material would be gained by the further division of this market on the basis of individual city-pairs, and thus a single Tasman market was considered relevant to that determination.

257. A question that has arisen for the Commission in assessing whether there is currently a single Tasman market is whether the existence of fifth freedom carriers only on Auckland routes has a significant effect on the competitive environment, such that Tasman routes involving Auckland as an origination or destination are more appropriately considered as a separate market.

258. The Applicants submitted that a single Tasman market should be considered, and that the competitive constraint of the fifth freedom carriers is equally applicable to the non-Auckland routes. The Applicants submitted that the ability of a Wellington or a Christchurch passenger to obtain cheaper fares than those offered on the Tasman by Air NZ by using the domestic NZ Express service and then interlining with a fifth freedom carrier was a possibility that kept the Tasman fares out of these cities at a comparable level to that of Auckland. It was also suggested that a price differential would create ill-will against Air NZ amongst the public, and that there is nothing to suggest that fifth freedom competitors could not easily switch to supplying the other NZ cities given a financial incentive to do so.

259. Although only Auckland is currently serviced with Tasman routes by fifth freedom carriers, an analysis of average yield data of Tasman routes out of Auckland, Wellington and Christchurch indicated no substantial difference in airfares between the different cities. The Commission is not able to ascertain whether this is actually due to a constraint created on all routes by the existence of the fifth freedom carriers on the Auckland routes, or whatever, or whether the incumbents are equally unconstrained on all routes. However, the Commission is of the view that a distinction between Auckland and non-Auckland routes is unnecessary for the purposes of the analysis as any differing impacts of the proposed Alliance on these routes can be taken into account in the competition analysis and the assessment of benefits and detriments. The Commission therefore considers that a single Tasman market is appropriate for the purpose of analysing the competitive effects of the proposed Alliance.

New Zealand - Asia and Pacific Routes

260. The Applicants submitted that it is appropriate to consider an aggregated Asia/Pacific market due to the degree of demand-side substitutability exhibited between the various routes. They claimed that consumers can, and do, choose from a variety of sun-seeking holiday destinations that have broadly comparable prices. They stated that there is a high level of supply-side substitutability due to the ability of many carriers to increase/shift capacity between routes in the region.

261. The Applicants further stated that travel packages typically consolidate airfares, transfers, and accommodation into a package retailed for a single, all inclusive price.

Brochure pricing for packages to Pacific Island destinations closely correlate with brochure pricing for travel packages to Honolulu (Hawaii Islands), Denpasar (Bali) and other South-east Asian holiday destinations, and therefore it would be accurate to consider Asian and Pacific destinations within one market.

262. The Commission is of the view that a combined Asia/Pacific market is not appropriate for the purposes of the competition analysis. Although a high proportion of traffic on these routes is tourist traffic, the Commission does not believe that either the price elasticity of demand, or the cross-price elasticity of demand, is as high as suggested by the Applicants. Travel industry participants advised the Commission that travellers to the Pacific are generally seeking holidays in the sun or are visiting friends and relatives. Although some substitution may occur, in the event of an increase of fares on any given route, the Commission believes that this is likely to occur within the range of Pacific routes rather than a change to an Asian destination.

263. Asian destinations are geographically distinct from Pacific destinations and the Commission has been advised by industry participants that they attract a distinct customer base, in particular those who wish to experience Asian culture and shopping rather than those wanting a leisurely holiday in the sun.

264. This view was supported by Gullivers Pacific, which submitted that the high degree of demand substitutability between Pacific and Asian destinations claimed by the Applicants is not supported by an analysis of New Zealand outbound travel statistics and wholesale travel statistics.

265. Furthermore, the Commission is of the view that the competition issues between the Pacific and the Asian routes will vary due to the impact of the loss of the constraint of indirect routes in relation to Asian destinations as discussed below.

266. The Commission must assess not only the direct routes on which Air NZ and Qantas compete, but also those on which Air NZ operates that may be constrained by indirect routes on which Qantas operates. For example, although there is no aggregation on the direct route from Auckland to Tokyo, the Qantas flight to Japan via Sydney may act as a constraint on this route, particularly for travellers from Christchurch. Indirect routes, however, are only of concern for Asian routes, as passengers would be unlikely to travel via Australia to any Pacific Island destination due to the time delays and impracticalities of doing so.

267. Accordingly, the Commission considers that it is appropriate to consider the Asian routes and Pacific routes separately for the purpose of its competition analysis, and that individual routes are the appropriate focus.

Pacific Routes

268. In terms of the Pacific, the relevant routes are on which Air NZ operates directly, and Qantas operates by way of code-sharing or through Air Pacific (in which Qantas has a substantial shareholding, and which is included in the Alliance).

269. The relevant Pacific routes flown by Air NZ are therefore:

- NZ-Fiji (flown by Air Pacific);
- NZ-Samoa (Qantas code-shares on Polynesian Airlines);
- NZ-Tonga (Qantas code-shares on Polynesian Airlines);
- NZ-Tahiti (Qantas code-shares on Air Tahiti Nui);
- Fiji-Los Angeles (flown by Air Pacific);
- Apia-Tonga (Qantas code-shares on Polynesian Airlines); and
- Tahiti-Los Angeles (Qantas code-shares on Air Tahiti Nui).

270. Although the Fiji-Los Angeles, Apia-Tonga and Tahiti-Los Angeles routes neither originate nor terminate in New Zealand, they are relevant routes for the purposes of analysing the competitive effects of the proposed Alliance as they are flown by both of the Applicants and the route, as a product, is sold to New Zealanders in New Zealand.

271. The routes identified above will be analysed in turn in the competition analysis but will be broadly referred to as the Pacific markets, in aggregation.

Asian Routes

272. The relevant Asian routes are those direct routes flown by Air NZ that are potentially constrained by routes flown by Qantas out of Australia, either directly or by code-share. As stated above, these indirect routes are relevant to the analysis as the proposed Alliance would effectively remove the constraint offered by the fares on the indirect routes.

273. The direct routes to Asia that Air NZ flies are:

- NZ-Japan (including Osaka, Nagoya and Tokyo);
- NZ-Taipei;

- NZ-Hong Kong; and
- NZ-Singapore.

274. As Qantas does not operate on these routes, there appears to be no aggregation. However, it is possible to fly to these destinations indirectly via Australia on Qantas with little extra expenditure or time, so that fares on the direct routes could be constrained by fares on the indirect routes. Accordingly the Commission is of the view that the routes set out in paragraph 79 are relevant to the competition analysis.

275. The routes identified above will be analysed individually in the competition analysis but will be broadly referred to as the Asian markets, in aggregation.

New Zealand - US Route

276. The Applicants submitted that there is a New Zealand-US market and that this is supported by the Brierley/Air NZ decision,[42] the United States of America Department of Transport (US DOT) and the MOT.[43] They stated that there have been no changes in this market to warrant the adoption of a different market definition.

277. The Commission is of the view that the services to the US serve a distinct customer base and will involve distinct competition issues as the only international route flown by both of the Applicants out of New Zealand, other than the Tasman routes.

Other International Routes

278. The Applicants submitted that other international destinations should be described in terms of regional markets, citing the ACCC's RJSA determination44 in which a similar approach was adopted.

279. The relevant other international routes are from New Zealand to London via Los Angeles, from Los Angeles to other European destinations (on which Air NZ code-shares), and from Asia to European destinations including London (on which Air NZ also code-shares).

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[42] *Brierley Investments/Qantas Airways Ltd/Japan Airlines Co. Ltd/American Airlines Inc./Air New Zealand Ltd, Application for consent to merger or takeover proposal,* Commerce Commission Decision 229, 27.04.89.

[43] *United Airlines Inc, and Air New Zealand* Order to Show Cause – USA Department of Transportation 2 March 2001 Docket OST-1999-6680-7. The Final Order of 3 April 2001 (Docket OST-1999-6680-8) upheld the tentative decision in the Order to Show Cause to grant authorisation for the alliance between Air NZ and United Air Lines; and report from the Ministry of Transport to the Minister of Transport: *Air New Zealand application for authorisation of alliance between Air New Zealand Limited and United Airlines Limited* 28 February 2002.

[44] Restated JSA (Joint Services Agreement between Qantas Airways Limited and British Airways Plc (2000) ATPR (Com) 50-280); 53,498.

280. Although the Commission is of the view that the correct starting approach conceptually is individual city-pairs, it believes that the competition effects on the remaining international “beyond” routes are likely to be similar to a great extent. The Commission therefore concludes that it is appropriate for the purposes of the analysis to deal with such routes in aggregation. To the extent that differences may arise the particular individual effects can be considered within the competition analysis.

Conclusion on Tasman and other International Markets

281. The Commission concludes that the relevant international geographic markets for air passenger services are:

- The Tasman;
- New Zealand – Pacific Islands and beyond (routes between NZ and Fiji, Samoa, Tonga and Tahiti and a few selected other routes);
- New Zealand – Asia (routes between NZ and Japan, Taipei, Hong Kong and Singapore);
- New Zealand – US; and
- certain other international markets.

Conclusion on Passenger Air Services

282. The Commission concludes that the relevant passenger air services markets are the markets for:

- New Zealand main trunk passenger air services (main trunk market);
- New Zealand provincial passenger air services (provincial market);
- New Zealand – Australia passenger air services (Tasman market);
- New Zealand - Pacific Islands and beyond passenger air services (NZ - Pacific Islands markets);
- New Zealand – Asia passenger air services (NZ-Asia markets);
- New Zealand – USA passenger air services (NZ-US market); and
- Certain other international passenger air services (international market).

AIR FREIGHT SERVICES

Product Dimension

283. The Applicants agreed with the Commission's comment in *Bodas* that, in respect of New Zealand domestic routes, "the provision of deferred and overnight delivery is equally contested by air and land transport, and is part of a wider domestic freight market."[45] They pointed out that having regard to the large number of competing transport modes (including train, road and sea) and the large number of constraining participants in the market, the Commission concluded that the "acquisition does not raise any competition issues in that market".[46]

284. They stated that because the majority of freight in the relevant markets is carried in the belly-hold of aircraft operating scheduled passenger services, the assessment of the various passenger air services markets will also illuminate the competitive dynamic in the relevant freight markets.

285. Industry participants have told the Commission that dedicated freight services are not substitutable for passenger service belly-hold freight services for various reasons, including differences in price, route network, and frequency of flights. Consequently, the type of cargo and customer base tends to be different between the two types of services. Dedicated freight airlines have told the Commission that they do not attempt to provide a substitute for passenger airlines' cargo services. Rather, they discover and develop niche markets where demand can be met by either infrequent scheduled flights or by chartered flights.

286. The Applicants responded that it was not appropriate to identify separate markets for belly-hold and dedicated freight and that a single freight market was more appropriate on the following grounds:

- The prices do not differ between dedicated and belly-hold freight services, apart from the premiums charged on oversize items,

- Belly hold freight services and dedicated freight services are technically substitutable, with 95% of Tasman freight capable of being carried in either. The remaining five percent is comprised of certain oversized items that require a dedicated freight service. Further, the directionality of this potential for substitution problem is significant, because the type of substitution that is easiest (belly-hold to dedicated) is precisely the substitution threat that will mitigate any market power held by the proposed Alliance.

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45 *Bodas* para 149.
46 *Bodas* para 149.

- The proposition that belly-hold freighters can operate at a lower marginal cost than a dedicated freighter is only relevant in very limited circumstances, and not applicable to the routes in question.

- The scheduling concerns of the Commission in relation to dedicated freight services are misplaced. Cargolux, Singapore Airlines and DHL operate a total of nine west-bound and five east-bound services each week.

- The fact that many dedicated freighters serve New Zealand merely as part of a longer international route that may take a week to complete is irrelevant. Instead, the imbalance created by some freighters flying only in one direction is corrected by other freighters flying in the opposite direction.

- The Applicants made reference to the Boeing 737-700C aircraft to support the proposition that dedicated freighter capacity can easily be brought into the market in response to price signals.

287. The Commission has been informed by industry participants that the technical substitutability argument between dedicated and belly-hold freight services ignores the impossibility of substitution for certain time critical shipments, where the ability to hold consignments until the next available cargo service does not exist. Emery Forwarding advised the Commission that up to 70% of air freight exports are perishable. The New Zealand Paeony Society, in response to the Draft Determination, stated that: "The only service suitable for the transport of Paeonies to the market place is passenger service belly-hold." Other exporters of perishable goods also stated that they could only use belly-hold freight services because of the lack of frequency of dedicated freighters. The Commission considers that these requirements lessen the substitutability of dedicated freighters for belly-hold freighters.

288. The Commission has been advised that time critical freighters require a degree of flexibility that can only be offered by belly-hold freighters, whilst dedicated freighters are primarily used by shippers who are able to ensure space in advance and deal with large quantities.

289. The Commission is of the view that not all scheduling and frequency demands are met by dedicated freighter services, as suggested by the Applicants in their submissions on the Draft Determination. The Applicants named Cargolux, Singapore Airlines and DHL as providing nine west-bound and five east-bound services each week to meet the needs of local freighters. The Commission notes, however, that these services, with the exception of two east-bound services, serve only Sydney. The Applicants' own market share information in their submission on the Draft Determination lists both Cargolux and Singapore Airlines as carrying 0% of west bound freight.

290. The Commission considers that the fact that some schedules may coincide is irrelevant. An exporter with a shipment of perishable goods will not substitute away

from using belly-hold freight unless there is a dedicated freighter available at a very similar time. Accordingly, the Commission is of the view that the scheduling concerns referred to by the Commission in the Draft Determination are valid.

291. The availability of belly-hold space depends on route structures and flight frequency, which are generated by the economics of the passenger market. With the exception of Asian Express, which flies across the Tasman, scheduled dedicated cargo airlines serve New Zealand as one inbound and one outbound sector on a longer international route that may take a week to complete. The Applicants suggest that the imbalance created by some freighters flying only in one direction is corrected by other freighters flying in the opposite direction. The Commission does not accept that this is correct. Dedicated freighters only serve a limited number of destinations with limited frequency.

292. The Commission is of the view that belly-hold freight is able to be carried at a significantly lower marginal cost than that of dedicated freight. Much of the fixed costs associated in flying planes are absorbed by carrying passengers. Belly hold freighters are able to take advantage of significant economies of density, particularly on the Tasman, as well as the obvious economies of scope available from carrying passengers and freight simultaneously.

293. The Commission is of the view that the convertibility of the Boeing 737-700C between passengers and freight as evidence of the ease of supply-side substitution is misplaced. The mere fact that a convertible aircraft is constructed suggests that it may not be straightforward to convert other aircraft between a passenger carrier and a dedicated freighter. The ability to source, lease, relocate and prepare an aeroplane in response to an increase in price is also likely to involve a significant cost. The existence of such aircraft does not address the Commission's competition concerns. Such an aircraft may make a switch to supplying dedicated freight services potentially easier, but does not suggest that substitution is easier in the other direction as belly-hold freight is ancillary to a passenger service. Thus, a switch by an airline to providing capacity in the belly-hold market in response to an increase in the price of belly-hold freight services is not likely to occur, because in order to provide such a service, it would have to be able to achieve a reasonable load factor in order to make the flight viable. Furthermore, to be of any constraint, a reasonable degree of frequency would be required. In summary, the provision of a passenger air service (and the ancillary belly-hold freight service) would not be prompted by a rise in the price of dedicated freight service rates.

294. Other factors that operate against supply-side substitutability include potential difficulties in accessing landing slots, and the costs involved in the related ground and air handling.

295. In the domestic market, however, some substitution between land and air services is feasible. Also, dedicated services operated by companies such as NZ Post may be substitutable to some degree as control over the aircraft allows scheduling to be

adjusted in relation to business demands, a possibility not relevant to the international routes.

296. The Commission considers that the substitutability between belly-hold and dedicated freight may increase with flight distance. However, it is of the view that, for the reasons outlined above, the imposition of a *ssnip* by a hypothetical monopolist of belly-hold freight services on the international routes would be profitable. Dedicated freighters do not have the necessary frequency of service or comprehensive route network of belly-hold freight services to enable them act as significant competitors. The Commission therefore considers that there is no supply-side substitution between dedicated freighters and belly-hold freight services.

297. As the Commission is of the view that the economics of belly-hold freight services and dedicated freight services mean that substitutability is weak on both the supply and demand-sides, it considers the freight services supplied on passenger flights to serve a market distinct from that supplied by dedicated freighters. There is no aggregation in the dedicated freighter market as the Applicants do not currently provide services in this market. The competition analysis will therefore be restricted to the belly-hold freight markets.

Geographic Dimension

National

298. The Applicants, in response to the Draft Determination, submitted that the domestic freight market is not relevant because Qantas did not carry freight domestically, and because Air NZ leased its domestic freight capacity to NZ Post meant that Air NZ did not participate in this market either.

299. The Commission rejects the Applicants' submission that Air NZ does not participate in the domestic freight market. The fact that Air NZ leases its space to NZ Post under contract does not alter the fact that it is a participant. The NZ Post contract merely means that it is selling space to a single purchaser rather than a multitude of purchasers.

300. Although there is no apparent aggregation in this market, the loss of Qantas as a potential entrant is a relevant consideration, as its potential to enter would be expected to affect the current competitive environment. It is therefore a relevant market for competition analysis in the present case.

International

301. In *Bodas* the Commission concluded that there were national and international air freight markets. It commented that there was nothing to be gained, in competition

analysis terms, by further differentiating international freight services into separate Tasman and other international markets.

302. In respect of the present Applications, the Commission is of the view that the Tasman market is differentiated from other international markets because of route density and possible backhauling. The Commission therefore considers it is appropriate for competition analysis purposes in this instance to consider the Tasman and international freight markets separately.

Conclusion on Air Freight Services Markets

303. The relevant air freight markets are those for:

- Domestic air freight services;
- Tasman belly-hold freight services; and
- International belly-hold freight services.

TRAVEL DISTRIBUTION SERVICES

Introduction

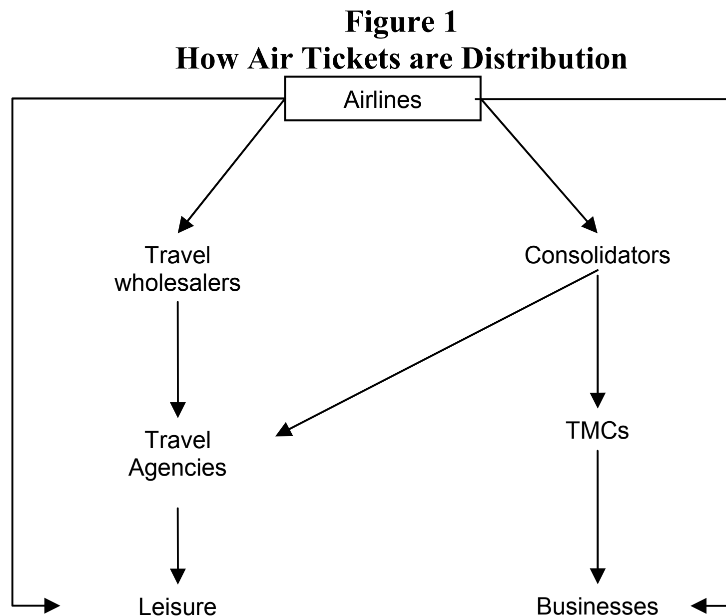
304. The travel distribution industry consists of the following types of firms:

- consolidators which purchase from airlines air tickets that are not available through the GDSs to travel agencies and travel management companies (TMCs) and sell them to travel agencies. These are generally tickets that are too complicated for GDSs to price due to their involving combinations of carriers, or tickets that the airlines prefer to sell through a few consolidators rather than through approximately 500 travel agencies;
- travel wholesalers which purchase tickets from airlines and package them with other products, e.g. accommodation and land transport, and on-sell the holiday packages to travel agencies;
- travel agencies which purchase tickets or packages from travel wholesalers and tickets from consolidators, and sell them to the general public;
- TMCs which purchase tickets from airlines and consolidators and package them with other products such as accommodation and rental cars, and sell them to large businesses; and

- airlines which sell tickets variously to consolidators and travel wholesalers, and directly to the public through the internet, by phone and through airline-owned retail travel centres and directly to businesses.

305. The various methods of selling air tickets are set out in the follow diagram:

Figure 1
How Air Tickets are Distribution



306. The travel distribution industry has changed markedly since the *Bodas* decision due to the widespread use of the internet and telephone call centres. The Internet is being used by airlines to sell directly to the public, and they have also become much more active and competitive participants in the market for the retailing of airline tickets. Air NZ reported that around 29% (on average) of bookings on NZ Express are made through the internet. The ACCC recently reported that in Australia around half of all domestic air ticket sales are through the airlines, either through call centres or through the Internet. In New Zealand, the role of travel agents is changing, with an increasing focus on “value added” services, e.g. House of Travel’s “Searchflight” service, which searches across airlines’ websites and constructs the cheapest itinerary.

Product Dimension

307. TAANZ, in response to the Draft Determination, submitted that the travel distribution services market should be split into corporate and retail/leisure markets. The distinction was suggested based on the fact that corporate travel distribution services are significantly larger in terms of volume and revenue than the leisure market, and serve a separate and distinct customer base. TAANZ said other reasons for the distinction were fares, the time of travel, how far in advance the ticket is purchased and the fact that corporate travel distribution services are handled by specialist corporate travel specialists, (TMCs). They advised that the industry recognises that there is a separate market for corporate and leisure distribution services. Gullivers

Pacific also expressed support for this approach in its submission on the Draft Determination.

308. The Commission is of the view that there is differentiation between corporate and leisure travel distribution services. However, it considers that for the purposes of considering the competition effects of the proposed Alliance, it is appropriate to view them as being two segments of a differentiated product market rather than separate markets. The Commission is of the view that such an approach is appropriate due to the fact that the competition effects on both segments are likely to be largely the same. Any differing impacts, to the extent that they do arise, of the proposed Alliance on business and corporate travel distribution, are taken into account in the competition analysis.

Geographic Market

309. The Commission considers that the relevant market is a national one. It has not received any submissions or other information to the contrary.

Functional Market

310. In *Bodas* the Commission commented that "there is nothing material to be gained by separating functional levels of wholesale and retail distribution into separate markets". The ACCC has adopted a similar approach, determining that the relevant functional market includes all stages in the distribution chain.[47] This view was confirmed in the ACCC's recent IATA Passenger Agency Programme Determination.[48] The Applicants agreed with this approach.

311. The Applicants, in their submission on the Draft Determination, argued that the ability of consumers to substitute between different levels in the distribution chain, including the ability to purchase tickets directly from wholesalers or airlines, suggested a single functional market for travel distribution services.

312. The Commission is of the view, however, that the proposed Alliance is likely to affect the wholesale distribution of travel services to a greater degree than the retailing, the latter merely experiencing the flow-on effect from the changed airline-wholesaler relationship. The Commission also believes that the product that can be purchased directly from the airlines – an air ticket - is substantially different from that which is purchased from a wholesaler, where the air ticket is bundled with other services.

313. The Commission considers that it is the relationship between the airlines and the travel wholesalers that is relevant to this matter, rather than the downstream purchase by the end consumer. Accordingly, the Commission is of the view that the ability of

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47 *Restated JSA (Joint Services Agreement between Qantas Airways Limited and British Airways Plc* (2000) ATPR (com) pp 53,498-53,499.

48 C2001/601, 13 November 2002, p 67.

consumers to purchase directly from airlines is irrelevant. The Commission therefore concludes that, for the purpose of considering the current Applications, there is a separate functional market for wholesale travel distribution services, and that it is this market that requires analysis.

Conclusion on Travel Distribution Market

314. The Commission is of the view that the relevant market is the national wholesale travel distribution services market.

CONCLUSION ON MARKET DEFINITION

315. The Commission concludes that, for the purposes of the Applications, the relevant markets are those for:

- New Zealand main trunk passenger air services (main trunk market);
- New Zealand provincial passenger air services (provincial market);
- New Zealand - Australia passenger air services (Tasman market);
- New Zealand – Pacific Islands passenger air services (NZ-Pacific Islands markets);
- New Zealand – Asia passenger air services (NZ-Asia markets);
- New Zealand – USA passenger air services (NZ-US market);
- certain other international passenger air services (international market);
- domestic air freight services (domestic freight market);
- Tasman belly-hold freight services market (Tasman belly-hold market);
- international belly-hold freight services (international belly-hold market); and
- national wholesale travel distribution services market.

5 THE FACTUAL

INTRODUCTION

316. The Commission has stated in previous decisions involving assessments of applications for authorisation under both s 58 and s 67 of the Act that it is necessary to employ a counterfactual of what might otherwise happen in the absence of the arrangements or acquisition in question.[49] This enables a comparison to be made between two hypothetical future situations, one with the arrangements or acquisition ("the factual") and one without ("the counterfactual"). Thus, the Commission makes a "with" and "without" comparison rather than a "before" and "after" comparison. The differences between these two scenarios can then be attributed to the impact of the arrangements or acquisition in question. The focus of that comparative assessment is upon the likely effects on competition, and the public benefits and detriments likely to result.

THE NATURE OF THE FACTUAL

317. As stated earlier, there are two key parts to the proposed Alliance, the proposed Arrangement and the proposed Acquisition.

318. Under the proposed Arrangement the Applicants will coordinate pricing and scheduling activities in respect of all flights operated by Air NZ (both in domestic New Zealand and internationally), and all Qantas operated flights that arrive in, depart from or operate within New Zealand (together, "the JAO Networks"). The Applicants stated that in respect of the JAO Networks, they will co-ordinate the following services and activities:

- all aspects of the pricing of the Applicants' passenger and freight services, including setting fares, rebates, levies and promotions, level of service fees, development of new fare products, pricing and promotions of holiday destinations, commissions and agency incentives and joint tendering for corporate and government accounts;

- exchange of information on schedules, financial information, pricing, yields, seat availability, sales and other information to enable co-ordination of the aspects of the parties' respective businesses referred to in the first bullet above;

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[49] For s 58 authorisations, see Commerce Commission, *Decision 473: Electricity Governance Board Limited*, 30 September 2002, paras 215-16, pp. 45-46. For s 67 authorisations, see Commerce Commission, *Decision 410: Ruapehu Alpine Lifts Ltd/Turoa Ski Resorts Ltd (in receivorship)*, 14 November 2000, para 240, p. 44. The Commission's approach accords with case law on the use of counterfactuals to ascertain whether competition has been substantially lessened. See *Gault on Commercial Law*, CA27.15(3).

- operations, routing, capacity, frequencies, aircraft types, connection requirements and range of times for any service provided as part of the JAO Networks;

- reciprocal code-share rights with each other for flights operated as part of the JAO Networks. Air NZ will also be able to code-share on flights operated by Qantas that are not part of the JAO Networks where such flights reasonably connect to JAO Network flights;

- enter into special Pro Rate Agreements on terms no less favourable than the terms offered by an Applicant to a member of the global airline alliance of which that Applicant is a member, or, in the case of Freedom Air, until Freedom Air's business model permits a Pro Rate Agreement, the provision of blocked space seats on Freedom Air flights on terms no less favourable than offered by Freedom Air to third parties;

- facilitate Qantas Holidays' maximising the provision of new tourism products which utilise the JAO Networks and promote New Zealand and Australia as a dual destination;

- subject to existing contractual restrictions, co-ordinate respective freight operations to improve the scope and availability of freight services;

- rights for members of each Applicant's frequent flyer programmes to accrue and redeem frequent flyer points on flights operated by the other; and

- co-operate and give priority to the display of each other's flights on their respective reservation systems.

319. Under the proposed Arrangement, the Applicants also, in relation to non-JAO Networks business, and where it is efficient and beneficial to do so:

- will co-operate in order to deliver additional benefits to each other's customers and frequent flyers;

- will co-operate in the identification and development of new consumer benefits, products, services and pricing strategies;

- will liaise with each other regarding fleet planning, flight operations, strategies;

- will develop and implement additional safety and security policies and co-operate on flight disruption and emergency planning and procedures;

- will explore joint purchasing options and may negotiate with suppliers on behalf of each other as expressly agreed from time to time;

- may co-operate in relation to in-flight services;

- may co-ordinate in respect of the information technology systems and requirements;

- may pursue joint human resource activities; and

- subject to any agreement Air NZ has with other airlines, may operate joint ground services (such as airport lounges, check-in facilities and baggage handling).

320. The Applicants advised that the JAO Networks, once fully implemented, would be commercially managed by Air NZ. The day-to-day flying operations would remain the responsibility of each airline. Air NZ's management of the JAO Networks would be supported by a Strategic Alliance Advisory Group ("SAAG") that would consist of three representatives appointed by each airline, and whose recommendations would have to be unanimous. Qantas would also second four Qantas employees to work alongside Air NZ personnel in the areas of network management, revenue management, pricing and sales/marketing, and these, in addition to their other responsibilities, would be responsible for keeping Qantas informed about JAO Networks operations and developments. Other secondees could be appointed to other areas of Air NZ's business.

321. Under the proposed Alliance Qantas would appoint two directors to the Air NZ Board of Directors and Air NZ would appoint one director to the Qantas Board.

APPLICANTS' VIEW OF THE FACTUAL

322. In explaining the rationale for the Applications, the Applicants projected a future in which a number of factors had combined that would make their continued separate existence difficult. Four major factors were emphasised:

- An international aviation environment in unprecedented turmoil, suffering large financial losses, and facing mounting pressure for restructuring and consolidation. Various countries had been forced to provide financial support in order to maintain the viability of their national flag carriers. Included amongst these was the New Zealand Government's support for Air NZ, although that company's difficulties had stemmed substantially from its failed investment in Ansett Australia.

- A characteristic of Air NZ and Qantas is the network nature of the services they provide, and the interdependencies between those services across a wide range of routes. The viability of any one sector depends not only upon the traffic carried on that sector, but also the feed traffic it creates for inter-connecting sectors. This network structure is complex to operate, and FSAs are burdened with historically incurred costs that new operators do not face. In addition, reductions in capacity

have the disadvantage of creating opportunities for competing airlines to enter or to expand capacity.

- Network-operating airlines had come under sustained competitive pressure from new LCCs, such as Virgin Blue in Australia, which could set up and focus on the most profitable routes, without bearing the incumbents' legacy and complexity costs associated with providing full services over a comprehensive route network.

- In Australasia, the aviation markets of the two countries had been made one under the SAM policy, which had brought Air NZ and Qantas more closely into competition with each other in their home markets. These markets are small by world standards, and historical experience showed that they have not been able to support more than one locally-based full service network carrier. For example, competitors to Air NZ's domestic services have come and gone, and Qantas's domestic New Zealand services are said currently to be loss-making. It is claimed to be difficult for Air NZ to base its operations on a relatively small—albeit rather profitable—domestic market in a geographically isolated position.

323. The Applicants considered it inevitable that absent the proposed Alliance, a lengthy war of attrition for supremacy of the New Zealand-based aviation network would erupt, particularly on the domestic New Zealand and Tasman routes, which would undermine the core of Air NZ's profitability and hence its very existence. In contrast, the proposed Alliance would circumvent the war of attrition, enable Air NZ to maintain its domestic and international operations, and put both carriers on a more secure footing to meet external "shocks" that history suggested would occur in the future.

324. The ability of Virgin Blue, by virtue of its presence in the main cities on the Australian east coast, to enter the Tasman and then the domestic New Zealand markets, would mitigate some of the anti-competitiveness of the proposed Alliance – indeed, it was considered that such entry would be greater with the proposed Alliance because of the higher prices that would obtain. Further, it was argued that the public benefits flowing from the proposed Alliance, particularly from cost savings, additional tourism and increased engineering services, would easily exceed the detriments associated with the lessening of competition.

OTHER PARTIES' VIEWS OF THE FACTUAL

Christchurch International Airport (CIAL)

325. CIAL took issue with the Applicants' argument that the opportunity for competition under the factual is greater than under the counterfactual. It said that the threat of LCC entry would provide limited constraint upon the proposed Alliance. First, under the factual, the incumbent Alliance with an LCC offshoot (Freedom Air) would operate as an effective cartel on nominated routes. Consequently, according to CIAL,

it is counter-intuitive for the Applicants to argue that a new entrant would rather enter a market and compete against a cartel than it would enter a market where two FSAs were competing head to head. Secondly, the Applicants assumed that new entrants would be prepared to limit their ambitions to the amount of the market that the proposed Alliance, in effect, would allow them.

Norman Geary

326. Mr Geary, a former Chief Executive of Air NZ in the 1980s, considered in his submission on the Draft Determination that a key assertion by Air NZ was that the proposed Alliance was necessary for the carrier to remain viable as an international airline. He considered this to be a flawed conclusion. Air NZ had in the past been one of the most effective and profitable airlines in the world. Given proper direction and management it could be so again. Air NZ could be a success without surrendering its independence to Qantas or to any other airline. The strengths of the airline were real and powerful.

327. He thought that the proposed Alliance would enable Qantas and Air NZ to perform well against its cost of capital target, but only because of the monopoly it would hold, and at massive cost to the public and other vested interests.

Origin Pacific

328. For Origin Pacific, a major concern with the factual was the impact that the proposed Alliance would have on Origin Pacific's relationship with Qantas. It considered that passenger feed that currently passed between Origin Pacific and Qantas would be diverted to pass between Air NZ and Qantas, with Origin Pacific tending to be excluded, so that the relationship would certainly diminish and very probably end.[50] Origin Pacific noted that even recently the relationship had been changed by Qantas to a shorter term with more restrictive conditions.

329. Origin Pacific stated that Qantas-ticketed passengers [

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[50] This raises an issue as to the source of Qantas's feed traffic on the Tasman in New Zealand in the factual.

Save Air New Zealand (Save Air NZ)

330. Save Air NZ argued that Air NZ's case for the proposed Alliance rested on an unproven assertion that it could only continue to operate internationally by making "excess" profits in New Zealand, and that it needed even more local profits in the future than it was now reaping. It saw the proposed Alliance as being designed to "milk" more effectively the domestic market to cross-subsidise the international market. Save Air NZ considered that this argument was flawed, and that the Government should not be endorsing it, on the following grounds:

- if the international aviation market were too tough for Air NZ, then the solution was either better management for the company, or Air NZ's withdrawal in favour of better operators;

- if the international market were not fair, for instance because other operators receive subsidies that discriminated against Air NZ, then it was up to the New Zealand Government directly to address this issue; and

- if the Government believed that New Zealand must have international links that were under the control of a New Zealand company, then this would be appropriately delivered by an arrangement of explicit subsidies.

331. Overall, Save Air NZ saw Air NZ's strategy as being flawed – it equated "big" with success, whereas internationally airlines with that goal (e.g., American) had failed. Current trends suggested that "low price" was the best strategy. Save Air NZ said that airlines have a history of making wrong predictions and strategy choices.

Virgin Blue

332. Virgin Blue's view of the factual was that it would enter the Tasman and domestic New Zealand markets sooner or later, as it would under the counterfactual, although the timing and the extent were dependent upon two factors: the likely response of Air NZ and Qantas, and its ability to access to airport facilities and slots.

333. To mitigate the first factor, Virgin Blue originally sought to acquire Freedom Air from Air NZ, since it believed that this operation [

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334. From this point Virgin Blue's focus turned to the question of access to airport facilities. The problem eventually boiled down to access to domestic terminal facilities at Auckland International Airport (AIA), since slots and airport facilities for international flights there are not airline-controlled. At the conference Mr Huttner, Head of Commercial, Virgin Blue, said that if the Applicants really wanted an

Alliance, it was surprising that Air NZ had not done everything possible to facilitate this, including assisting Virgin Blue's entry through access to airport facilities as a means of mitigating the perceived competition issues with the proposed Alliance.

335. However, the Commission has since been informed that Virgin Blue and Air NZ have now entered into an arrangement whereby, should the proposed Alliance proceed, Air NZ would supply Virgin Blue with four dedicated desks and one dedicated gate and airbridge at Air NZ's Domestic Terminal at AIA.

Wellington International Airport Ltd (WIAL)

336. WIAL considered that the proposed Alliance was anti-competitive, and the coordination it would introduce would lead to reduced frequency and capacity. Also, the proposed Alliance might not enhance the likelihood of an LCC entering the market, as claimed by the Applicants; indeed, it would discourage LCC entry, as barriers to entry were higher than the Applicants supposed. For the proposed Alliance to be constrained by an LCC entrant, it would need to tackle the incumbents head-on from day one, which WIAL considered was unlikely.

Summary of Other Parties' Views of the Factual

337. The general view of other parties was that the proposed Alliance was anti-competitive, and that although Virgin Blue might enter some markets, it would not be sufficient to constrain the market power of the Alliance partners.

COMMISSION'S VIEW OF THE FACTUAL

338. The Commission accepts that the factual scenario represents the situation in which the proposed Alliance between Air NZ and Qantas would be introduced, and that the stated terms of the Alliance would be implemented in the manner that the Applicants have claimed. In consequence, the factual would have the following main features in respect of the relationship between the Applicants:

- Qantas would subscribe for 22.5% of the voting equity in Air NZ, thereby furnishing the company with additional capital of $550 million;

- Qantas would appoint two directors to the Air NZ Board, and Air NZ would appoint one director to the Qantas Board;

- the Applicants would coordinate pricing, capacity, schedules and all other aspects of normal business operations on the JAO Networks;

- the Applicants, where they consider it would be beneficial to do so, would co-ordinate scheduling and pricing, and take any other action contemplated by the proposed Arrangement, in respect of operations on non-JAO routes;

- there would be exchanges of a wide variety of types of information related to pricing yields and other matters needed to underpin the coordination planned; and

- Air NZ would manage the commercial aspects of the JAO Networks.

339. The Commission is of the view that although the JAO Networks would be managed by Air NZ, and the day-to-day flying operations would remain the responsibility of each airline, Qantas would not be acting as a competition constraint on the JAO Networks, and would in fact be in a position to exert a substantial degree of influence over all of Air NZ's operations. This substantial degree of influence would arise through its shareholding, Board directors, its position on SAAG, and its secondees within Air NZ's management.

340. In terms of the impact on competition (which is considered and explained further below in the sections on the counterfactual and competition analysis), the impact of the proposed Alliance in the relevant markets would include the following effects:

- the competition currently existing between Air NZ and Qantas, both directly and indirectly (through Qantas being a near or potential entrant, or through offering an indirect route alternative to Air NZ's route), would be eliminated;

- Air NZ would be likely to shift from the Star Alliance to join Qantas in the oneworld Alliance;

- Freedom Air and Air Pacific would be prevented from competing against the JAO Networks or to operate in a manner contrary to the interests of the proposed Alliance;

- Competition from other international carriers flying between Auckland and Australia, as part of longer international flights, would continue;

- Virgin Blue would enter to a limited extent, and there are no other new entrants that have been identified, or are likely; and

- the competition on New Zealand provincial routes offered by Origin Pacific would be reduced by the ending of its code-sharing arrangement with Qantas.

341. In short, given the comprehensive nature of the proposed Alliance, and the fact that it would bind together on common routes and related activities the two major airlines in Australasia, it would be expected to have a substantial impact on competition in a

number of aviation and related markets. Indeed, Mr Norris at the conference spoke of the Alliance as having "a significant element of anti-competitiveness".[51]

[51] Conference transcript, p. 72.

6 *THE COUNTERFACTUAL*

INTRODUCTION

342. As noted above, the Commission employs a counterfactual of what might otherwise happen in the absence of the arrangements or acquisition in question. This enables a comparison to be made between two hypothetical future situations, one with the acquisition, the factual and one without, the counterfactual. In framing a suitable counterfactual, the Commission bases its view on a pragmatic and commercial assessment of what is likely to occur in the absence of the arrangements or acquisition.[52]

THE APPLICANTS' VIEWS

Introduction

343. The Applicants each provided their own views on the counterfactual, some of which information was confidential. Each is examined in turn.

Air NZ

344. In its submission on the Draft Determination, and at the conference, Air NZ reaffirmed its view that in the counterfactual, it will be the loser in a capacity war with Qantas and Virgin Blue. It drew comparisons with Ansett Australia, which went from relative profitability to liquidation in 18 months. Air NZ considered that it was not currently, and was unlikely to be, in a position to thwart Qantas's expansion plans by substantially increasing the size of its own fleet (only a modest expansion was planned). Its position was exacerbated by the likely entry of Virgin Blue on the Tasman and domestic New Zealand. "The presence of these two substantial and well-resourced competitors with broad-based Australian operations would inevitably create a 'squeeze' on Air NZ leading to declining overall profitability."

345. Air NZ gave the following reasons for this view:

- Air NZ's viability is dependent on its earnings from its core domestic New Zealand market, which was under attack from Qantas, and which had never supported two profitable FSAs ;
- the network and city-presence advantages it had enjoyed hitherto were under threat ;
- the likely entry of Virgin Blue, which would add to the squeeze on the company;

[52] See the discussion in: Commerce Commission, *Decision No. 277: New Zealand Electricity Market*, 30 January 1996, p. 16.

- Air NZ's improved performance in 2002 heavily reflects the factors of reduced fuel costs, the strengthening dollar, the withdrawal of United Airlines, a favourable market for leasing and buying aircraft, its relatively favourable position to withstand recent shocks affecting other regional airlines, and the delays in Qantas replacing Tasman Pacific after the latter's collapse ;

- the company's profits were likely to decline substantially after 2003, resulting in inadequate returns and non-replacement of capital;

- its weakening position might encourage competitors to compete more strongly to gain market share;

- the airline would be more vulnerable to external shocks, which occur periodically in the aviation industry;

- [ ]

346. The outcome in Air NZ's view was that, absent the proposed Alliance, the options available to it were few and unattractive: [ ]

347. The possibility of Air NZ expanding into the Australian domestic market was raised as a possibility at the conference. This might enable it to contest Qantas's home base, as Qantas is contesting Air NZ's home market. However, the response from Air NZ was that the company lacked a viable business plan and capital for such an expansion into Australia.

348. A further possibility—that Air NZ might convert itself into a low cost carrier—was also put to it at the conference. The response was that this had been investigated, but that the redundancy and other costs would amount to about [ ], which would be prohibitively expensive.

349. A managed slow contraction seemed to Air NZ to be the most likely strategy should the proposed Alliance fail, although Air NZ argued that this would give rise to the possibility of a 'death spiral'. It said that the difficulty is that with contraction and

withdrawal from routes, revenues would tend to decline faster than costs, so that it would not necessarily be a viable long-term solution.

350. In a confidential conference session, [ ]

351. Air NZ engaged PricewaterhouseCoopers (PWC) to model Air NZ's financial position and prospects using the Cameron & Co base model provided to the Commission at the time of the Commission's initial consideration of the Applications. PWC tested the model and was satisfied with its outputs under a variety of input assumptions.

352. The "Base Case" for the modelling was the Applicants' Counterfactual described in the Applications and in the NECG Report of 8 December 2002. In the domestic New Zealand market this assumed an increase in Qantas's capacity from [ ]. In addition, PWC updated and adjusted the model to take account of a number of matters, including the following:

- current passenger demand forecasts prepared by Covec, which were not available when the original projections were derived;
- the expected Qantas fleet size in domestic New Zealand to reflect slower fleet growth to [ ] aircraft by 2008;
- an adjustment for the effects of inflation, and for changes in the exchange rate, on the grounds that the original financial forecasts prepared by Cameron & Co did not incorporate the impact of inflation, and were prepared before the New Zealand dollar rose to its current levels;
- a QSI adjustment to take account of Air NZ's B767-300 product degradation;
- upgrades for Air NZ's B747-400 aircraft including in-flight entertainment and seating;
- fleet maintenance adjustment where aircraft age exceeds six years;
- an adjustment to the opening financial position for the model, based on the forecast provided by Air NZ management as at March 2003;
- an adjustment for cargo losses of [ ] per annum, as a consequence of the introduction of the narrow-bodied A320 aircraft, which was not included in the original model; and

- a city presence adjustment based on the reducing city presence "dominance" enjoyed by Air NZ as a consequence of increases in capacity by Qantas.

353. PWC also modelled the financial impact of the entry of Virgin Blue into the New Zealand domestic routes. For the purpose of modelling, it assumed Virgin Blue would enter with four aircraft in 2004, and add one aircraft in each of 2005, 2006 and 2007. The modelling incorporating these revised and updated assumptions is denoted as the Adjusted Base Case.

354. PWC also considered Air NZ's ability to withstand a range of possible changes to the competitive environment, and possible external "shocks" of the type that the aviation industry regularly experiences. It compared the results produced by possible external "shocks" against the Adjusted Base Case (plus LCC on New Zealand domestic). It did not model these "shocks" on a cumulative basis. Shocks modelled were:

- the impact of a decision by Qantas to match Air NZ's capacity on main trunk domestic routes from 2006;

- the impact if the routes to and from New Zealand to Japan were to become fully competitive, and other carriers competed the projected returns away;

- the effects of a 50% reduction in assumed passenger growth in 2004; and

- the effects of an appreciating US dollar.

355. PWC's views of Air NZ's financial position in the company's counterfactual were as follows.

- [

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356. Overall, Air NZ at the conference summed up the situation by saying that in the counterfactual it lacked a strong business structure and balance sheet, and that [ ]

Qantas

357. In its submission on the Draft Determination, and also at the conference, Qantas's view of the future without the proposed Alliance remained unchanged. It would continue its planned expansion on the Tasman and domestic New Zealand routes in competition with Air NZ and the expected new entrant, Virgin Blue. Qantas considered that the network and city-presence benefits it possessed made its counterfactual the most profitable in the absence of the proposed Alliance. It also pointed out that there were a number of other factors that supported its view of the counterfactual, as follows:

- Qantas had made a substantial commitment to the New Zealand domestic market by virtue of its entry with JetConnect;
- it was a natural progression for Qantas to maintain its New Zealand presence under the SAM, and with the demise of Tasman Pacific; and
- the New Zealand-based JetConnect operation had a lower cost base than the airline's core operations, and it had plans to expand JetConnect on to the Tasman.

358. Qantas disputed the Commission's questioning in the Draft Determination as to whether Qantas's counterfactual of the so-called "war of attrition" would reflect commercially rational behaviour, in the face of financial losses and government support for Air NZ. It argued that its proposed increase in capacity would be commercially rational, rather than reflecting unrealistically intense competition or a "war of attrition". Qantas viewed its planned expansion as a steady and gradual erosion of Air NZ's market share through competitive pressure.

359. To other comments on its counterfactual, Qantas responded as follows:

- it disagreed with the view that it would be capacity dumping, and so would need to be able to raise prices subsequently to recoup losses;
- it stated its belief that JetConnect was not higher cost than NZ Express, and so it would not lose disproportionately from price-cutting; and
- it considered the counterfactual to be profitable when network and city-presence effects were taken into account.

360. Qantas's counterfactual schedules indicated that between 2002/03 and 2005/06 (Year 3), its capacity in domestic New Zealand would increase from five to [ ] Although this expansion seemed [ ] Qantas stressed that the following points needed to be recognised:

- Qantas's domestic NZ operations were still in an early stage of development;

- some of the additional capacity is intended to be a replacement of code-shared capacity on Origin Pacific;
- [ ]

361. Qantas pointed out that capacity changes on the Tasman in the counterfactual occur at a lesser rate. The only new city-pair that Qantas plans to operate is [ ]

362. [ ]

363. In response to the Commission's statement that if capacity expansion were Qantas's optimal strategy it would be evident now, Qantas stated that implementation of the counterfactual is now well advanced despite events outside of its control. These events included:

- the sudden demise of Tasman Pacific on 21 April 2001;
- the time needed to consider its options, and to introduce the new schedule that commenced in July 2001;
- the need to expand capacity in response to the collapse of Ansett on 12 September 2001 in Australia using Australian crew from New Zealand, and hence the temporary switch to wet leased aircraft for NZ operations; and
- the termination of the wet lease arrangement forcing a further reconsideration of strategy, leading to Qantas purchasing the wet lease operation.

364. Qantas argued that network benefits should be added to route profitability (or at least be evaluated) in determining the commercial rationality of operating different routes. Mr Dixon, CEO of Qantas, said at the conference that he would prefer not to have been in the New Zealand market because it was a tough market in which to make money, and Qantas was only here because of the connecting traffic. In early 2001, in considering options for domestic New Zealand, Qantas estimated that the following would apply:

- their JetConnect operations [ ] on a fully costed stand-alone basis;

- New Zealand sales generated revenues of about $[ ] for Qantas's international network, and about $[ ] for Qantas's domestic Australia routes;
- Qantas took the view that without a strong New Zealand presence, the profit before tax associated with these revenues would [ ]; and
- that in the absence of the proposed Alliance, the Qantas counterfactual yields greater profits than the Commission's counterfactual.

365. Qantas stated that in addition, city-presence benefits would also need to be considered. Such benefits arise through the largest carrier tending to achieve a larger revenue share on routes from the city than its capacity share (when adjusted for service quality variations), partly because high yield passengers tend to travel more with the largest carrier because it offers the greater frequency of service. Using US data, APG estimated that revenue share gaps for carriers ranked first to fourth are on average respectively: 11%, -6%, -17% and -20%. According to this analysis, in the US only the first-ranked carrier achieves a revenue share greater than its capacity share. However, Qantas argued that it would narrow the capacity gap in comparison with Air NZ in Christchurch and Wellington, though to a lesser extent in Auckland, and APG estimated that this would generate extra revenues of $[ ] annually.

366. Qantas stated that Origin Pacific provides wet lease of ATR capacity and code-sharing services to Qantas. The present arrangement expires on [ ]. The relationship might continue under either factual or counterfactual in some form. However, at the conference Mr Edwards [ ] Qantas speculated that Origin Pacific might form an alliance with Virgin Blue, or even with fifth freedom operators.

Summary of Applicants' Views

367. The Applicants consistently stated that they had independently come to the conclusion that the relevant counterfactual was one of a more aggressive level of competition between them in the absence of the proposed Alliance, resulting in increased capacity being applied to material parts of their Australasian networks. Although this had been called a "war of attrition", it was to be seen not as a short-term period of especially intense competition, but rather as a gradual erosion of Air NZ's market share.

368. Qantas stated its intention to materially increase capacity on the New Zealand domestic main trunk and, to a lesser extent, Tasman routes. This was said to be consistent with its business model, central to which are network considerations and frequency of service in order to attract high yield business accounts and tourism movements. Air NZ would react by slightly expanding its capacity as a way of meeting this threat to its network profitability. Air NZ would also be vulnerable to

market share loss from the entry of Virgin Blue, despite having recently introduced its new NZ Express service on its domestic operations, and the extension of that service to the Tasman routes.

369. Air NZ argued that the competition between the three airlines would not be sustainable, and that one of them—most likely Air NZ, being the financially weaker—would ultimately be forced to reduce capacity. In its cross-submission, Air NZ disputed claims that it was now stronger than when it had filed the Applications, saying that such statements ignored evidence to the contrary, including that NZ Express did not provide assurance that the company would be sustainable in the long-term. Rather, it pointed out that it had made economic losses to date, and that it would continue to do so in the counterfactual, regardless of how this was specified. Hence, it could not remain viable, nor could it attract required investment from capital markets. [ ], it did not seek to claim the failing firm defence.

370. Other possible scenarios that the Applicants had raised in their Applications but had previously dismissed (e.g., status quo, cosy duopoly, alternative alliance for Air NZ, Air NZ receiving stand-alone equity injections from shareholders) were not reconsidered in their submissions on the Draft Determination, or at the conference.

PUBLICLY RELEASED GOVERNMENT PAPERS

371. The New Zealand Government holds one share ("the Kiwi share") in Air New Zealand Limited. That share has special rights attached to it, principally relating to the maintenance of the status under which New Zealand international air rights are held and are used by Air NZ, and the related economic value of those rights. It also prevents Air NZ from changing its name, or from relocating overseas.

372. The Commission has had no communication from the Government in relation to its status as a principal shareholder, or in relation to its separate status in respect of the Kiwi share.

373. The Government has made a public statement in relation to the present Applications from a principal shareholder and from a Kiwi shareholder perspective:[53]

> We have made it clear that the proposal will have to satisfy all the normal regulatory and competition criteria. There is no way we will intervene legislatively to remove or even lower any of those hurdles. Only after this process has been completed will the government be in a position to make a final decision.

374. The Government has a separate status in relation to its adoption and implementation of policies including economic policies. Section 26 of the Act requires the

[53] Press release of 25 November 2002 by the Hon Dr Michael Cullen.

Commission to have regard to economic policies of Government if they are transmitted in writing to the Commission.

375. No statement of economic policy under section 26 has been issued by the Government to the Commission.

376. Accordingly, the Commission is not required to and has not identified, or taken into account such policies (if any) as the Government may hold in relation to aviation or economic matters affecting the present Applications.

377. The Commission has given consideration to the shareholdings in Air New Zealand in assessing the Applications and the arrangement. This is necessary where matters such as access to capital, governance, and board membership and control arise. Where these issues have been considered, reference is made to that at the relevant part of this Determination.

378. In considering the shareholdings in Air New Zealand, the Commission has principally considered the position of the majority shareholder. At present, control is held by the Government as majority shareholder.

379. The Commission has identified a number of points relevant to the likely counterfactual from public Government papers, from the period 2001-02. These principally contain information and advice received by the Government on its decision to take up a majority shareholding, and the later decision to permit Air New Zealand to pursue the proposed Alliance. A brief summary of these points follows.

380. First, the Government as shareholder believes that the state of the aviation industry worldwide makes it difficult to find investors willing to put funds into airlines. The need to exercise air rights internationally limits foreign ownership in Air NZ to less than 50%, which means that the key investors must be New Zealand nationals. The Government has disclosed that the Treasury received advice in December 2002 that Air NZ would be unlikely to be able to source the large amount of capital needed from the domestic market given the company's then fragile position and the risks present on the aviation industry. The Government has been advised that the presence of the Crown as majority shareholder would also reduce the attractiveness of investing in the company for some investors.

381. Secondly, the Government stated that it believed there was no interest by other potential strategic partners in forming an alliance with Air NZ. Singapore Airlines in particular was believed by the Government not to be interested in an alliance with the company. The known prior interest of Singapore Airlines in 2001 was when Air NZ had owned Ansett, which offered access into the Australian market to a purchaser of that airline.

382. Thirdly, the Government, in its public papers, has signalled its intention to remain a majority shareholder in Air NZ over the foreseeable future, and to maintain the

company's long-term viability as an international airline. In terms of the national interest considerations, it has stated that it is committed to maintaining the following: a clear majority ownership and control of the company by New Zealand nationals; a continuation of the company's ability to exercise the country's existing and future air rights; the unique New Zealand identity of the company; effective channels for international tourism and travel; a durable domestic air services network; and New Zealand-based employment.

383. Fourthly, in the absence of the proposed Alliance, the Government believes there would be a high probability that the Crown would be required to inject additional equity into Air NZ in the medium term. This is stated by the Government to be an unattractive proposition if cuts in the funding for health or education were required. This is regarded as a clear risk to the Crown as shareholder.

384. Finally, in December 2002 it was reported in the documents disclosed by the Government that Air NZ's current financial position was better than forecast at the time of recapitalisation at the end of 2001. Early results had exceeded targets in the five-year business plan. Nonetheless, the company remained vulnerable because of its dependence upon its domestic routes, which are the only economically profitable ones (in terms of profits meeting the company's desired 15% return), and which were vulnerable to increased competition from Qantas or a new entrant.

385. The Commission has noted a comment in the Government papers that financial analyses suggested that the proposed Alliance was likely to be the most profitable for Air NZ, and also the one that minimised downside risks. In that context, the Commission can understand that the majority shareholder in Air NZ, whoever that might be, would be likely to support the Alliance proposal. The Commission has given these views no special or added weight because the majority shareholder happens to be the Government of New Zealand.

SUBMISSIONS OF OTHER PARTIES

CIAL

386. CIAL, in its submission on the Applications, considered that although the Applicants postulated a factual and a counterfactual, within a relatively short term the two would converge, in that where there were presently two airlines—Air NZ and Qantas—ultimately there would be one (the proposed Alliance or the survivor of a competitive war).

387. It also considered it unwise to assume there would be new entry, including LCC entry. Historically speaking, such entry has been unreliable, and current market trends suggested that it could not be relied upon.

388. In its cross-submission, CIAL pointed out that "getting it wrong" could produce an outcome that could lead to the failure of Air NZ, which would be costly to the company and the country. CIAL could not see Qantas, in place of Air NZ, as providing other than a "Tasmania II" level of service. CIAL believed that Air NZ's ultimate problem will be the need to obtain new aircraft for its long-haul routes, as over the next five years the company will come under intense competitive pressure to upgrade its ageing fleet at huge cost. CIAL believed that it would not be a viable strategy, either operationally or financially, for Air NZ to scale back to a domestic plus Tasman operation.

Norman Geary

389. Mr Geary noted in his submission on the Applications that in the past Air NZ had been very successful by focusing on domestic and Pacific routes. He said an airline did not have to be large to be successful. In the past Air NZ had faced and overcome similar challenges to the one it faced today. Mr Geary stated that Air NZ could overcome the current challenge if it were properly managed.

390. Mr Geary argued that profitability performance needed to be considered over the longer term in the context of industry-wide performance. The PWC Cost of Capital report of December 2002 indicated that the WACC for Air NZ was 10.7%. Mr Geary questioned what the WACC had been over the last 10-20 years for the company, and how this compared with the aviation industry WACC over the same period. Without having access to the specific numbers, he suggested that analysis would show that the airline industry had generally fallen short of WACC. Airlines generally had been very poor performers in profit terms. Air NZ had performed much more credibly, particularly in the first 10 of the past 20 years.

Gullivers Pacific

391. In its submission on the Applications, Gullivers Pacific noted that Air NZ had a history of seeing off reasonably established rivals in its home market like SPANZ, Mount Cook, Newman Air, and Ansett New Zealand, as well as new entrants like Kiwi International. Air NZ was well equipped to defend itself against competition in most sectors of the New Zealand air services market because of its brand strength, flag carrier loyalty, home ground advantage, and the most comprehensive direct and indirect air services sales and distribution networks in the country. It was also the dominant New Zealand provider of essential aviation support services, such as engineering, flight crew training facilities, and ground-handling services. Gullivers Pacific suggested that Air NZ could re-enter the Australian domestic market on a selective basis in its own right via Freedom Air, or through a partnership with Virgin Blue.

392. Gullivers Pacific, in its submission on the Draft Determination, argued that Air NZ is surviving in a very competitive market and is earning a return on shareholders' equity of about 25-35%, which is greater than many other major public listed New Zealand companies. Its financial viability would be considerably improved if, like Qantas, it were to reduce its staffing in line with its reduction in ASKs. It also had just taken an extra $100 million from Qantas, and it had the option of calling in another $150 million from the Government if that were required. It could also go to the public to raise additional funding, like Qantas and other airlines had done. The question of sufficient capital depended on a number of factors. Gullivers Pacific said that if the present Government as major shareholder were not to strip profit from the company, and continued the approach it had adopted with respect to Tranz Rail and other essential services, and the Management and Board acted responsibly in building up the company's capital and reducing debt, then Air NZ would have a secure future.

393. Gullivers Pacific considered that Air NZ had a very viable business operation in the near term if it were well managed. The Government had become a cornerstone and majority shareholder with no apparent intention of taking actions that would threaten the solvency of the company. Air NZ was a very valuable brand name on its balance sheet. Furthermore, it is implicitly protected from competition in the Australian, New Zealand and Tasman markets to the extent that New Zealand and CER Aviation Policy restricted foreign airline entry.

394. Gullivers Pacific submitted that the financial position of Air NZ had already recovered very rapidly from the time of the Ansett crisis, September 11 2001 and the range of more recent airline market shocks. Airlines are risky ventures by general industry standards, with the result that their financial positions have a high variance. Air NZ had just emerged from a low profit period and it was currently performing quite well in a relatively difficult international environment. It would have high and low profit periods in the future. Air NZ would survive the highs and lows, although the structure and ownership of the airline could be expected to change over time.

395. Gullivers Pacific noted that PA Consulting (in advising on Air NZ's recapitalisation) had identified that a lack of focused leadership at Air NZ had delayed the synergistic integration of Ansett and Air NZ, and expected savings had not been realised. This highlighted that leadership, effective management and good governance would determine the outcome.

396. Overall, Gullivers Pacific concurred with the Commission's view in the Draft Determination that it would be irrational for Qantas to initiate a "war of attrition" against Air NZ. It noted that Qantas's earnings per share declined persistently from 42.8 cents in 2000 to 29.1 cents in 2002, and that the company had announced A$1 billion of cost-cutting over the next two years, implying that it was not in good shape, and in no position to wage a "war of attrition". That was not to say that Air NZ might not find itself in a difficult financial situation as competition from all sources, including Virgin Blue, intensified. However, that might occur with or without the proposal.

397. Gullivers Pacific also emphasised that, from the national economic welfare point of view, financial losses to Air NZ's current shareholders did not necessarily represent a loss in welfare. This would only occur if Air NZ were not able to emerge from a possible receivership as a going concern, or if the new post-receivership owners were mainly foreign. It noted that there had been significant interest among New Zealand investors in taking a stake in Air NZ, and that the international aviation rules are likely to require that the majority of future owners be resident in New Zealand. Hence, any market outcome that would result in Air NZ going into receivership, but the services and the assets re-emerging as a going concern, would have almost no impact on the national economic welfare. Rather, it would represent a transfer of wealth from one group of New Zealanders to another.

398. Gullivers Pacific agreed with the Commission's view in the Draft Determination that a less aggressive form of competition was the more likely outcome, and that the "war of attrition" was unlikely. It was of the view that Qantas's Board would not approve use of scarce resources to an activity involving substantial loss of revenue without prospect of recoupment. Price wars have occurred from time-to-time in the past, but these had been curtailed by profit considerations. Both companies had sufficient funds for a long-drawn out "war" that would be mutually damaging. Air NZ's financial position had improved, and the Government would continue to be a major shareholder until investor confidence returned. Air NZ would have the opportunity to seek other suitable partners over the longer term. Incremental expansion by other airlines on Tasman and domestic was possible, but Air NZ would continue to be the dominant player provided it focused on customers.

399. Gullivers Pacific also questioned the size of the network benefits claimed by Qantas from operating in domestic New Zealand. It argued that the scope for feeder traffic in New Zealand was limited as main trunk airports had their own direct connections to Australia, and Qantas did not seem bent on expanding onto provincial routes.

400. Gullivers Pacific considered it unlikely that Virgin Blue would enter the New Zealand main trunk or provincial routes under either factual or counterfactual to such a level that it would provide significant competition. Virgin Blue's entry on the Tasman was much more likely in the counterfactual than in the factual.

401. In its cross-submission, NZIER/Hazledine for Gullivers Pacific put forward their view that should one of the incumbents be forced out of New Zealand, Qantas was the more likely to go, given Air NZ's current cost and market share performance, and its many other natural advantages in its home market.

Infratil et al

402. In its submission on the Applications, Infratil et al disagreed with the "war of attrition" counterfactual proposed by the Applicants. First, they took issue with the contention that the Australasian markets are not able to support "more than one locally based full service network carrier." They recognised that although this may be the case for the relatively small domestic New Zealand market, this could not be said of the Tasman or domestic Australian markets. Ansett failed for reasons other than the ability of the market to sustain two full service carriers. Air NZ's results over the past year, and forecasts for the current year, also ran counter to this view, as did the fact that in recent years there had been entry on the Tasman from fifth freedom carriers serving Auckland.

403. They followed this by arguing in their submission on the Draft Determination that Air NZ was in the process of demonstrating, contrary to the theme running through the Applications, that "size is not everything". They pointed out the following.

- The airline's performance had improved significantly since the introduction of NZ Express in November 2002, with increases in RPKs and load factors. This, combined with Qantas's preoccupation with other problems, had allowed Air NZ to strengthen its grip on the domestic market.

- Although the international aviation industry was said to be in crisis, with IATA airlines losing US$25BN in 2001 and 2002, the Asia-Pacific region had been less badly affected (except by SARS), and Air NZ less badly again. Its capacity reduction on its Asian routes was much less than that of Qantas. Profit of $200 million had been forecast for 2002-03, the company's gearing had fallen, and there seemed to be no urgency to proceed with the announced rights issue. Some analysts had predicted (accurately as it turned out) a second-half loss for Qantas, reflecting in part the redundancy cost of 4,000 staff, and its market capitalisation has fallen A$0.5 billion since the announcement of the proposed Alliance.

- International visitor arrivals had bounced back in New Zealand, but remained well below trend in Australia. Visitor arrivals from the US had increased despite the departure of United. Air NZ has strong code-sharing arrangements at Los Angeles.

404. Secondly, Infratil et al argued in their first submission that the proposed "war of attrition" counterfactual was incorrect for the following reasons:

- Qantas already had a strong presence on Tasman and domestic New Zealand routes (including via its code-sharing with Origin);

- the success of Air NZ's new, lower cost, NZ Express service suggested, contrary to the assertion of the Applicants, that Qantas would be more vulnerable to LCC entry than Air NZ;

- it is doubtful that Qantas's Board and shareholders would accept mounting losses on the company's New Zealand services, especially given that the airline would be under pressure from Virgin Blue in the domestic Australian markets;

- the behaviour in the war of attrition would invite charges of predatory pricing which, if proved, would be a breach of the Act; and

- it is extremely unlikely that the Government, following its bail-out of Air NZ in 2001, would stand by and let the airline collapse in the face of increased competition from Qantas.

405. Instead, Infratil et al proposed that a more likely counterfactual was that Air NZ would take more time to settle on a long-term strategy, and in the meantime would proceed with its remodelling plans announced last year, which included extending its Express service to Tasman routes and reviewing its long-haul services. The company might need to receive financial backing from the Government, but with improving performance it might be able to go to the domestic capital market for funding. Airlines in the Asia Pacific region had been recovering strongly, and New Zealand tourism had benefited from the country being perceived as a safe destination. Singapore Airlines could re-emerge as a potential alliance partner, and given the dynamic nature of the airline industry other potential partners could emerge in time.

406. Infratil et al argued that it was virtually inevitable that post-Alliance, Air NZ would move from the Star Alliance to the oneworld Alliance. They said that New Zealand has benefited greatly from having two competing airlines based in different global alliances. Loss of Star Alliance membership would reduce tourism from the country's top five tourism markets. Air NZ had recently continued to negotiate new or extended codesharing arrangements with Star Alliance partners, indicating the value of that alliance to it.

407. In their cross-submission, Infratil et al considered that the Applicants' view of the counterfactual rested on the assertion that there was insufficient room for two FSAs in the New Zealand domestic market, and still less so with an LCC entrant because the FSAs' cost base would be at least 12.5% higher. They countered this view on two grounds. First, they claimed that Virgin Blue had adopted a number of extra services

and products that had brought it closer to NZ Express, that there was no evidence to show that Virgin Blue had a cost advantage, and that any start-up advantages it had might dissipate over time. Secondly, they questioned Air NZ's claimed inability to reinvent itself as an LCC. The company had pioneered the Express concept, and had seven years experience with Freedom Air. The transformation of all but long-haul routes into low cost operations would appear a much more rational and life-preserving strategy than "war of attrition". Even so, Air NZ's Express and Freedom would seem to give it a reasonable armoury to contest the market against Qantas and Virgin Blue, and it could be that Qantas, not Air NZ, would be the loser.

Invercargill Airport

408. Invercargill Airport pointed out in its submission on the Draft Determination that recent profit forecasts attributed to Air NZ did not appear to take account of the huge benefit of the appreciation of the NZ dollar since the start of 2003. Since a majority of airline costs are US dollar based (aircraft, spares, leases, insurance, etc.) the effect of a sharply rising NZ dollar has a powerful impact on Air NZ's bottom line. Adjustment for this windfall would probably reveal a much less optimistic position and would underscore just how risky the airline business is.

Origin Pacific

409. Origin Pacific, in its submission on the Applications, said it did not believe the "war of attrition" counterfactual. It considered it more likely that a cosy duopoly would form. There might well be other potential alliances for Air NZ in the future. The scope of Air NZ's international business might change, but this was a natural requirement regardless of other circumstances.

410. In its cross-submission, Origin Pacific supported the views of others about Air NZ's stronger position, and about the downplaying of the proposed "war of attrition" counterfactual. At the conference Mr Marks, Managing Director of Origin Pacific, said that Air NZ had a strong record of defending its domestic position.

411. Origin Pacific also argued that there would be a far greater chance of the Qantas/Origin Pacific relationship continuing in the counterfactual than in the factual, as each would still have passenger feed to offer the other. With the proposed Alliance this would no longer be the case, as Qantas feed would be diverted to Air NZ's provincial services. However, as noted above, [

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Polynesian Airlines

412. Polynesian Airlines, in its submission on the Draft Determination, argued that because of 'national flag carrier' status and protection from foreign takeover, there were too many airlines and excess capacity in the international industry. It considered that in general airlines do not return their cost of capital. Business failures occur frequently, but liquidation does not follow as States are forced to bail out airlines having sole designation. Most national flag carriers probably would not continue to exist but for the support from their governments. It subsequently claimed that Air NZ had already met the test of a failed company insofar as it had had to be rescued financially from collapse by the Government on behalf of taxpayers. This could happen again, as Air NZ implied in its counterfactual.

413. A "war of attrition" was considered by Polynesian Airlines as an accurate description of what happens in the aviation industry, and what was likely to be repeated in the present case in the absence of authorisation of the Applications. Airlines have very high fixed costs, thin margins, fluctuating revenues, and poor results. Airlines are driven by the need to spread fixed costs thinly to maximise turnover, and thus market share, as loss of share means a loss of competitiveness that cannot be tolerated. Both Ansett NZ and Tasman Pacific failed with large accumulated losses.

414. Polynesian Airlines believed that the Applicants were under threat from new competitors with more efficient business models. It considered that flag carriers belong to a species threatened with extinction, and that the Applicants' perception of their threatened future is not exaggerated. The Applicants' current business models were failing, hence their anxiety to achieve change. They had not been returning the cost of capital over at least a decade. The difficulties for Qantas and Air NZ could be dated roughly from the dates of their respective privatisations that took them out of government ownership.

415. In its cross-submission, Polynesian Airlines argued that the view of others that Air NZ had substantially recovered is not valid. The profit it would show this financial year reflected the extraordinary gain from a massive exchange rate improvement against the US dollar, without which the company would likely be operating at a loss. The lower financial gearing reflected repayment of debt using the Government capital injection, not enhanced profit. The NZ Express initiative had not led to a material reduction in costs or increase in profit, despite increased traffic. Polynesian Airlines supported Air NZ's contentions about its difficult operating situation and lack of financial strength in the counterfactual.

Save Air NZ

416. Save Air NZ submitted that there is no reason to give a doom scenario any more credibility than several others in which Air NZ could be a very successful company providing services of excellent quality at low cost. The factors that led it to this view were the following: Air NZ suffered from no intrinsic weakness relative to Qantas;

the company had shown itself to be a very tough competitor for value airlines (witness Kiwi International); it had a lower cost base and lower cost per seat-kilometre than Qantas; Freedom was reputed to have a lower cost base and lower cost per seat-kilometre than Virgin Blue; Air NZ's major and supportive shareholder was the New Zealand Government, which had considerable ability to support the airline into profitable growth if called upon to do so; and the New Zealand investing community had indicated a willingness to invest in the company.

417. Save Air NZ pointed out in its submission on the Draft Determination that since the Applicants lodged the Applications with the Commission in December 2002, Air NZ has retained its value in the share-market, while Qantas had seen a fall of about A$500 million in its market value. In the six months to 31 December 2003 (presumably it meant 2002) Air NZ carried 4.7 million passengers, made a net profit of $138 million and had a free cash-flow of $325 million. Its planes flew at 75.8% capacity (average for the last five years 69.4%), with international services 76.6% full (against a five year average 70.3%). The so-called "vulnerability" of Air NZ may have been a fact a year ago, but this was no longer the case.

418. Save Air NZ noted that after the Commission released its Draft Determination there were a number of comments from Air NZ and some Government Ministers that Air NZ needed Qantas's money. It was also suggested that the Commission seemed to think there was a fairy godmother willing to provide the capital if Qantas was disallowed. In this context, Save Air NZ noted the following:

- Air NZ and Qantas both had similar equity / total asset ratios, especially if equity were valued at sharemarket capitalization. There was no compelling case that Qantas had $500 million of cheap capital to provide to Air NZ. Nor was there compelling evidence that Air NZ needed $500 million.

- In its most recently reported six months, Air NZ provided free cashflows (after financing costs) of over $300 million.

- No one could believe that the capital markets would fail to fund a convincing business plan that showed a reasonable prospect of providing a satisfactory return on capital employed.

419. Save Air NZ suggested that Air NZ was predicting doom because it seemed to be "putting the bar too high" and that Air NZ had set itself the target return on capital of 15% per annum before tax, which was unrealistically high.

Tourism Industry of New Zealand (TIANZ)

420. The TIANZ, in its submission, appeared to view the central issue as being a regulatory one in which there were four possible outcomes, as follows:

- the status quo, involving a continuation of head-to-head competition with new domestic and Tasman entrants seeking a sustainable (profitable) market share;

- the proposed Alliance, involving the key incumbent suppliers providing the majority of domestic and Tasman services;

- a regulated Air Services Network on domestic and Tasman routes in which new entrants could enter the market and develop to the point of achieving a sustainable market share, after which regulation would decline; and

- a public good controlled air services network which would support selected public good goals through the influence of the Crown as major shareholder of the incumbent service provider.

421. Although TIANZ did not express a view as to which was the likely counterfactual, it did conclude that the current market is too small to be sustainable for multiple full service providers, and that key players in the industry were struggling to obtain returns that were necessary to sustain a business whilst maintaining international standards of services.

Virgin Blue

422. In its original submission, Virgin Blue suggested that it was not plausible, if the proposed Alliance were not approved, that Air NZ and Qantas would enter into a costly five-year war of attrition in which both airlines would increase their capacity to gain supremacy over the other. This would require the parties to incur losses (which would be likely to be large) over the period, with a highly uncertain outcome. This could be a rational, profit-maximising strategy only if Qantas were able to drive its competitors from the market, and as a result earn above-normal returns in the future. This would require both that Air NZ withdraw, and that either there would be no entry by Virgin Blue, or that Virgin Blue would provide only a weak form of competition (the latter being inconsistent with the position adopted by the Applicants regarding the effective competitive restraint that Virgin Blue would impose on the proposed Alliance).

423. Virgin Blue considered that the most likely strategies would be the following:

- Air NZ would consolidate its presence in domestic and Tasman routes, and continue to operate other important, profitable, international routes;

- Qantas would maintain its presence on Tasman routes, and might gradually increase services on New Zealand domestic routes, perhaps particularly targeting those routes on which Virgin Blue chose to commence services; and

- Virgin Blue would enter the Tasman and the New Zealand domestic markets. The timing and scale of entry would depend on its access to key bottleneck facilities

such as landing slots, access to terminals, etc., and the extent to which Qantas and Air NZ would respond to Virgin Blue's entry with strategic and predatory conduct.

424. At the conference Mr Huttner emphasised the difficulties in making forecasts in the aviation industry. He said that he had yet to read a paper on the airline industry written five years ago that had accurately predicted what would happen in the global aviation industry today, and he was sceptical that anyone today could make an accurate prediction of what the industry would look like in five years time.[54] He went on to say that he believed that if certain obstacles were overcome, mainly in relation to access to airport facilities, Virgin Blue would become a major carrier in the region over time, but he could not say whether it would be competing against one carrier or two, or whether Air NZ would fail in the manner described by the Applicants.

WIAL

425. WIAL, in its submission on the Draft Determination, noted that although the Applicants' analysis assumed that Air NZ was profitable on domestic sectors and unprofitable on international routes, and that although this may have been the case now, historically it had not always been so. WIAL considered that it is potentially misleading to rely on the current sector profitability to model future behaviour.

426. WIAL also argued that the proposed counterfactual of aggressive capacity-driven expansion into the New Zealand market by Qantas was contrary to the past behaviour of the company. WIAL was not convinced by the explanations provided by the Applicants as to why Qantas would change its behaviour, rather than rely upon a more measured expansion into the market. The Applicants had not attempted to claim that Air NZ was a "failing firm" in mitigation of the anti-competitive effects flowing from the proposed Alliance, yet the Applicants' counterfactual does rely heavily on behaviour that is not profit-maximising. If anything, it is possible that Air NZ, with its NZ Express Class model able to be applied to Tasman services, was well placed to meet competitive threats in the Tasman market.

427. WIAL also noted the Commission's discussion of the Government's options as the major shareholder in Air NZ. Despite Dr Cullen's statements, there was no reason for the Commission to suppose that the capital markets (with or without Government support) would not be willing to fund Air NZ's expansion plans that were supported by a robust business case.

428. WIAL supported the Commission's view that a more realistic counterfactual scenario was one involving a less aggressive form of competition, and less entry, than that suggested by the Applicants. Reports of pending entry by Virgin Blue were not evidence of likely entry in the relevant timeframe. The likely features of the counterfactual were considered to be as follows:

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[54] Conference transcript, p. 727.

- a measured expansion by Qantas into New Zealand would accord with previous behaviour, and seemed more likely;
- the competitive influence of Origin Pacific on the main trunk was overstated given its current market strength and reliance solely on turbo-prop aircraft; and
- the assumption that an LCC entrant would compete with incumbents on 'their' routes from 'their' airports contrasted with overseas experience (and also with that of Kiwi International).

Other Submitters

429. Others, in their submissions on the Applications, noted the possibility of other alliances in the future. The Importers Institute considered the Applicants' assertion that no airline had demonstrated a willingness to enter a strategic alliance to be demonstrably untrue. It said that Singapore Airlines had been keen to inject a large amount of capital into Air NZ. Similarly, the New Zealand Chamber of Commerce and Industry considered that there were two alternatives: the taxpayer continuing to support Air NZ, or Singapore Airlines buying back into Air NZ. TAANZ considered that if Air NZ were able to establish that its continued existence as a viable airline was under threat, then other options which would involve far less detriment to the New Zealand public were available to it and should be investigated.

430. Bon Voyage Travel, in its submission on the Draft Determination, considered that Air NZ was exaggerating its financial position downwards. SARS was a short term blip. The company was in a significantly better position than it had been 18 months ago. Bon Voyage Travel considered that neither Air NZ nor Qantas could afford to get into a war of attrition, as the cost to the victor would greatly exceed the future value of the victory.

431. Several other parties in their submissions on the Applications also dismissed the counterfactual proposed by the Applicants. The Consumers Institute considered that the counterfactual is based on a series of worst case scenarios and was not a pragmatic and commercial assessment of reality. Subsequently, it commented that the Commission's counterfactual was far more realistic than the Applicants'. Professor Hazledine of the Economics Department of Auckland University, in his initial submission,[55] considered that the counterfactual assumed was "a deeply unattractive" one, designed to make the factual look very good. Waikato Regional Airport Ltd. disputed the logic that the inevitable consequence of the Applications being declined was a war of attrition with only one airline surviving. It pointed out that both airlines were Government-owned (this is no longer true of Qantas, which

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[55] Professor Hazledine initially made a submission on the Applications in his own right, and subsequently was contracted by Gullivers Pacific to assist with its submission on the Draft Determination.

has been fully privatised), and would in the end be able to manage such a situation if they so chose.

432. Jumpjet Airlines, in its cross-submission, considered it highly unlikely that Qantas would attempt to destroy Air NZ given that it had some NZ$90 million invested in Air NZ. It argued that only modest competition could be expected between the established duopoly carriers.

Summary of Views of Other Parties

433. In summary, there was a substantial divergence of views between CIAL, Invercargill Airport and Polynesian Airlines, which supported the Applicants' view of the counterfactual, and the remaining other parties, which favoured the counterfactual put forward by the Commission in the Draft Determination. In part this difference of views probably reflected a range of factors: the difficulty of predicting outcomes in the aviation industry given its cyclicality; the industry's vulnerability to adverse external shocks, given its high fixed cost structure and network effects; the impact of deregulation, and of government subsidisation; the extent of competition from emerging LCCs, and from Qantas in the domestic New Zealand markets; and the particular impact on Air NZ of the Ansett failure.

THE COMMISSION'S ASSESSMENT

434. As indicated at the beginning of this section, the Commission's practice is to base its view as to the appropriate counterfactual on a pragmatic and commercial assessment of what is likely to occur in the absence of the arrangements or acquisition in question. If the Commission were to decline authorisation for the proposed Alliance, what would happen? The Commission considers there are six critical and interrelated elements that would influence this choice: the external environment; the ability to attract investor funding; profitability and financial projections for Air NZ; the strategic behaviour of Qantas; whether, and the extent to which, Virgin Blue would enter the relevant markets; and the scope for Air NZ to form an alternative alliance. Each is now viewed in turn.

435. In this review an important consideration is the dynamic and changeable nature of the aviation industry. As Mr Huttner said at the conference, he could not recall reading any predictions five years ago about the state of the global industry today that were accurate, and he was not convinced that anyone today, whether in the industry or outside, could confidently predict what would happen next.[56]

[56] Conference transcript, p. 727.

The External Environment

436. A characteristic of the international aviation industry is its susceptibility to cyclical fluctuations (particularly for FSAs), caused by a range of factors: demand fluctuations related to variations in economic activity; cost shocks caused by variations in fuel costs and exchange rates; a tendency to engage in excessive expansions of capacity in economic upturns; inflexible and high cost labour practices; and random external shocks (e.g., the 11 September 2001 terrorist attacks). Hence, care has to be taken to avoid drawing too much from one year's performance, as bad years can be followed by good ones, and vice versa. For example, prior to the Ansett acquisition, Air NZ had had a good profit record over a number of years.

437. During 2003, the Asia-Pacific aviation markets appeared to suffer from less severe downturns than those evident in North America and Europe, and to recover more quickly, although airlines such as Singapore Airlines and Cathay Pacific suffered unprecedented losses. Hence, the references in the Applications to the difficulties being experienced by a number of overseas airlines, and the strong inference that Australasian airlines were similarly threatened, no longer appear to be realistic. The most recent information from IATA suggests that international air passenger traffic is starting to recover after being hit earlier this year by SARS, security concerns and other factors, although there were variations between regions, with recovery in Europe being the strongest. The August 2003 numbers were only 0.3% lower than a year earlier; this compares with the May 2003 numbers, which were 21% lower than in the May of the previous year.[57]

438. New Zealand is still seen as a 'safe' destination for tourists. It appears to be under less threat of terrorist attack. Qantas is a profitable airline currently, although it too suffered an unprecedented (in privatisation) second-half year loss in 2002-03. Nonetheless, market events can change quickly; the SARS outbreak in Hong Kong and the war in Iraq led Qantas to announce a 20% cutback in international flights, and Air NZ a 5% reduction. These differential reductions reflect Qantas's greater vulnerability because of its long-haul routes to Europe via Asia.

439. External shocks are largely outside of the control of the Applicants (though some, such as exchange rate fluctuations, can be hedged), and hence will be the same for both factual and counterfactual. However, the degree of exposure of Air NZ will depend upon such factors as where the shock appears, and the alliance arrangements the company might have.

Profitability and Financial Projection

440. Air NZ's recent financial difficulties seem to be largely due to the impact of the Ansett collapse. Qantas did not attempt to take advantage of Air NZ's difficulties by expanding more rapidly in domestic New Zealand, probably because of its

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[57] "Airline traffic confidence recovering", *Reuters*, 8 October 2003.

preoccupation with Australian market issues, and also other constraints. The recent full year results suggest a strong recovery in Air NZ's profitability, which appear to have reflected several factors: the airline successfully following its strategy of holding its revenues whilst reducing its costs (this was helped by the introduction of NZ Express and fuel cost savings caused by the strengthening dollar); the departure of United Airlines from the Auckland-Los Angeles route; and the recovery of demand in international aviation markets.

441. There appears to be nothing that has fundamentally changed in the markets in which Air NZ operates, apart from the threat posed by the entry of Virgin Blue on the Tasman and domestic New Zealand, which it has positioned itself to meet by the introduction of NZ Express and Tasman Express. The current financial vulnerability of Air NZ is likely to be a short-term phenomenon, although in the longer term the projections become more difficult to assess given the unpredictable nature of the aviation industry. Mr France of Air NZ said at the conference that Air NZ [

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442. In order to gain comfort that Air NZ's balance sheet would be sustainable under the Commission's proposed counterfactual, the Commission reviewed the financial modelling under various factual and counterfactual scenarios (with varying levels of competition) for 2003-06 undertaken by Cameron & Company in 2002 in conjunction with, and for, Air NZ as part of its consideration of the likely counterfactual. The modelling results forecast increasing profitability for Air NZ's total airline business under all scenarios, factual and counterfactual alike. As would be expected, given the difference in competition that Air NZ would face under the two scenarios, profit forecasts under the factual are higher than under the counterfactual. However, given the Commission's view explained below that a war of attrition between Qantas and Air NZ would not be likely as a counterfactual, but instead that Qantas would increase its operations in line with market growth, the difference between profit forecasts under the factual and counterfactual was not as great as the war of attrition scenario predicted. Overall, the Cameron and Company forecasts, coupled with analysis of past results, suggested that Air NZ's airline business overall was currently, and would continue to be, a financially profitable operation in the near term.

443. In terms of Air NZ's financial position, the modelling results forecast increasing shareholders' funds, and gradually reducing gearing, under all scenarios, factual and counterfactual. As would be expected, given the injection of capital by Qantas, Air NZ would have a higher cash balance under the factual compared to the counterfactual (assuming no other sources of capital arise under the counterfactual - potentially a conservative assumption in the medium term). Nonetheless, in the counterfactual Air NZ is still projected under the Cameron & Company model to have sufficient funds to meet its capital expenditure needs over the forecast period (but not necessarily for needs beyond the forecast period). Overall, modelling done

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[58] Conference transcript, pp. 354-55.

for Air NZ suggests that Air NZ's balance sheet is sustainable in the counterfactual in the near term.[59]

444. Air NZ argued that it would not earn its target pre-tax return on capital of [ ]% under either its own counterfactual or the counterfactual proposed by the Commission in its Draft Determination, in any year over the period 2003-06. However, its modelling results reveal that the same applies to the factual scenarios, although the returns are higher. It is generally accepted that a listed company that cannot make an adequate return on its capital would eventually either fail, or be taken over, although it might struggle on for a time providing that it is generating a sufficient cashflow. The return does not have to be adequate in each year of operation, but it has to be on average over a business cycle to attract the capital needed for continued operation. The potential difficulty for Air NZ is that the more profitable parts of its network are under threat of increased competition from Qantas and Virgin Blue.

445. However, this argument has to be viewed in the context of the wider aviation industry. Mr Edwards, Executive General Manager Airline Strategy and Network for Qantas, said at the conference that Qantas, despite being amongst the most profitable of airlines currently, was earning "nowhere near cost of capital returns", and that historically there had been few years when it had done so. He also said that over the last fifty years the aviation industry internationally had probably lost more money than it had earned.[60] Dr Stone, appearing for Infratil et al, noted that it is not at all unusual for airlines to fail to earn returns that cover their cost of capital, and yet they continue to attract investment.[61] Professor Hausman, also appearing for Infratil et al, agreed; he stated that the industry is "a basket case but it keeps going."[62] These assessments apparently reflect past circumstances in the international aviation industry, which included government support for airlines, regulatory constraints on the ability of many airlines to merge and willing entrepreneurs.

446. Air NZ has claimed that inadequate returns in the longer term could force it to contract its operations to the point where it might become competitively marginalised, and that there would be a risk that such a contraction might, if it could not be managed, turn into a "death spiral". However, it seems strange that the company would be investing in the purchase and leasing of 15 new A320 aircraft by 2006 if it really expected to fail in the not too distant future. The Commission also considers that it is hazardous to attempt to make projections this far ahead in the aviation industry. Even if Air NZ were to fail—and this does not seem likely, taking all factors into consideration—consumers would at least benefit from the lengthy period of competition in the interim. Moreover, as noted above, Air NZ has not claimed to

[59] The Commission notes that, in assessing the financial prospects for Air NZ under its counterfactual, it has not made adjustments to the assumptions (economic and otherwise) or workings of the Cameron and Company model, but merely examined the results produced by the model. The Commission has also not considered the impact of possible external international shocks on Air NZ's future position, or its ability to withstand such shocks.

[60] Conference transcript, pp. 245-46.

[61] Conference transcript, p. 978.

[62] Conference transcript, p. 979.

be a "failing firm", nor has it used such an argument to mitigate any anti-competitiveness consequences flowing from the Applications.

The Ability to Attract Investor Funding

447. The fact that the New Zealand Government is the major shareholder in Air NZ, with (now) a 78% shareholding (and, in addition, the Kiwi share), is an important consideration. The Commission considers that the acquisition of this shareholding demonstrates a Government intention to preserve Air NZ as the national flag-carrier, with the perceived benefits from maintenance of tourism, which is a very substantial earner of overseas exchange for the economy. A New Zealand-owned and controlled airline is needed to exercise the country's bilateral air services rights negotiated by the Government.

448. On the other hand, although the present support of Air NZ by the Government seems likely to continue, there is uncertainty regarding Air NZ's ability to obtain further capital in the future. It is possible that the Government may not see itself as a long-term investor in a commercial airline, and would not wish to bear the risks inherent in such investments. Hence, it seems reasonable to consider that it would likely sell down its stake if there were opportunities to do so in the future, but this may not be contemplated until Air NZ has become more attractive to private investors by achieving a secure financial position. This raises the issue as to potential sources of private sector funding, and when that might become available. One potential source might be an overseas airline, especially if there were to be less concern in the future about the proportion of a foreign shareholding.

449. The Commission has considered whether Air NZ could be capital constrained in the future under the counterfactual. Air NZ has said that it needs about $1.4 billion to finance new investment in aircraft and infrastructure over the next five years. The purchasing and leasing of the 15 new A320 aircraft is being financed internally. The Government may be willing to provide some level of further funding, but given pressures from other spending areas in the public sector, Air NZ might need to raise capital from other sources to finance its desired rate of expansion. Yet having recognised these potential difficulties, the same constraints might also apply in the factual. The Government might be less willing to provide further funding given the advantages claimed for the proposed Alliance by the Applicants, and Qantas might be unwilling to provide the further funding required, given the amount it would already have supplied and its own capital needs. Nonetheless, the proposed Alliance might raise Air NZ's profitability, which would make an investment in the company more attractive.

450. This suggests that capital funding (and the related matter of the company's balance sheet) would be likely to be an issue under both counterfactual and factual. In the counterfactual Air NZ's need for funding, and the question mark over the Government's willingness to provide further capital, may suggest the need for an

alternative cornerstone shareholder. It is the Commission's view that another shareholder would be sought, and in the medium term, would be likely to be found.

The Strategic Behaviour of Qantas

451. Since the Commission issued its Draft Determination it has become apparent that "war of attrition"—a term introduced by the Applicants—is not an apt characterisation of Qantas's behaviour in the Applicants' counterfactual. Rather, its planned rate of expansion on the Tasman is only slightly greater than the expected natural growth rate of demand, while in domestic New Zealand the expansion of capacity is greater mainly because Qantas will be developing its network by expanding on to new routes. Hence, Qantas characterised these developments as being likely to lead to a gradual erosion of Air NZ's market position, rather than as a more dramatic and shorter term battle for supremacy.

452. Air NZ seemed to share the same view. Mr Norris at the conference characterised the situation as follows:[63]

> A war of attrition is not characterised by a major or overall aggressive battle, nor is it characterised as a substantial dumping of capacity. Rather it is a slow, steady crumbling away of the assets of a competitor by steady capacity increases which are in excess of natural growth but which allow the expanding airline to gain the benefits of increased city presence.

453. A key feature of Qantas's strategy for its domestic New Zealand operation is that it will make [ ] or more per annum over the three year forecast period on a fully costed, stand-alone basis. [ ].
Qantas argued that it needed to expand in domestic New Zealand for two reasons. First, increased service frequency and network coverage would enable it to compete for corporate accounts and tourism movements. However, its own projections reveal that any such benefits have no tendency to stem the losses – rather, losses tend to increase over time.

454. Secondly, Qantas argued that these losses would be more than off-set by the beyond (or network) benefits it would gain from those passengers that travel on other parts of Qantas's network who would not do so but for its presence on domestic New Zealand routes. At the conference Mr Dixon said that it was very hard to make money in the New Zealand market, and that the main reason that Qantas was in the market was for the connecting traffic.[64] The argument was that, say, a passenger traveling from Dunedin to Sydney via Christchurch would be more likely to travel the international sector with Qantas if the domestic leg were provided by Qantas, or by a Qantas code-share. Qantas estimated that these benefits could be up to a $[ ] per annum on a rising trend over the three year period.

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[63] Conference transcript, p. 30.
[64] Conference transcript, p. 100.

455. The quantification of beyond benefits is somewhat contentious in the aviation field. For example, beyond benefits figure in airline predatory pricing cases, in that they may be used to justify pricing on a route that would otherwise leave revenues less than total avoidable cost, and hence otherwise satisfy the usual price-cost test for predation. An example of the difficulty associated with quantifying beyond benefits is found in the recent *Air Canada* case. Here, the Competition Tribunal concluded that although beyond contributions could in principle provide a legitimate business reason for pricing below average avoidable cost, it did not accept such claims in that case because Air Canada had not calculated its beyond contribution on a proper basis.[65]

> The Tribunal accepts that Air Canada is a network carrier, whose "raison d'être" is to serve passengers travelling across the network. In light of the network attributes emphasized by Dr. Belobaba, the Tribunal is of the view that the revenue of continuing passengers that Air Canada attributes to subsequent legs and flights should be included in beyond revenue when the issues of recapture and displacement have been addressed in some reasonable way. The burden is on Air Canada to provide reasonable estimates of recapture and revenue displacement consequent to the hypothetical cancellation and it has not done so in respect of the two routes at issue.

456. Although the Commission accepts that network benefits are important for FSAs, Qantas's approach to estimating beyond revenues appears to suffer from a number of difficulties, as follows:

- As Gullivers Pacific pointed out, for routes across the Tasman and beyond, it is difficult to see that Qantas gains beyond benefits from its operating on the New Zealand main trunk. Such benefits would seem only to accrue if hypothetically Tasman flights were to leave only from, say, Auckland, for then Qantas's carriage of passengers on the main trunk would increase the likelihood that beyond passengers would travel on Qantas for both sectors to benefit from a seamless intralined service. However, as comprehensive schedules of Tasman flights are operated from all three main trunk centres, any network benefits would arise only from the provincial feed to those centres, but not on flights between them. Such feed is currently provided to Qantas by Origin Pacific, and could continue to be so provided regardless of whether or not Qantas operated on the main trunk. Therefore, the Commission is inclined to discount the Tasman and beyond portion of the claimed beyond benefits, which would be likely to be a substantial proportion of the total claimed.

- The previous argument carries less weight in the case of the beyond benefits associated with the Auckland-Los Angeles route, since intending passengers need to travel to Auckland to catch the flight. However, the argument in favour of counting beyond benefits here rests on the assumption that the existing route structures of the domestic airlines remain unchanged. However, an alternative to Qantas flying the main trunk might be for the Qantas-Origin Pacific relationship to be extended to cover new Auckland-destination flights, where Origin Pacific is

[65] *Commissioner of Competition v. Air Canada*, 2003 Comp. Trib. 13, para. 299.

currently not well represented. Even if these new flights were sometimes loss-making, the losses might be smaller than JetConnect is projected to make.

- Qantas measured the beyond benefits on a profit-before-tax (PBT) basis. On the Tasman and Los Angeles routes the PBT was measured on a fully-costed (small margin) basis on the grounds that demand was large enough to impact on capacity offered, so that all costs including capital costs needed to be deducted from revenues in arriving at PBT. On other routes a marginally-costed (big margin) basis was used, because additional connecting passengers could be accommodated on existing flights. However, in the former case a normal return on capital was probably not included in the measure of costs, and yet this would have to be deducted from the PBT to get an economic measure of the beyond benefit. This revised benefit would be significantly lower than that claimed, and possibly be negative given the airlines' comments about low profitability on the Tasman.

- In all cases it appears that no effort was made to assess the extent to which other intending passengers would be displaced (be unable to get seats) by the beyond traffic, which was found by the Competition Tribunal to be a fault in Air Canada's approach. Beyond benefits from connecting passengers could not be claimed in circumstances where they were to displace other intending passengers on the flights involved, since there would be no net gain to the carrier.

- The calculation of beyond benefits introduces the risk of double-counting; it is understood that airlines that have attempted to add beyond benefits to route profits have typically found that when the profits of all routes are aggregated, the figure arrived at exceeds the company's actual profits. For example, consider Qantas's profits on its Tasman services. These will reflect the costs incurred, and the revenues received from Tasman passengers. If an effort is then made to calculate the beyond benefits associated with Qantas's domestic New Zealand services, this would mean taking some of the profits earned on the Tasman service and attributing them to the New Zealand domestic service. While this may be 'correct', in the sense that those profits on the Tasman would be lost to Qantas if its domestic New Zealand service were to be discontinued, they should in this allocation be simultaneously *deducted* from Tasman profits – in other words, they cannot be allocated twice. The same issue would also apply to incoming flights on the Tasman, since some of the passengers would only be travelling on Qantas because they are able to connect with its domestic New Zealand services. This would imply that some of the profits earned on the domestic service should be counted as a beyond benefit to the Tasman service and allocated accordingly – but again, only allocated once. The upshot is that there should be allocations in both directions, and it is not clear what the net effect would be.[66]

[66] In a forthcoming paper, Dr Tretheway appears to accept that FSAs typically double count beyond benefits. He writes in a draft version: "This double counting of beyond revenues is consistent (with) the observation that network carriers claim they optimise capacity on each route yet they fail to earn adequate returns. Individual pieces of the network are considered to be earning an adequate return or contribution to corporate overheads. But the adequacy of the contributions are (sic) illusory, as some or all of the revenues

- Finally, a further adjustment needs to be made for the "recapture" effect, as mentioned in the Air Canada decision, to factor in the effect that not all Qantas passengers on the domestic sector would be secured on the following international leg. Qantas reduced the PBT on the second leg to the proportion of the capacity Qantas flew on that leg. For example, on the Tasman the proportion used was 50%. This is saying that of the passengers traveling on Qantas/Origin Pacific in New Zealand and connecting with a Tasman flight, only half would fly Qantas on the Tasman, because Qantas had half the flights. However, as this proportion is what would be expected absent any influence from connecting domestic services, the assumption is presumably either intended to be conservative, or it implies that domestic flights have no influence in generating beyond benefits.

457. The above points suggest that the beyond benefits claimed by Qantas in respect of its domestic New Zealand services have been substantially overstated. This raises a question mark over Qantas's domestic New Zealand strategy in the counterfactual. If the operation were not to be financially self-sustaining, then other more strategic motives must be at play.

458. The claims made by Qantas with respect to its behaviour in the counterfactual have to be reconciled with its previous behaviour, and with assessments as to what its behaviour might rationally be. The Commission considers the following considerations are relevant:

- The stated intention to expand capacity in the future has to be credible. It is one thing to make threats in order to bring about changes in the behaviour of a rival (encouragement of Alliance negotiations); it is another to actually carry them out in the face of the negotiations breaking down or of authorisation being declined.

- If the proposed Alliance were not to proceed, the Commission is of the view that pressure on Air NZ through Qantas expanding capacity might force Air NZ more quickly and more certainly into an alliance with another airline. The Commission considers it likely that Qantas would probably prefer to face a stand-alone Air NZ than that company strengthened by an alliance, and this could provide an incentive for Qantas not to compete over-aggressively. Its greatest fear may be of an Air NZ-Virgin Blue alliance. However, Qantas has remarked that other alliance partners for Air NZ are not obvious.

- The Commission has been advised that Air NZ has a lower cost per passenger using smaller jets than Qantas even for the provision of a full service product, a difference that may be magnified with its NZ Express model on the New Zealand domestic services. This would imply that Qantas would incur a greater loss per

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are also being used to justify the performance of another route segment. See: M W Tretheway, "Distortions of Airline Revenues: Why the Network Airline business Model is Broken", *Journal of Air Transport Management*, forthcoming 2003.

passenger than Air NZ in the event of a price war. However, Qantas has contended that JetConnect did not have higher costs than NZ Express.

- The Applicants readily admit that capacity dumping by Qantas would increase its losses. Such a strategy would only be economically rational if the losses were to be recouped by future profits, both measured in present value terms. Recoupment seems unlikely if reliance can be placed upon the weight the Applicants attach to the competitive threat posed by Virgin Blue.

- A Qantas Board meeting paper of July 2002 noted that in the event of authorisation for the proposed Alliance being declined, the [ ], implying that profitability is a critical consideration for the company.

- The Commission considers that Qantas could not afford a bruising battle with Air NZ given its current competition with Virgin Blue in Australia, retrenchment due to external events and likely competition from Virgin Blue and Tasman Express on the Tasman. Qantas is likely to lose more from competition in Australia and on the Tasman, if it diverts resources from confronting that competition, than it can hope to gain from enlarging its market share in New Zealand against an entrenched Air NZ.

- Even if Qantas, through its strategy, were to dominate Air NZ, this would not necessarily be wholly advantageous for Qantas. Labour and other factors would possibly gain some of the rents from market power, and push up costs on a system-wide basis. Entry would be a threat, and the entrant would be likely to be an LCC, not an FSA, especially given the OD nature of the Tasman and domestic New Zealand markets. Hence, aircraft could not be redeployed as they would continue to be needed as the basis for the strategic entry barrier.

- The strategy would be unlikely to succeed if the Air NZ shareholders were to demonstrate a willingness to resist such behaviour by committing to support the company through any contest for market share. As a cornerstone shareholder with potentially large resources to call upon, the Government would be in a position credibly to support the company. Moreover, it has other means to influence behaviour, such as through its role in negotiating and allocating bilateral air rights.

- Previous instances of wars of attrition suggest that the outcome is either the stronger carrier acquiring the weaker, or the weaker exiting.[67] Neither of these scenarios seems feasible in the present case, as the exit of Air NZ would leave no other airline available to exercise the country's bilateral air rights.

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[67] In Europe Air France took over UTA, which was smaller, and Lufthansa acquired competitors that were small and undercapitalised. In the UK Ryanair took over Buzz and easyjet acquired Go. In North America Air Canada took over the smaller Canadian Air, and American Airlines took over TWA and Reno Air.

459. Some evidence of capacity expansion and/or price-cutting can be found in Australasian markets, but these relate to responses to new LCC entry, or to expansions by smaller domestic operators. For example, Qantas's alleged "capacity dumping" behaviour against Virgin Blue on the Adelaide-Brisbane route is the subject of enforcement action by the ACCC. Virgin Blue has complained of similar behaviour by Qantas on other routes it entered in Australia. Similarly, Air NZ introduced Freedom Air as a 'fighting brand' to target the new entrant, Kiwi International. A number of such instances are cited below in the analysis of entry barriers.

460. A key issue is whether Qantas would persist in the domestic New Zealand market in the counterfactual, assuming the likely entry by Virgin Blue (see below). Although prediction in the aviation industry is difficult, the Commission considers that in the short- to medium term, Qantas is likely to continue in this market.

New Airline Entry

461. The discussion here draws on the more detailed entry analysis presented later in this Determination. Currently, the only likely entrant into some of the relevant air services markets—the Tasman and domestic New Zealand—is Virgin Blue.

462. At the conference Mr Huttner stated that Virgin Blue would like to enter the Tasman "in some limited form before the end of the year".[68] Virgin Blue has dropped its previous requirement to purchase Freedom Air as a means of mitigating its concern about incumbent response, with Mr Huttner saying at an interview with the Commission that [ ]. Mr Huttner said, however, that Virgin Blue continued to face significant barriers to entry posed by the need to get access to essential ground-based facilities at Auckland, and the threat from incumbent response. He pointed out that the incumbents had effectively recognised this by the conditions on capacity they had offered to the competition authorities as a way of assuaging competition concerns. Mr Huttner also believed that absent the imposition of effective conditions, entry would be more difficult with the proposed Alliance than without it, reflecting the ability of the proposed Alliance to organise a collective response.[69]

463. Since the conference Virgin Blue has announced that its first Tasman flight—a daily service between Brisbane and Christchurch—will commence on 1 February 2004, and that it would establish its New Zealand base in Christchurch. Virgin Blue has also indicated that its entry in the domestic New Zealand market was likely by June 2004. Further details are provided later in these Determinations.

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[68] Conference transcript, p. 741.
[69] Conference transcript, p. 744.

464. The possibility of other, as yet unknown, airlines entering the relevant markets in the relevant timeframe, although difficult for the Commission to assess with confidence in a dynamic environment, is likely to be low.

The Scope for an Alternative Alliance

465. Should the proposed Alliance not proceed, an alternative possibility for Air NZ is an alliance with fellow Star Alliance member Singapore Airlines. It seems that Singapore and Hong Kong are competing to become major hubs in the east Asia region; the proposed Alliance, if it were to lead Air NZ to join Qantas in the oneworld Alliance, would favour the latter, hence providing an incentive for Singapore Airlines to ally with Air NZ. Against that, Singapore Airlines is very particular about its product offering, and may not wish to ally with another airline whose product offering might be significantly different. Also, in the past, Singapore Airlines has been more concerned to get access to the Australian markets, which an alliance with Air NZ would not provide. Air NZ has reported that Singapore Airlines has repeatedly rebuffed alliance overtures.

466. The Commission also understands that [ ]

467. An alliance with Virgin Blue would be another option, and one that would overcome Air NZ's lack of feed from Australia following the demise of Ansett. Virgin Blue has declared its interest in finding interlining partners, and has such an arrangement with United Airlines and Australian provincial carrier Rex [ ]. Moreover, the Commission understands that [ ]

468. The Star Alliance has not appeared to show any inclination to support Air NZ to date, despite the prospect that the proposed Alliance would result in Air NZ switching to the oneworld Alliance, leaving the Star Alliance very under-represented in Australasia.

469. In short, although there appear to be no alliance options aside from the one with Qantas available to Air NZ in the immediate future, other options could emerge at some time in the future, for a variety of reasons. From the perspective of both companies, other alliances would be less desirable in that they would not offer the same scope to reduce competition and to rationalise operations.

CONCLUSION ON THE COUNTERFACTUAL

470. The Commission considers that the aviation industry is a particularly difficult one in which to make predictions, and that the more distant the time horizon used, the more uncertain any prediction becomes. Nonetheless, the Commission must take a pragmatic view of the counterfactual (and the factual) on the basis of the information available to it, and the analysis it has been able to conduct. On this basis it has reached the conclusion that the likely counterfactual has the following broad characteristics:

- a gradual recovery in the financial position of Air NZ and ongoing financial viability over the short- to medium-term (which is the limit of the Commission's time horizon);
- a continuation of the substantial shareholding by the Government in Air NZ, but with a question mark over whether sufficient additional capital would be available from a range of sources for the company to pursue its preferred network strategy;
- uncertainty as to whether Air NZ's retained earnings would, if necessary, be sufficient to pursue its preferred network strategy;
- Air NZ remaining a substantial competitor on the Tasman and domestic New Zealand routes, with capacity being expanded in line with market growth;
- Freedom Air remaining a significant low cost niche operator on the Tasman, with capacity being expanded in line with market growth;
- Qantas remaining as a substantial competitor on the Tasman, and expanding its route structure on the domestic New Zealand market, with capacity otherwise being expanded in line with market growth;
- Competition from other international carriers flying between Auckland and Australia, as part of longer international flights, would continue;
- entry and gradual expansion by Virgin Blue on the Tasman, and subsequently on the New Zealand main trunk;
- Origin Pacific remaining in its relationship with Qantas on provincial New Zealand routes;
- Air NZ and Qantas continuing to compete in the other markets where they are currently present, such as the New Zealand to the Asian, Pacific and US markets; and
- Air NZ standing alone in the short-term, while seeking, and perhaps in the medium-term gaining, an alternative alliance with another airline.

471. The details of the counterfactual (and the factual) are expanded in the competition analysis, and the assumptions that are built into the market modelling, which are set out in later sections.

7 COMPETITION BACKGROUND

INTRODUCTION

472. In submissions and at the conference the Commission received a great deal of information about competition in aviation markets in Australasia and internationally, both in terms of existing competition between incumbent FSAs, and on the role and impact of LCCs. Before considering the nature of competition in each of the relevant markets, and the extent to which there may be a lessening of competition in the factual compared to the counterfactual, it is helpful to review this material and to consider the generic nature of competition in aviation markets. This also provides a background to the thinking that lies behind the market modelling that is introduced later.

EXISTING COMPETITION IN AIRLINE MARKETS

Introduction

473. Aviation markets typically comprise only a few firms. In such oligopolistic markets, the nature of the competition that emerges is likely to depend upon a number of factors. The most important of these is the nature of the interactions between the firms. One broad distinction is between coordinated (or collusive) and non-coordinated (or independent) behaviour. The first involves firms getting together to agree on capacities or prices, whereas the second involves the firms independently setting capacities or prices. With the latter, it cannot be inferred that because there are two or more firms in the market, the market outcome will necessarily be fully competitive, in the economists' sense that price will equal marginal cost, and hence that economic efficiency will be maximised. That will depend upon the nature of the product and of costs, and upon how the firms—although acting independently—interact. In addition, where firms have significant fixed costs, as is the case with airlines, prices may have to exceed marginal cost (at least on average) if those fixed costs are to be covered.

474. Depending upon the nature of the market, a wide variety of forms of competitive interactions between firms in a non-coordinated setting is possible. For example, they might, seeing others' fares, set their own fares and see how much business they get (economists have a model, the Bertrand model, which describes what happens when interdependent suppliers observe others' prices and set their own prices to maximise their profits). Alternatively, they might observe others' schedules, and then set their own schedules, see how many travel with them, and what fares they manage to get (an economists' model of suppliers each setting the capacity they plan to supply after observing others' supply plans is the Cournot model). There are other models again whose central feature is the lessons that suppliers learn over time about, and respond

to, customer and supplier reactions to their plans (economists call these dynamic models, which might use Bertrand and Cournot principles but will typically differ in predicted outcome from their basic single period counterparts).

475. In aviation markets, economists have found that the interaction between airlines appears often to be at least roughly consistent with Cournot behaviour. This involves airlines being seen as output—or rather, capacity—setters, rather than being price-setters. The point is that firms in any market can choose to set either quantity or price, with market demand determining the other, since they have no direct control over the demand curve they face. With airlines, the position might appear more complicated in that capacity—measured as the number of seats flown—is not the same as output, measured as the number of passengers carried. However, airlines typically set capacity and then try to fill the seats by adjusting price through their yield management systems. This reflects the fact that once capacity is set, the airline loses control over price in generating adequate load factors.[70] Thus, price and capacity are inextricably linked in that airlines choose capacity and (average) price is effectively determined by demand through yield management systems, which makes the assumption of Cournot behaviour all the more compelling.

476. In a Cournot market airlines are assumed to act independently (i.e., not collusively) in supplying capacity to the market, with each taking the combined capacity of the others as being constant when setting its own capacity. This leads to an equilibrium in which each firm maximises its profits, given the assumption it makes about the behaviour of the others, and the aggregate of the outputs produced interacts with the market demand to determine the price that clears the market.

477. The intensity of the competition between the oligopolists is captured in the modelling described later through the value of the conjectural variation (CV) parameter. This parameter measures the percentage change in the aggregate of other firms' output in response to a one percent change in the output of the firm in question. As indicated, the standard Cournot assumption is that the other firms do not respond, thus giving a CV parameter of zero. Outcomes that deviate from the standard Cournot solution can be modelled by varying the size of the CV parameter about the Cournot value of zero, within the range from +1 to -1. For example, a negative CV parameter would indicate an interaction more competitive than standard Cournot, and would result in a market outcome in which there would be a lesser degree of market power exerted (all else being the same), whereas a positive CV parameter would indicate the reverse. Thus, by altering the CV parameter, the Cournot model can be adapted to model the full range of possible market outcomes from perfect cartel (+1) at one extreme to perfect competition (-1) at the other. The CV = 0 assumption can thus be seen as a 'middle ground' in terms of the strength of market power, subject to the further considerations listed in the next paragraph.

478. Some key results of the standard Cournot model (in which entry is assumed for the time being to be absent) are as follows:

[70] Dr Winston made this point at the conference. See the transcript, pp. 301, 303.

- if all firms have the same (constant) marginal costs, the market will be shared between them equally;
- price will exceed, and market output will fall below, the competitive level, so that some degree of market power—measured as the elevation of price above marginal cost—results;
- the more price inelastic the market demand curve, the greater the elevation of price above marginal cost;
- where firms' costs differ, firms with lower marginal costs will have larger market shares than firms with higher costs, and the market power exerted will be greater than if the market shares were equal;
- regardless of output shares, all firms receive the same price; and
- the fewer the firms, the greater the degree of market power exhibited, although even in the duopoly (two firm) market the price will be less than the monopoly price.

479. The further implication is that in a merger that results in a reduction in the number of firms, (where costs would not change, and all else remains the same), the Cournot model predicts that market output would fall and price rise – in other words, that market power would be enhanced, or equivalently, that competition would be lessened.

Cournot Modelling and the Proposed Alliance

480. As noted above, the finding by aviation economists' that the competitive interaction of airlines can typically be characterised as being roughly Cournot-like provides the basis to construct a market model as a tool with which to analyse the impact of arrangements such as the proposed Alliance. Such a model allows quantifiable estimates of the consequent changes to competition in a market. NECG, acting for the Applicants, produced such a model, as did Professor Hazledine and the Commission. However, there was considerable debate throughout the authorisation process on whether a Cournot model would adequately capture the effects of the Alliance, and what precise features such a model should incorporate.

481. NECG, on behalf of the Applicants, assumed that the markets at issue could be modelled on the basis that Cournot interactions apply,[71] and that this was supported in

[71] NECG, *Report on the Competitive Effects and Public Benefits Arising from the Proposed Alliance Between Qantas and Air New Zealand*, 8 December 2002, p. 104 and Appendix G. Conference transcript, pp. 668, 810.

the economics literature.[72] However, a recent study of aviation markets found that although most conduct was consistent with the Cournot solution, there were substantial deviations in some cases to more or less competitive outcomes.[73]

482. It is possible to estimate empirically the magnitude of the CV parameter implied by firm behaviour in actual markets, and a number of such studies have been published in the economics literature covering a range of industries. A particularly relevant example is the study by Hazledine *et al.* of the Tasman market for a period before, during and after the new entrant Kiwi International Airlines ("Kiwi International") was present.[74] They used a computerised market simulation model calibrated to the observed market outcomes, and found that the behaviour of the two incumbents—Air NZ and Qantas—had changed dramatically over this period. Pre-entry the behaviour was quite close to Cournot (as reflected in the estimated CV parameter), but it then switched to near-fully competitive behaviour (with price cuts of around 15%) when Kiwi International entered. Once Kiwi International exited, behaviour became immediately less competitive, although it did not return to pre-entry levels. Subsequently, behaviour became more competitive, possibly to discourage prospective new entry.

483. NECG argued that the use of CV parameters was not theoretically supported, and that in any case, empirical studies (and also the data in the present case) tended to support the view that the Cournot assumption (CV = 0) was generally an appropriate characterisation of competition in aviation markets.[75] However, as will be discussed below, this led NECG to the position that competitive conditions would be the same in the counterfactual, which it had characterised as being a "war of attrition", as in the factual with the Alliance between the two incumbents (with Virgin Blue present to some degree in both scenarios and markets), which seemed implausible. NECG responded by arguing that the airlines' own modelling of the proposed Alliance implied little expectation that the nature of competition would change between the factual and counterfactual, suggesting that no change in the CV parameter would be warranted. Moreover, changing the parameter in a negative direction would increase load factors, possibly to the point where additional capacity would be required.[76]

484. Professor Willig, for the Applicants, when questioned, said that he had used CV parameters in some of his own work, although he pointed out that there were dangers in maintaining a given value when the market changes.[77] The Commission notes that discussion of the topic was included in Professor Willig's edited Handbook on

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[72] See, for example, J A Brander and A Zhang, "Market Conduct in the Airlines Industry: An Empirical Investigation", *RAND Journal of Economics*, vol 21/4, 1990, pp. 567-83.
[73] T Fischer and D R Kamerschen, "Price-cost Margins in the US Airline Industry Using a Conjectural Variation Approach", *Journal of Transport Economics and Policy*, vol. 37/2, May 2003, pp. 227-59.
[74] T Hazledine, H Green and D Haugh, "The Smoking Gun? Competition and Predation in the Trans-Tasman Air Travel Market", paper presented to the EARIE Conference, Dublin, August 30 – September 2, 2001.
[75] Conference transcript, pp. 685-88.
[76] Conference transcript, p. 678.
[77] Conference transcript, pp. 688-89.

industrial economics, which suggested that it was a reputable concept accepted by at least a proportion of industrial economists, even though the validity of the approach was debated within the profession.

485. The overview of the implications for market outcomes of the standard Cournot model given above indicates that the relative cost levels across firms in the market matter. Firms with lower costs have larger market shares. This seems plausible in a standardised product market, at least in the long-run. However, in practice very few markets have a standardised product; for the great majority, the product is differentiated. Hence, it would not necessarily follow that a low cost firm would get a larger market share, even at a low price, since a low cost would likely be associated with a relatively low quality product. Buyers would trade off the lower quality against the lower price, so that the product might attract a relatively low level of demand. In short, when products are not close substitutes, the degree of competition between them is reduced, and so it is possible for a range of products to co-exist in a market, even though some may have a lower cost and price than others.

486. At the conference, Professor Hausman, representing Infratil et al, suggested that although the conventional (standardised product) Cournot assumption might have been valid in the past for modelling aviation markets occupied only by FSAs, he felt that this assumption was no longer justified given the impact of LCCs and their introduction of different price/quality services.[78] He felt that product differentiation was an important feature of aviation markets, and should be incorporated in the modelling of market outcomes. The absence of product differentiation in a model of aviation markets—a characteristic of the NECG model—meant that it would tend to underestimate the impact of the proposed Alliance, as the amount of competition between Air NZ and Qantas would be greater than the competition between them and Virgin Blue, and the Air NZ/Qantas competition would be the competition that would be lost in the factual compared to the counterfactual. NECG responded by arguing that product differentiation is difficult to model, can only be done in an ad hoc fashion, that the results are sensitive to the assumptions made, and that to engineer a situation where an LCC entrant would little constrain the FSA incumbents would require an implausibly low degree of substitutability between them.

Conclusion on Cournot Modelling

487. The Commission accepts that the Cournot model provides a useful framework in which to analyse the impact of the proposed Alliance. However, the precise structure that the model should take raises a number of issues, which are discussed in detail below in the section on allocative efficiency. An important implication of this model is it cannot be assumed that the presence of two or more firms in a market would be sufficient to ensure that market outcomes are workably or effectively competitive, nor that such outcomes would be preserved when the number of firms in the market is reduced through a merger, even though two or more may remain.

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[78] Conference transcript, pp. 672, 674.

488. The preceding discussion indicates that the market outcome, in a Cournot setting, broadly will depend upon a mix of factors: the nature of the non-cooperative interactions between the firms; the number of firms and their relative sizes; the strength of competition (the CV parameter); the relative cost levels between the firms; and the extent of product differentiation. Competition will tend to be stronger the more negative the value of the CV parameter, the greater the number of firms, the more even the firms' costs, and the lower the degree of product differentiation.

EFFECTS ON COMPETITION OF LCC ENTRY

Applicants' View

NECG

489. NECG cited various studies from the US that had found that entry by a low cost carrier (LCC) had had a greater impact on competition than might have been suggested by their market shares. Some key findings were:

- substantial price reductions and increases in output had occurred on routes where there has been LCC entry;

- the entry of an LCC substantially shifted the distribution of fares away from the higher fare classes towards the lower fare classes, causing average fares to decline significantly;

- there was some evidence that price reductions had occurred not only on routes on which entry had occurred, but also on routes on which the LCC was not present, but where either it was present in the airport at one of the ends of the route, or where it was competing on essentially the same route but from different airports; and

- the benefits of the price reductions that have occurred on some routes where LCCs were present had not been offset by price increases by FSAs on other routes.

490. NECG considered that overall, the impacts on prices and output of LCC entry had been much greater than those associated with competition between FSAs.

491. NECG stated that results of its analysis of routes in Australia directly affected by the entry of Impulse and Virgin Blue for the period January-June 2001 versus January-June 2002 showed that Qantas's load had increased 4.2% while yields had declined 18.5%. While the impact on the routes not entered by Impulse and Virgin Blue was more moderate, it was still significant. NECG found that although Virgin Blue and

Impulse only provided economy class services, their entry had significant impact on business class yields, with load declining 0.5% and yield declining 8.8%.

Dr Tretheway

492. Dr Tretheway, economic adviser for the Applicants, said at the conference that the development of LCCs had irrevocably changed the aviation industry, had substantially and permanently undermined the revenue base of FSAs, and was now the force that drives and disciplines market behaviour. He said that while many earlier attempts at the LCC model had failed, today's LCC had proved to be a highly successful business model. Carriers such as Ryanair in Europe, WestJet in Canada, JetBlue in the United States and Virgin Blue in Australia had been highly profitable, even when the aviation industry had experienced the serious impacts of recession, terrorism, armed conflict and SARS.

493. Dr Tretheway said that in the US currently, LCCs carry 24% of domestic passengers. In his opinion this would increase to 35% to 40% in five years, and to 50% in ten years, if LCCs were to continue to grow at their current growth rate of 15% per annum, and FSAs at the rate they achieved in the 1990s of 3.5% per annum. He added that if some FSAs were to convert to a low fare format, the combined market share of low fares would be "dramatically higher than 50%". However, he said that about half the market needs the network connectivity, the redundancy, and to some extent, the inflight services provided by FSAs, implying that their continued presence was assured, albeit on a reduced relative scale.

494. Dr Tretheway submitted that the key impact of LCCs on FSAs has been to undermine their ability to price discriminate between different passenger classes, which typically is done by attaching a restriction such as a Saturday night stay, a required return ticket, or a minimum/maximum stay requirement. He said that although LCCs price discriminate too, they do so largely on the time of the purchase of the ticket. The low, one-way fares they offer undermine the basis for discrimination by FSAs, based on restrictions on the ticket. Incumbent FSAs may respond by lowering fares at the discount end, and attempting to recover some lost revenue by increasing the fares for passengers with price inelastic demands, such as business passengers. However, he argued that eventually the gap between the LCC fares and the FSA top end fares becomes so great that even premium passengers move in some numbers to the LCC.

495. Dr Tretheway said that LCC entry had resulted in a new pricing reality for the entire market. When asked by the Commission about a study that showed that although fares dropped on the entry of an LCC, they eventually rose to original levels, Dr Tretheway replied that fares do increase to some extent after the initial period but that this is only because the initial fares are unusually low, as a promotional tool.

496. According to Dr Tretheway, in order to be able to meet the lower fares offered by LCCs, FSAs have attempted to reduce costs, but have not been able to lower costs to the same levels as LCCs. Their network connectivity, and the necessity to provide

services and networks with redundancies to allow passengers to reach final destinations on alternative flights or routings, impose significant costs. Furthermore, LCCs constantly seek to reduce costs further, making them a constantly moving target that is difficult, if not impossible, for FSAs to match. LCCs have a number of cost advantages: their higher fleet utilisation; the fact that they typically operate with only a single aircraft type, enabling significant savings in maintenance; the level of the work force; they are able to obtain capital at lower costs; and they have lower distribution costs.

497. In his statement to the Commission of 25 July 2003, Dr Trethaway pointed out that a further advantage to consumers is that the lower costs of LCCs enable them to enter routes that were previously uneconomic, and that complex itinerary passengers and other passengers seeking the FSA's quality dimensions benefit from this.

498. Dr Tretheway said that the expansion of LCCs is undermining the financial viability of FSAs around the world, particularly those with low traffic densities on their routes.

Airline Planning Group (APG)

499. APG, in the Applicants' submission on the Draft Determination, said that its review of the experience of LCC entry in US aviation markets found that there had been two major impacts:

- fare reductions that disproportionately exceed the LCC's market share; and
- demand stimulation.

500. APG said that the average fare decreases resulted partly from the low fares offered by the LCC on entry, and partly from the response of the incumbent FSA, which is forced to match in part the LCC's offering, although it may not need to do so for a small proportion of fares, for example, business class seats. Nonetheless, the FSA is unable to offer as high a proportion of seats in the lower fares classes as the LCC because of its higher cost structure.

501. APG reported that it had analysed all 44 US routes entered by jetBlue, AirTran and Southwest in 2001, and had compared fares and demand in the second quarter of 2000 prior to entry with those for the second quarter of 2002 after entry. It found that demand had been stimulated on average by 23% as a result of an average 25% fare reduction. APG said that incumbent airlines on these routes typically reacted initially to LCC entry by deploying additional capacity, but that by year three they were generally forced to scale back capacity by an average of about 25% to 30%.

502. APG stated that the same outcome had occurred in Australia, where the reduction in incumbent FSA capacity was due to the exit of Ansett. (APG did not, however, comment on the effect on Qantas's capacity.) It submitted that New Zealand and Tasman point-to-point routes have similar characteristics to the routes in its US study,

and accordingly, argued that the international experience whereby incumbent capacity is ultimately reduced in response to LCC entry would be applicable to these Australasian routes.

503. At the conference APG pointed out that LCCs always have a cost advantage over FSAs due to the simplicity of their services, compared to the complexity of the network-based services offered by FSAs. It said that the reduction in FSA capacity caused by reduction in fares, and the stimulation in demand, is significant regardless of the particular model used by the LCC. APG found that this impact occurred at low levels of LCC entry, and that a 5% market share could result in significant price reductions. According to APG, the price impact affected all fare classes. Business travellers make up an increasing percentage of LCC passengers, despite traditionally being high fare class passengers, as their perception of what constitutes a reasonable fare is affected by the LCC's fares. APG argued that fares in markets other than the ones entered are also affected, citing the example of BA, which had revised its fare structures on all European routes following LCC entry on only some of them.

504. In the submission on the Draft Determination, APG submitted that the growth of Virgin Blue in Australia had been significant; in under three years it had entered 24 of the 30 largest domestic sectors, and had achieved a market share in excess of 27%, including a significant share of business traffic.

Ray Webster

505. Mr Webster is the Chief Executive of easyJet, an LCC based in Britain and operating in Europe. At the conference he said that the introduction of LCCs had resulted in a dramatic fall in traditional airline fares for the following reasons:

- the fact that once consumers had become comfortable with LCC safety and reliability, they were not prepared to pay more for air travel than they needed to;
- the high degree of substitutability between routes; and
- the restrictive conditions traditionally placed on fares, such as the requirement for a Saturday night stay, had been dismantled.

506. Mr Webster said that an LCC did not need a large market share to have this type of impact. He said that initially it is the very price sensitive travellers that adopt low fares offered by the LCC entrant, but over six to 18 months the more price discerning business and leisure passengers start to switch as well, particularly as the reputation of the airline is developed.

507. Mr Webster asserted that an FSA is likely to experience an erosion of its fares across all passenger classes, and over a large number of its routes, even if the LCC did not offer a high frequency of service, because of the cost advantage of the LCC. He said that there is a strong body of evidence from around the world suggesting that

traditional airlines are not an effective form of competition against LCCs. He was of the view that FSAs would have to retrench their operations and concentrate on long-haul routes, which LCCs could not effectively service.

Dr Winston

508. At the conference Dr Winston discussed his research finding that an LCC can constrain an FSA flying on a parallel route between different airports. He mentioned the example of the two alternative routes between the Washington area to the Bay area of California in the US. He concluded that the overall impact of a powerful LCC could be underestimated if the focus were restricted to the route actually flown, because this would ignore its potential impact on competition on adjacent routes. However, he stressed that he had found this 'adjacent market effect' only for Southwest, and not for other US carriers.

Views of Other Parties

Professor Hazledine

509. Professor Hazledine, on behalf of Gulliver Pacific, said at the conference that representatives of the Applicants had perhaps been too eager to assume that the effects of LCC entry in the North American and European markets would apply equally to the Tasman and New Zealand markets. He pointed out that there were differences on both the demand and supply sides in local markets. First, on the demand side, he suggested that the quality of service offered by FSAs in the US was lower than here, so that the quality of service difference between FSAs and LCCs there was significantly less than it was here. This meant that LCCs here were at a greater product disadvantage compared to US markets. He also pointed out that the cost disadvantages of Air NZ and Qantas are less here given their respective NZ Express and JetConnect services, compared to the relative cost disadvantages of FSAs in Europe and North America.

510. Secondly, on the demand side, Professor Hazledine said that European and North American markets differed from local markets in offering dense networks, the presence of alternative smaller airports, and an absence of national carriers, implying that there is a greater range of opportunities for LCCs to exploit. Given these differences, he cautioned the Commission against drawing too much from experience with LCCs in Europe and North America.

Phillip Walker

511. Mr Walker, the Chairman of WIAL and of Glasgow Prestwick International Airport, appeared for Morrison & Co at the conference. He said that the success of LCCs is not guaranteed, and that many have exited or been taken over. In Europe the LCC market was dominated by easyJet and Ryanair, which between them had 63%, with

the balance being made up of small, recent entrants. Ryanair was more than twice as profitable as easyJet. He also stated that during 2002 alone LCCs had withdrawn from 30 routes in Europe. In the six years since deregulation LCCs had built up a market share of only 10%.

512. Mr Walker submitted that when an LCC entered a route, net passenger revenue increased, net profit per passenger decreased, and seat factors increased. Although profitability dropped on entry, it recovered in the medium term. Accordingly, the impact of LCCs on FSAs was not as severe as indicated by the Applicants.

513. He said that that there was a wide spectrum between the full FSA and the lowest cost LCC, as represented by Ryanair and Southwest, which had a clear focus on costs. He stated that these carriers were the most successful. He was of the view that because of the difference in its model, Virgin Blue would not be as successful as a Ryanair or Southwest LCC would have been. The gap between Air NZ and Virgin Blue was narrower than if Virgin Blue had a Ryanair or Southwest type of business model, partly because Virgin Blue was coming up the cost/value chain (for example, by operating from the main airports, and by having interline arrangements with Rex), and partly because Air NZ was going down the chain with its Express service.

Statistical Analysis of the Impact of Virgin Blue's Entry in Australia

514. Professor Morrison and Dr Winston, on behalf of the Applicants, provided evidence from a statistical study of the impact of the presence of Ansett Australia and of Virgin Blue on Qantas's fares in a number of city-pair routes in Australia. The study found that the presence of Ansett on a route had lowered Qantas's fares on average by 6.1%, and the presence of Virgin Blue had reduced fares on average by nearly 10%. The Applicants used these findings to support their view that Virgin Blue had been a more effective competitor than Ansett had been in constraining the market power of the incumbent. It was inferred that Virgin Blue would also effectively constrain the proposed Alliance.

515. These findings were challenged by Professor Hausman, who found that after correcting for some time variables in the regression on the same data set, the impact of Virgin Blue on a route was substantially less than that found by Morrison and Winston. Specifically, he found that the presence of Virgin Blue reduced fares by 4%, and Ansett by 3%. In one regression the impact of Virgin Blue was not statistically significant.

516. Given the disagreement on findings, the Commission obtained the data set used by both Morrison and Winston and by Hausman and ran its own regressions.[79] It was felt that these would shed light on the impact on Qantas of competition from both an FSA (Ansett) and an LCC (Virgin Blue), and from the two combined, and thereby provide an insight on the impact of LCC competition of potentially more relevance to

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[79] A detailed description of the Commission's analysis is attached as Appendix IV.

Australasian conditions than information quoted by the Applicants based on US markets. The regressions were also expected to provide a basis for judging the degree of product differentiation that was expected to exist between an FSA and an LCC.

517. The statistical analysis suggested the following:

- The entry by Virgin Blue on Australian domestic routes appears to have had a relatively small dampening impact on fares over the period from its entry until June 2002, and much less than the Applicants claim using US evidence of LCC entry. It is possible that the exit of Ansett's capacity could have mitigated to some degree against fare reductions, since it appears that both Qantas and Virgin Blue initially struggled to increase capacity to meet the demand diverted from Ansett. However, this effect would have lessened over time, and the increasing competition between the two may be reflected in the increasing size of the year dummy parameter values. On the other hand, evidence on fare trends from the Australian Bureau of Transport and Regional Economics (BTRE) discussed below suggests that Virgin Blue's entry caused discount fares to decline, and economy and business fares to increase. This finding receives some support from studies by Forsyth and by Ergas and Findlay.[80]

- Contrary to the Applicants' argument, based on US data, that only a small amount of LCC capacity on a route (as low as 5%) is sufficient to provide a dampening effect on fares, the statistical study above suggests that the amount of capacity is likely to be important. Virgin Blue's impact on fares increased year-by-year over the period of the study, suggesting that its capacity (and the implied strategic response of the incumbents) did matter. The extent to which Qantas and Air NZ have been increasing capacity in markets in anticipation of Virgin Blue's entry means that it will have less of an impact on fares.

- The study suggests that the likelihood of Virgin Blue entry increases over time as the carrier grows, and that it is not averse to entering longer distance routes. However, the probability of entry is reduced when capacity is expanded and fares reduced in the market. On the Tasman and domestic New Zealand routes the two incumbents have already reduced fares significantly through their Express and JetConnect operations.

- A clear degree of product differentiation between Virgin Blue and Ansett emerges from the study, as indicated by the differential impact of the two in restraining Qantas's fares. The differentiation appears substantial, although this could have narrowed since entry as Virgin Blue has added more FSA-like quality of service, in terms of frequency, capacity, and other services (e.g., lounges).

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[80] P Forsyth, "Low Cost Carriers in Australia: Experience and Impacts", *Journal of Air Transport Management*, forthcoming; and H Ergas and C Findlay, "New Directions in Australian Air Transport", *Agenda*, vol. 10/1, 2003, pp. 27-41.

Commission's Assessment

518. The Applicants have painted a picture of aviation markets internationally in which well established FSAs have been falling back under the onslaught of new LCC entrants, and where the LCC model is now so well understood that almost every well-financed entrant is almost guaranteed of success. The Commission is of the view that the picture is rather more mixed than this.

519. APG appears to claim that the entry by LCCs typically results in a reduction of incumbent FSA capacity by 25% to 30%, implying a simple transfer of capacity from the one to the other. However, there are a number of problems with this view. First, the period analysed around 2001 was one of general contraction for FSAs in the US because demand for their product was falling for various reasons, and because they had considerably over-extended their capacity prior to 2001. This effect, which was not controlled for in APG's analysis, no doubt contributed to the apparent impact that LCCs were having. Secondly, although LCCs do typically take some passengers from FSAs, they also expand the market through the low fares they offer.

520. When an LCC enters a market, a sequence of events typically unfolds. As acknowledged by the Applicants, fares decline, and the incumbent FSA responds by increasing capacity. However, Windle and Dresner[81] have shown that with LCC entry, fares initially fall, and then subsequently recover to some percentage of their pre-entry level. A lower equilibrium fare means that quantity demanded has increased, and that more capacity is required. Over time, an FSA that is trying to fare-match an LCC may remove capacity, recognising it is not making money. In this case, LCC capacity will replace FSA capacity. This is a more mixed picture than that painted by the Applicants of a simple transfer of FSA capacity to LCC capacity following entry.

521. The Applicants provided several examples of LCC success. However, they did not dwell on the numerous examples where LCCs have failed or been taken over. The number of successful operators worldwide is, in fact, relatively few. In Australasia there have been five LCC start-ups in the last ten years or so—Compass I, Compass II, Kiwi International, Impulse and Virgin Blue—and all have failed apart from the last (which has been operating for just over three years). Hence, the Commission is concerned about the sustainability of LCC entry in general, and of Virgin Blue's entry in particular, especially given that there are few if any other significant competitors currently in sight in the relevant markets.

522. The Commission is also of the view that there has been insufficient recognition by the Applicants of the fact that FSAs are increasingly turning to alternative strategies in response to the threat to the FSA model posed by LCC entry on short-haul routes. Examples of this strategic behaviour internationally include the following: pricing strategies by Lufthansa to set all off-peak fares at 99 Euro for all German domestic

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[81] R Windle and M Dresner, "The Short and Long Run Effects of Entry on US Domestic Air Routes", *Transportation Journal*, vol. 35(2), winter 1995, pp. 14-25.

routes; Air Canada's multi-branding strategy (involving its own LCC); United Airlines, Delta and Northwest developing their own LCC brands; and many carriers making strenuous efforts to reduce costs. In Australasia examples of this trend include the following: the development by Air NZ and Qantas of the Express and JetConnect services respectively; Air NZ's Freedom Air operation; Qantas's plan to establish its own LCC for Australian domestic routes; and both airlines' plans to substantially reduce their costs over the next two to four years. The Commission is of the view that these moves are likely to result in LCCs in the same markets growing at slower rates, and make Dr Tretheway's projected LCC market shares difficult to attain.

523. In Australasia these developments have narrowed the differences between the incumbents and Virgin Blue. Moreover, Virgin Blue is not a particularly low cost LCC in the mode of Ryanair and Southwest. It should also be noted that Virgin Blue had a fairly difficult start, and it was only with the demise of Ansett that it was able to get well-established in the market.

524. The Applicants argued in respect of Europe that LCCs are likely to expand further, and pointed to the strong recent growth of Ryanair and Easyjet. However, market analysts have cautioned that LCCs are unlikely to dominate short-haul travel or to approach the 25% market share achieved in the US.[82] This is because of several factors peculiar to air travel in Europe: the contestable low cost segment is argued to be smaller in Europe than in the US; there are well-established packaged tour operators and national flag carriers that can block deeper inroads by LCCs; and there are fewer routes that have enough traffic to sustain the frequency of low cost departures that could encourage business customers to switch from LCCs. If this view were correct, it would provide further grounds for caution in using overseas trends with LCCs as the basis for forecasting growth by Virgin Blue in Australasia.

525. Some further evidence on the impact of Virgin Blue's entry in Australia is provided in Figures 2 and 3. Figure 1 shows the impact on three classes of fares—business, economy and best discount—over the period March 1999 to March 2003, remembering that Impulse entered in June 2000, Virgin entered in August 2000, and Ansett ceased flights in September 2001. The data are those of the BTRE, and the Commission understands that they represent the best fares available in each class on a monthly basis in real terms (excluding taxes and charges). The Figure shows that the discount category fell sharply following Impulse's entry, which slightly preceded that of Virgin Blue, whereas the other two fare categories increased. Virgin Blue has not had the effect of reversing this trend initiated by Impulse. This mirrors Forsyth's finding referred to above.

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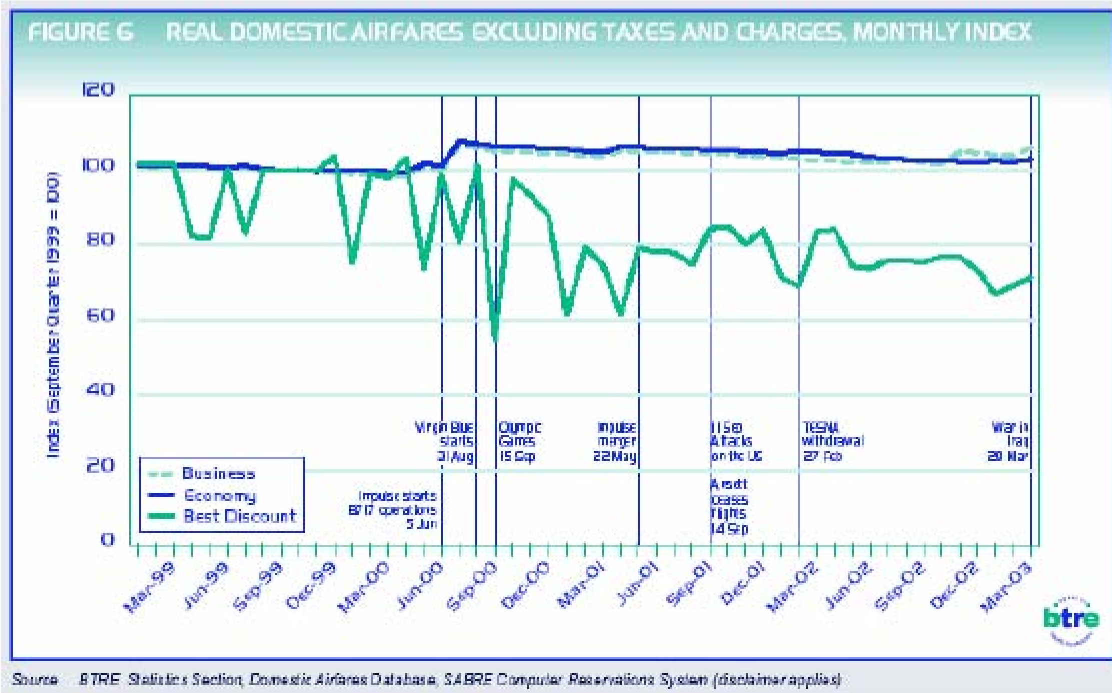
[82] U Binggeli and L Pompeo, "Hyped Hopes for Europe's Low-cost Airlines", *The McKinsey Quarterly*, no. 4, 2002.

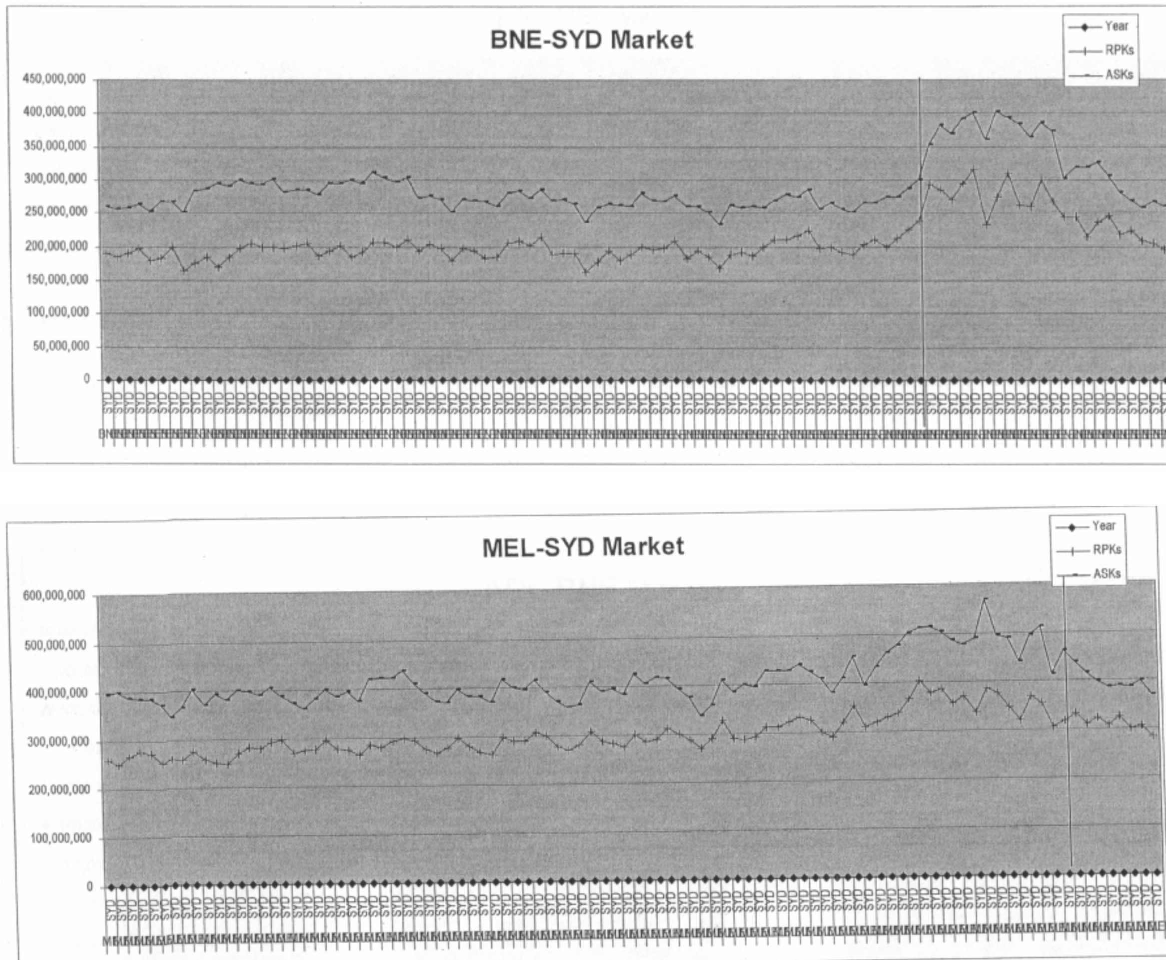
FIGURE 2
Fare Trends in the Australian Domestic Market, March 1999 to March 2003



526. Figure 2 shows the impact on market capacity of Virgin Blue's entry for two important representative markets: Brisbane-Sydney and Melbourne-Sydney. The data used was that from the study by Morrison and Winston used in the statistical study discussed above. In the first market it is evident that there was an expansion of capacity for a period after entry, but within a few months capacity had returned to prior levels. In the second market the impact on capacity occurred before entry, and capacity appears to have been on a downward trend by the time entry had occurred. These two Figures broadly reflect the experience in most other markets for which the Commission has data, namely that there was little sustained impact on capacity.[83] This in turn, via the Cournot assumptions generally favoured for aviation markets, would suggest that price effects would have been small.

[83] The exception is the Brisbane-Adelaide route where there was a very marked and sustained increase in capacity. This has become the subject of litigation by the ACCC alleging "capacity dumping" by Qantas.

FIGURE 3
Capacity Changes on Two Australian Routes Before and After Virgin Blue's Entry, February 1998 to June 2002



527. The progress of LCCs in North America and Europe has been facilitated by various factors, some of which are not present in the New Zealand and Tasman markets. One of the key reasons for the success of LCCs in the US is their ability to use secondary airports, which are less expensive and offer an avenue for differentiation of service. The United States has a well developed highway system that allows people to substitute secondary airports for major airports, and allows LCCs to draw passenger from a larger geographic catchment. This is also the case in Europe. In contrast, there are few if any secondary airports servicing the major centres in Australia or New Zealand.

528. A second factor is the size of, and the population densities in, the US and European markets, which are vastly greater than the New Zealand and Tasman markets. This increases the likelihood that there will be under-served city-pairs available for LCCs to exploit. Thirdly, airlines such as Ryanair developed entirely new routes and

destinations, many of which had never before experienced air services. The ability for this to occur in New Zealand is very limited, given the almost saturation-level services offered by the incumbents.

529. Furthermore, although there is evidence showing that the existence of an LCC in markets in North America results in lower fares, even when the LCC has a small market share, the statistical analysis described above indicates that the entry of Virgin Blue into the Australian market appears to have had a relatively small dampening effect on fares overall, and that the amount of market share held by the LCC is relevant.

Conclusion on Effect on Competition of LCC Entry

530. The Commission accepts that LCC entry in North America and Europe has had a significant impact on many passenger air services markets, in that it has typically resulted in the following affects: lower fares; fewer restrictions attached to fares; the availability of more routes; the stimulation of demand; the reduced ability of FSAs to price discriminate (although recognising that both FSAs and LCCs do price discriminate); contributing to the undermining of the financial viability of some FSAs; and some reduction of FSA capacity.

531. However, the Commission is of the view that, on the balance of probabilities:

- the North American and European markets are not directly comparable with the Tasman and domestic New Zealand markets, as they are much larger and have more competing airlines;

- the establishment of Virgin Blue in Australia was greatly assisted by the collapse of Ansett, and that it is unlikely that its growth in the Tasman and domestic New Zealand markets would receive a similar boost, so that its expansion would be slower; and

- the statistical analysis of the impact on fares of Virgin Blue's entry in Australia suggests that its entry on the Tasman and domestic New Zealand markets is unlikely to result in a decrease of average fares to the extent experienced in North America and Europe, and that its impact may in fact be limited to discount fares only.

532. The Commission further notes that in its analysis below, it finds that Virgin Blue is likely to enter on both Tasman and domestic New Zealand routes in both the factual and the counterfactual, although to a lesser degree in the factual. Hence, in terms of judging its impact on competition, the focus is on the difference between the states of competition in those two scenarios when all aspects are considered, not just the impact of Virgin Blue's entry.

8 *COMPETITION ANALYSIS*

COMPARISON OF COMPETITION IN THE FACTUAL AND COUNTERFACTUAL

533. In order to assess the competition effects of the Acquisition and Arrangement proposals, it is necessary to assess the extent to which competition may be lessened in the factual, when compared with the counterfactual.

534. The substantial lessening of competition test is the competition threshold which applies to the Acquisition proposal. If the Commission is satisfied that this proposal will not have, or be likely to have, the effect of substantially lessening competition in all relevant markets, then clearance must be given to the application. If, however, a contrary view is reached on this competition test then, in the case of an authorisation application, the issue is whether the proposal should be permitted on the grounds of public benefit: s 67(3). In this context the findings of a substantial lessening of competition form the basis for the assessment of detriments arising from the proposal. For the Commission to grant authorisation it must be satisfied that the benefits outweigh the detriments.

535. Under the Arrangement proposal, the competition inquiry relates to the extent to which competition may be lessened in the factual, when compared with the counterfactual. Any lessening of competition beyond de minimus means the Commission must go on and consider whether the public benefits are such that it should be authorised.

536. By way of preliminary comment, it should be noted that the deeming provisions of s 30 apply to the Arrangement proposal. Qantas and Air NZ propose to enter into an arrangement whereby they will co-ordinate all aspects of pricing in respect of each of the markets identified above (see sections 5.2 of the Strategic Alliance Agreement). Accordingly, there is a proposed arrangement between Qantas and Air NZ which will have the purpose, effect or likely effect, of fixing, controlling or maintaining the price for services in each of the identified markets.

537. It follows, under the Arrangement proposal, that there is deemed to be a substantial lessening of competition in each of the relevant markets.

538. In the case of an application for the authorisation of price fixing and related arrangements, the Commission must go beyond the deeming provisions of s 30. The Commission must assess the degree to which there may be a lessening of competition, in the markets affected by the proposal. This analysis will form the basis of the assessment of the detriments.

539. Accordingly, the competition assessment of both the Acquisition and Arrangement proposals involves a parallel assessment of the extent to which competition may be

lessened in the factual, when compared with the counterfactual. Given the conclusions that the Commission has reached, that there is a substantial lessening of competition in all but two of the markets, and a deemed substantial lessening of competition in all markets, it is appropriate in this section to outline the competition assessment as it applies to both applications. As the following analysis in this section applies to both of the interdependent applications, for convenience, the comparison of competition between the factual and the counterfactual is discussed by way of reference to the proposed Alliance.

540. An examination of concentration in a market following a structural change can provide a useful guide to the competitive constraints that market participants may place upon each other, including the combined entity. Both structural and behavioural factors have to be considered.

541. Market shares can be measured in terms of revenues, volumes of goods sold, production capacities or inputs (such as labour or capital) used. All measures may yield similar results in some cases. Where they do not, the Commission may, for the purposes of its assessment, adopt the measure which yields the highest level of market share for the combined entity. The Commission considers that this will lead to an appropriately conservative assessment of concentration, and that the factors which lead to the other different market share results are more appropriately considered elsewhere during the assessment of the acquisition.[84]

542. Following the analysis of existing competition, if necessary, barriers to entry for each market and the modelling results are considered. A combining of all of these factors allows the Commission to make a conclusion on the likelihood of substantial lessening of competition for all the markets.

543. The qualitative analysis here has been supplemented by merger simulation modelling, based on the Cournot framework just described, and taking account of LCC entry where considered appropriate. Different forms of the model were used for different relevant markets, and each was adjusted to suit the circumstances expected in each of those markets. These models are used primarily to estimate the allocative efficiency detriments, and hence are discussed in detail in that section below. However, as part of that process, the models compute the expected increase in prices in the factual relative to the counterfactual on a market-by-market basis, and hence can be used to judge the extent of the lessening of competition, and whether that lessening is substantial. The Commission has previously stated its view that a price increase of 4-5% is normally required for there to be a substantial lessening of competition, although in some circumstances a lesser increase may suffice. The modelled price results are reported in each of the individual market assessments below.

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[84] For example, where market share measured in terms of capacity produces a significantly lower share of the market in the hands of participants than a measure in terms of sales volumes, the constraint on a combined entity from that unemployed capacity might be taken into account when identifying near entrants or the constraint from new market entry. In some cases, the model of market power being used may influence the choice as to which market share measure is used.

THE MAIN TRUNK MARKET

544. The analysis of the main trunk market is substantially more detailed than that in the other markets and most of the analysis can be applied to many of the other markets.

Participants

545. Existing participants in this market comprise Air NZ, Qantas, and as a minor participant, Origin Pacific which operates on the Wellington – Christchurch route using larger turbo-prop aircraft.

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546. Air NZ and Qantas would continue to compete in the counterfactual but would be combined in the proposed Alliance in the factual.

547. Table 4 below outlines the market share figures in the main trunk market based on pre-Alliance revenues and capacity.

Table 4
Market Shares in the Main Trunk Market for Year ended 31/12/02

Airline	Revenue	Market Share	Capacity	Market Share
Air NZ	[ ]	[ ]	[ ]	[ ]
Qantas	[ ]	[ ]	[ ]	[ ]
JAO (Alliance)	[ ]	[ ]	[ ]	[ ]
Origin Pacific	[ ]	[ ]	[ ]	[ ]
Total	[ ]	[ ]	[ ]	[ ]

548. If the proposed Alliance were to proceed, it would have a main trunk market share of [ ] % based on pre-Alliance capacity. The Commission considers that there will be further aggregation beyond this [ ] %.

Constraint from Existing Competition in Counterfactual and Factual

549. In the counterfactual, competition between Air NZ and Qantas would continue and possibly increase. In the factual Air NZ and Qantas would combine their operations in the proposed Alliance and this competition would no longer exist.

550. Under the counterfactual, although subject to constant renegotiation, the code-sharing arrangement between Qantas and Origin Pacific is presumed to continue due to the financial advantages to both parties to the arrangement.

551. Industry participants stated that Qantas and Air NZ currently compete heavily with each other. Although Origin Pacific provides 6000 seats a week on the Wellington-Christchurch route, [ ] of these are contracted to Qantas through a code-sharing arrangement.

552. Much of Origin Pacific's expansion to date has been based on wet lease and code-share agreements with Qantas. Origin Pacific has stated that the continuance of its present capacity in the factual is very unlikely as it will lose [ ] of its business in terms of total revenue through the loss of the code-share arrangement with Qantas. Origin Pacific has also persistently rejected the proposition that its presence in either the main trunk or provincial markets is sufficient to prevent a substantial lessening of competition. It is noted that the Applicants' assertion that the Alliance will 'merely result' in Origin Pacific's retrenchment to the level that existed before its arrangement with Qantas ignores that fact.

553. The Commission considers it is likely that the arrangements between Origin Pacific and Qantas would not be renewed if the proposed Alliance proceeds. Under the proposed Arrangement, Air NZ has the role of managing the commercial aspects of the JAO Networks, and would be unlikely to "manage" a wet lease or code-sharing role for its provincial competitor. Accordingly, the Commission is of the view that Origin Pacific's ability to compete will be seriously undermined by the loss of its code-share partner. The Commission believes, consistent with Origin Pacific's own view, that retrenchment is more likely.

554. In the factual, the proposed Alliance would control 100% of the market on all main trunk routes other than Wellington-Christchurch. If it did continue to face competition from Origin Pacific on the Wellington-Christchurch route, the Commission is of the view that in the factual, it would be extremely limited and greatly reduced from the [ ] seats per week that Origin Pacific currently provides. The effect on Origin Pacific of the loss of the Qantas business would significantly reduce the ability of Origin Pacific to operate as an effective competitor on the main trunk routes.

Conclusion on Constraint from Existing Competition

555. In the counterfactual there would be competition between two strong carriers and one small carrier. In the factual the competition would be between a very strong carrier and a very small one, ignoring for now, any possible entry. Accordingly, the Commission considers, on the balance of probabilities, that the proposed Alliance is unlikely to be constrained by existing competition on the New Zealand main trunk routes in the factual.

Constraint from Potential Competition in the Main Trunk Market in the Counterfactual

Introduction

556. The purpose of this analysis is to determine the degree to which the entry, or threat of entry, of new market participants or the expansion of existing competitors would provide potential constraint in the main trunk market in the counterfactual and to compare such potential constraint with that in the factual.

557. The only potential main trunk market entrant that the Commission has identified is Virgin Blue (or a New Zealand-based subsidiary of Virgin Blue). The only existing competitor that may be in a position to expand is Origin Pacific.

558. The degree of competitive constraint that the entry, or potential entry, of Virgin Blue and the expansion of Origin Pacific has in the counterfactual and the factual is determined by the likelihood, extent and timeliness of entry and expansion. These factors, in turn, will be determined by the obstacle to entry or expansion posed by the aggregation of any barriers to entry or expansion. The Commission considers a barrier to entry or expansion is an additional or significantly increased cost or other disadvantage as against the incumbents that must be faced as a condition of entry and/or expansion.[85]

Conditions of Entry in the Counterfactual and Factual

559. The Commission considers that the following conditions of entry and expansion may be important determinants of the ability of an airline to enter and expand in the main trunk market, and thus require further analysis:

- scale and scope of entry;
- sunk costs;
- access to feeder services;
- brand awareness;
- access to travel distribution services;
- size of market;
- capital requirements;
- loyalty schemes of incumbents;
- incumbent response; and
- access to airport facilities.

560. After considering submissions on its Draft Determination, the Commission considers that in this case, of the above list of conditions of entry:
- scale and scope of entry;

[85] Commerce Commission v Southern Cross Medical Care Society 2001, CA 89/01.

- sunk costs;
- brand awareness; and
- access to travel distribution services;

do not amount to barriers to entry by Virgin Blue or expansion by Origin Pacific, as discussed below.

561. The Commission considers that the Australian domestic passenger services markets illustrate that the entry of Virgin Blue does not need to occur on the same scale as the incumbents' existing operations, for such entry to be sustainable, although it should be noted that the Australian main routes are much larger than those in New Zealand and a direct comparison is not possible. Further, the Commission notes that Qantas has entered and remains as a competitor, in the New Zealand main trunk market, on a scale much lower than that of Air NZ. It should also be noted, however, that Qantas's New Zealand operation is loss-making on a stand-alone basis and is [ ]. Although the Commission considers that eventually Virgin Blue, as an entrant, would require frequency and capacity on a scale sufficient to attract all customer types, in order to remain viable in this market, it is of the view that scale and scope of entry would not be a barrier to Virgin Blue's entry.

562. The Commission is also of the view the scale and scope of entry would not be a barrier to the expansion of Origin Pacific.

563. Costs resulting from Virgin Blue's acquisition of a reservation system, terminal facilities, engineering facilities, advertising for brand recognition, aircraft painting, pilot training, and manuals, although sunk, are costs which both Air NZ and Qantas have had to incur. Such costs do not represent a disadvantage that Virgin Blue inherently faces against the incumbents and as such are not barriers to entry.

564. Moreover, sunk costs arising from the expansion of an existing Australasian carrier such as Virgin Blue into the adjacent Tasman and main trunk markets are likely to be less than for any other potential entrant. The Commission does not consider sunk costs are a barrier to Virgin Blue's entry into the main trunk (and the Tasman) market.

565. Origin Pacific already has access to the facilities referred to in paragraph 32 and although it may need to expand these facilities, for the reasons set out in paragraph 32, the Commission is of the view that sunk costs are not a barrier to Origin Pacific's expansion in the main trunk market.

566. Singapore Airlines has refused Virgin Blue permission to use the well known trademark "Virgin" outside of Australia. Nevertheless, the Commission considers that the airline is capable of generating, and has already generated, significant publicity and brand recognition. It notes that the new name of the New Zealand based subsidiary of Virgin Group, Pacific Blue, together with photographs of the first liveried aircraft at Boeing's works, appeared in the national press well before the

official launch of Virgin Blue's Tasman service. Substantial television publicity arose from the launch itself. Origin Pacific already has an established brand.

567. Travel distributors currently provide services to any airline that wishes to deal with them. In any event, the LCC model prefers sales by internet and telephone rather than by travel agents. Internet bookings currently account for 90% of Virgin Blue's Australian sales. Air NZ has advised the Commission that 29% of the bookings of its NZ Express services are made by internet which shows that New Zealanders readily accept a system of booking air tickets over the Internet in order to receive price discounts. The Commission considers that, given its LCC mode of operation, access to travel distributors will not be part of the considerations of Virgin Blue when it decides whether to enter the main trunk market and is not likely to be a barrier to entry. Origin Pacific already has access to travel distribution services.

568. After considering submissions on its Draft Determination, the Commission considers that in this case, of the above list of conditions of entry:

- capital requirements;
- loyalty schemes operated by the incumbent market participants;
- the potential response of the incumbent market participants; and
- access to airport facilities in New Zealand, and
- access to feeder services

remain as potential barriers to entry and/or expansion in the main trunk market. Each is considered in turn.

Capital Requirements as a Barrier to Entry and Expansion in the Counterfactual and Factual

569. In their most recent submissions, the Applicants argued that:

- Virgin Blue will be entering into markets (Tasman and main trunk) that are adjacent to its existing Australian domestic markets and that such entry is easier than ex novo entry because only route specific capital is required;

- the main trunk routes are high revenue routes. Virgin Blue's cost advantage should allow it to obtain a sizeable share of those revenues. In considering barriers, it is necessary to balance capital requirements against revenue available from the route specific investment; and

- Virgin Blue is a profitable airline and has a lower cost of capital than the Applicants, which should provide it with easier access to capital. This is illustrated by Virgin Blue's announcement that it is proceeding with its partial capital float, despite the current gloomy aviation investment

climate. Further, it apparently has the ability to finance its current purchase of 10 new Boeing 737s in that same climate.

570. On the other hand, submitters also noted that airlines (Kiwi International, Ansett NZ, Ansett Australia, Compass I and II and Impulse) have "come and gone" in Australasia, in recent years, and that lack of capital was a primary reason for their demise. In this regard, the Commission considers that Virgin Blue's ability to access sufficient capital to provide it with the breathing space to obtain a critical market share is an important consideration.

571. However, the Commission notes Virgin Blue has contracted to purchase 10 new Boeing 737 aircraft in the year to August 2004 for use in Australasian markets. This has required it to access about A$620 million of capital over a year.

572. Mr Huttner of Virgin Blue informed the Commission that Virgin Blue has access to the resources of the Virgin Group, although it had never had to tap into that "war chest".

573. The Commission also has noted an arrangement made on 10 September 2003 between Virgin Blue's two major shareholders, Virgin Group and Patrick Corporation, whereby:

> Patrick Corporation will pay to Virgin Group A$240 million, with no further consideration required with respect to its current shareholding. This removes the escalator clause which was part of the previous shareholder agreement and which required that a further consideration was payable dependent upon the performance and valuation of the Company

and

> the shareholders have agreed to the issuance of new equity capital to a value of A$400 million to facilitate the IPO.

574. Mr Brett Godfrey, Virgin Blue Chief Executive said of the new agreement

> This restructured shareholders' agreement fully aligns the interests of our two shareholders and paves the way for us to introduce new equity into our business. This capital raising when undertaken will give Virgin Blue a healthier balance sheet, greater flexibility in how it funds its growth and will put us in an even stronger position to respond to any aggressive action by our competitors.

575. The Commission has noted the submissions of some of the opponents of the proposed Alliance that various LCCs around the world (including in Australasia) have failed due to lack of capital. However, for the reasons given, the Commission does not consider that is likely to apply to Virgin Blue. Nor does it consider that capital requirements will pose a barrier to the entry of Virgin Blue into the main trunk market in the counterfactual or the factual. That conclusion may not necessarily apply to any other potential entrant not yet on the scene.

576. In the July 28 2003[86] report of Professor Robert Willig and Margaret Guerin-Calvert (the Willig report) it was suggested that Origin Pacific could act as a significant competitor on the main trunk routes, particularly on the Wellington-Christchurch route, if it continued to provide the capacity levels it currently provides combined with its ability to expand. It was stated that:

> 'the key question is whether …Origin Pacific would have the *ability* to enter, or expand in, the domestic New Zealand market, if the proposed alliance partners were to attempt to raise prices significantly. Our review of the evidence suggests that neither airline would face the kinds of barriers to entry or expansion that would inhibit their ability to enter or expand on domestic New Zealand routes.'

577. The Willig report continued by examining capital requirements for Origin Pacific in the provincial market but did not address this issue with regard to the main trunk market. The Commission is of the view that there are significant costs involved in the expansion onto the main trunk, particularly the costs involved in resisting incumbent response. Accordingly, the Commission is of the view that access to capital would a significant barrier to expansion by Origin Pacific which does not have the access to funds that Virgin Blue has in the main trunk market.

Loyalty Schemes Operated by Air NZ and Qantas as a Barrier to the Entry and Expansion in the Counterfactual and Factual

578. Neither Origin Pacific nor Virgin Blue currently operates loyalty programmes. The absence of frequent flyer programmes has in the past operated as a barrier to the entry of LCCs such as Virgin Blue. Business travellers are likely to be the passengers most attracted to such programmes. The Commission received evidence from Virgin Blue that the absence of a frequent flyer programme has led to Virgin Blue having difficulty in obtaining the lucrative contract for Australian Government employees flying in and out of Canberra.

579. When asked whether it considered the absence of a frequent flyer programme had been an issue for it in obtaining business passengers, Virgin Blue stated:

> there is a segment of the market, an example of an individual who is attracted to frequent flyers in a way that's not economically rational except for the person's personal economics, which is economically rational. Its fair to say we do miss a certain type of individual, just like we did before we had lounges or before we had a certain level of frequency…..there will always, unless we introduce a frequent flyer programme, there will be a niche of the market that we will not fully address for their business needs … if they can't get their frequent flyer point tickets

and

[86] Professor Robert Willig and Margaret Guerin-Calvert, *'An Economic Analysis of the Consumer Benefits and Competitive Effects of the Proposed Alliance Between Qantas Airways and Air New Zealand'* July 28 2003.

> ….I'm not sure whether our situation with Government traffic out of Canberra, Wellington – Canberra's going to be a winner either …..

580. The Commission notes that the benefits of loyalty programmes are not achieved without cost and that low fares and service frequency also have an important role in attracting business passengers. Further, the absence of loyalty programmes does not appear generally to have been a barrier to the entry and expansion of LCCs worldwide. However, on balance, the Commission considers that in certain segments of the business market and on certain routes, the reverse is likely to be true.

581. The Applicants have provided the Commission with information that shows that on main trunk routes business travellers account for an overall weighted average of [ ] of their two main trunk passenger service businesses. The equivalent figure for their largest route, Auckland to Wellington, rises to [ ]. Clearly, the business traveller must be an important potential source of revenue to an entrant such as Virgin Blue and an inability to have access to that entire segment, due to absence of a loyalty programme, is likely to cause entry difficulties.

582. Therefore, the Commission considers that while certain aspects of the LCC model adopted by Virgin Blue allows the airline to overcome some of the traditional entry conditions listed above, the absence of a loyalty programme (also a feature of the LCC model) is likely to lead to the opposite effect and tends to result in the raising of a barrier to Virgin Blue's entry into the main trunk market.

583. Under the proposed Alliance, it is intended that the frequent flyer programmes of each of Air NZ and Qantas will remain separate and autonomous. However, the proposed Arrangement provides that in the factual, Air NZ and Qantas frequent flyer members will each be entitled to accrue and redeem air points by travel on both airlines. Moreover, Air NZ frequent flyer members will, as well, be entitled to accrue and redeem points on sectors flown by Qantas outside the scope of JAO.

584. This combined accruing and redeeming feature is likely to be more attractive to business (and to a lesser extent leisure[87]) passengers than in the counterfactual. This will particularly apply to Air NZ frequent flyers members whose range of qualifying points earning ability and travel will be extended considerably onto Qantas's Australian and (much more extensive) international sectors.

585. Therefore, the Commission considers that the absence of a loyalty scheme will be a greater barrier to entry and expansion for both Virgin Blue and Origin Pacific in the factual than in the counterfactual.

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[87] For example, leisure travellers are more likely to be attracted to cheaper fares which, under the new "Express" and JetConnect services of Air NZ and Qantas do not necessarily qualify for air points.

Response by Air NZ and Qantas as a Barrier to Entry and Expansion in the Counterfactual and Factual

586. In order to provide effective competition, Virgin Blue must be able to enter and secure a viable position within a reasonable timeframe in the market and/or Origin Pacific must be able to expand in the market against the likely responses from the Applicants using their natural advantages of:

- established operations, with sunk costs already incurred;
- brand loyalty;
- relationships with travel distributors;
- loyalty schemes;
- market share;
- economies of scale and of network density; and
- reputation for safety.

587. These advantages have enabled, and will further enable, the Applicants to maximise the effectiveness of their response to the main trunk entry of Virgin Blue, particularly during the period immediately prior to entry being effected or to the expansion of Origin Pacific. The Applicants might provide extra capacity on the sectors which Origin Pacific or Virgin Blue intends to fly, promote frequent flier and club programmes and discount fares. They can focus their "competitive response" on a few routes on which an entrant enters, gaining strength from operations across a number of routes.

588. In their most recent submissions, the Applicants argued that:

- Virgin Blue has stated it will enter the main trunk market in both the counterfactual and the factual. Virgin Blue in making this decision to enter has factored in the likely strategic conduct of Qantas and Air NZ acting both individually and in concert in the proposed Alliance.

- To be successful, a predatory strategy must be profitable in the long run. The key conditions for that is the existence of information incompleteness and information asymmetry. Information incompleteness is the misunderstanding by the entrant, either of the incumbents' abilities to shift costs between routes subject to entry and other routes, or of the incumbents' reliance on interlining to produce the revenues on the routes in question. Information asymmetry may occur when incumbents are able to convince entrants that they have a cost advantage and are able to gain the reputation for aggressive pricing when faced with entry.

- Neither information incompleteness nor information asymmetry exists in the present factual matrix. The LCC model does not rely on interlining to produce revenues. Further, Virgin Blue will enter both the Tasman and

main trunk routes, thereby depriving Air NZ and Qantas of the ability to use those profitable routes to shift costs and distort the market conditions on other routes. Finally, Virgin Blue has a lower cost structure than either incumbent and each airline knows that. Hence Virgin Blue would realise that a predatory strategy by either incumbent following its entry could not be credibly sustained. In any event as stated, cross-subsidisation by either of the incumbents would be difficult because Virgin Blue is likely to enter their most profitable routes.

- Empirical evidence shows that the most bitterly fought airline price wars occur where a weak incumbent (perhaps Air NZ) is seeking to retain its market share. This suggests Virgin Blue would be exposed to more price risk in the counterfactual than the factual.

- Were incumbent airlines readily able to exploit strategic entry barriers, the world wide entry of LCCs, one example of which is Virgin Blue's entry and expansion in the Australian domestic market in the face of two incumbents, would not have occurred.

- The success of Air NZ Express class has demonstrated the market will readily accept a LCC entrant.

589. The Commission has, nevertheless, noted the following examples of the responses of the Applicants to the entry of competitors which might be used as a guide to their likely response to Virgin Blue's entry or Origin Pacific's expansion in the counterfactual and the factual:

- Qantas increased capacity on the Brisbane to Adelaide sector in response to Virgin Blue's entry. That matter is now the subject of court action between the ACCC and Qantas;

- Qantas re-entered the Brisbane – Mount Isa sector with substantial capacity, a route they had not flown for some years, in response to Virgin Blue's entry. Virgin Blue exited that route and Qantas responded by reducing capacity;

- Qantas has announced it is considering establishing a subsidiary to operate in Australia in the low cost model;

- Both Air NZ and Qantas have introduced their "Express" and "JetConnect" reduced fare and service models which begin to approximate Virgin Blue's LCC mode of operation, on Tasman and domestic routes;

- Expansion by Air Nelson of capacity on Origin Pacific routes[88];

[88] Of the nine routes on which Air Nelson has expanded capacity, Origin Pacific operates on eight.

- Air NZ responded immediately to the proposed introduction, by Origin Pacific of a direct Hamilton-Christchurch service, by announcing its own new identical service at similar times and similar prices;

- On 22 September 2003, five days after Virgin Blue announced its "Pacific Blue" base was to be Christchurch and its first sector flown would be Christchurch to Brisbane, Air NZ announced an additional 11 flights on trans-Tasman routes, seven of which were to and from Christchurch. As part of the announcement, Air NZ more than doubled[89] the capacity it intended to provide on the Christchurch to Brisbane route;

- Air NZ responded to Royal Tongan's commencement of Sunday flights from New Zealand to Rarotonga with a 40% reduction of its own fares on the same route; and

- Air NZ's well documented response to the entry of Kiwi International.

590. The Commission considers that, in spite of the theoretical arguments of the Applicants to the contrary, the evidence of past and present behaviour by the Applicants shows that entry of Virgin Blue has provoked and would further provoke, vigorous responses against it in the main trunk market by the Applicants and that the threat of this occurring, as well as the response itself, is a barrier to entry and expansion by Virgin Blue in the counterfactual and the factual. The Commission is also of the view that any expansion by Origin Pacific in the main trunk market would also provoke such responses.

591. Virgin Blue submitted that one major impediment to its entry and expansion in the factual is the likely strategic response of Air NZ and Qantas. At the Commission's conference Virgin Blue's Mr Huttner said:

> Virgin Blue believes that there are opportunities in this market {main trunk and trans-Tasman}. There are, however, barriers to its entry and expansion within this market; these are principally, as has been identified in the submissions, barriers associated with the strategic or predatory conduct of the proposed alliance, and …..
>
> Virgin Blue believes that, given these barriers, it is difficult for the Commission to be satisfied that Virgin Blue can offer an effective competitive constraint to the proposed alliance.
>
> and
>
> Certainly, there's two major issues that we're concerned about; there's the use of capacity as a weapon and {access to} airport facilities.

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[89] Air NZ currently provides two flights per week between Christchurch and Brisbane. The new number will be four. However, it also announced that the 114 seat 737s will be progressively removed from trans-Tasman routes and replaced by A320s which have a 146 seat capacity.

592. The Commission considers that the response to Virgin Blue's entry by the proposed Alliance would inherently be a greater barrier to its entry and expansion in the factual than in the counterfactual. In the counterfactual, Air NZ and Qantas would respond to Virgin Blue's entry independently. The competitive force of the response of each would be necessarily diluted by their need to respond to the other's competitive behaviour as well as the entry of Virgin Blue.

593. Qantas has informed the Commission that its New Zealand main trunk routes on a stand alone basis are currently, and will be [ ] loss making operations. Qantas claimed that the projected wider network benefits from operating on the New Zealand main trunk easily exceed these losses. Qantas said these benefits arise from it being able to capture more passengers on beyond flights as a result of it operating within New Zealand. In the earlier discussion concerning the counterfactual, reference was made to the Commission's doubt over the value of these interlining benefits claimed by Qantas. While the Commission recognises the value placed on seamless travel[90] by both incoming and outgoing business and leisure air travellers, it appears to the Commission that Qantas can provide such seamless travel to most of its Australian and beyond destinations without having to provide main trunk links between Auckland, Wellington and Christchurch. Given Qantas's Tasman services from each of Auckland, Wellington and Christchurch, its passengers might conveniently interline internationally or domestically in Australia (via Sydney, Melbourne, and Brisbane) from or to those New Zealand airports, without the necessity for Qantas to fly main trunk sectors. The only exception, requiring Qantas main trunk flights for connections to a Qantas international service, is those passengers travelling to or from the catchments of Wellington and Christchurch International Airports who wish to fly on Qantas's Auckland to Los Angeles sector. Presumably as an alternative to flying the main trunk route merely to provide this particular connectivity, Qantas could accommodate such passengers by retaining its Origin Pacific code-share arrangements.

594. Qantas has also informed the Commission that it currently has a cost reduction programme in place to remove A$1 billion from its costs over the next two years. Given the need to balance the requirement for a large reduction in its costs with the continuation of, what appears to the Commission, to be a marginal, at best, main trunk operation, the Commission considers it unlikely that Qantas will be as strong a competitor to Virgin Blue in the counterfactual as it will be as part of the proposed Alliance, which will allow rationalisation of the main trunk capacity it offers.

595. The Applicants suggest that the proposed Alliance will be more profitable in the factual than the two airlines acting independently in the counterfactual. Such increased profits would provide the proposed Alliance with a greater ability, than in the counterfactual, to subsidise over-capacity on those main trunk routes on which Virgin Blue enters or Origin Pacific expands.

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[90] For example, the ability to check in luggage and be allocated seats once for an air journey comprising several sectors.

596. The Commission considers that the proposed Alliance's likely response to Virgin Blue's entry and to Origin Pacific's expansion would be a greater barrier to entry and expansion in the factual than in the counterfactual.[91]

Access to Facilities as a Barrier to Entry and Expansion in the Counterfactual and Factual

597. In their most recent submissions, the Applicants argued that:

- all facilities at Christchurch and Wellington Airports are controlled by each airport company. The two airport companies have advised that they envisage no difficulties accommodating the entry of Virgin Blue flying domestically (or internationally);

- the only issue at AIA is Virgin Blue's access to domestic terminal facilities of which arrival and departure gates and check-in counters are examples; and

- the offer of the Applicants to accommodate Virgin Blue in this respect and facilitate access to domestic terminal facilities at AIA does not apply in the counterfactual.

598. In the Commission's view, there is a contrast between the situation at AIA and that at Wellington and Christchurch International Airports. Possession of domestic terminal facilities, by way of long term leasehold, lies with Air NZ and Qantas at Auckland. That is not the case at the other two international airports and facilities access for an entrant may be more readily managed by the airport companies.

599. Virgin Blue has confirmed these matters. It has stated that while negotiations for access to domestic facilities at AIA have been concluded with Virgin Blue obtaining access to one gate and four check in counters, that outcome will only occur if the proposed Alliance proceeds. It does not apply under the counterfactual in which Virgin Blue will be required either to construct, or to fund AIA's construction of, its own domestic terminal. Virgin Blue has advised the Commission that if this must occur, domestic sectors based on AIA will be delayed and that Virgin Blue will face the extra costs of terminal ownership or lease (of course both Air NZ and Qantas also face extra costs arising from their ownership or lease of a domestic terminal at AIA.)

600. Virgin Blue informed the Commission at the conference that:

> For example at Sydney Airport, … we only had access to what was commonly referred to as the "tin shed", and when we moved into the former Ansett terminal, it has allowed us to grow our corporate market, it has allowed us to actually compete on a somewhat level playing field.

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[91] As discussed below, in reaching its conclusion that there is likely to be a stronger incumbent response to Virgin Blue's entry in the factual than in the counterfactual, the Commission has not considered the offer by the Applicants to limit capacity on routes flown by an entrant to be part of the factual.

> I think it was one of the investment banks, Macquarie maybe, issued a report recently that said our share of market at Sydney lagged behind {our share at} Melbourne or Brisbane, and that's because the lag that occurred because of the facilities issue at Sydney Airport a year ago ….

601. However, the Commission is of the view that inability to access Air NZ's domestic terminal facilities will not necessarily delay Virgin Blue's entry into domestic sectors based on AIA. The Commission notes that Virgin Blue entered at Adelaide using a canvas marquee as a terminal, and at Sydney a "tin shed". Of course, this probably impaired the ability of Virgin Blue to expand as fast as it would be able to do otherwise, particularly if it could not provide high quality terminal facilities to business travellers, who may be more influenced by poorer brand image and service quality.

602. The cost of acquiring terminal facilities at AIA was a cost that Air NZ and Qantas also had to bear. It might be thought that as such costs do not represent an inherent disadvantage to Virgin Blue, on the face of it they would not be barriers to the entry of Virgin Blue. However, the Commission notes that:

    - Air NZ or its predecessor acquired its AIA terminal facilities at a time when it faced little or no domestic competition. Further, it was able to expand those terminal facilities gradually to suit the increasing scale of its operations; and

    - Likewise, as a result of the failure of Ansett New Zealand, Qantas was able to easily acquire terminal facilities at Auckland of a size that suited the scale of its entry into the main trunk market with several aircraft.

603. In contrast, Virgin Blue's entry is likely to be on a much smaller scale than that of Qantas, and would be most efficiently accommodated initially within the existing terminal, rather than in a new stand-alone facility.

604. Overall, given the importance of Virgin Blue's access to Auckland domestic travellers either as part of a large population centre or the main New Zealand tourist point of entry, the Commission considers that access to facilities is likely to impede entry somewhat in the counterfactual and to that extent is a barrier to entry and expansion.

605. Virgin Blue has informed the Commission that it considers that its entry would be assisted in the factual because Air NZ has agreed to provide it with access to suitable domestic facilities at AIA. That will not happen in the counterfactual, presumably because, absent the proposed Alliance, the Applicants will be in vigorous competition and not willing to assist a competitor. Such considerations do not apply to other main trunk airports.

606. In the counterfactual, Virgin Blue is unlikely to be able to obtain suitable domestic facilities at AIA within one year and will face an additional cost to construct its own terminal. However, as stated above, the Commission believes that Virgin Blue will

find a temporary solution to this problem as it has at other airports, although as for Sydney, this may disadvantage it with respect to business customers.

607. In this respect the Commission considers the factual is only mildly pro-competitive in comparison with the counterfactual as it applies to access to domestic facilities at AIA for Virgin Blue

608. Origin Pacific has advised the Commission that if it expanded operations on the main trunk to the extent of being competitive with the Applicants in both the factual and the counterfactual, which would involve operating jets, it would have the same problems with respect to access to terminal facilities as Virgin Blue would in the counterfactual. It currently has no access to gates and only one desk. It has been unable to obtain a further desk from AIA and has been referred by AIA to Qantas which has also failed to provide a desk. This inability to obtain facilities would continue in both the counterfactual and factual.

609. The Commission therefore considers that access to facilities would be a barrier to expansion by Origin Pacific in both the counterfactual and the factual.

Access to Feeder Services as a Barrier to Entry and Expansion in the Counterfactual and the Factual

610. Access to feeder services is also considered as a potential barrier to entry and expansion but is dismissed in the Willig report. The report states that a significant proportion (roughly two thirds) of traffic on the Wellington- Christchurch and Wellington-Dunedin routes is local and thus any potential concern over feed as a barrier to entry (on both the main trunk and provincial routes) is misguided. Some routes (including Christchurch-Queenstown) are acknowledged as being more important for feed, but it is suggested that 'it is far from evident that the proposed Alliance would actually harm competition on this route – or the other limited number of similar routes with a low percentage of local traffic.'[92]

611. The Commission does not accept the argument that on routes with a high proportion of local travellers access to feed is not a barrier to entry or expansion. The argument ignores the fact that a significant proportion of Origins Pacific's travellers are provided through the contractual arrangement with Qantas making many routes viable that may well not be otherwise. The Willig report suggests that 68% of the Wellington - Dunedin traffic is local and that therefore access to feed would not be a significant barrier to entry. The Commission believes, however, that a loss of [ ] in the available customer base represents a significant obstacle and may seriously jeopardise Origin Pacific's ability to achieve a financially viable load factor. This issue combined with the loss of association with the Qantas brand and distribution

[92] Willig and Guerin-Calvert, *op. cit., p. 92*.

capabilities puts Origin Pacific at a large competitive disadvantage in the factual compared to the counterfactual.

612. Any potential arrangement with Virgin Blue would be unlikely to solve these problems to any great extent. As explained above, Virgin Blue would not be able to offer the same comprehensive network or frequency of service that Qantas can provide, particularly in the early years of Virgin Blue's entry which, as will be further explained below, is likely to be of a small scale. Furthermore, an alliance with Virgin Blue would not capture those passengers travelling to the Pacific from New Zealand or routes beyond Australia which would require additional interlining at an increased inconvenience for the traveller. There are also difficulties involved in interlining with an LCC. An LCC's computer systems are less sophisticated than those of an FSA and are less able to provide for interlining. Reliance to any great extent on an arrangement between Origin Pacific and Virgin Blue is also difficult as it is inherently uncertain.

613. The Commission considers that access to feed represents a greater barrier to expansion by Origin Pacific on the main trunk routes, in the factual than in the counterfactual.

614. Access to feeder traffic does not generally appear to be an issue under the LCC model which, according to evidence the Commission has received, normally operates on a city to city (or point to point) basis. The purpose of such a strategy is to reduce the costs arising from interlining. While interlining may generate passengers for an airline, the extra revenue must be balanced against the extra costs. Operators of the LCC model make the strategic decision at the outset, that the balance does not favour interlining as part of their operational strategy. In any event, Virgin Blue can rely on its own Australian domestic and Tasman traffic for feed onto its main trunk services. The Commission therefore considers that access to feeder traffic would not be a barrier to entry by Virgin Blue in the counterfactual and the factual.

Size of Market as a Barrier to Entry and Expansion in the Counterfactual and Factual

615. The Commission accepts the Applicants' submissions that scale economies should not be viewed as giving rise to barriers to the entry of Virgin Blue. It is the Commission's view that scale economies are important only when firms have similar cost curves so that their competitiveness depends on their relative positions on the curve. If, as the evidence shows, Virgin Blue has lower costs than each of the Applicants, the scale of its entry is less important and it is able to become viable by supplying a lower output than each of the Applicants. Further, an airline such as Virgin Blue operating on a city to city basis can "cherry pick" a few high margin routes and is thus able to become profitable with a much lower market share than a FSA. The Commission also notes that rationalisation of capacity on the main trunk route by the Applicants will not occur in the counterfactual. Therefore, in the factual,

Virgin Blue will obtain the benefit of an increased residual demand from which to obtain its customers in comparison with the counterfactual.

616. The Commission is of the view, however, that the situation is different with respect to Origin Pacific. Origin Pacific is closer to the FSA model than the LCC model and would not be in a position to "cherry pick" high margin routes and thereby stay profitable with a much lower market share than the Applicants. Although Origin Pacific has an established network in regard to the provincial market any expansion on the main trunk in the factual would be more akin to *ex novo* entry than incremental entry due to the differing characteristics of the main trunk market in comparison to the provincial market. This factor combined with the fact that Origin Pacific will be further disadvantaged by the loss of their relationship with Qantas would ultimately seriously hinder the ability for Origin to be able to provide a service to a level that would be required to ensure its viability. Therefore, the Commission is of the view that economies of scale would be a barrier to expansion for Origin Pacific in the counterfactual and to a greater degree in the factual in the main trunk market.

Conclusion on Barriers to Entry and Expansion in the Counterfactual and the Factual

617. The Commission considers, on the balance of probabilities, that:

- the absence of a loyalty programme will be a greater barrier to entry and expansion in the factual than in the counterfactual because of the considerable attraction (particularly to business travellers) of the Applicants effectively combining their individual frequent flyer schemes;

- the potential response of the proposed Alliance to the entry and expansion of Virgin Blue and the expansion of Origin Pacific into the main trunk market will be greater in the factual than the Applicants' individual responses in the counterfactual. Furthermore it is not possible to mitigate against such a barrier to entry by any artificial restrictions on future capacity offered by the Applicants;

- access to domestic terminal facilities at AIA gives rise to barriers to the entry and expansion of Virgin Blue in the counterfactual but not the factual. As discussed above, this barrier to entry in the counterfactual has been in Australia, and is likely to be at Auckland, relatively easily surmounted by Virgin Blue. Access to domestic terminal facilities at AIA gives rise to a barrier to expansion of Origin Pacific in both the factual and the counterfactual. The Commission considers that there is only some competitive variation between the counterfactual and the factual in this regard;

- access to feeder services would be a greater barrier to expansion by Origin Pacific in the main trunk market in the factual than in the counterfactual; and

- economies of scale would be a greater barrier to expansion by Origin Pacific in the factual than in the counterfactual.

618. Therefore, aggregating these effects, the Commission concludes, on the balance of probabilities, that a comparison with the counterfactual reveals an increase of barriers to entry and expansion in the factual.

The LET Test in the Main Trunk Market in the Counterfactual and Factual

Introduction

619. The threat of market entry and/or expansion by Virgin Blue and Origin Pacific would be a sufficient constraint on the exercise of market power by the proposed Alliance, in the main trunk market, if the entry and/or expansion is likely, sufficient in extent and timely such that it might avoid a substantial lessening in competition. The examination of these issues occurs under "the LET test".

620. In this section of this Determination, the Commission uses the above analysis of barriers to entry in both the counterfactual and the factual to compare the likelihood, extent and timeliness of entry, as a constraint on potential market power, in the counterfactual with that in the factual.

Likelihood of Entry

621. The mere possibility of entry is, in the Commission's view, an insufficient constraint on the exercise of market power to alleviate competition concerns. However, in this case, given developments within the industry and further information obtained following its Draft Determination, the Commission now considers, on the balance of probabilities, that it is likely that Virgin Blue (or a subsidiary thereof) will enter the main trunk market. Moreover, this conclusion applies equally to the counterfactual and the factual.

622. The Commission's view is based on the following:

- Virgin Blue in its open submissions said that it intended to provide services on the Tasman and within New Zealand and that it will do this using some of the 10 Boeing B737-800 aircraft it is committed to purchase from that manufacturer by August 2004;

- Air NZ was advised by Virgin Blue, during its negotiations for access to domestic facilities at AIA, that a four or five aircraft per day domestic schedule was planned for Auckland;

- Virgin Blue has always made it a strong point, in submission and argument, that it requires access to domestic facilities at New Zealand airports;

- in a confidential submission to the Commission, Virgin Blue provided a hypothetical timetable showing [ ] route using [ ] return flights per day in the first year;

- Virgin Blue has subsequently updated the Commission on its latest plans which are to initially enter the Tasman with one flight on the Christchurch to Brisbane route and then enter the domestic market, with [ ] aircraft rising to a potential of [ ] during the first year depending on the rise of demand;

- Virgin Blue is currently recruiting for New Zealand-based cabin crew;

- photographs of one of Virgin Blue's new Boeing B737-800 aircraft at the Boeing works with the livery "Pacific Blue" have appeared in the press ;

- Virgin Blue has stated that it will enter the main trunk market with or without the proposed Alliance (although the extent and timeliness of its entry may be another matter). Virgin Blue said that in respect only to its access to AIA domestic facilities, there may be lower barriers to entry if the proposed Alliance becomes a fact; and

- Air NZ and Qantas have illustrated, by their introduction of NZ Express and JetConnect which have strong elements of the LCC model, that they consider Virgin Blue is a likely entrant.

623. The Commission has found no evidence during its investigation, that any international or domestic airline, other than Virgin Blue, is likely to enter the main trunk market.

624. In the Commission's view, the evidence demonstrates a commitment by Virgin Blue to enter the main trunk market and that there is a high likelihood of its entry in both the factual and the counterfactual.

625. The Applicants originally submitted that given the ready availability of appropriate jet aircraft and turbo-props in the international market, there is no reason, given the right financial incentives, why Origin Pacific cannot continue its steady expansion and become a full competitor in the Main Trunk Market. They claimed that Origin Pacific can expand as slowly or as quickly as it desires and can minimise sunk costs.

626. [

]

627. Origin Pacific would face significant barriers to expansion in the factual including access to capital, incumbent response and access to feed traffic. Any possible alliance with Virgin Blue would do little to allay these concerns. Virgin Blue could not offer the same advantages as an arrangement with Qantas and thus such an arrangement would have minimal effect on Australian routes and even less, if any effect on all other international routes.

Extent of Entry

628. If the likely entry and/or expansion of Virgin Blue is to constrain the proposed Alliance, in comparison with the situation in the counterfactual, then the threat of entry and expansion must be at such a greater level and scope as to lead the proposed Alliance to react in a more significant manner than in the counterfactual.

629. It is the Commission's view that the potential entry of Virgin Blue into the main trunk market has led to the development of Air NZ's NZ Express and Qantas's JetConnect cut price and service flights to approximate the forthcoming LCC model competition from Virgin Blue. However, the Commission is of the view that the effect of this is that Virgin Blue is likely to be a less effective competitor than it might have been because the incumbents have adjusted to better meet its competitive thrust.

630. The Commission notes that FSAs are now responding in a quite different way to the market penetration of LCCs. Overseas a more aggressive and strategic response occurs when LCCs reach some threshold level of market penetration that raises their perceived level of threat in FSAs' eyes. In Australia, this appears to have been triggered when Virgin Blue's market penetration reached around 30%. Qantas has recently announced that it intends to 'protect its home market' with more aggressive pricing, capacity deployment, and perhaps the introduction of its own LCC. It appears that in New Zealand, Air NZ and Qantas have reacted prior to LCC entry.

631. It is, therefore, the Commission's view that the likely entry and expansion of Virgin Blue in the counterfactual has been and will be extensive enough to appreciably constrain Air NZ and Qantas acting individually.

632. Virgin Blue advised the Commission at the conference that it could begin main trunk services in the counterfactual "tomorrow", other than to AIA because of the absence of domestic facilities available to it at that airport. In the counterfactual, Virgin Blue might be delayed from entering main trunk routes to the extent of flights to and from Auckland as a result of its inability to access facilities. However, the Commission considers that the LCC model based on flights originating at a very large city (in this case Auckland) will induce Virgin Blue to arrive at a temporary solution in the counterfactual (as it has in Australia) to process domestic passengers during the time it takes to construct, or arrange the lease of, its own AIA domestic terminal.

633. In the factual, there will be two different effects operating which affect the likely extent of Virgin Blue's entry. On the one hand, Virgin Blue has advised the Commission that it has negotiated suitable domestic facility access arrangements with Air NZ which will assist its initial main trunk entry (allowing Virgin Blue to include Auckland routes in its schedule) only in the factual.

634. On the other hand, Virgin Blue has submitted to the Commission that, AIA domestic facilities access issues aside, its entry would likely be more tentative in the factual because of the greater risk to it from a stronger competitive response from the proposed Alliance than could be expected from Air NZ and Qantas acting independently. The Commission considers that is likely to be the case.

635. Mr Dixon, the Chief Executive Officer of Qantas said at the conference:

> Earlier in my remarks I quite deliberately labelled the rise of low cost carriers as a structural issue. As we look around the world, we see many examples of full service airlines spawning off low cost models. They are not some sort of temporary phenomenon and will require a long-term competitive response from airlines like Qantas. It is now clear that at least one low cost carrier with an already proven business record – that is Virgin Blue – will extend its operations to Tasman and domestic New Zealand routes …
>
> and
>
> Three of us fighting it out, some people are going to get very very badly hurt. If that's the law of the jungle, okay, but I don't believe that's a very smart way to go. I believe consolidation, when you've two such important companies as Qantas and Air New Zealand, and provided that we do it properly and we're seen to do it properly, is a much better outcome.

636. Mr Norris, the Chief Executive Officer of Air NZ said, also at the Commission's conference:

> At the same time it is now beyond doubt that Virgin Blue intends to expand onto to the Tasman and the domestic New Zealand markets to compete as a VBA. As a VBA Virgin Blue will compete with its larger FSA competitors, that is full service airline competitors, solely on price and where connectivity and city presence have little relevance.
>
> In a market in which two full service airlines, Air New Zealand and Ansett New Zealand could not coexist and in respect of which Ansett New Zealand failed, it is not difficult to foresee the outcome of a battle for market share between Air New Zealand, an expanding Qantas and the expanding VBA, Virgin Blue. For Air New Zealand also it's not difficult to foresee in the relative short term a squeeze developing similar to that which brought about the demise of Ansett Australia; a squeeze involving exactly the same participants.

637. In those statements, the Chief Executives of the Applicants were arguing the case for the proposed Alliance as a necessary defence against the entry of Virgin Blue. In the Commission's view, one of the major reasons that the Applicants have proposed the Alliance is that they believe that they will be in a better position to mount a response to the entry of Virgin Blue as allies rather than as individual competitors. This indicates that there is likely to be a more powerful incumbent response in the factual

than in the counterfactual and that such greater response is more likely to restrict the extent of the entry of Virgin Blue.

638. The Commission considers that, based on the Applicants' previous and current behaviour, the proposed Alliance is likely to respond to the entry of Virgin Blue into the main trunk market by providing over-capacity on those routes on which Virgin Blue seeks to enter and expand. The Commission considers that the proposed Alliance acting as one entity is likely to be better able to recoup losses arising from the provision of over-capacity than will Air NZ and Qantas acting individually. With the two incumbents acting separately, it would be more difficult to engineer the price increases needed. Knowing this, the proposed Alliance would have a greater incentive to behave aggressively in the first place. As a result, they will have, as an Alliance, a greater ability to mount a capacity response to Virgin Blue's main trunk entry in the factual than in the counterfactual. Again this is likely to lead to less extensive entry in the factual as against the counterfactual.

639. Virgin Blue agrees that the extent of its entry will be restricted by the existence of the proposed Alliance. The following interchange took place at the conference:

> Virgin Blue: and meanwhile while we are trying to build, while we're trying to go with one hand tied behind our back, the two parties have then integrated their operations to be a much more competitive response, focused directly on one flank, and that flank would be us.
>
> Question: So, absent the conditions { those offered by the Applicants concerning capacity ceilings and floors and access to Auckland International Airport domestic facilities that you need or want, you think the Alliance would be a stronger competitor than the two separate ones, do you?
>
> Virgin Blue: Yes. We believe that the combined resources, Air NZ's tremendous presence domestically, Qantas's financial resource, the fact that they only have to face a competitor on one flank……

640. As to the Commission's estimate of the extent of its likely entry, the Commission first notes that Virgin Blue's expansion after the failure of Ansett Australia was rapid. Since its entry in August 2000, it has acquired about 30% market share in Australian domestic routes. However, the Commission does not consider the Australian experience is a useful guide to the prediction of Virgin Blue's likely behaviour in New Zealand in the factual. The Commission considers Ansett Australia's failure gave Virgin Blue a substantial competitive "leg up" and that, absent one or other of Air NZ or Qantas exiting the main trunk routes, a similar rapid expansion of capacity by Virgin Blue is not likely to occur here.

641. When Virgin Blue began flying on Australian domestic routes (prior to the demise of Ansett Australia), it entered on only three sectors. These were Brisbane to Sydney (seven flights per day), Brisbane to Adelaide (one or two flights per day) and Brisbane to Melbourne (three flights per day). Virgin Blue did not, at the outset, attack Qantas and Ansett Australia head-on by flying the premium Sydney to Melbourne route. The Commission considers these figures are illustrative of a cautious entry approach by Virgin Blue which it will apply to main trunk (and trans-

Tasman) entry. The Commission considers Virgin Blue is likely to enter with one aircraft flying up and down the main trunk route.

642. While the Commission has accepted the Applicant's submissions that, based on evidence from many other international aviation markets, LCC entry to main trunk (and other) routes is very likely, it does not agree with the Applicants' arguments regarding the extent and expansion of entry. The Commission notes that many of the international examples provided by the Applicants are not directly comparable in the sense that the markets are much larger than in New Zealand, or that opportunities exist to open routes to new previously un-serviced destinations (this is particularly true with Ryanair) which do not exist in the New Zealand context.

643. For the reasons given, the Commission considers that there is likely to be a less extensive entry and a lesser constraint on the proposed Alliance from potential entry and expansion into the main trunk by Virgin Blue than will apply to Air NZ and Qantas in the counterfactual.

Timeliness of Entry

644. If it is to be effective to constrain the exercise of market power to the extent necessary to alleviate concerns about a substantial lessening of competition, entry must be likely to occur before customers in the relevant market are detrimentally affected to a significant extent. Entry that constrains must be feasible within a reasonably short timeframe from the point at which market power is first exercised. The Commission has set that period, for the purposes of this examination, at two years from the date of this Determination.

645. Virgin Blue has said that with or without the proposed Alliance it will enter New Zealand in the main trunk market in the short term. It currently has at least one aircraft correctly liveried for New Zealand flights and has the domestic terminal facilities available to fly to both Wellington and Christchurch.

646. As discussed above, Virgin Blue has indicated it may be delayed in flying to and from AIA in the counterfactual (but not in the factual) by a lack of access to domestic facilities. As also discussed above, the Commission considers that, in the absence of agreement with Air NZ to provide it with access to domestic facilities in the factual, Virgin Blue is likely to overcome that difficulty by using temporary facilities.

647. The Commission considers that Virgin Blue will enter the main trunk in less than two years.

Conclusion on the LET Test in the Counterfactual and Factual

648. The Commission considers, on the balance of probabilities, that Virgin Blue is likely to enter the main trunk market in a timely manner in both the counterfactual and the

factual but that its entry in the factual will be insufficiently extensive to constrain the proposed Alliance within a two year time frame.

649. The Commission considers that Origin Pacific would not be likely to expand in the main trunk and is more likely to contract its services in the factual. It is therefore not likely to provide any constraint on the Alliance.

Constraint from Buyers or Suppliers

650. There is little evidence of buyer or supplier constraint in this market.

Economic Modelling Results

651. The economic modelling carried out by the Commission suggests that, even after allowance is made for the entry of Virgin Blue in both scenarios, albeit to a lesser degree in the factual, the reduction of competition in the factual is likely to lead to price being higher than it would be in the counterfactual by about 17%. The Commission is of the view that even a likely price increase of 5% is indicative of a likely substantial lessening of competition due to the exercise of market power.[93]

Conclusion on the Main Trunk Market

652. The Commission's comparison of the counterfactual with the factual is set out in Table 5.

Table 5
Comparison of Counterfactual with Factual in the Main Trunk Market

Competition effect	Counterfactual	Factual
Market share	Market shares similar to the status quo. Air NZ [ ] %, Qantas [ ] % Origin Pacific [ ] %.	The Alliance having a market share close to 100%.
Existing competition	Air NZ & Qantas continuing to compete and expand capacity in line with market growth. Origin Pacific continuing to compete and the code-sharing arrangement with Qantas likely to continue.	Qantas and Air NZ no longer competing and coordinating their activities Origin Pacific likely to retrench its operations.

[93] Commerce Commission Decision No.448, *Progressive Enterprises Ltd/Woolworths (NZ) Ltd,* 14 December 2001.

Competition effect	Counterfactual	Factual
Likelihood, extent and timeliness of entry.	Likely and timely entry and gradual expansion by Virgin Blue	Likely and timely entry by Virgin Blue but to a more limited extent than in the counterfactual Origin Pacific facing increased barriers to expansion and being unlikely to expand.
Constraint from buyers and suppliers	None	None
Expected price increases		17%

653. The Commission considers, on the balance of probabilities, that a comparison of competition in the counterfactual and the factual leads to the following conclusions with respect to the main trunk market:

- There would be a reduction in the number of competitors from four in the counterfactual to three in the factual. The existing active competition in the counterfactual between the two major participants, Air NZ and Qantas—which currently have a combined market share of 99% would be eliminated in the factual.

- In the factual and counterfactual scenarios, for the relevant time frame, the two competitors to the proposed Alliance would be small and relatively ineffectual competitors: Origin Pacific, which is an existing competitor, and Virgin Blue, which is an expected entrant.

- Origin Pacific would fly, at most, on only one sector of the main trunk (Wellington-Christchurch), but even that is unlikely in the factual as the company is likely to retrench [ ] if it were to lose—as is likely—Qantas's code-share business. In any case, its service with slower turboprop aircraft is an inferior one to the jet service offered by the Alliance.

- Virgin Blue would be likely to enter the market in due course, but not to an extent, that would significantly constrain the Alliance. Also, it would provide a differentiated product that would, at least for some time, compete mainly with the incumbents' discount fare offerings. Virgin Blue is also expected to enter the market in both the counterfactual and the factual. However, barriers to its entry would be higher in the factual, and hence the extent of its entry would be lower, for the following reasons:

    - the proposed Alliance would have a greater ability to coordinate and mount a capacity response to Virgin Blue in the factual, than would each of Air NZ and Qantas, acting individually, in the counterfactual; and

- o the proposed Alliance, acting as one, would have a greater ability to recoup losses or reduced profits arising from this capacity response in the factual, than would each of Air NZ and Qantas, acting independently, in the counterfactual.

- There are no other entrants likely or in prospect.

- The Commission's modelling found that there would be a price increase of 17%

654. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the main trunk market when compared with the counterfactual.

THE PROVINCIAL MARKET

Participants

655. Air NZ operates an extensive regional network servicing 21 provincial destinations with over 2300 flights per week. The non-main trunk destinations it currently services are Kaitaia, Kerikeri, Whangarei, Tauranga, Whakatane, Hamilton, Rotorua, Gisborne, Taupo, New Plymouth, Napier, Wanganui, Palmerston North, Nelson, Blenheim, Westport, Hokitika, Timaru, Queenstown, Dunedin and Invercargill.

656. Origin Pacific commenced operations six years ago and operates over 100 flights each week day, servicing 14 destinations. It currently services Auckland, Tauranga, Hamilton, Rotorua, New Plymouth, Napier, Palmerston North, Wellington, Nelson, Blenheim, Christchurch, Queenstown, Dunedin and Invercargill.

657. A number of small operators provide limited scheduled services on provincial routes. These operators include:

- Great Barrier Airlines (Great Barrier Island, Whangarei, Auckland, Coromandel, and Tauranga);
- Air Adventures/Air Chathams;
- Air Fiordland;
- Air Kaitaia, Mountain Air,
- Southern Air;
- Aspiring Air;
- Air Coromandel.;
- Sunair;
- Great Barrier Express; and
- Soundsair

658. Qantas does not operate its own flights in the provincial market but code-shares on Origin Pacific flights.

659. Table 6 below outlines the market share figures in the provincial market based on pre-Alliance capacity.

Table 6
Market Shares in the Provincial Market for Year ended 31/12/02

Airline	Capacity	Market Share
Air NZ	[ ]	[ ]
Qantas	[ ]	[ ]
JAO (Alliance)	[ ]	[ ]
Origin Pacific and others	[ ]*	[ ]*
Total	[ ]	100%

* Origin Pacific figures include code-share capacity provided to Qantas on a hard block basis.

660. Although the above Table shows little aggregation, it should be noted that the code-sharing arrangement with Qantas currently contributes around [ ] of Origin Pacific's revenue.

661. If the proposed Alliance were to proceed, it would have a provincial market share of [ ] % based on pre-Alliance capacity, excluding the code-share capacity provided to Qantas by Origin Pacific. The Commission considers that there will be further aggregation beyond this [ ] %..

Constraint from Existing Competition in Counterfactual and Factual

662. The smaller operators, such as Great Barrier Airlines, in this market are unlikely to provide any competitive constraint at all in the factual or counterfactual with their current capacity and are unlikely to expand to any significant extent due to their limited routes and resources. They will, therefore, not be considered further.

663. The Commission believes that in the counterfactual the code-sharing agreement between Qantas and Origin Pacific would be likely to continue and accordingly, competition would be likely to continue between Air NZ and a combined Qantas/Origin Pacific.

664. Although the proposed Alliance results in little direct aggregation in the provincial market, the Commission is of the view that the competitive dynamic will be

considerably altered due to the effect that the proposed Alliance will have on Origin Pacific, the only other effective competitor in this market.

665. The Applicants submitted that there will be no material impact in the market and that Origin Pacific and Air NZ will continue to compete in the same manner as presently. The Applicants submitted that this market will remain competitive after the proposed Alliance due to the ability of Origin Pacific to expand.

666. The Commission's analysis of Origin Pacific's ability to compete in the main trunk market indicated that its competitive position will be seriously undermined by the proposed Alliance. Much of its expansion has been based on wet lease and code-share agreements with Qantas. The Commission considers it is likely that those arrangements between Origin Pacific and Qantas would not be renewed if the proposed Alliance proceeds. Under the proposed Arrangement, Air NZ has the role of managing the commercial aspects of the JAO Networks, and would be unlikely to "manage" a wet lease or code-sharing role for its provincial competitor. The Commission is of the view that Origin Pacific is likely to retrench its operations and as a result be capable of providing only a limited form of competition in the factual. [

]

667. The Commission is of the view that while Origin Pacific may have some constraining impact on a limited number of routes, it is unlikely to be able to act as a competitive restraint on the proposed Alliance in the majority of the provincial market in the factual. Origin Pacific would be put at a further competitive disadvantage through the loss of its code-sharing arrangement with Qantas. The Commission considers that Origin Pacific's presence alone would be unlikely to constrain the exercise of market power by the proposed Alliance.

668. Competition will therefore be reduced from three competitors to two in the factual, with one very large competitor in the form of the proposed Alliance and a small, weaker competitor in the form of Origin Pacific which is likely to retrench its operations.

Constraint from Potential Competition in Counterfactual and Factual

669. Examples of recent entry into this market are Air Nelson, Eagle Air and Origin Pacific. Air Nelson and Eagle Air both entered, initially on a point to point basis, and both expanded to form locally-based networks. Both were subsequently acquired by Air NZ. Origin Pacific entered provincial markets six years ago and has gradually increased its market presence until it is now servicing 14 destinations. However, it should be noted that, for the reasons stated in paragraph 135, the Commission is of the view that Origin Pacific would not be in a position to expand its operations further in the factual and is more likely to contract.

670. Other small airlines such as those listed above have also entered on localised point to point provincial routes.

671. The Commission acknowledges that entry on individual local provincial routes may occur:

- in the counterfactual by Qantas, and in the factual by the proposed Alliance, flying selected provincial routes to tourist destinations such as Queenstown and Rotorua;
- in the counterfactual and the factual by Virgin Blue flying similar selected tourist routes and other provincial routes; and
- in the counterfactual and the factual by small operators entering on a point to point basis with small aircraft.

672. The Commission considers that in the factual compared with the counterfactual, entry is unlikely to be on a scale that would be competitive against the proposed Alliance. The Commission is of the view that the only entry to the provincial market that would be sufficient to act as a constraint on the proposed Alliance would involve entry on multiple routes, connecting to each of the three main trunk/international airports, and would require similar arrangements to those that Origin Pacific currently has with Qantas. Virgin Blue might wish to enter into some arrangements with a provincial airline operator. However, the Commission has concluded that Virgin Blue's entry and expansion onto the main trunk and Tasman markets is likely to be tentative in the face of the proposed Alliance and, as such, is unlikely to provide the succour that a new provincial market entrant would require to enter in a substantial manner. In any event, the Commission considers that it is most likely that Virgin Blue would wish to enter into arrangements with an established operator such as Origin Pacific rather than a new entrant.

673. The Commission considers that in the factual, Origin Pacific is likely to be considerably weakened and may have to contract in size if it loses Qantas's business. This reaction of Origin Pacific will be a considerable disincentive to any further entry, extensive enough to constrain the proposed Alliance.

674. The Willig report stated that 'Origin Pacific acknowledges capital is not a substantial barrier to entry for service on the provincial routes'.[94] The relevant section of Origin Pacific's original submission, as cited, reads as follows:

> 'Origin Pacific operates on the lesser Christchurch-Wellington route under the Qantas code-share agreement. The barriers to entry on these routes are higher than for the provincial routes. In particular, the aircraft required are larger and the expenses involved are greater. Any successful entrant would require substantial capital'

[94] Ibid., p. 88.

675. The conclusion drawn in the Willig report misrepresents the Origin Pacific submission, a point which was raised by Origin Pacific at the conference. Origin Pacific acknowledged that the barriers to entry on the main trunk are greater than in the provincial route but did not acknowledge that 'capital is not a substantial barrier to entry on the provincial route'.

676. To the contrary, Origin Pacific stated later in its submission that:

> 'The barriers in the provincial market relate to the scale of service to be provided. There are minimal barriers to entry to the small point to point operator providing limited services in a local area. At the other end of the scale there are major capital and associated requirements to enter or expand into a full service operation. These include the ability to obtain and service the necessary capital and the need to obtain passenger support and feed from a main trunk and international operator.'[95]

677. The Willig report stated that incumbent response is not a concern in the provincial market because:

- Origin Pacific currently flies 20 routes and the mere fact that Origin Pacific serves these routes is evidence of the fact that Air NZ has not been able to engage in predatory pricing and force their exit;

- Origin Pacific's increased capacity on the Wellington-Christchurch route followed by Air NZ prices dropping is a competitive dynamic that is good for consumers; and

- A code-share arrangement with Virgin Blue would further insulate Origin Pacific against the effect of any incumbent response.

678. The Commission does not accept these arguments which would also apply to the main trunk market. The first two arguments ignore the access to feed traffic that is currently provided by Qantas which arguably helps Origin Pacific sustain its competitive force in the market. They also ignore the fact that Origin Pacific's competitor in the factual will be the proposed Alliance which will be an even stronger competitor. The third argument assumes an arrangement being reached between Virgin Blue and Origin Pacific. Whilst the Commission believes that such an arrangement is feasible, it is of the view that even under such an arrangement, Origin Pacific's competitive position will be weakened. Virgin Blue cannot provide the same comprehensive network structure and frequency that Qantas currently offers. The Commission believes that any such code-sharing arrangement with Virgin Blue would do little to improve Origin Pacific's position in relation to any strategic response by the proposed Alliance in the factual.

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[95] Origin Pacific, Submission of Origin Pacific Airways Limited to the Commerce Commission, February 14, 2003 at ¶ 63.

679. As discussed above, Air NZ, although at first without increasing capacity, has recently met a new flight initiative by Origin Pacific from Hamilton to Christchurch non-stop with its own new capacity on that sector. Air NZ is also providing a discount on some provincial routes to those passengers who connect with an international Air NZ flight. These are examples of the type of incumbent response that an entrant could expect in the counterfactual but more so in the factual, where as discussed under the main trunk market, the proposed Alliance would have a greater ability to introduce and maintain such measures.

680. It should also be noted that the almost saturation coverage by Air NZ of this market together with Air NZ's connectivity raises a significant barrier against entry.

681. As stated above, the Commission considers that Virgin Blue may enter some of the provincial routes that could be served by its jets, perhaps Auckland and Christchurch to Queenstown and Dunedin, but there is considerable uncertainty as to whether and when this might occur. In any event, the Commission considers that such "cherry picking" entry would not act to generally constrain the proposed Alliance on a substantial number of its many provincial routes.

682. The Commission's considers, on the balance of probabilities, that there is unlikely to be entry into the provincial market of a sufficient extent and within a sufficiently short timeframe to constrain the proposed Alliance and thus alleviate concerns about substantial lessening of competition in the provincial market.

Constraint from Buyers or Suppliers

683. There is little evidence of buyer or supplier constraint in this market.

Economic Modelling Results

684. The economic modelling carried out by the Commission suggests that the reduction of competition in the factual is likely to lead to prices being higher than they would be in the counterfactual by about 16%. The Commission is of the view that even a likely price increase of 5% is indicative of a likely substantial lessening of competition due to the exercise of market power

Conclusion on the Provincial Market

685. The Commissions' comparison of the counterfactual with the factual is set out in Table 7.

Table 7
Comparison of Counterfactual with Factual in the Provincial Market

Competition effect	Counterfactual	Factual
Market share	Market shares similar to the status quo. Air NZ [ ]%, Qantas [ ]% Origin Pacific [ ]% - (adjusted to approximate the code-sharing arrangement.)	The Alliance having a market share approaching 100%.
Existing competition	Qantas and Air NZ competing. Origin Pacific assumed to continue to compete and the code-sharing arrangement with Qantas likely to continue.	Qantas and Air NZ no longer competing and coordinating their activities. Origin Pacific facing increased barriers to expansion (access to capital, incumbent response and access to feed) and likely to retrench its operations to remain viable.
Likelihood, extent and timeliness of entry.	Uncertainty over the likelihood and timeliness of Virgin Blue entering and any entry likely to be of a limited extent regardless.	Uncertainty over the likelihood and timeliness of Virgin Blue entry with any entry likely to be of a more limited extent than the counterfactual due to an increase in the response from incumbents.
Constraint from buyers and suppliers	None	None
Expected price increases	16 %	

686. A comparison of the counterfactual and the factual reveals that in the factual the proposed Alliance will have a high market share, will reduce the existing competition through the likely retrenchment of Origin Pacific, and will result in an increase in the barriers to entry and expansion and any potential entry would be uncertain and limited in any event.

687. The Commission's modelling found that there would be a price increase of 16%

688. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the provincial market when compared with the counterfactual.

THE TASMAN MARKET

Participants

689. Air NZ and Qantas have the greatest market share in the Tasman market. Collectively they operate a total of 250 return flights across the Tasman each week. Qantas operates flights from Auckland, Wellington and Christchurch to Sydney, Melbourne and Brisbane. Air NZ operates flights from Auckland, Wellington and Christchurch to Sydney, Melbourne and Brisbane and from Auckland to Cairns and Perth. Freedom Air operates flights from Auckland, Wellington, Christchurch, Hamilton, Palmerston North and Dunedin to Brisbane, Sydney, Melbourne, and the Gold Coast though not to all Australian destinations from all New Zealand origins.

690. A number of fifth freedom operators also operate in this market on routes to and from Auckland. These are:

- Thai Airways ;
- Malaysia Airlines;
- Garuda;
- Lan Chile;
- Polynesian Airlines;
- Royal Tongan;
- Aerolineas Argentinas;
- Emirates; and
- Royal Brunei (commencing services on October 27th).

691. The fifth freedom flights are extensions of routes from Asia to Australia or intermediate sectors on longer routes from Australia to the Pacific Islands or South America.

692. Including the capacity that will soon be offered by Royal Brunei, fifth freedom carriers currently operate approximately 50 Tasman flights per week in total between Melbourne, Sydney, Brisbane and Auckland. They do not fly to other New Zealand destinations.

693. The market shares, based on pre-Alliance capacity, in the Tasman market are set out in Table 8.[96]

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[96] Note that Qantas uses spare Air Pacific and Polynesian Airlines aircraft time for Tasman operations from time to time.

Table 8
Market Shares in the Tasman Market for year ended 31/12/02

Airline	Capacity	Market Share
Air NZ	[ ]	[ ]%
Qantas	[ ]	[ ]%
JAO (Alliance)	[ ]	[ ]%
Fifth freedom carriers*	[ ]	[ ]%
Total	[ ]	100%

* Does not include Emirates which was not operating.

694. If the proposed Alliance were to proceed, based on pre-Alliance capacity, it would have a high market share of [ ]%. It should be noted that using capacity to measure market share overstates the market share of fifth freedom carriers in terms of passengers actually carried as the load factors of fifth freedom carriers are considerably lower than those of Qantas and Air NZ.

695. Air NZ, including Freedom Air, and Qantas are the two main participants in the Tasman market and they compete vigorously, with this competition likely to increase with the recently announced Air NZ Express services. The relevant routes are those to Sydney, Melbourne, Brisbane, Perth and Cairns from New Zealand. There are currently eight fifth freedom operators with scheduled Tasman services and a ninth (Royal Brunei) which will commence services on 27th October.

696. The Applicants have submitted that in the 12 months to January 2003, fifth freedom carriers carried [ ]% of total Sydney-Auckland OD passengers and [ ]% of total OD Brisbane-Auckland passengers.

697. The Applicants also submitted that approximately [ ] of the Applicants' Auckland – Sydney and Auckland-Brisbane traffic is OD and that [ ]% of Air New Zealand's and [ ]% of Qantas' business is Tasman OD in that it originates and ends in New Zealand and Australia.

Constraint from Existing Competition in Counterfactual and Factual

698. The Applicants submitted that fifth freedom operators do, and will continue to, provide a significant constraint on the Tasman market. They quoted the ACCC in its submission to the Australian Productivity Commission which recognised the constraint imposed by Fifth Freedom operators where it commented:

> "Examination of routes where fifth freedom carriers have operated would suggest that consumers are likely to benefit from their operations. For example, fifth freedom carriers on the Australia - UK route such as Singapore Airlines and Cathay Pacific have provided a credible competitive force to Qantas and British Airways. Even on the Australia - New Zealand route, fifth freedom carriers have provided strong competition (e.g. Continental Airlines in the 1980s). In these cases the fifth freedom carriers have provided a countervailing force to the third/fourth freedom carriers and been a significant determinant in setting prices."[97]

699. The Commission notes that in its Final Determination dated 9 September 2003 on the applications for authorisation made by Qantas and Air NZ, the ACCC stated:

> While the Commission believes that fifth and sixth freedom carriers can provide a source of strong and effective competition in passenger markets, as they do in the Australia-Europe market, it does not believe that fifth freedom carriers are a strong competitive constraint in the trans-Tasman market.

700. The Applicants submitted that fifth freedom carriers exert significant downward pressure on Tasman fares in that they siphon off market share from Air NZ and Qantas forcing the yield management system to adjust and offer more discount seats and in that the fifth freedom price sets a benchmark of what constitutes a good price in the market. Further, it was stated that the advantages of network, scheduling, frequent flyer schemes and frequency cannot justify too high a price increase or else further market share will be lost.

701. The Commission does not accept the argument that fifth freedom carriers set the benchmark of what is considered a good price. Malaysia Airlines stated that the fares set are market driven and are benchmarked against competitors on the route including Freedom Air. Mr Miller, Chief Operating Officer of Air NZ, stated at the conference that 'they [ ]…accept the fares that prevail in the marketplace'. Thus the Commission is of the opinion that there is quite a diverse pattern of pricing behaviour by the fifth freedom carriers, though some appear to be largely price takers, positioning themselves only slightly below the price of Air NZ and Qantas and as such generally adopt largely comparable fares rather than benchmark them. The Commission accepts, however, that fifth freedom carriers do reduce the demand available to Qantas and Air NZ with the result that Qantas and Air NZ are likely to charge lower prices, all else being the same. However, this would be the case in both the factual and the counterfactual.

702. The Applicants also stated that price differentials cannot be sustained between Wellington, Auckland and Christchurch fares despite fifth freedom carriers operating only from Auckland, for three reasons. Firstly, such price differentials create ill will amongst the New Zealand public. Secondly, the opportunity to undercut the local Tasman fares would exist by flying to Auckland on a NZ Express service and using a fifth freedom carrier on the Tasman. Thirdly, fifth freedom carriers could easily shift capacity into Wellington and Christchurch if the right financial incentives existed.

[97] "Submission to the Industry Commission Inquiry into International Air Services", 20 April 1998, page 5.

703. David Huttner stated at the conference that he failed to see how fifth freedom operators constrain the Tasman fares out of Wellington and Christchurch. He suggested that travellers may be disgruntled by having to pay a higher price but that the fare would ultimately be paid all the same due to the lack of alternatives. Mr Sheriden, for WIAL, and Mr Bagnall, for Gullivers Pacific, agreed with David Huttner's position, stating that the only way that ill will could be a factor is if this is used against the proposed Alliance the next time a passenger wanted to fly to Europe. It was further stated that most people would choose the best fare they could get in terms of getting to Europe and any ill will would be soon forgotten.

704. The Commission is of the view that the use of a NZ Express fare domestically combined with a fifth freedom fare on the Tasman is also unlikely to occur often or to provide any constraint on the Applicants. The Applicants suggested at the conference that an itinerary could be constructed this way for approximately $419 using Aerolineas Argentinas. Aerolineas Argentinas flies twice a week (Thursday and Sunday) to Sydney at 6.10 am. A night's accommodation would therefore be required in Auckland. Also, the limited frequency, inconvenient departure times, and impracticality of such an exercise are likely to make it unsubstitutable for the traveller from another centre, especially the business traveller. The option also provides no substitute for travellers to Melbourne or Sydney. Using another fifth freedom carrier is unlikely to solve these scheduling problems to a great extent and combined with the fact that Argentinas Aerolineas offers the cheapest fare on the Tasman by almost $100, the option would be considerably less attractive.

705. The ability to undercut is also lessened by the fact that Air NZ air fares from provincial centres to international airports are often discounted for international travellers continuing overseas on Air NZ. For example, the price of a flight from Whangarei to Auckland one way is approximately $136 whereas the price for the same route for a traveller continuing on an overseas flight from Auckland on Air NZ is $87. Thus an international traveller from the provinces has an increased incentive to travel on the one airline.

706. The argument also ignores the fact that the Commission has found that competition will be lessened on the main trunk routes and therefore the NZ Express flights are likely to be more expensive in the factual.

707. Several industry participants have pointed out that all the fifth freedom flights are out of Auckland only and primarily into Sydney and Brisbane, Emirates being the only other carrier operating to Melbourne.

708. All fifth freedom operators spoken to during the course of the investigation indicated that Wellington and Christchurch would not be an option for them due to the limited ability to fly large aircraft into Wellington and the limited population base in Christchurch. It was also suggested by Malaysia Airlines that to really take advantage of Christchurch an airline would need connecting domestic services, as little inbound traffic terminates at Christchurch.

709. The fifth freedom carriers advised the Commission that their scheduling and route services are driven through considerations of their long haul services, rather than the prices charged at other centres in New Zealand. The fact that capacity is not adjusted over Christmas is evidence of this fact in that prices are higher yet no increase or shift in fifth freedom capacity is observable. Mr Harrison, on behalf of the Applicants, also stated at the conference that the two key characteristics of capacity decisions for fifth freedom carriers are the view to develop a new long haul service and to utilise available aircraft.

710. Malaysia Airlines stated that the principal reason the Tasman is flown is to provide a higher frequency for long haul travel into and out of New Zealand with the costs being assessed against the network benefit derived rather than the revenue generated on the Tasman leg. Mr McCumstie of Qantas stated that approximately [ ]% of the traffic carried is network traffic whilst Mr Harrison also said that the first priority for fifth freedom carriers is network traffic.

711. These views were supported by Origin Pacific which pointed out that the fifth freedom operators do not have sufficient frequency to be a constraint on the proposed Alliance and that the passengers on the Tasman leg of their flights are only seen as a top-up to the other legs. STA Travel also made this point, saying that the Tasman leg is low yielding and that the fifth freedom airlines would rather sell seats on the longer sectors.

712. Aerolineas Argentinas and Malaysia Airlines also said that they only compete to a very limited extent with the Applicants and to the extent that they do, it is only at the discount end. They suggested that the higher yielding business traveller on the Tasman will be locked into the frequent flyer schemes, lounge access and domestic networks which are only offered by the Applicants.

713. Mr Harrison also acknowledged that the route network and frequency give Air NZ and Qantas an advantage in the business segment. Mr Miller stated that with their lower frequency, fifth freedom fliers cannot get into a lot of the business markets that Air New Zealand and Qantas do. However, he said that the lower fares offered by the fifth freedom carriers mitigate these points in that they offer lower fares with less restrictions.

714. The Commission is of the view that the ability of fifth freedom carriers to fly the Tasman at a lower cost as most of the cost is absorbed in the entire route is largely irrelevant. Most fifth freedom carriers offer (in most cases) cheaper fares than the Applicants yet invariably still operate well below optimal load factors. If price were as important as the Applicants suggest, one would expect to see these planes full on a consistent basis. The problems outlined above significantly limit the competitive constraint from fifth freedom carriers on the Tasman.

715. It is acknowledged that the arrival of Emirates has significantly increased the capacity on selected routes. However, fifth freedom operators frequently enter, exit and adjust their schedules on the Tasman route and several industry participants have questioned the sustainability of the additional capacity. The Commission is of the view that there is uncertainty as to whether the increase in capacity from Emirates is likely to be sustainable in the long term.

716. The Commission is of the view, based on the above discussion, that fifth freedom operators provide a small competitive effect on competition at the discount level for fares from Auckland, and a very limited impact on the business segment from Auckland and on all fares on Tasman routes from other New Zealand centres. The limited frequency of services and inferior schedules significantly limit the effectiveness of fifth freedom operators. On balance, the Commission considers that the effect of fifth freedom operators, when the competitive impacts are assessed across the different segments and all of the New Zealand Tasman gateways, is limited.

717. Routes to Cairns and Perth from New Zealand would also be affected by the proposed Alliance, although there would be no aggregation on these routes, in that the availability of a one stop flight on Qantas to these cities may currently be constraining the direct flights from Auckland on Air NZ. Although the potential still exists for interlining on Virgin Blue within Australia, the Commission is of the view that the convenience of being able to book a single flight and the connectivity that a single carrier can offer largely militate the interlining possibility as a substitute.

718. Other routes from some New Zealand provinces are flown by Freedom Air. There is no aggregation on these routes and they therefore will not be considered further. The Commission does note, though, that the availability of these flights further reduces substitutability of fifth freedom carriers for passengers from these provinces.

719. Accordingly the Commission considers that while under the counterfactual, Qantas and Air NZ will continue to compete vigorously as indicated by the current competitive environment, there would not be sufficient existing competition on the Tasman to constrain the proposed Alliance in the Tasman market in the factual.

Constraint from Potential Competition in the Counterfactual and Factual

Introduction

720. As with the analysis of the main trunk market, it is necessary to determine the degree to which the entry, or threat of entry, of new market participants would provide a constraint on Air NZ and Qantas, the two main Tasman market participants, in the counterfactual. Much of the reasoning in the above analysis of potential main trunk competition applies as well to the Tasman market and is not repeated here.

721. The only potential Tasman market entrant that the Commission has identified is Virgin Blue (or a New Zealand-based subsidiary of Virgin Blue). Jumpjet Airlines has entry plans but is at too early a stage for the Commission to take account of. Jumpjet Airlines currently has neither capital nor aircraft available to it. There are other holders of fifth freedom rights between Australia and New Zealand which do not yet fly on the Tasman. However, the Commission has found no evidence of those carriers considering or planning entry to such an extent that a constraint on Air NZ or Qantas exists. That said, the Commission notes the entry of Emirates as a fifth freedom flyer into AIA occurred with little advance notice. The Commission is of the view, however, that one more entrant is not likely to have much impact on the market and might drive out an existing competitor.

722. Barriers to the entry of Virgin Blue in the counterfactual are now analysed using the principles considered above in respect of the main trunk market.

Barriers to the Entry of Virgin Blue in the Counterfactual and Factual

723. After considering submissions on its Draft Determination, and other information received, the Commission considers that the barriers to the entry of Virgin Blue into the Tasman market are a lack of loyalty scheme and the likely response from Air NZ and Qantas.

724. AIA has written to the Commission advising that:

> The committee responsible for the {international} arrival and departure slot planning for this year's Northern Winter Schedule (which runs from October to March) at Auckland International Airport has recently provisionally completed the slot planning process…..
>
> The slot planning process is intended to manage each carrier's scheduling "wish list" to ensure the capacity of the International Terminal Building and the other related facilities are not exceeded at peak times in three critical areas:
>
> (a) Gate availability.
>
> (b) Peak hour passenger flows….
>
> (c) Check-in counter availability for departure.
>
> …We understand that the allocations match closely the slots requested by the airlines {which includes Virgin Blue}.

725. WIAL and CIAL have also advised the Commission that there will be no difficulties with access to international slots for Virgin Blue at either airport. There is no evidence that Virgin Blue will have difficulty obtaining suitable slots at the Australian airports from which it will fly Tasman sectors.

726. Virgin Blue has confirmed these matters. Its only concern is the allocation of international slots at Auckland in the future after the present six month round expires.

727. Therefore, in contrast to the domestic facilities situation at AIA, the Commission considers that access to international facilities at any of New Zealand's international airports is not likely to be a barrier to the entry of Virgin Blue on the Tasman market.

Loyalty Schemes as a Barrier to the Entry of Virgin Blue into the Tasman Market

728. Business travellers comprise 31% of trans-Tasman passengers. The greatest proportion occurs on the Wellington to Sydney route where 39% of travellers have business purposes. The Commission notes its main trunk market analysis of Virgin Blue's lack of a loyalty programme, and concludes similarly that a barrier to entry is also likely in the counterfactual.

729. As with the main trunk market, the Commission considers, on the balance of probabilities, that the proposed Alliance's combined loyalty programme is likely to be a higher barrier to entry in the factual for the reasons given above. However, this effect is likely to be less pronounced in the Tasman market than in the main trunk market because of the lower proportion of business travellers (31% as against 56%).

Incumbent Response as a Barrier to the Entry of Virgin Blue into the Tasman Market

730. As noted above, in the main trunk market analysis, Virgin Blue has submitted that one major impediment to its entry and expansion in the Tasman market is the likely strategic response of Air NZ and Qantas.

731. Freedom Air is an additional factor in this analysis. Origin Pacific said that Freedom Air is a formidable barrier to the Tasman market. Other than the Applicants, most industry participants referred to Freedom Air as a weapon to be used against new entrants into the Tasman market citing the role it had played in the demise of Kiwi International.

732. In this respect Virgin Blue said:

> Originally we pointed out that the easiest way to resolve this would be the divestiture of Freedom Air with a constraint on the reintroduction of a "Freedomair 2". Since then a number of changes have taken place including Qantas' introduction of JetConnect, an equally potent weapon that can be just as easily trained on Air New Zealand as upon ourselves. The introduction of JetConnect devalues the Freedomair divestiture as it is effectively "Freedomair 2". While this situation is not ideal, it is a de facto reality …..

733. When Kiwi International commenced flying trans-Tasman in August 1995, Air NZ created Freedom Air, which was then targeted directly at the Kiwi International's market. Freedom Air still exists as an entity and the Commission considers that Air NZ will use this low cost subsidiary to mount a similar vigorous response against a new entrant into the Tasman market.

734. Also relevant is Air NZ's and Qantas's introduction of the Tasman Express and JetConnect trans-Tasman strategy. While Tasman Express and JetConnect are not

perfect examples of the LCC model, the two airlines have moved their Tasman services distinctly in that direction in response to Virgin Blue's likely Tasman entry.

735. As noted above, Air NZ has recently announced 11 new Tasman flights, of which seven are based in Christchurch, Virgin Blue's Tasman entry point in New Zealand. Moreover, Air NZ has doubled its number of flights from Christchurch to Brisbane, Virgin Blue's announced entry route.

736. The Commission considers that the entry of Virgin Blue has provoked and will further provoke, vigorous responses against it in the Tasman market by the Applicants and that the threat of this occurring as well as the response itself is a barrier to entry and expansion by Virgin Blue in the counterfactual.

737. For reasons similar to those discussed in the main trunk market analysis, the Commission considers that the response by the proposed Alliance, to Virgin Blue's entry into the Tasman market, would be a greater barrier to the entry of Virgin Blue in the factual than in the counterfactual. As discussed in the main trunk market analysis, the proposed Alliance's greater ability to recoup losses arising from the provision of over capacity, is likely to provide it with more ability than the two airlines acting independently, to subsidise over-capacity on those Tasman routes on which Virgin Blue enters.

738. The Commission considers, on the balance of probabilities, that the potential response of the proposed Alliance to the entry and expansion of Virgin Blue into the Tasman market in the factual will be a higher barrier to entry than the Applicants' individual responses in the counterfactual.

Conclusion on Entry Barriers in the Factual and the Counterfactual

739. The only potential Tasman market entrant that the Commission has identified in the factual is Virgin Blue (or a New Zealand-based subsidiary of Virgin Blue).

740. The Commission considers, on the balance of probabilities, that as with the main trunk market, the proposed Alliance's combined loyalty programme is likely to be a higher barrier to entry in the factual for the reasons given above. However, this effect is likely to be less pronounced in the Tasman market than in the main trunk market.

741. The Commission considers, on the balance of probabilities, that the potential response of the proposed Alliance to the entry and expansion of Virgin Blue into the Tasman market in the factual will be a higher barrier to entry than the Applicants' individual responses in the counterfactual.

The LET Test in the Factual and the Counterfactual

Likelihood of Entry

742. The Commission now considers, on the balance of probabilities, that it is likely that Virgin Blue (or a subsidiary thereof) will enter and expand in the Tasman market. This conclusion applies equally to the counterfactual and the factual.

743. Along with the evidence listed in its analysis of the main trunk market, the Commission notes additionally that on 17 September 2003, Virgin Blue announced that it intended to operate its New Zealand-based subsidiary, "Pacific Blue" from Christchurch and that Tasman flights between Brisbane and Christchurch would commence on 1 February 2004. Virgin Blue announced that it would initially employ about 200 staff in New Zealand. This is consistent with the Commission's view that Virgin Blue's gradual entry into Tasman markets is likely.

744. In the Commission's view, the evidence shows a commitment by Virgin Blue to enter the Tasman market, irrespective of the proposed Alliance, and that there is a high likelihood of its entry in both the factual and the counterfactual.

Extent of Entry

745. For reasons similar to those considered with respect to the main trunk market, it is the Commission's view, on the balance of probabilities, that in the counterfactual, the potential for entry of Virgin Blue into the Tasman market has been extensive enough to lead to a constraint on Air NZ and Qantas. The Commission is of the view that this is the reason for the introduction of Tasman Express and JetConnect.

746. Virgin Blue has submitted to the Commission that its entry would likely be more tentative in the factual because of the greater risk to it from a stronger anti-competitive response from the more powerful proposed Alliance fighting on one "flank" rather than each airline fighting on two "flanks".

747. For similar reasons to those set out in respect of the main trunk market, the Commission considers, on the balance of probabilities, that Virgin Blue's entry and expansion on Tasman routes will be less extensive in the factual than in the counterfactual. The Commission is not satisfied that there is likely to be entry into the Tasman market by Virgin Blue of sufficient extent to constrain the proposed Alliance for at least two years.

748. Even allowing for rationalisation of services under the proposed Alliance, the Commission considers that Virgin Blue's assumed initial entry and expansion in Tasman markets during the two year period considered by the Commission will be small in comparison to the proposed Alliance's combined Tasman flying timetable and will not be extensive enough to constrain the proposed Alliance.

Timeliness of Entry

749. Virgin Blue has said that with or without the proposed Alliance it will enter New Zealand and the Tasman in the short term and indeed has announced 1 February 2004 as its planned date of commencement of Tasman flights.

750. The Commission considers, on the balance of probabilities, that Virgin Blue will enter the other Tasman routes in a measured way as it receives delivery of more of its B737-800 aircraft, and depending on the response it faces from the incumbents and the degree of demand.

Conclusion on the LET Test in the Factual and in the Counterfactual

751. The Commission concludes, on the balance of probabilities, that Virgin Blue is likely to enter the Tasman market in the factual but that entry will be of insufficient extent to act as a constraint on the proposed Alliance. The Commission considers, on the balance of probabilities, that, because of the increased ability of the proposed Alliance compared with Air NZ and Qantas acting individually to mount an anti-competitive response to Virgin Blue, while Virgin Blue's entry will occur and will be sufficiently timely, it will be less extensive in the factual than in the counterfactual.

Constraint from Buyers or Suppliers

752. There is little evidence of buyer or supplier constraint in this market.

Economic Modelling Results

753. The economic modelling carried out by the Commission suggests, even after allowance is made for the entry of Virgin Blue in both scenarios, albeit to a lesser degree in the factual, that the reduction of competition in the factual is likely to lead to prices being higher than they would be in the counterfactual by about 16%. The Commission is of the view that even a likely price increase of 5% is indicative of a likely substantial lessening of competition due to the exercise of market power.

Conclusion on the Tasman Market

754. The Commission's comparison of the counterfactual with the factual is set out in Table 9.

Table 9
Comparison of Counterfactual with Factual in the Tasman Market

Competition effect	Counterfactual	Factual
Market share	Market shares similar to the status quo. Air NZ [ ]%, Qantas [ ]% fifth freedom [ ]%.	The proposed Alliance having a market share of approximately [ ]%
Existing competition	Air NZ & Qantas continuing to compete and expand capacity in line with market growth. Fifth freedom carriers providing limited constraint.	Air NZ and Qantas no longer competing but coordinating. Fifth freedom operators providing limited constraint.
Likelihood, extent and timeliness of entry.	Likely and timely entry by Virgin Blue but to a limited extent.	Likely and timely entry by Virgin Blue but to a more limited extent than in the counterfactual
Constraint from buyers and suppliers	None	None
Expected price increases		16%

755. A comparison of the counterfactual and the factual shows, on the balance of probabilities, that in the factual the proposed Alliance will have a high market share, will be insufficiently constrained by existing competition, the barriers to entry will be greater, and any potential entry is only likely to occur to a limited extent.

756. The Commission's modelling found that there would be a price increase of 16%.

757. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the Tasman market when compared with the counterfactual.

THE NZ-ASIA MARKETS

Participants

758. The Commission has determined that the relevant Asian routes are from New Zealand to Japan, Taipei, Hong Kong and Singapore. These routes are flown directly from Auckland by Air NZ, but routes from other New Zealand cities require a preliminary stop in Auckland. Qantas does not fly these routes directly from New Zealand but, as

discussed in the market definition section above, its routes via Australia (direct or through a code-sharing arrangement) to these destinations are likely to be constraining the direct routes from Auckland on Air NZ as in some circumstances a one stop route may be substitutable for the direct route should the fares on the direct route increase by a *ssnip*.

Constraint from Existing Competition in the Factual and Counterfactual

NZ-Japan

759. Air NZ currently flies to Nagoya twice a week, to Osaka five times a week (with an additional two flights that continue on from Tokyo) and seven times a week to Tokyo.

760. The Commission is of the view that the most substitutable route, for the Air NZ direct flights from Auckland to Japan, particularly for passengers from Wellington and Christchurch, is to fly on Qantas to Brisbane and then on JAL flights (on which Qantas code-shares) to the Japanese destinations. It should be noted that 90% of passengers on the direct routes are leisure passengers who are likely to be flexible in their flight requirements. These routes are also long haul flights which suggests that one stop flights on these routes are likely to be substitutable for the direct flights due to the fact that a time delay from a stopover is proportionately less, in relation to the entire flight time, to a stopover on a short haul trip.

761. Air Calin also operates one service a week from Auckland to Tokyo via Noumea. However, because of the limited frequency, the Commission is of the view that the service offers little or no constraint on Air NZ’s fares on the direct route.

762. The Commission is of the view that in the counterfactual the constraint provided by the indirect routes on the direct routes from Auckland to Japan would continue with Air NZ and Qantas continuing to compete as in the status quo.

763. The Commission considers, on the balance of probabilities, that in the factual, the proposed Alliance would operate all of the services to Japan out of New Zealand and the constraint provided by the ability to substitute by flying Qantas via Australia would be removed. Only a very limited constraint is likely to be offered by Air Calin and JAL on these routes due to Air Calin’s frequency and the necessity to interline to Japan via Australia on JAL. The Commission therefore considers, on the balance of probabilities, that it is unlikely that there would be existing competition sufficient to constrain the proposed Alliance on routes to Japan in the factual.

NZ-Taipei

764. Air NZ flies direct from Auckland to Taipei twice a week with EVA Air code-sharing on the flights. The only alternative is to fly Qantas to Sydney and then to Taipei on EVA Air (on which Qantas code-shares) which flies twice a week. The traffic on this

route consists of around 80% leisure travellers which is again indicative of the likely substitutability of the one stop flights out of Australia.

765. The Commission considers, on the balance of probabilities, that in the counterfactual the constraint provided by the indirect route on the direct route from Auckland to Taipei would continue.

766. The Commission considers, on the balance of probabilities, that in the factual, the proposed Alliance would operate all of the services to Taipei out of New Zealand and the constraint provided by the ability to substitute by flying Qantas via Australia would be removed. The Commission therefore considers, on the balance of probabilities, that it is unlikely that there would be existing competition sufficient to constrain the proposed Alliance on routes to Taipei in the factual.

NZ-Hong Kong

767. Air NZ flies five direct services a week from Auckland to Hong Kong (on which Lufthansa code-shares) and Cathay Pacific flies ten times a week on the same route. Cathay Pacific, has demonstrated by its continued presence on the route, particularly in sustaining operations during the SARS epidemic, a long term commitment to servicing this route.

768. It is also possible to fly on Qantas to Sydney or to Brisbane and then to Hong Kong from Sydney on Qantas, Martinair Holland or Cathay Pacific or from Brisbane on Cathay Pacific. The Commission is of the view that these routes are substitutable for the direct routes from Auckland, particularly for passengers from Wellington and Christchurch. The majority of the passengers on the direct routes are leisure passengers who are likely to be flexible and the route is a relatively long haul route.

769. The Commission is of the view that in the counterfactual the constraint provided by the indirect route described above on the direct route from Auckland to Hong Kong would continue.

770. Although it would still be possible to fly Cathay Pacific from Auckland to Hong Kong in the factual, it is likely that the proposed Alliance would remove the constraint currently provided by the ability for Wellington and Christchurch travellers to travel to Hong Kong via Australia on Qantas.

771. The ability to fly on a fifth freedom carrier to Sydney and then interline represents a possible alternative to the direct route from Auckland, but for the reasons outlined in the analysis of the Tasman routes, provides little constraint.

772. The continuing presence of Cathay Pacific would provide some competition on this route in both the counterfactual and the factual. However, competition is deemed to be substantially lessened on this route under s 30 of the Act for the reasons set out in paragraphs 4 and 5 of this section.

NZ-Singapore

773. Air NZ flies six direct services per week to Singapore. Lufthansa and Singapore Airlines code-share on these flights. Additionally, Singapore Airlines operates seven direct flights weekly from Auckland and five from Christchurch on which Air NZ code-shares. Emirates also flies 14 services each week from Auckland to Singapore via Brisbane, Sydney and Melbourne.

774. The constraint offered by the ability to travel to Singapore via Australia on Qantas would be likely to be lost under the proposed Alliance. Although no alternatives exist out of Wellington, the ability to fly Singapore Airlines out of Auckland or Christchurch and the ability to fly Emirates from Auckland would be likely to militate against this loss in competition. The traffic on this route is also 80% leisure suggesting that a one stop indirect flight may be to some extent substitutable for a direct flight.

775. Emirates provides more of a constraint in these circumstances as it has the advantage of its flights continuing on to Singapore and as the route is a long haul route, its schedules are more comparable with that of the Applicants (who obviously do not operate this route with the density that they operate on the Tasman routes). However, the Commission notes that the sustainable presence of Emirates is uncertain, as noted under the analysis of the Tasman market.

776. The constraint provided by the possibility of flying on another fifth freedom carrier and then changing airlines in Sydney is limited as it necessarily involves large stop over delays combined with a loss of connectivity.

777. The presence of Singapore Airlines and Emirates would provide some competition on this route in both the counterfactual and the factual. However, competition is deemed to be substantially lessened on this route under s 30 of the Act for the reasons set out in paragraphs 4 and 5 of this section.

Conclusion on Existing Competition

778. The Commission considers, on the balance of probabilities, that the proposed Alliance will not be sufficiently constrained by existing competition alone on the routes from New Zealand to Japan and Taipei. On the routes to Hong Kong and Singapore some competition will continue under the counterfactual and the factual from Cathay Pacific, Singapore Airlines and Emirates. However, competition is deemed to be substantially lessened on these routes under s 30 of the Act for the reasons set out in paragraphs 4 and 5 of this section.

Constraint from Potential Competition in Counterfactual and Factual

779. In the Draft Determination the Commission was of the view that although the airlines already operating in the NZ-Asia markets are capable of expanding their operations to

enter other relevant sectors to a sufficient extent to constrain the proposed Alliance, the Asia to New Zealand sector is low yielding and not considered to be a focus of these airlines. Accordingly, the Commission was not satisfied, on the balance of probabilities, that the proposed Alliance would be constrained by potential competition. The Commission has not received any information that would negate that view.

Constraint from Buyer or Suppliers

780. There appears to be little constraint from buyers and suppliers in these markets.

Conclusion on the NZ-Asia Markets

781. The Commission's comparison of the counterfactual with the factual is set out in Table 10

Table 10
Comparison of Counterfactual with Factual in the NZ-Asia Markets

Competition effect	Counterfactual	Factual
Existing competition	Will continue as under the status quo with Qantas continuing to compete with the Air NZ direct flights with their own indirect flights via Australia.	Removal of constraint from indirect routes via Australia on Qantas. Little existing competition and not sufficient constraint on NZ-Taipei and NZ-Japan routes. Continuing constraint from competition on NZ-Hong Kong and NZ-Singapore routes.
Likelihood, extent and timeliness of entry.	No likely entry within a sufficient timeframe.	No likely entry within a sufficient timeframe.
Constraint from buyers and suppliers	None	None
Expected price increases from modelling results	The modelling of the Asian routes did not produce any predicted price increases but did not make allowance for the loss of constraint from indirect routes. The Commission conservatively assumes a 5% price increase as likely on these routes[98].	

[98] The Commission assumes a 5% price increase as an appropriately conservative estimate of the likely effect of a substantial lessening of competition in the absence of modelling assistance. The European Competition Commission observes in their merger guidelines: 'an increase in the price of a product of around 5% might reasonably be judged to have a significant effect on customers' expenditure on the product and so provides an appropriate level at which to consider the test. In addition, a 5% increase in price might be expected to have an appreciable effect on a firm's profit margin'.

782. The Commission considers, on the balance of probabilities, that the proposed Alliance would:

- Substantially lessen competition on the NZ-Taipei and NZ-Japan routes under the factual where the option of flying Qantas via Australia is removed and no existing competition is sufficient to constrain the Alliance.

- Be constrained by Cathay Pacific and Singapore Airlines and Emirates on the routes to Hong Kong and Singapore but be deemed to substantially lessen competition on these routes through the operation of s30 of the Act.

783. In addition the Commission is of the view that there would be no likely entry within a sufficient time frame on these routes to constrain the Alliance.

784. The Commission conservatively assumes a 5% increase in price as the likely result of a substantial lessening of competition on the routes to Japan and Taipei. On the routes to Hong Kong and Singapore, despite competition being deemed to be substantially lessened, no price rise is assumed as it is questionable as to whether in fact competition will be lessened on these routes.

785. Consequently, the Commission is not satisfied that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the NZ-Asia markets when compared with the counterfactual.

THE NZ-PACIFIC MARKET

Participants

786. Aggregation occurs in this market by virtue of Qantas' 46.32% shareholding in Air Pacific, (in which Air NZ also holds a 1.97% stake). Aggregation between Air NZ and Air Pacific occurs on two routes, namely the Auckland to Fiji route and the Fiji to Los Angeles route. The Commission believes that competition on the Tahiti, Samoa and Tonga routes from New Zealand and also the Samoa-Tonga and Tahiti-Los Angeles routes must also be assessed as currently Qantas code-shares on these routes and the Alliance is likely to alter the competitive environment.

787. Indirect routes are of no relevance in this market due to the relative length of the routes and the impracticalities of travelling via Australia on such short haul routes.

Constraint from Existing Competition in the Factual and Counterfactual

NZ-Fiji

788. Air NZ currently flies nine times a week from Auckland to Fiji with United Airlines code-sharing on eight of those services. Qantas is associated with, and code-shares on, Air Pacific which is the only other carrier flying from New Zealand to Fiji. The Commission believes that that the competition between Air NZ and Qantas through Air Pacific would be likely to continue in the counterfactual.

789. The proposed Alliance would have a 100% market share in the factual and face no competition from any other carrier.

NZ-Samoa

790. Air NZ flies directly three times a week from Auckland to Samoa with United Airlines code-sharing and one flight via Tonga that continues to Los Angeles. Qantas code-shares on one of Polynesian Airlines' four direct services to Samoa and one of their two indirect services from Auckland via Tonga each week. Polynesian Airlines also operates a weekly service from Wellington to Apia via Tonga.

791. The relevant factor for the Samoan route is the competitiveness in the factual of Polynesian Airlines which is the only non-Alliance participant on these routes.

792. Polynesian Airlines at the conference said that it foresaw the proposed Alliance as potentially fatal for it and that if it was not to be included in the Alliance, the competitive pressure could not be sustained with the result being its exit from the market.

793. Qantas can currently provide feed and network advantages to Polynesian Airlines, the loss of which is likely to have a serious detrimental impact on Polynesian Airline's ability to compete. The Commission is therefore of the view that exit is the likely scenario arising from the dual effect of the loss of Qantas' business as a code-share partner and the resulting barriers to expansion that would exist in the market.

794. Polynesian Airlines would be likely to face difficulties in accessing capital, feed (from the main trunk and connecting passengers from Australia, for example), and in surviving incumbent response to any expansion in the factual. Polynesian Airlines would be further disadvantaged in losing the Qantas business as this would seriously undermine the viability of many of its routes.

795. Virgin Blue is unlikely to allay the concerns regarding feed from the main trunk due to its entry being uncertain, and if it did occur, likely to be on a relatively small scale.

796. The Commission is therefore of the view that the proposed Alliance will have a 100% market share in the factual with Polynesian Airlines being unable to compete, and thus exiting the route.

NZ-Tonga

797. Air NZ flies direct services from Auckland to Tonga five times a week. Polynesian Airlines flies once a week and Royal Tongan flies four times a week. Polynesian Airlines also operates one flight from Wellington. These competitors are expected to continue operating this route in the counterfactual.

798. The discussion concerning Polynesian Airlines above is also relevant to the NZ-Tonga route. Mr Bagnall of Gullivers Pacific, said at the conference that the continuance of Royal Tongan services is uncertain. However, the Commission is not aware of any information that would cause it to consider that Royal Tongan is unlikely to continue to provide the same level of services in the factual. The Commission is of the view that on the NZ-Tonga route, Royal Tongan will provide some constraint on the proposed Alliance in the factual but that it will be limited and not sufficient to constrain the proposed Alliance. The proposed Alliance would also have a significant advantage with respect to New Zealand passengers travelling to Tonga from centres other than Auckland in that its domestic services can feed these international ones.

NZ-Tahiti

799. Air NZ operates two direct and three indirect (via the Cook Islands) weekly flights from Auckland to Tahiti. Qantas code-shares on both of the flights of the only other competitor on the route, Air Tahiti Nui. The Commission considers that this would continue to be the likely competitive position in the counterfactual.

800. As with Polynesian Airlines, Air Tahiti Nui would be placed at a significant competitive disadvantage in the factual through the loss of its code-share arrangement and the barriers to expansion that it would face in order to compete in any effective sense against the proposed Alliance. The Pacific routes are relatively thin, as evidenced by the frequency of code-sharing agreements on them, and the loss of Qantas and the Qantas brand would seriously undermine the ability to remain viable on such routes.

801. The Commission is of the view that the same issues facing Polynesian Airlines in the factual are relevant to analysing the competitive positioning of Air Tahiti Nui. Accordingly the Commission considers that Air Tahiti Nui is unlikely to be in any position to provide effective competition in the factual on the NZ-Tahiti route.

Fiji-Los Angeles, Tahiti-Los Angeles, Samoa-Tonga

802. Air Pacific and Air NZ are currently the only two operators providing services on the Fiji-Los Angeles route, leading to the proposed Alliance having a 100% market share on this route in the factual. The Tahiti-Los Angeles route is serviced by Air Tahiti Nui and Air France. This competition is likely to continue in the counterfactual. However, Polynesian Airlines and Air NZ are the only airlines currently flying services between Samoa and Tonga. The Commission is of the view that the proposed Alliance will not face any constraint from existing competition on the Samoa-Tonga route but Air France and Air Tahiti Nui will continue to provide some competition on the Tahiti-Los Angeles route in the factual.

Conclusion on Existing Competition

803. The Commission considers, on the balance of probabilities, that the proposed Alliance will not be effectively constrained by existing competition on most of the Pacific routes in the factual

Constraint from Potential Competition in Counterfactual and Factual

804. Of the seven Pacific routes identified above, Virgin Blue has indicated that it might be interested in entering the Auckland to Fiji route. It has obtained the necessary landing rights in Fiji. However, there is considerable uncertainty if and when this might occur. While Virgin Blue wishes to expand, it appears to the Commission that its immediate focus is on Tasman and the main trunk markets. The Commission considers that the potential entry of Virgin Blue on the Auckland to Fiji route is at best likely to be a weak constraint on the proposed Alliance on that route only.

805. The Commission considers that there is no evidence that any of the airlines currently operating in this market, all of which are small regional airlines, would be in a position to expand their operations to an extent that they would enter new routes in the face of the strength of the proposed Alliance (in the case of these markets reinforced by Air Pacific), particularly as they are thin routes. Polynesian Airlines advised that it will in fact be unable to remain in operation on its B737-800 routes advent the proposed Alliance. It certainly would not be in a position to expand and enter new routes.

806. In summary, the Commission considers, on the balance of probabilities, that there is no evidence of potential entry on six of the seven specific Pacific Island routes and that Virgin Blue's potential entry on the Auckland to Fiji route is uncertain and is likely to provide only a weak constraint on the proposed Alliance for a number of years.

Constraint from Buyer or Suppliers

807. The Applicants submitted that a significant proportion of traffic to Pacific destinations are travellers who have very elastic demand, thus restraining the Applicants in that they would not be able to exercise any degree of power in this market as buyers and suppliers would simply substitute away from the routes. The Commission is of the view that there may be some elasticity of demand with respect to these routes but that substitution would be unlikely to constrain the proposed Alliance as it would primarily take place between the Pacific routes, which are all similarly affected by the proposed Alliance. Therefore, the threat of substitution in the event of an attempted exercise of market power is not sufficient to act as a constraint on the proposed Alliance as the Alliance would have substantial market power on all Pacific routes flown from New Zealand.

Economic Modelling Results

808. The economic modelling carried out by the Commission suggests that the reduction of competition in the factual is likely to lead to prices being higher than they would be in the counterfactual by about 11% on the NZ-Fiji route and 19% on the Fiji-Los Angeles route. The Commission is of the view that even a likely price increase of 5% is indicative of a likely substantial lessening of competition due to the exercise of market power.

Conclusion on the NZ-Pacific Market

809. The Commissions' comparison of the counterfactual with the factual is set out in Table 11.

Table 11
Comparison of Factual and Counterfactual in NZ-Pacific Market

Competition effect	Counterfactual	Factual
Existing competition	Competition to continue between Air NZ direct, a few other airlines on selected routes and Qantas through Air Pacific and their code-sharing arrangements.	Little existing competition and insufficient constraint from Air France, Air Tahiti Nui and Royal Tongan on their respective routes.
Likelihood, extent and timeliness of entry.	No likely entry within a sufficient timeframe.	No likely entry within a sufficient timeframe.
Constraint from buyers and suppliers	Minimal	Minimal

Competition effect	Counterfactual	Factual
Expected price increases	11% on the NZ-Fiji route, 19% on the Fiji-Los Angeles. The other Pacific routes were not included in the modelling as a simpler approach to estimating price increases was considered appropriate. The Commission assumes a 5% price increase on the other Pacific routes excluding Tahiti-LA.	

810. The Commission considers, on the balance of probabilities, that the Alliance would:

- Substantially lessen competition on the NZ-Taipei and NZ-Japan routes in the factual where the option of flying Qantas via Australia is removed and no existing competition is sufficient to constrain the proposed Alliance.

- Be constrained by Air France and Air Tahiti Nui on the route from Tahiti to Los Angeles but be deemed to substantially lessen competition on this route through the operation of s30 of the Act.

811. In addition, the Commission is of the view that there would be no likely entry within a sufficient time frame on these routes to constrain the proposed Alliance.

812. The Commission's modelling found that there would be a price increase of 11% on the NZ-Fiji route and 19% on the Fiji-Los Angeles route. On the Tahiti-Los Angeles route, despite competition being deemed to be substantially lessened, no price rise is assumed as it is questionable as to whether in fact competition will be lessened on these routes.

813. Consequently, the Commission is not satisfied that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the NZ-Pacific markets when compared with the counterfactual.

THE NZ-US MARKET

Constraint from Existing Competition in the Counterfactual and Factual

814. Air NZ operates 17 direct services each week to Los Angeles, on which Lufthansa, United Airlines, Air Canada and Mexicana code-share, and four indirect services via Fiji and Tahiti, all flown from Auckland. Qantas operates nine weekly direct flights from Auckland on which American Airlines and British Airways code-share. Qantas also continues to New York from Los Angeles.

815. Air Tahiti Nui operates two flights each week from Auckland to Los Angeles via Tahiti and one return flight from Los Angeles to Auckland via Tahiti.

816. The Commission is of the view, on the balance of probabilities, that competition will continue between Air NZ and Qantas in the counterfactual on the New Zealand-Los Angeles direct route.

817. Under the proposed Arrangement there is a provision that the Applicants would continue to compete in this market for a period of two years. However, because of the degree of joint operations provided for under the proposed Arrangement and the provision for Qantas to appoint two directors to the Air NZ Board and Air NZ to appoint one director to the Qantas Board, the Commission cannot be satisfied, on the balance of probabilities, that in fact there would be effective competition between the Applicants on this route. The Commission is of the view that, despite the arrangement, no incentive would exist for the two airlines to compete and a situation could likely result whereby the airlines may not collude yet have no incentive to compete vigorously on the route.

818. Other routes within North America may also be affected by the loss of competition. For example a traveller connecting to New York currently has the ability to travel either on Qantas or Air NZ (code-sharing from Los Angeles to New York on United Airlines). It is unlikely that, in the factual, a different American carrier would be used for the connecting flight as connectivity would be lost, time delay would likely be increased, more than one booking would be needed and (depending on the airline used) frequent flyer points may be lost. It is the view of the Commission that the existence of other carriers within the United States would limit at some point the price which could be charged though a price increase of considerably more than 5% would be likely to have to occur before there would be any constraint from the other carriers.

819. The Applicants have submitted that much of the travel on the NZ – Los Angeles route is through traffic and therefore the competition effect is mitigated by the possibility of travellers using west bound routes to access destinations within Europe for instance. However, a substantial number of passengers travelling beyond Los Angeles will still terminate their travel in North America and for them the west bound route will be of little relevance.

820. The proposed Alliance would have an almost 100% market share on the NZ-US route. The only other existing competitor is Air Tahiti Nui which, with only two weekly indirect flights, is unlikely to provide any real form of constraint on the proposed Alliance. The inconvenience of having only one return flight also reduces the substitutability of Air Tahiti Nui with respect to the proposed Alliance which would offer comprehensive non stop schedules in both directions. The Commission considers, on the balance of probabilities, that there is no existing competition sufficient to provide any effective constraint on the proposed Alliance in the factual.

Constraint from Potential Competition in the Counterfactual and Factual

821. The Commission was provided with evidence at the conference that all potential entrants into this market are either:

- suffering financial difficulties and have retrenched onto their most profitable routes of which this, in the face of stiff competition in the counterfactual from Air NZ and Qantas, is not one; or
- concentrating their resources on developing Pacific routes to and from the more populous and developing markets of Korea and China; or
- Star Alliance or oneworld partners of Air NZ and Qantas respectively and, as a result, less likely to enter this route.

822. Even if the potential North American based airlines were financially sound, there is considerable doubt as to whether they would enter the market against the market power of the proposed Alliance. Industry participants have advised the Commission that the NZ-US route is a long thin route that was not able to support three carriers. United Airlines withdrew because the market was not sufficiently profitable. Professor Hausman at the conference said that United Airlines withdrew from the routes as it had a very high cost structure and was operating only one plane a day on the route. He said that re-entry by United Airlines or entry by another US carrier was extremely unlikely given their financial difficulties and the lack of feed from US origins to Los Angeles and their lack of alliances that would provide the necessary feed. American Airlines has entered and withdrawn twice for the same reasons. Continental has entered and withdrawn once. Furthermore, only United Airlines has a Los Angeles hub.

823. Under the MALIAT, Singapore Airlines has the right to fly on the Auckland to Los Angeles sector. Moreover, given its Singapore to Auckland and Singapore to Los Angeles routes, Singapore Airlines has a presence at each end of the sector and could be considered a potential entrant on the route. However, the Commission notes that that the MALIAT has been in force for almost two years. During that time there has been no sign of any intention by Singapore Airlines to enter the sector. Nor has the Commission received any evidence of any such intention during the course of its examination of the Applications.

824. Industry participants advised the Commission that fares on the NZ-Los Angeles route had increased since United Airlines had withdrawn from it. The Commission notes that these fare increases have not led to new entry on the route.

825. As a result of the matters referred to above, the Commission considers, on the balance of probabilities, that there is not likely to be any potential entry which might constrain the proposed Alliance in this market.

Constraint from Buyers or Suppliers

826. There is little evidence of buyer or supplier constraint in this market. The extent to which travel packages via Asia may constrain direct routes to the United States is, in the view of the Commission, extremely limited. The cost of a travel package via Asia

would be substantially greater, involve multiple stops and significantly increase the journey time. As a result not only would this alternative not be an adequate substitute for most travellers, the price of such a route, even a competitive price, would not prevent the exercise of market power by the proposed Alliance on the direct route to Los Angeles.

Economic Modelling Results

827. The economic modelling carried out by the Commission suggests that the reduction of competition in the factual is likely to lead to prices being higher than they would be in the counterfactual by about 14% on the NZ-US route. The Commission is of the view that even a likely price increase of 5% is indicative of a likely substantial lessening of competition due to the exercise of market power.

Conclusion on the NZ-US Market

828. In The Commission's comparison of the counterfactual with the factual is set out in Table 12.

Table 12
Comparison of Factual with Counterfactual in the NZ-US Market

Competition effect	Counterfactual	Factual
Market share	Market shares similar to the status quo. Air NZ approximately [ ]%, Qantas approximately [ ]%.	The proposed Alliance having a market share approaching 100%.
Existing competition	Qantas and Air NZ continuing to compete.	Qantas and Air NZ no longer competing but coordinating operations. Insufficient constraint from the only other competitor Air Tahiti Nui due to limited schedules and indirect route.
Likelihood, extent and timeliness of entry.	No likely entry within a sufficient time period.	No likely entry within a sufficient time period.
Constraint from buyers and suppliers	None	None
Expected price increases		14%

829. A comparison of the counterfactual and the factual shows, on the balance of probabilities, that in the factual the proposed Alliance would have a high market share and be insufficiently constrained by existing competition, and no entry would be likely within a sufficient time period.

830. The Commission's modelling found that there would be a price increase of 14%.

831. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the NZ-US market when compared with the counterfactual.

THE INTERNATIONAL MARKET

Constraint from Existing Competition in the Counterfactual and Factual

832. Air NZ flies to London via Los Angeles. It also code-shares on flights from Los Angeles to other European destinations and from Asia to European destinations including London. Qantas flies from New Zealand to Los Angeles continuing on to New York. Qantas also fly routes to Europe out of Australia.

833. Competition on international routes is strong with the presence of many large and fringe competitors. Many alternatives exist in flying to destinations in Europe, for instance Singapore Airlines, Thai Airways, Cathay Pacific and Emirates all operate extensive routes to Europe from their respective hubs in Singapore, Bangkok, Hong Kong and Dubai.

Conclusion on the International Market

834. The proposed Arrangement allows for coordination on routes other than those specifically included in the JAO network, including those routes that form part of the international market. Therefore, in some instances the proposed Arrangement may have the effect of removing an Alliance partner as a potential competitor on a route currently serviced by the other. In any event, the proposed Arrangement is deemed to substantially lessen competition on such routes under s 30.

835. Notwithstanding that there is a deemed substantial lessening of competition, which provides the Commission with the necessary jurisdiction, the Commission must also assess the extent of the lessening of competition in order to determine whether the benefits of the proposed Arrangement outweigh the detriments.

836. The Commission is satisfied, on the balance of probabilities, that the actual lessening of competition in the international market is unlikely to be significant given the strength of the competition in that market. Therefore, the level of detriment arising in this market is unlikely to be significant. For the reasons stated in the Commission's analysis of detriments below, the Commission does not consider it is necessary to consider this market further.

THE DOMESTIC AIR FREIGHT MARKET

Constraint from Existing Competition in the Counterfactual and Factual

837. The Applicants submitted that this market is not relevant as Qantas does not carry belly-hold freight domestically and Air NZ also does not participate in the market as all of its space is contracted to NZ Post.

838. As explained in the market definition section, Air NZ does participate in this market. The fact that it sells its space to only one purchaser, NZ Post, is irrelevant for the purposes of the analysis. There is nothing to suggest Qantas could not readily enter this market given a financial incentive to do so. The relevant competition issue is that the proposed Alliance will remove Qantas as a near entrant in this market, which is likely to be presently constraining Air NZ.

839. NZ Post operates its own fleet of aircraft in conjunction with Airwork. At present it operates one 737-200QC with a capacity of roughly 14 tonnes, two Fairchild Metroliners which can carry two tonnes each and two Fokker F27 (Friendships) that can hold roughly six tonnes.

840. In addition to providing its own services, NZ Post also leases the entirety of Air NZ's belly-hold freight capacity subject to certain priority items such as passenger baggage, aircraft spare parts and a few other classes of items. NZ Post advised the Commission that Air NZ carries approximately [ ] of their freight domestically each year.

841. The Commission is of the view that the proposed Alliance will remove the constraint on Air NZ in the domestic freight market by removing Qantas as a near entrant in the factual. Origin Pacific operates a very limited freight operation with a few smaller aircraft but largely does not operate between the main centres and as discussed in the analysis of the passenger air services markets, the Commission is of the view that Origin is likely to retrench its operations in the factual.

842. Air Freight NZ also fly freighters for NZ Couriers domestically but, as neither NZ Couriers nor Air Freight NZ are likely to be affected by the proposed Alliance, their presence will not be considered further. The only relevant relationship, for the context of analysing the effects of the Alliance proposal, is that between Air NZ and NZ Post.

Constraint from Potential Competition in the Counterfactual and Factual

843. In the counterfactual, both Qantas and Virgin Blue are near entrants in this market. Origin Pacific operates small aircraft with a limited ability to expand, particularly in light of its probable retrenchment under the factual.

844. The Commission considers, on the balance of probabilities, that in the factual, the only entrant with the potential to constrain the proposed Alliance is Virgin Blue. Virgin Blue has informed the Commission that freight is not part of its core business, but if profitable freight carrying opportunities arise, it will take them. The Commission, however, notes that LCC airlines typically do not carry freight due to the desire to quickly and efficiently turn their planes around for subsequent flights, which a freight operation would jeopardise.

845. Because belly-hold freight capacity is a by-product of the provision of passenger services, the analysis of the entry of Virgin Blue as a constraint in these freight markets is the same as that for the passenger services markets. That is, on the balance of probabilities, Virgin Blue's entry into the domestic markets in the factual is likely to be insufficient to constrain the proposed Alliance.

Constraint from Buyers or Suppliers

846. The relevant question is whether NZ Post has sufficient countervailing power to constrain any exercise of market power by the proposed Alliance in the factual.

847. NZ Post has stated that its flight schedules [

]

848. Accordingly, the Commission considers, on the balance of probabilities, that NZ Post has the existing infrastructure and network to easily adjust its services in order to countervail any attempted exercise of power by the Alliance in the factual in the domestic freight market.

Conclusion on the Domestic Air Freight Market

849. A comparison between the counterfactual and the factual shows in the factual, on the balance of probabilities:

- The removal of Qantas as a near entrant;
- Virgin Blue would be the only likely new entrant but not to a sufficient extent or within a sufficient timeframe; and
- There is sufficient constraint from purchasers to constrain the proposed Alliance.

850. Consequently, the Commission is satisfied, on the balance of probabilities, that the proposed Alliance would not have nor would not be likely to have the effect of

substantially lessening competition in the domestic air freight market when compared with the counterfactual.

THE TASMAN BELLY-HOLD FREIGHT MARKET

851. Belly-hold air freight capacity is a by-product of passenger services. Accordingly, the competition analysis with respect to the Tasman passenger services market is also largely applicable to this market.

Constraint from Existing Competition in the Counterfactual and Factual

852. The Applicants submitted in response to the Draft Determination that the recent entry of DHL with five return freighter services per week indicates the ease with which capacity can be redeployed. Further they submitted that very few regulatory barriers to entry exist in this market.

853. The Applicants further submitted that the introduction of the new A320 aircraft by Air NZ on the Tasman will significantly reduce Air NZ's market share in the Tasman freight market from around 39% to 17%. Accordingly the Applicants submitted the following market share data to estimate that the proposed Alliance would have approximately 61% of Tasman freight capacity in the factual.

Cargo Tonnes	Freight Carried on Tasman Route					
			NZ reduction factor = 3			
	Post Air NZ A320 strategy					
				Cargo Tonnes		
Operator	Aust - N.Z.	N.Z. - Aust	Both directions	Aust - N.Z.	N.Z. - Aust	Both directions
Qantas	41%	47%	44%	19,528.3	17,879.7	37,408.0
Aerolineas	0%	1%	1%	75.7	371.0	446.7
Air China	0%	0%	0%	116.1	1.5	117.6
Air New Zealand	15%	20%	17%	7,290.8	7,489.5	14,780.3
China Airlines	4%	2%	3%	1,912.8	707.8	2,620.6
Garuda	0%	1%	1%	110.1	508.2	618.3
Polynesian	0%	0%	0%	21.0	1.6	22.6
Singapore	4%	0%	2%	1,734.7	-	1,734.7
Thai International	10%	9%	9%	4,640.4	3,278.3	7,918.7
United	3%	3%	3%	1,544.4	1,221.6	2,766.0
Asian Express Airlines	8%	9%	9%	4,019.7	3,582.4	7,602.1
Cargolux	13%	0%	7%	6,357.7	-	6,357.7
Evergreen	0%	2%	1%	-	593.3	593.3
Lufthansa	0%	6%	3%	-	2,200.6	2,200.6
Total				**47,351.7**	**37,835.5**	**85,187.2**
QF-NZ alliance share	57%	67%	61%			

854. As the Commission has determined in the market definition section, the relevant market is the market for belly-hold freight services only. Therefore the calculations

that the Applicants have used in respect of their market share understate the true position for the belly-hold freight market as it is inclusive of dedicated freighters.

855. Air NZ's introduction of A320 aircraft is a process that, according to Air NZ, will be phased in over the next three years meaning that Air NZ's market share would only gradually diminish over that period. However, even if the reduction in capacity of Air NZ is accepted, the proposed Alliance would still be likely to have a market share of [ ], as measured as a percentage of freight carried by passenger operators on the Tasman using the above data. Even at this level, the Commission is of the view that the market share is likely to be conservative as, according to the information given to the Commission, the fifth freedom carriers are likely to allocate a large percentage of freight capacity to their long haul services. The Applicants' data also includes United Airlines which no longer flies on the Tasman.

856. The Applicants' data above does not recognise the entry of Emirates into the Tasman but the Commission is of the view that, for the reasons explained in the analysis of passenger air services, Emirates is unlikely to provide a significant degree of constraint. Fifth freedom carriers have the disadvantage in terms of freight that there are significant unwanted time delays in unloading the freight in Australia en route to their final destination. Fifth freedom carriers also provide a differentiated service in that they operate limited frequencies and networks that would further make the services of the proposed Alliance more attractive in the factual.

857. Accordingly, the Commission considers, on the balance of probabilities, that there is no existing competition that would impose any effective degree of constraint on the proposed Alliance in the Tasman belly-hold freight market in the factual.

Constraint from Potential Competition in the Counterfactual and Factual

858. In the factual, the only entrant with the potential to constrain the proposed Alliance is Virgin Blue. Virgin Blue has informed the Commission that freight is not part of its core business, but if profitable freight carrying opportunities arise, it will take them. The Commission, however, notes that LCC airlines typically do not carry freight due to the desire to quickly and efficiently turn their planes around for subsequent flights, which a freight operation would jeopardise.

859. Because belly-hold freight capacity is a by-product of the provision of passenger services, the analysis of the entry of Virgin Blue as a constraint in these freight markets is the same as that for the passenger services markets. That is, the Commission considers, on the balance of probabilities, that Virgin Blue's entry into the Tasman belly-hold market in the factual will be insufficient to constrain the proposed Alliance when compared with the counterfactual.

Constraint from Buyers or Suppliers

860. Unlike the domestic freight market there exists no major customer with countervailing power in the Tasman belly-hold freight market.

Conclusion on the Tasman Belly-Hold Freight Market

861. The Commission considers, on the balance of probabilities, that a comparison between the counterfactual and the factual shows that in the factual:

- There would be likely to be insufficient constraint from existing competitors, in the factual;
- Virgin Blue would be the only likely new entrant but to an insufficient extent to constrain the proposed Alliance due to the limited extent of its entry and the fact that freight is not a core part of its business; and
- no constraint from buyers or suppliers.

862. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the Tasman belly-hold freight market when compared with the counterfactual.

THE INTERNATIONAL BELLY-HOLD FREIGHT MARKET

863. Belly-hold air freight capacity is a by-product of passenger services. Accordingly, the competition analysis with respect to the NZ-Asia, NZ-Pacific, NZ-US and international passenger services markets is also largely applicable to this market.

Constraint from Existing Competition in the Counterfactual and Factual

864. As noted in the market definition section, there is some indication that the substitutability between dedicated freight services and belly-hold freight services increases with route length. However, the Commission is of the view, on the balance of probabilities, that such substitution would not be likely to be sufficient to defeat the profitable imposition of a *ssnip* by a hypothetical monopolist of belly-hold freight services. The Commission found for the NZ-Asia routes to Japan and Taipei, NZ-Pacific routes other than Tahiti-Los Angeles, and NZ-US market that the proposed Alliance would not be constrained by existing competition. Although the Commission found that the proposed Alliance would be constrained in the other international markets, it is the overall effect of the proposed Alliance on these markets that must be examined.

865. Accordingly the Commission is of the view that, although effects on some routes will be less of a concern than others, on the balance or probabilities, the proposed Alliance is unlikely to be constrained in the factual by existing competition. Competition is also deemed to be substantially lessened in this market under s 30 of the Act.

Constraint from Potential Competition in the Counterfactual and Factual

866. In the Draft Determination the Commission concluded that it could not be satisfied that there is likely to be entry into the international belly-hold freight market of a sufficient extent and within a sufficiently short timeframe to constraint the proposed Alliance. It has not received any further information that persuaded it to change its position regarding this market.

Constraint from Buyers or Suppliers

867. There is little evidence of buyer or supplier constraint in this market.

Conclusion on the International Belly Hold Freight Market

868. The Commission considers, on the balance of probabilities, that the proposed Alliance is unlikely to be constrained by competition either existing or potential in the international belly-hold freight market when compared with the counterfactual. Accordingly the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in this market when compared with the counterfactual.

NATIONAL WHOLESALE TRAVEL DISTRIBUTION SERVICES MARKET

Participants

869. Qantas operates Qantas Holidays, which currently provides wholesale holiday packages to the Australian market, as well as its corporate travel arm, Qantas Business Travel and has a 50% stake in Harvey World Travel's wholesale travel operation, Escape Holidays. Air NZ operates Air NZ Destinations (events and tour packaging), Travel Centres (retail outlets), Business Direct (a unit marketing business travel services), call centres and internet bookings. At present neither of the Applicants provides consolidation services.

870. There are also a number of independent travel retailers, wholesalers and consolidators.

Constraint from Existing Competition in the Counterfactual and Factual

871. House of Travel stated that it had concerns that the New Zealand market for wholesale holiday packages is likely to suffer from significantly reduced competition as a result of the proposed Alliance and the resultant entry by Qantas Holidays into New Zealand. House of Travel believed that the experience in the equivalent Australian market is indicative of the likely outcome in New Zealand if the proposed transactions are allowed to proceed. This would be exacerbated by the fact that the proposed Alliance would be in a totally dominant position whereas in the Australian market Qantas Holidays does have competition.

872. House of Travel said that Qantas Holidays used to compete with a number of other holiday package wholesalers. In creating any given holiday package, wholesalers had previously been able to approach both Qantas and Ansett to obtain the essential airfares component of a package. Both airlines were therefore under an incentive to provide wholesalers with the best possible airfare, to ensure that they were the successful provider of the air services in question. Qantas Holidays also had to ensure that its packages were priced at a level competitive with the other holiday packages available. The same competitive constraints were claimed no longer to apply since Qantas became the major supplier of air passenger services in Australia.

873. NECG acknowledged that the proposed Alliance might foreclose customers to independent travel agents if Air NZ and Qantas tickets were exclusively sold through the airline's distribution channels and through Qantas's travel agencies. They claim, however, that in the short to medium term such an outcome seems unlikely as at present Air NZ and Qantas tickets are not exclusively distributed through their own related entities or through similar arrangements with independent agencies and that for international tickets at least, travel agents are the distribution channel through which most consumers purchase air tickets.

874. In response to the Draft Determination, the Applicants, in disagreeing with the Commission's preliminary finding, submitted that there would be no incentive on behalf of the Applicants under the proposed Alliance to limit competition in the downstream market through use of their market power in the upstream market.

875. The Applicants submitted that the only reason why there would be an incentive to not ensure the efficient distribution of travel services downstream is if the possibility existed for the downstream market to be foreclosed by the Alliance. They further submitted that such a scenario is unlikely because:

- the refusal to sell tickets to those who also sell rival tickets would be something closely scrutinised under the behavioural provisions of the Commerce Act;

- barriers to entry for travel agents are low;

- airlines have alternative distribution channels other than travel agents in particular the Internet;

- other options are available to the travel agents in that they could sell tickets of airlines that fly longer haul services, and provide other services such as general travel advice; and

- consumer search costs would not appear to increase the prospects of the foreclosure strategy being successful.

876. In the counterfactual, travel wholesalers would have the ability to leverage between Qantas and Air NZ in order to receive discounted rates. Although Qantas operates at the travel wholesaling level, it is at no comparative competitive advantage as Qantas cannot afford to lose the business of other travel wholesalers to Air NZ. Accordingly strong competition would exist between all travel wholesalers as competition in the upstream market is strong. Further, competition at the downstream level would tend to increase competition at the upstream level as wholesalers trade off one supplier against another.

877. Where an acquisition involves vertical integration such as that involved in the proposed Alliance, the Commission will consider not simply the ability to foreclose a market but also access concerns that it may create. A vertically integrated firm which has market power in an upstream market has the ability to discriminate in favour of its own affiliated activities in the downstream market.

878. In the present situation the relevant issue is that the removal of competition at the upstream level may increase the incentive for the Applicants to give preferential rates in terms of discounted airfares to their vertically integrated downstream wholesalers. The refusal to sell tickets is not necessary for there to be a competition issue which arises from the Alliance placing travel wholesalers at a comparative disadvantage compared with Qantas Holidays, for instance.

879. The ability to sell other airlines tickets such as long haul carriers or fifth freedom carriers, as suggested by the Applicants, would not be likely to provide enough competition to constrain the proposed Alliance. Long haul travel on other carriers significantly limits the possibilities for wholesalers due to the limited services they can offer. Fifth freedom carriers are also limited by their infrequency, lack of connectivity, awkward schedules and the fact that many do not have frequent flyer schemes. Accordingly, they are unlikely to provide anything more than a very limited alternative for the independent travel wholesalers. Dependence on this limited product offering would ultimately threaten the wholesalers' viability. Further, the loss of the ability to effectively leverage between the long haul service provider and the Applicants would result in satisfactory rates unlikely to be obtained, particularly in comparison to the vertically integrated wholesalers who could also receive preferential rates on these routes.

880. The fact that a significant proportion of tickets are sold via the Internet is not relevant when no effective competition exists in the upstream market. The relevant issue is that the lessening of competition between the airlines is likely to reduce the options for wholesalers in the downstream market.

881. The Commission considers, on the balance of probabilities, that the existing competition in the upstream market is likely to be insufficient to constrain the Applicants with respect to the downstream market in the factual.

Constraint from Potential Competition in the Counterfactual and Factual

882. Virgin Blue's entry could provide travel wholesalers with another option but, as the Commission has determined, entry is likely to be limited to the extent described above with respect to passenger services and its entry is likely to have limited effect on the wholesale travel market.

883. The Commission has determined that Virgin Blue is likely to enter on a limited scale in the counterfactual and on an even more limited scale in the factual. Furthermore, Virgin Blue cannot offer the same network advantages that Air NZ and Qantas can offer, particularly with regard to the Pacific Islands and the Asian destinations which contribute to a significant proportion of revenue in the downstream markets. The Applicants acknowledge that Virgin Blue 'does not rely, to any significant extent, on travel agents as a source of ticket distribution'[99] which may limit in turn the number of packages available to be offered by independent wholesalers.

884. The Commission considers that Virgin Blue's entry is likely to have more of an effect on the leisure traveller than the corporate traveller but that the constraint that it will be able to offer is extremely limited in both cases.

885. For these reasons and the other reasons explained in the analysis of potential entry into the passenger air services markets, the Commission considers, on the balance of probabilities, that potential entry is unlikely to constrain the ability for the Alliance to restrict the access to tickets of independent wholesalers in the factual. It is the view of the Commission, therefore, on the balance of probabilities, that the entry of Virgin Blue would be able to provide some limited constraint on the proposed Alliance in the factual but that it would not be sufficient to prevent the substantial lessening of competition in the wholesale travel distribution services market.

Constraint from Buyers or Suppliers

886. There is little evidence of buyer or supplier constraint in this market.

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[99] Air New Zealand Limited and Qantas Airways Limited, Joint Submission in response to the Commerce Commission's Draft Determination, 20 June 2003, chapter 7, 33 at ¶ 107.

Conclusion on the National Wholesale Travel Services Distribution Market

887. The Commission considers, on the balance of probabilities, that a comparison between the counterfactual and the factual shows in the factual:

- the proposed Alliance having the ability to restrict access to services to independent travel wholesalers;
- insufficient constraint from existing competitors at the airline level;
- insufficient constraint from potential competitors including Virgin Blue; and
- no constraint from buyers or suppliers.

888. Consequently, the Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or would not be likely to have the effect of substantially lessening competition in the national wholesale travel distribution services market when compared with the counterfactual.

MODELLED PRICE INCREASES

889. The following Table represents the Commission's modelled price increases expected in the various markets in the factual. The changes are the difference between the factual and the counterfactual prices divided by the counterfactual prices and expressed as a percentage.

Table 13
Modelled Price Increases

Market	Modelled Price Increase
The main trunk market	17%
The provincial market	16%
The Tasman market	16%
The NZ-Asia market	5%
The NZ- Pacific market	
NZ-Fiji	11%
Fiji-Los Angeles	19%
Other	5%
The NZ-US market	14%

890. For the Asian routes and the Pacific routes other than the NZ-Fiji and Fiji-Los Angeles routes, the modelling did not produce a predicted increase in price. However, it should be noted that the effect of the loss of the constraint offered by Qantas via Australia and the effect of the loss of the Qantas code-sharing arrangements were not modelled. As a result, the Commission conservatively assumes a 5% increase in price for the purposes of the analysis in these markets

where a substantial lessening of competition has been found. Although competition is deemed to be substantially lessened on the NZ-Hong Kong and NZ-Singapore routes under s30 of the Act, these routes have not been included in the calculation of detriments due to the mitigating presence of Cathay Pacific and Singapore Airlines.

891. The modelling of the NZ-US route also included United Airlines, which exited in March 2003, as an existing competitor which will ultimately produce a conservative estimate for any predicted price increase.

892. The predicted price increases support the qualitative finding of a substantial lessening of competition in each of the markets in the analysis above.

CONCLUSION ON COMPARISON OF COMPETITION IN THE FACTUAL AND THE COUNTERFACTUAL

893. Given the conclusion that the Commission on the balance of probabilities is not satisfied that the proposed Acquisition[100] will not have, or would not be likely to have, the effect of substantially lessening competition in the identified markets, it can not be cleared under s 67(3)(a) of the Act.

894. Having found that the proposed Arrangement[101] on the balance of probabilities is deemed to substantially lessen competition and would likely result in a lessening of competition, the Commission must consider whether the proposed Alliance can be authorised under s 67(1) and 61(1) of the Act.

895. The Commission has reached its conclusion on competition in the markets on the basis both of its qualitative assessment, and of the results of the economic modelling. It has found that where its qualitative assessment indicated a substantial lessening of competition, those judgements have been supported by the modelling results.

896. The Commission is not satisfied, on the balance of probabilities, that the proposed Alliance would not have or be likely to have the effect of a substantial lessening of competition, when compared with the counterfactual, in the following markets:

- The main trunk market;
- The provincial market;
- The Tasman market;
- The NZ-Asia market;
- The NZ- Pacific market;
- The NZ-US market;
- The international market;

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[100] The Acquisition having been considered with the Arrangement.
[101] The Arrangement having been considered with the Acquisition.

- The Tasman belly-hold freight market;
- The international belly-hold freight market; and
- The national wholesale travel distribution market.

9 PUBLIC DETRIMENTS AND BENEFITS

OVERVIEW

897. The authorisation procedures under ss 61(6) and 67(3)(b) are the same. Both require, as a result of the Commission's findings of a substantial lessening on competition for the Commission to identify and weigh the detriments likely to flow from the lessening of competition in the relevant markets, and to balance those against the identified and weighed public benefits likely to flow from the proposed Alliance as a whole. It is important to note that the detriments may only be found in the market or markets where competition is lessened, whereas benefits may arise both in those and in any other markets. Only where the Commission is satisfied that the benefits outweigh the detriments would it be able to grant an authorisation for the Acquisition and Arrangement proposals.

898. The principles used by the Commission in evaluating detriments and benefits are set out in: *Guidelines to the Analysis of Public Benefits and Detriments* ("the Guidelines"), a revised version of which was issued by the Commission in December 1997.[102] The various issues raised have been discussed in a number of decisions by the Commission and the courts in recent years. In assessing both benefits and detriments the focus in those decisions has increasingly been on economic efficiency. For example, the Court of Appeal stated in *Tru Tone Ltd v Festival Records* that the Act:[103]

> . . . is based on the premise that society's resources are best allocated in a competitive market where rivalry between firms ensures maximum efficiency in the use of resources.

899. The Commission considers that a public benefit is any gain, and a detriment is any loss, to the public of New Zealand, with an emphasis on gains and losses being measured in terms of economic efficiency. In contrast, changes in the distribution of income, where one group gains while another simultaneously loses, are generally not included because a change in efficiency is not involved. However, an issue does arise in connection with the treatment of inter-country transfers in this case, which is discussed below. The Commission is also mindful of the observations of Richardson J in *Telecom*[104] on the Commission's responsibility to attempt to quantify benefits and detriments where and to the extent that it is feasible, rather than to rely on purely intuitive judgement. This is not to say that only those gains and losses that can be measured in dollar terms are to be included in the assessment; those of an intangible nature, which are not readily measured in monetary terms, must also be assessed.

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[102] Although these Guidelines have not been updated to reflect the changes in the Act relating to the thresholds in ss. 36 and 47, the economic principles used in assessing benefits and detriments remain the same.
[103] *Tru Tone Ltd v Festival Records* [ ] 2 NZLR 352, at 358.
[104] *Telecom Corporation of New Zealand Ltd v Commerce Commission* [ ] 3 NZLR 429,447.

900. In the following sections the detriments and benefits are considered in turn.

DETRIMENTS

Introduction

901. The approach of the Applicants, through NECG, is to focus on allocative inefficiency (and associated transfers) as being the source of potential detriment from the proposed Alliance, and to discount the prospects for productive and dynamic inefficiencies to arise. In what follows, the potential for losses in all three elements of economic efficiency to be generated by the proposed Alliance, as compared to the relevant counterfactual, are considered in turn.

ALLOCATIVE EFFICIENCY

Introduction

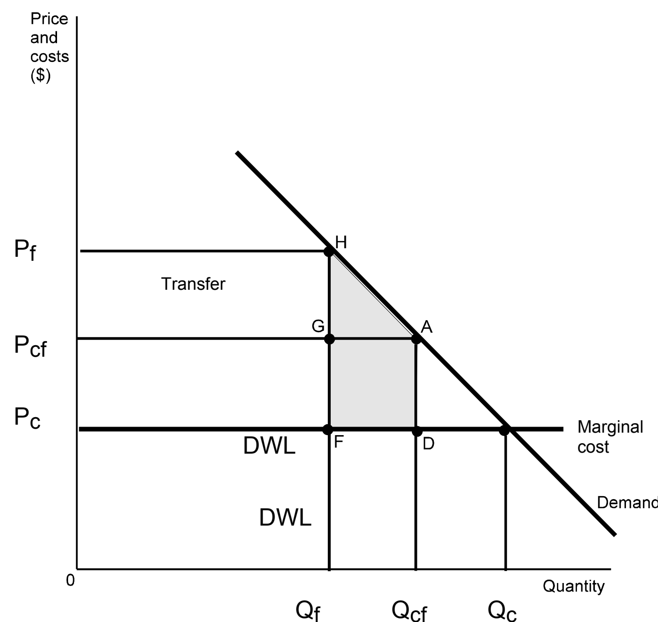
902. The impact of reduced competition—or, in other words, of increased market power—is generally to cause the market price to be increased further above, and market output to be reduced further below, the level which prevailed prior to the introduction of a proposed merger or set of arrangements. To model the price effects of the proposed Alliance, NECG stated that it used a Cournot-based model of oligopoly, an approach it justified by the use of this model in several studies of airline competition in the economic literature.

903. The standard Cournot model assumes that the product offered by different suppliers is undifferentiated, and that each maximizes profit by independently choosing a level of output or capacity on the assumption that the others hold their observed supply levels constant. This leads to an equilibrium in which a given firm maximises profits given the capacity choice of other firms, and the aggregate of the outputs produced interacts with the market demand to determine the price that clears the market. As discussed earlier one of the key results of the standard Cournot model is that in a merger where costs would not change (and entry would not occur), the model predicts that market supply would fall and price rise – in other words, that market power would be enhanced.

904. By opening (or widening) a gap between price (representing the willingness of consumers to pay to consume the good) and the marginal cost of producing each extra unit, market power results in a harmful distortion in the allocation of resources in the economy. This in turn leads to a loss of economic welfare. Buyers who would be prepared to pay a price less than the new price (but still higher than the old price), and above the extra cost of supplying additional units of the good, are no longer supplied. The inputs no longer used to produce those units of output are transferred to other, less socially valued, uses.

905. Figure 4 shows the basic model needed to analyse the welfare effects. This model is the one relevant to this case because it incorporates pre-existing market power, as is appropriate given the assumed Cournot interaction between firms. That is to say, in the counterfactual, the price, P_{cf}, is above the competitive level, P_c, and output of Q_{cf} is below the competitive level, Q_c. The proposed Alliance then, in the factual, has the effect of causing a further rise in price and reduction in output, to P_f and Q_f respectively. The loss of allocative efficiency associated with the output restriction from Q_{cf} to Q_f is measured by the difference between consumers' 'willingness to pay', as revealed by the height of the HA segment of the demand curve, and the cost saved, given by the length of the FD segment of the marginal cost curve. The loss is represented by the shaded area HADF, of which HAG represents a loss of consumers' surplus, and GADF a loss of producer surplus (profit). This loss of allocative efficiency is called the "dead-weight welfare loss" (DWL). It is the loss to society from the price being raised, for which there is no compensating gain.[105]

Figure 4
The Basic Model of Allocative Inefficiency



906. In addition, the rise in price caused by market power also results in a transfer of income from those consumers acquiring the good at the higher price, to the company and its shareholders who receive the higher revenue in the form of higher profits. In

[105] An alternative way of viewing the deadweight loss is as the gross social value of the output no longer produced (area $HAQ_{cf}Q_f$) less the value of the inputs no longer used in producing it ($FDQ_{cf}Q_f$). The inputs no longer used are transferred to other, less socially valuable, uses where they are assumed to yield a social value equal to area $FDQ_{cf}Q_f$.

Figure 4 this transfer is represented by the area P_fHGP_{cf}. Normally, using the economic efficiency standard, this transfer of wealth is ignored, as one group (shareholders) gains whilst another (consumers) loses, leaving society as a whole no better nor worse off. However, the focus of the Act is on the welfare of New Zealanders; in its Guidelines,[106] the Commission defined the term "public" in "public benefit" as follows:

> The 'public' is the public of New Zealand; benefits to foreigners are to be counted only to the extent that they also involve benefits to New Zealanders.

907. This raises the issue as to what constitutes a benefit to the New Zealand public. For example, if the transfer was to be paid by New Zealand consumers, but were to accrue to a foreign-owned firm and its shareholders, the transfer might no longer be neutral from a New Zealand perspective. This issue arose in the AMPS-A case, where the High Court on appeal stated:[107]

> We reject any view that profits earned by overseas investment in this country are necessarily to be regarded as a drain on New Zealand. New Zealand seeks to be a member of a liberal multilateral trading and investment community. Consistent with this stance, we observe that improvements in international efficiency create gains from trade and investment which, from a long-run perspective, benefit the New Zealand public.
>
> On the other hand, if there are circumstances in which the exercise of market power gives rise to functionless monopoly rents, supra-normal profits that arise either from cost savings or innovation, and which accrue to overseas shareholders, we think it right to regard these as exploitation of the New Zealand community and to be counted as a detriment to the public.

908. This means that the redistribution of income associated with a business acquisition or restrictive trade practice would not necessarily be welfare neutral when there is an international dimension to the firm's operations, as in the present case, which would involve transfers between nationals of different countries. Transfers from New Zealanders to foreigners would potentially be losses, just as transfers from foreigners to New Zealanders would potentially be gains. To qualify for this treatment, transfers would have to be "functionless monopoly rents". In the present case this has two distinct consequences; some of the transfers could count as a welfare loss; and only a portion of the deadweight losses may be a welfare loss to New Zealanders.

909. With respect to the use of models, the Commission considers that these are useful to the degree that they focus the parties' attentions on key assumptions regarding characteristics of the market. The Commission's view is that the value of a model is in its ability not to produce 'proof' of a substantial lessening of competition, nor to supplant the Commission's exercise of judgement, but rather in providing support to the Commission's deliberations by:

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[106] Commerce Commission, *Guidelines to the Analysis of Public Benefits and Detriments*, (revised December 1997), pp5.

[107] *Telecom Corp. of New Zealand Ltd. v Commerce Commission* (1991) 4 TCLR 473, 531; 3 NZBLC 102.340, 102.386.

- focusing parties' attentions on verifiable economic arguments;
- making transparent the values of the key parameters and assumptions in the analysis; and
- producing quantitative estimates of the results of a given transaction or arrangement.

910. In what follows, the modelling approach of NECG is first considered. The views of other parties on this modelling are then reviewed. A model proposed by Professor Hazledine is then considered. This is followed by the Commission's own analysis and modelling, which includes coverage of a further model implemented by Professor Gillen, its economic expert.

NECG's Model

911. In its application of the model, NECG focused on the main city-pair routes that would be served by the proposed Alliance, in particular, the New Zealand domestic main trunk, major provincial, Tasman and some other international routes. Each was treated as a separate market, which thereby ignored all network effects. In each route market the model was used to predict the prices and the passengers carried with the proposed Alliance and those expected in the counterfactual. Since on a number of these routes, Air NZ and Qantas currently had the bulk of the market share, the elimination of the competition between them would be expected to cause prices to rise, and certainly to be higher than in the counterfactual, where the proposed Alliance partners are said by NECG to compete vigorously.

912. A force that NECG assumed would serve to off-set higher prices to some degree was the assumed likely and greater entry of an LCC operator on the Tasman in the factual, as compared to the counterfactual (and entry on main trunk routes only in the factual). NECG argued that the model was likely to under-estimate the impact of LCC entry, since LCCs, unlike the incumbents, focus on the more price sensitive segment of the demand curve, whereas the model could predict only average price. Hence, an LCC entrant was likely to have a bigger impact on market prices than would an FSA entrant of comparable size.

913. Another feature of the model was the incorporation of a capacity elasticity of demand of 0.125, which linked the capacity put on a route to demand from passengers to fly on that route. Capacity is taken to be a measure of flight frequency and therefore of product service quality, so that more capacity means higher quality, which in turn is expected to result in greater demand. In this case, a 10% increase in capacity was assumed to lead to a 1.25% increase in demand.

914. The modelling approach used by NECG was broadly as follows. For each market, the initial (base case) market shares of the airlines, the initial weighted average price and the assumed price elasticities of demand were used through the model to estimate

each airline's marginal cost. The prices on domestic New Zealand routes were reduced by 20% to reflect the lower fares available through NZ Express (though it is unclear how this was done – see below regarding transparency of the NECG model). The price elasticity used was the weighted average of those for business (-0.70) and leisure (-1.65) passengers suggested by the two airlines, with weights provided by the proportions of passengers of the two types on each of the routes. The resulting price elasticities were used, in conjunction with the preliminary price-quantity points, to determine the slopes and positions of the linear demand curves. The estimates of costs, demand and oligopoly (Cournot) interaction assumption, together with further assumptions about airlines' capacities in the future (including natural demand growth), were then used to predict price and output outcomes in the future both with and without the proposed Alliance. A five year future timeframe was used for these projections, starting from the base case in 2001/02.[108]

915. The projections of capacities in both scenarios were supplied to NECG by the two partners in the proposed Alliance. Capacity was thus determined outside the Cournot model. For the factual scenario, a single schedule was supplied, based on the commercial agreement that had been reached between them as to what would exist under the proposed Alliance. The counterfactual schedule was derived by NECG as an amalgam of the schedules supplied on a confidential basis by each of the airlines. NECG stated that these 'quantity commitments' were tested informally in terms of their consistency with overall airline behaviour, assumptions of each Alliance partner of the other's capacity deployment, behaviour of fleet characteristics, and financial considerations.

916. In a similar fashion, events such as entry, expansion and exit were model inputs, rather than being determined within the model. The capacity introduced by the LCC entrant, and its route coverage and timing, were projected by the two Alliance partners. NECG used indirect tests to test for such events plausibility – for example, profitability, information from network planners and fleet commitments (e.g., Virgin Blue's recent order for new aircraft). NECG assumed that the higher prices in the factual (see below) would encourage entry on a greater and broader scale than in the counterfactual.

917. For each of the 43 city-pair routes modelled, NECG calculated the impact on prices in the factual and counterfactual scenarios over the five year timeframe. The price increases in the factual over the counterfactual in Year 3 tended to be largest on routes where the two partners were the only operators pre-Alliance, but the increases were still significant on other routes where they had the major market share but faced some competition from other airlines. Of the 16 routes affected, 14 had price increases ranging up to [ ] Overall, the modelled price increases appear to the Commission to be rather modest, given the extent of the market aggregation, and the "war of attrition" assumed to apply in the counterfactual. On 25 routes there was no price increase as the two airlines did not both operate on them. However, to claim, as

[108] The natural growth factors built into the demand forecasts for the period were based on tourism forecasting by Covec.

NECG did, that therefore they did not then compete was slightly misleading, either because the non-operator of the two would usually be the most likely entrant, or because it might compete on indirect routes (e.g. to Asia via Australia). The proposed Alliance, by eliminating these sources of potential or indirect competition, would then allow price to rise in those markets as well (all else being the same).

918. The level of output in each market, in terms of passenger volumes, was determined by three factors: the weighted average price, combined with the two factors that caused the demand curve to shift, namely the capacity elasticity of demand and the natural growth rate. The counterfactual prices were determined partly by the change in averaged marginal costs, which in turn were driven by the assumed capacity changes. However, the net effect of changes to these variables within the model is to give rise to predicted outcomes that are counter to that expected from Cournot models. This results in an apparent disconnect in the model between capacity and prices, with the result that passenger volumes are not at all well matched to available capacity. This shortcoming is addressed in more detail below.

919. In broad terms, the detriments arising from the higher prices on each route affected by the proposed Alliance have two components. The first component is the loss of allocative efficiency, or deadweight loss, measured as the social loss of the output that is no longer consumed because of the higher price induced by market power being exercised. Because of the New Zealand-focused nature of the ‘public benefit test’ in the Act discussed above, only the deadweight losses borne by New Zealand residents are relevant. Hence, for each market the proportion of the loss borne by New Zealanders is calculated as the proportion of New Zealand passengers carried on that group of routes (e.g., Tasman, New Zealand domestic, etc.). NECG estimated that the deadweight loss allocated to New Zealand in Year 3 of the proposed Alliance was -$41 million. The balance of this detriment is ignored because it would be borne by non-New Zealand residents.

920. The second component of the detriments from higher prices in the factual compared to the counterfactual stems from the wealth transfers from consumers to producers. As noted above, the New Zealand focus of the public benefit test requires that account be taken of the detrimental effect of transfers that would be extracted from New Zealand consumers and passed into the hands of non-New Zealand producers, and vice versa. Similarly, transfers from foreign passengers to New Zealand producers represent an offset to these detriments. NECG allocated these transfers as follows. Transfers from consumers to producers were allocated to New Zealand on the basis of passenger shares. The net positions of each airline might then need to be adjusted according to the Alliance agreement. For Year 3 the net relevant transfer for New Zealand is claimed to be $18 million (i.e., a net gain).

921. According to revised NECG figures,[109] the sum of the deadweight loss of $41 million and net transfer gain of $18 million in Year 3 generated a total detriment associated with allocative effects of about $23 million.

922. The detriment calculations included only four of the more substantial provincial city-pair routes. NECG noted that the proposed Alliance would have some impact on other provincial routes as it was likely that Origin Pacific would lose the benefit of feed from Qantas if the proposed Alliance were to proceed. Its market share would then be expected to shrink, and its subsequent ability to recover might be impeded by the loss of code-sharing with Qantas. Overall, NECG considered that this detriment on other provincial routes was "unlikely to be significant". However the Commission notes that the provincial routes are not insubstantial. In terms of revenue these routes account for in excess of [ ] per annum, and so a loss of competition on these routes is likely to be significant.

Views of Other Parties on NECG's Model and NECG's Response

923. Frontier Economics ("Frontier"), acting on behalf of Virgin Blue, criticised NECG's model on a number of grounds in its submission on the Application. First, it pointed out that the model is not used in the conventional way to predict outputs of firms and market price on the basis of the numbers of firms in markets and their relative costs. Instead, capacity decisions are pre-determined on the basis of information provided by the Applicants. Market shares are then related to capacities, and they in turn determine prices. Frontier also criticised the NECG model for allowing costs to vary between firms, and yet not allowing costs to have an impact on the outputs of those firms, as they should do in a Cournot model.

924. Secondly, Frontier raised the concern that to apply a uniform measure of the capacity elasticity factor in all circumstances seemed very crude. An additional flight might increase demand very little in a range of circumstances if existing capacity were substantially under-utilised, or if it were added at the same time as an existing flight, or if it were a flight added to a large number of existing flights.

925. NECG responded by agreeing that in terms of moving from the counterfactual to the factual, when flight numbers would generally be reduced, the uniform application of the capacity elasticity factor probably overstated the reduction in demand (and hence the adverse welfare effects). This is because the flights eliminated were expected mainly to be duplicate flights, and so the loss of product service quality would be less than implied by the demand response embodied in the capacity elasticity factor. However, the Commission considers that the prior move from the base case to the counterfactual could have led, by application of the same capacity elasticity factor, to an equally exaggerated expansion in demand by reason of duplication of flights.

[109] Applicants' preliminary response to the Draft determinations, Chapter 10 - NEGC Detriment/Benefit Overview, Revised Quantification.

Combining both shifts in the factual might not then have led to an overstated demand shift (and adverse welfare effects), as NECG claimed.

926. Thirdly, Frontier pointed out that the scheduling projections provided by the Applicants revealed instances where the counterfactual had substantial excess capacity compared with the factual. However, the presence of this excess capacity was not allowed to influence marginal costs, whereas on under-utilised flights the marginal cost would be expected to be close to zero. NECG responded by challenging the wider modelling framework proposed by Frontier but did not engage the specific point made. However, the Commission notes that this phenomenon, a disconnect between capacity and prices, is essentially the problem that the Commission discovered in its own review of the model. This aspect of the NECG model is discussed in more detail below.

927. Fourthly, Frontier made some points regarding inconsistencies in the relationship in the NECG model between output (passengers carried) and the price. These flow from the aspect of the model mentioned immediately above and are discussed in more detail below in the section regarding the model's price capacity disconnect. Further points made by Frontier in its submission relating to passenger volumes and price seem to be related to this irregularity in the model.

928. Fifthly, Frontier complained that the NECG report provided no details as to how the detriments associated with the price changes were calculated. NECG responded by explaining that the pairs of prices and outputs for the factual and counterfactual scenarios were derived using its model, and plotted in its Figure 1,[110] a standard demand and supply diagram of the welfare effects of market power.

929. Finally, Frontier pointed out that NECG had effectively subsumed the competition analysis of freight services within passenger services, and then in the modelling the freight was completely ignored. Yet Frontier considered that the proposed Alliance was likely to have similar effects on freight as for passengers. Frontier questioned why the freight capacity expansion had no impact on price, which was counter to the outcome expected for passengers in the Cournot world modelled. NECG argued that the proposed Alliance would increase freight capacity, and that no competitive detriment was likely in freight as the market was a competitive one with low entry barriers. As discussed earlier, the Commission is of the view that there would be a substantial lessening of competition in certain of the freight markets.

[110] NECG, *Report on the Competitive Effects and Public Benefits Arising from the Proposed Alliance between Qantas and Air New Zealand*, pp116.

Issues with the NECG Model

<u>Introduction</u>

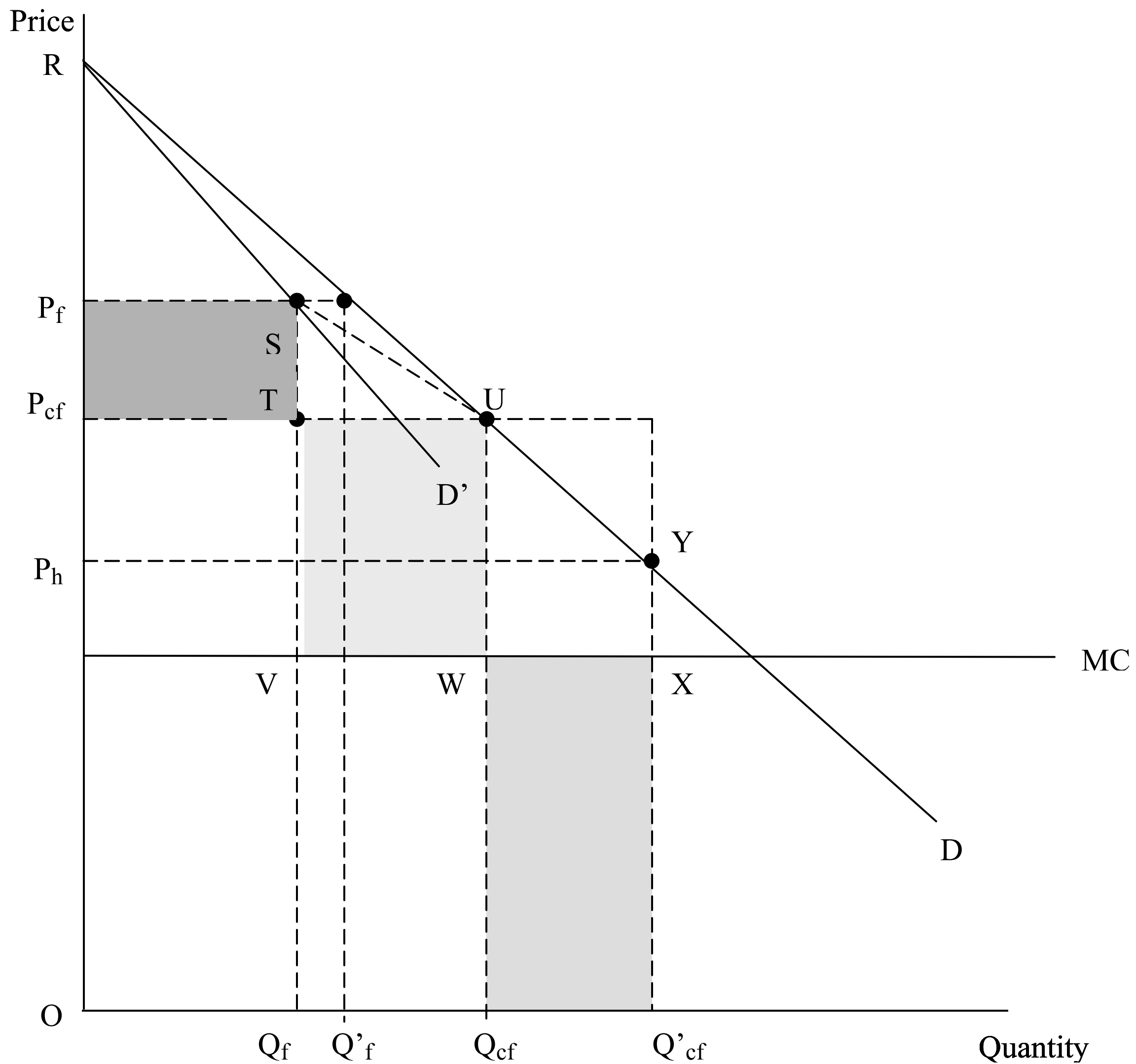
930. Figure 4 is an attempt to explain certain aspects of NECG's model. NECG has commented that the figure was "a highly simplified view of the world. It would be more appropriate to consider the model as a whole". In contrast, NZIER on behalf of Gulliver's Pacific, commented that it "clearly demonstrates the illogical nature of the applicant's argument with respect to excess capacity".

931. The Commission agrees that although the diagram does not fully summarise the NECG model, it nonetheless serves to illuminate certain important aspects of the workings of the model concerning the price / capacity relationship and the capacity elasticity factor.

932. NECG's counterfactual scenario resulted in a large expansion of capacity on certain routes that in its model, through the capacity elasticity factor, caused a small rightward shift of the demand curve, which led to the demand curve D depicted in Figure 4. However, capacity expansion in the NECG model had no effect on price, which remained at P_{cf}, with a quantity of Q_{cf}. (Note that quantity in the Figure is measured as the number of passengers carried.)

933. Because of the capacity expansion, the number of passengers that could be carried at standard load factors is actually much higher, at Q'_{cf}, leading to excess capacity in the model of $Q'_{cf} - Q_{cf}$. The Commission's view is that through the normal operation of the airlines' yield management systems, this excess capacity would in fact cause price to fall to P_h, when something nearer to standard load factors would be restored. Starting from this lower price level / higher passenger volume base, the proposed Alliance would then result in a much larger increase in price and reduction in welfare than NECG found starting from its higher price base (P_{cf}). Also, the fact that, in NECG's model, the excess capacity in the counterfactual is not used means that NECG's claim that the proposed Alliance would generate a cost saving benefit arises primarily through the elimination of the "wasteful" capacity of $WXQ'_{cf}Q_{cf}$.

Figure 5
Stylised depiction of the NECG model



934. Before the conference the Commission asked Professor Anming Zhang[111] to review NECG's model. The workings of the NECG model as outlined immediately above illustrate the significant bias to the results that has been introduced by one of the problems found by Professor Zhang in his review of the model, the disconnect between price and quantity. This and a number of other problems were found that undermined the confidence that the Commission might place on the results of the model. These problems are set out in detail below.

[111] Anming Zhang is Associate Professor and holds YVR Authority Professorship in Air Transportation at the University of British Columbia.

<u>Disconnect in the Model between Price and Capacity</u>

935. During the conference Dr Winstone made the point that "price competition is inextricably linked with the provision of capacity".[112] He elaborated that statistical relationships indicate that to know price is essentially to know capacity. This finding accords with the standard Cournot relationship between price and capacity, i.e., that all else equal, an *increase* in market capacity will result in a *decrease* in market price, and *vice versa*.

936. The current practice of airlines' use of yield management systems reinforces this relationship. For a given predetermined block of capacity in the form of a scheduled flight, yield management systems seek to maximise revenue. The systems operate based on historical demand, but they also incorporate dynamic updating of the demand forecast, so that, for instance, if seat sales were slower than historical demand predicted then more seats would be allocated to cheaper fares.[113] In this way, the average fare is effectively bid up or down based on available capacity and demand. The lower bound of this pricing is set by short-run marginal cost.

937. Professor Zhang, in his review of the NECG model, found what he termed "some puzzling results" regarding price and capacity on certain routes. On 11 out of the 43 routes modelled in the NECG model both capacity and prices were greater in the factual than in the counterfactual. In a further 12 routes, capacity in the factual was substantially different to that in the counterfactual (differences range between 5% and 133%) and yet price changes in the model were zero or close to zero.[114]

938. This apparent disconnect between price and capacity in its model was put to NECG during the conference. In its response it stated that:

> The simple reason for this is that the relation between capacity, price and output in the models here at issue is indirect. We model an increase in capacity on certain sectors in the Factual, which is generally due to the greater ability of the Alliance to make the sectors commercially attractive. However, because capacity only affects output through the indirect channels noted above, we do not allow for downward pressure of greater capacity on price. Rather, the opposite occurs, because, in the Cournot technology, the Alliance's higher Factual capacity increases the Alliance's market power, hence increasing the price detriment caused by the Alliance. This is one of the ways in which our use of Factual capacities as the basis for calibration is deliberately conservative.

939. In short NECG submitted that in its model the link between capacity and price is indirect, and further, that it does "not allow for downward pressure of greater capacity on price". It is unclear why NECG has not allowed for this effect which the Commission considers is clearly evident in air travel markets. NECG's claim that the increase in capacity is due to the "greater ability of the Alliance to make the sectors

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[112] Conference Transcript pp. 304.
[113] Serguei Netessine, and Robert Shumsky, "Introduction to the Theory and Practice of Yield Management", *Transactions on Education*, Vol 4:1, pp. 34-44.
[114] Frontier Economics acting for Virgin Blue observed similar problems in NECG's model with respect to changes in passenger numbers.

commercially attractive" does not accord with the workings of its model that, for many of the routes in which this problem is apparent, shows a decline in passengers where capacity has increased. In another of the routes capacity increased by more than 250% while passengers have increased by only about 7%. This reduces load factors to very low levels, suggesting a commercially implausible outcome.

940. NECG further asserted that the effect is due to "the Cournot technology". It is not clear how an application of the Cournot framework, which unequivocally ties an increase in capacity to a reduction in price, might have this effect. Within the standard Cournot framework, increased market power enables market participants to restrict capacity, and only by so doing do they raise prices.

941. NECG claimed that this is one of the ways in which the calibration of the model is "deliberately conservative". While for certain of the routes this aspect of the model does seem that it might have a conservative impact on the results, the overall effect of such a disconnect between prices and capacity is unclear. In any event, the workings of the model appear to run so thoroughly counter to standard analysis and to market evidence that the Commission's confidence in the model to inform its decision was compromised.

Perverse Relationship between Factual Capacity and Welfare

942. The original report submitted by NECG in support of the proposed Alliance has in Appendix E[115] details of sensitivity testing performed on its model. In the beginning of that section NECG stated that "*the key inputs* to the model are the schedules for the factual and counterfactual". Details of sensitivity tests on other of the model's inputs followed, but "the key inputs" were evidently not tested. When Professor Willig was asked at the conference to comment on sensitivity testing he observed that "it's always a good idea to test your models in ways that might possibly reflect areas where the modeller, or the users of the model might be less than certain about the calibration of the model".[116] The Commission concurs, and considers that in general it is helpful that sensitivity testing be done on all key inputs to models. In this particular case, sensitivity analysis is important because:

- The NECG model uses Cournot pricing, and so implicitly acknowledges that capacity choices by airlines are an important feature of the market.

- When parties to applications such as these supply information that details what they intend to do, or expect others to do, in future factual and counterfactual scenarios, the Commission is not prepared to accept such information without question. Sensitivity testing of such information is useful in informing the Commission of the effects of such assumptions.

[115] NECG, *Report on the Competitive Effects and Public Benefits Arising from the Proposed Alliance between Qantas and Air New Zealand*, Appendix E: Modelling details and Sensitivity Testing.
[116] Conference Transcript pp. 715.

943. To make good this omission, the Commission set up a test whereby factual schedule flights were set to a percentage above or below those in the counterfactual. Nothing else was changed in the model. The percentages used were10%, 5%, and 1% below and 1%, 5%, and 10% above. It was discovered that reducing capacity had the effect of increasing welfare, and increasing capacity of reducing welfare. This result runs counter to economic theory and standard analysis. During the conference when Professor Willig was asked to comment on what his reaction might be to a model that exhibited the capacity / welfare relationship seen in NECG's model, he stated that his reaction would be one of "curiosity and puzzlement".

944. This result was shown to NECG via Professor Zhang's report and NECG sought to address it during the conference, when it submitted that this was expected because cost savings outweighed changes in allocative efficiency. Further to this, NECG stated in its response on the last day of the conference that such cost savings would be due to "better use of aircraft capacity". Efficiencies might conceivably be accrued to this, in particular that rationalisation might result in the proposed Alliance carrying more passengers on the same number of aircraft, in other words that load factors would increase. Using the capacity and passenger numbers from the NECG model under its proposed factual and counterfactual schedules, a comparison was made of the implied load factors in both states of the world. It is anomalous that in the NECG model, load factors seem to be reduced on more routes than they are increased and that in many of the routes where load factors fall, substantial cost savings nonetheless accrue.

945. NECG also claimed in its response that "one cannot change capacity without ensuring that the output levels being used make sense relative to that capacity choice". However, it is the Commission's understanding of the NECG model that changes in output result from price changes that, in turn, are driven by capacity changes. NECG stated that "the model itself will not do that test and thus prevent the claiming of cost savings that would never be attainable." However, it is the Commission's view that the model should have done this and because it did not, such costs have been incorrectly claimed, so overstating the claimed benefits flowing from the Alliance.

946. Subsequent to the conference, NECG provided further elaboration on this issue.[117] In this it noted that:

> If further capacity reductions are made as a sensitivity test then these must be accompanied by a reduction in output, which will necessarily reduce welfare. The NECG model was built to accommodate a move from the Counterfactual to Factual capacity and no more.

947. NECG here seemed to suggest that the model was purpose built for the schedules supplied and incapable of being sensitivity tested with different schedules. However the Commission's needs go beyond the one comparison in NECG's work.

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[117] NECG, *Factual capacity and welfare*, September 4, 2003.

948. NECG stated further that "for the Commission to run the sensitivities suggested, it would need to extend the model to capture the welfare effects associated with monopoly output restriction". However the Commission notes that its role is to evaluate the potential welfare effects associated with output restriction due to the exercise of some degree of market power and that a model submitted to the Commission is useful only to the degree that it informs this.

Cournot Pricing in all Periods

949. A Cournot equilibrium, and the implied Cournot pricing by suppliers, is sensitive to a number of factors, the most fundamental of which is that a market should be in equilibrium. For static analysis and an assumption of a single period of play, Cournot pricing is appropriate. Similarly, in real aviation markets it is observed that Cournot can be considered as a reasonable approximation of normal competition between airlines in a stable oligopoly rivalry.[118]

950. However over a series of periods, dynamic oligopoly interaction models with Cournot players do not predict Cournot pricing in every period[119] and this theoretical conclusion is supported by empirical research. One study found that static, period-by-period Cournot pricing may not form an equilibrium in a repeated, dynamic game between airlines.[120] In the paper, Cournot pricing in all periods is rejected when compared with the empirical data. The authors found that a Cournot-based version of a "regime-switching" model is preferred, in which a firm's conduct switches between Cournot in "normal" periods, and price wars where conduct is more competitive than Cournot, with the intensity of competition in each period represented by a conjectural variation variable.

951. The NECG model used a Cournot formula to determine price differences between the factual and counterfactual, given assumed capacity levels for each of these states of the world. In contrast, the Commission's model, in an effort to achieve greater realism, attempted to introduce the possibility of pricing at levels other than Cournot under certain market scenarios. NECG found the Commission's approach unsatisfactory, and suggested that the Commission "should abandon this approach and rely on an analysis that adopts the well accepted and widely used Cournot framework".

952. The suitability of the assumption of Cournot pricing in all periods was raised with NECG at the conference. Mr Ergas agreed that "in the real world you are unlikely to observe the persistence of highly stable Cournot behaviour period after period, and …

[118] Thorsten Fisher and David R. Kamershcen, "Price-Cost Margins in the US Airline Industry using a Conjectural Variation Approach" *Journal of Transport Economics and Policy*, Volume 37 Part 2, May 2003, pp. 225-258.
[119] Jean Tirole, *The Theory of Industrial Organization*, 1989.
[120] Anming Zhang and James Brander, "Dynamic Oligopoly Behaviour in the Airline Industry", *International Journal of Industrial Organization*, Vol. 11 (September, 1993), pp. 407-435.

there will be periods where you will observe different types of behaviour". His view was that "to the extent that we have introduced bias, it's consistently in the direction of being conservative". However, if pricing were sharper than Cournot in the counterfactual because of greater competition in that state of the world, then a bias would be introduced by the use of the Cournot assumption that would not be conservative. In response to a question along these lines, Mr Ergas elaborated that "by-and-large the market at issue is reasonably well described by that Cournot assumption". This may be so in some average sense, but does not address the fact that under disequilibrium market conditions Cournot players will deviate from equilibrium pricing.

953. Mr Ergas also said that the factual and counterfactual schedules had been constructed by the Applicants, who could "draw on the full range of their expertise and understanding of these markets to have a view about how the world would look with and without the proposed Alliance", and that this approach was "conservative relative to the views that the parties' financial advisors themselves take". However, it is unclear how these factors relate to the issue of Cournot pricing in all periods. Given the sophistication of modern automated yield management systems used by airlines it would seem reasonable to assume that in times of market flux due to entry, expansion, exit or demand shock, price would indeed fluctuate away from the level it takes in more stable market conditions.

No Product Differentiation Incorporated

954. Given the significant product differentiation between FSAs and LCCs, and the importance attached to branding by the Applicants, it is reasonable to expect that product differentiation should be incorporated in any modelling. Evidence of product differentiation in a market is a sustained difference in prices for different brands' products, and this does appear to be the case when an LCC is in a market. A corollary of the imperfect substitutability in differentiated markets is that a firm tends to impose less competitive constraint on its competitors, and this becomes more marked the less substitutable are the products.

955. NECG's model did not incorporate product differentiation. Mr Ergas submitted that an LCC has a greater disciplining effect on FSAs than its market share would suggest. This view would imply that the offerings of LCCs and FSAs are closely substitutable. NECG's argument was that LCCs impact not only on FSAs' discount fares but on higher fares as well. NECG claimed support for this view in the empirical work that Winstone and Morrison had done regarding the impact on prices of the presence of Virgin Blue in Australia.

956. However, the data set used by Winstone and Morrison was subject to further analysis by Professor Hausman and Professor Gillen who found that, when including time effects, the impact on prices of LCC presence was far less than suggested by Winstone and Morrison, and less than the effect of Ansett. In any event, given the

obvious differences in product offering it seems logical that substitutability is less between FSAs and LCCs than between FSAs.

957. At the conference, Professor Hausman criticised NECG for not incorporating product differentiation in its modelling work. He noted that the Applicants saw their respective brands as important in the market even under the proposed Alliance and that this on its own was evidence that their offerings were not seen by themselves as homogenous. He further argued that the existence of LCCs in markets is clear evidence of differences in product offering, and that this necessitates allowing for differentiated products in the analysis. He also observed that the proposed Alliance combined competitors who were much closer to each other in a product characteristic sense (i.e. more substitutable) than they were to the entrant LCC, and that this would result in greater competitive detriment than NECG's undifferentiated modelling would predict. In this way, Hausman asserted, NECG is likely to have introduced a bias toward lower detriments from the proposed Alliance in their analysis.

Treatment of Marginal Costs

958. Professor Zhang, in his review of the NECG model, considered the use of Cournot derived marginal costs in the welfare calculations. Costs derived within a Cournot framework are likely to contain valuable economic information. In particular in air travel markets they give insight into the (difficult to observe/calculate) network effects on the costs of serving a particular route. If, for example, airline X flies a lot of capacity to points A and B, it would be cheaper for X to serve the AB route, given that they serve the points A and B from other routes, than for airline Y, which only flies to A. In other words, it could be argued that network effects are present in equilibrium. Equilibrium market shares for a given route follow from network effects to a degree, and so this is reflected in the Cournot cost figures. During the conference Professor Willig lent his support to this interpretation of Cournot costs in the airline industry.[121]

959. NECG derived Cournot marginal costs for use in calculating price changes, but did not use them for the purpose of calculating welfare changes. Rather, it used capital and historical operating costs that were assigned to each flight (some costs were assigned to passengers also where passenger volumes changed, to net off price change effects). However, it would have been consistent with the stated Cournot approach of NECG if the Cournot marginal costs had been used in the welfare calculations. Accordingly, Professor Zhang calculated the weighted average Cournot marginal costs in the factual and counterfactual using NECG's modelled Cournot costs, and applied these to determine the change in welfare from changing marginal costs due to the formation of the Alliance. He produced a cost *increase* using these figures of $86,697,145 in Year 3.[122] The intuition behind this result is that in

[121] Conference Transcript pp. 646.
[122] This allocative detriment is with respect to the all markets modelled, not specific to New Zealand consumers or Air NZ.

equilibrium the lowest cost carriers on a given route have the highest share of traffic on that route, and a reduction in output by the Alliance partners, who typically have high shares in the routes examined, raise the average cost.

960. NECG addressed this during the conference.[123] It agreed "that the appropriate approach is to use the MC of all airlines". However, it asserted that the weighted marginal cost figure should be the same for factual and counterfactual on the basis that "there is no reason why the proposed Alliance should increase the MC of other airlines", and that the "MC of Qantas and Air NZ under the proposed Alliance are unlikely to increase". The Commission accepts that the proposed Alliance may not increase marginal costs of individual firms, but Professor Zhang's point was directed not at individual marginal costs but at *average* market marginal costs. It is reasonable to expect that these average market marginal costs would rise on the basis that on many of the routes in question, the Applicants are the main suppliers. This in turn would establish via the Cournot model that their marginal costs would be the lowest on those routes. A reduction in capacity of these lowest marginal cost carriers, as is predicted under the proposed Alliance, would increase the average marginal cost of serving the market. To the extent that non-Alliance, higher cost, suppliers respond to the proposed Alliance's reduction in capacity by increasing their own, the increase in the average cost of supply would be reinforced. Given that this increase in marginal cost is spread over the entire market output, the figure of $87 million then does not seem overly large, and therefore it seems reasonable that allocative detriment might rise by an amount of this order.

961. NECG further claimed that its estimate of cost savings was "fixed with respect to passengers". It is unclear what NECG meant by this; costs within their model are split into "variable" and "capital" costs, but to say that certain of the model's cost savings are "fixed with respect to passengers" is ambiguous since passengers are a measure of output, and a cost that varies with output is more accurately described as a variable cost. Accordingly, the Commission regards the NECG model as having attempted to estimate both fixed and variable cost savings. NECG also maintained that it "does not claim any savings related to changes in MC, as we assume MC is constant in our model". However, as noted, NECG proposed estimates of variable costs and these are closely related to marginal costs.[124] The point as outlined in Professor Zhang's report stands, that excluding NECG's measures of Cournot cost biases the results.

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[123] See NECG's conference presentation: *Response to Issues Raised by Zhang.*

[124] Given the practical difficulty in measuring short run marginal cost, it is common practice in competition cases that average variable cost is used as a surrogate for marginal cost. See Phillip E. Areeda and Herbert Hovencamp *Antitrust, Law Volume III*, Revised Edition, 1996.

Compounding Uncertainty

962. The NECG model considered five consecutive years of the factual and counterfactual. Mr McCumstie of Qantas outlined the process for generating the schedules. He said that the schedule assumed for any year after the first depends upon the assumptions relating to the schedules that precede it.[125] When Professor Gillen asked Mr Edwards how quickly Qantas would adjust capacity in light of a review of market circumstances, the response was that they change capacity, including entering and exiting routes, very quickly.[126]

963. In Year 1 of the model, each Applicant made some assumptions with some degree of likelihood about how other suppliers would behave and they set their schedules accordingly. However, in subsequent years assumptions would be based on the outcome of previous years, and so the probabilities of being correct about market circumstances therefore compound. Even with a high probability of having correct assumptions in any given year, the probability of being correct in later years conditioned on the outcome of years preceding it is very low. NECG's response was that while there is uncertainty in the model it does not introduce a bias.

964. However, the Commission considers that the modelled outcomes have a high degree of uncertainty, particularly in the later periods. This aspect of the model was not explained in NECG's description of the model's results, and indeed, the results for all years were given equal weighting (other than through discounting to present values).

Model is Complicated and Lacks Transparency

965. The NECG model comprised eight Excel workbooks with an on-disk size of over eleven megabytes. Each of the five main workbooks contained 23 worksheets. There were a great many linkages between different cells, worksheets and workbooks. Many of these were explicit but some were not.

966. An example of an input that was not explicit was the assumed 20% price reduction due to the introduction of NZ Express, which according to NECG reduced the base case average price on domestic routes through Air NZ's net passenger revenues. The 20% parameter appeared on the "Control" worksheet of the five main Excel workbooks but did not drive any of the cells in the spreadsheet. Presumably it was used to condition some of the model inputs, but it was not at all clear how it did this, or how it affected the results. It was also not clear whether there was an adjustment in any other variables such as capacity, numbers of passengers travelling, or respective market shares as a response to the introduction of NZ Express.

[125] Conference transcript pp 203.
[126] Conference transcript pp 207.

967. The onus lies on an applicant, when furnishing information and evidence to the Commission, is to present it in a way that can be understood, analysed and verified. The dearth of explanation about the model created considerable difficulties for the Commission. Although the Commission nonetheless took all reasonable steps within its resources to understand the model, its complexity and lack of documentation of the model has reduced its transparency. The Commission's view is that it is incumbent upon applicants to provide to provide full explanations and documentation for all complex models used in support of applications for clearance or authorisation.

Outcome Predetermined by Inputs, not by Cournot Mechanism

968. As explained above, the NECG model is driven by assumed factual and counterfactual capacities provided by the Applicants. Cournot models would typically be expected to take counterfactual capacities as an input, and to use these to generate factual capacities; these in turn would flow through to the estimation of price, output and welfare changes. Frontier criticised NECG's model on this matter in its submission on the Draft Determination. Given its design, NECG's model might best be described as one that uses Cournot formulae to determine price changes for a given exogenous change in capacity, rather than being a full Cournot model as just outlined.

Welfare Loss due to Shift in Demand Curve not Calculated

969. NECG used a capacity elasticity factor in its model. In Figure 4 above a reduction in capacity through the capacity elasticity factor, causes the demand curve to pivot inwards to D'. The two pairs of price-quantity points are P_fQ_f and $P_{cf}Q_{cf}$ respectively, and these define a deadweight loss triangle, SUT, which appears to be what NECG had in mind in its graph (see its Figure 1 on page 116). However, NECG overlooked one other element of deadweight loss. As the two price-quantity points fall on different demand curves, the loss of consumers' surplus should also include the triangular area RSU between the two demand curves and above the counterfactual price level. Thus, NECG's approach will on this basis understate the size of the loss of allocative efficiency.[127]

The Hazledine Model

970. The Draft Determination considered the model and results of Professor Tim Hazledine. His results suggested that the detriment due to the proposed Alliance would be substantially greater than that reported by NECG's work. The main differences between his approach and that of the Applicants were as follows:

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[127] Both the total allocative inefficiency loss discussed, and the transfer of P_fSTP_{cf}, will be included only where the loss is borne by New Zealanders, as discussed above.

- it was done at a more aggregated level of markets, specifically the Tasman and the domestic main trunk markets;
- product differentiation between the offerings of FSAs and an LCC was explicitly modelled, which also allowed for the LCC to have a lower marginal cost without taking a higher market share than the incumbents;
- the intensity of competition in the markets was varied using conjectural variations under different scenarios, based on his previous research, which allowed for the markets not always to exhibit pure Cournot behaviour; and
- some entry was assumed in the counterfactual and none in the factual.

971. Professor Hazledine also found a problem with the NECG modelling that was later isolated by Professor Zhang. When he set his model to approximately replicate the core NECG scenarios, the counterfactual incumbent load factor fell to unsustainably low levels. When he allowed the price to adjust such that normal load factors were achieved, the difference between counterfactual and factual price was much greater than was suggested by NECG. This seems to have been an example of the price capacity disconnect problem with the NECG model described above. According to Professor Hazledine's modelling the NECG assumptions led to a large downward bias in price increases and to a large upward bias in cost savings with the proposed Alliance.

972. Professor Hazledine's work confirmed that projections of capacities of the incumbents needed to be squared with the corresponding patterns of behaviour, and with the capacity added by an entrant. In particular, capacity cannot be changed without there being consequences for price, output and load factors.

NECG's Response to Professor Hazledine in its Submission on the Draft

973. The Applicants criticised both the use of conjectural variations ("CVs") *per se*, and how CVs were used by Hazledine. However, much of the criticism seemed to concern his allowing price to adjust to capacity. This can be further broken down to specific problems as the Applicants saw them.

974. NECG claimed that Professor Hazledine combined CVs with a Stackelberg (leader / follower) approach. This seemed to arise from his taking as exogenous to the model the capacity of entrants and small competitors although the Commission notes that NECG itself took essentially the same approach.

975. NECG objected to Professor Hazledine's estimation of CV parameters. He adjusted the CV parameter between competing Qantas and Air NZ in the case of a war of attrition. The Applicants claimed that no reason was given to justify this adjustment to ensure that a certain load factor was achieved.

976. NECG pointed out that under Professor Hazledine's modelling, the Tasman market produced zero operating profit, and so "is not consistent with long term supply viability". This part of the Hazledine model seemed to be an attempt to simulate NECG's claimed war of attrition scenario, although he allowed prices to adjust to increased capacity.

977. NECG asserted that the model ignored the complexities involved in estimating CVs. They also criticised aspects of the Hazledine, Green and Haugh 2001 paper[128] the results of which it claims are, "plainly at odds with economic theory".

Professor Hazledine's Cross-submission Response to NECG's Comments in its Submission on the Draft

978. Regarding the nature of competition between Air New Zealand and Qantas, Professor Hazledine asserted that while Cournot behaviour seemed to fit quite well competition between small numbers of competing airlines under 'normal' market conditions, it did not encapsulate all observed types of market behaviour. He drew on his recent research to justify his view that a 'war of attrition' could not plausibly be reconciled with the assumption of Cournot behaviour, and that the use of CVs allows this assumption to be relaxed. He suggested that NECG's observation that the estimated conjectural variation is not consistent with long term supply viability is justifiable on the basis that in the counterfactual scenario the behaviour is intended to model competition for the future market, by driving out an unwanted new competitor. Based on earlier research and current comparatively competitive market conditions, Professor Hazledine estimated a conjectural variations parameter of around –0.5.

979. Professor Hazledine argued that the nature and impact of LCC competition was difficult to ascertain because of the lack of history of LCC presence in the markets at issue. He believed it to be "a rather more difficult market environment to penetrate than assumed by NECG", particularly with Air NZ's Express fares and service.

980. Professor Hazledine did not regard the nature of fifth freedom airline competition as having great impact suggesting that it might have "a small effect on elasticities and thus incumbents' pricing". He noted, however, that imminent fifth freedom capacity constrains both factual and counterfactual scenarios, that fifth freedom suppliers may go elsewhere when world air travel markets recover, and, given their *modus operandi*, that these operators might act more as a competitive constraint on an LCC than on the FSA incumbents.

981. Professor Hazledine addressed the criticisms made by NECG and Willig regarding the assumption that the incumbents have equal costs in his model. He conceded that this criticism is reasonable and in a revised version of his model he gave Air NZ a

[128] T Hazledine, H Green and D Haugh, "The Smoking Gun? Competition and Predation in the Trans-Tasman Air Travel Market", 2001, Unpublished.

cost advantage over Qantas that is implied by their unequal output shares in both markets. Regarding the version of his model in the cross submission he wrote:

> The results, broadly as before, are that the direct impact on the New Zealand public (with the government as the major Air New Zealand shareholder) of the proposed cartel between Air New Zealand and Qantas is likely to be substantial and negative, and that the New Zealand airline itself may lose. Qantas however, does well out of nearly every possible scenario, making a very substantial profit on its proposed $550 million investment in Air New Zealand.

Professor Willig / Dr Guerin-Calvert's Review of the Hazledine model

982. Professor Willig and Dr Guerin-Calvert undertook a review of Professor Hazledine's model in which he made a number of claims regarding what he called "flawed assumptions" used by Professor Hazledine.[129] He asserted that this "indicates that the NZCC should not rely upon the model's results in determining whether to approve or deny the proposed alliance between Qantas and Air New Zealand". These criticisms are summarised below.

983. Firstly, he claimed that Professor Hazledine assumed no other competitors to Qantas and Air NZ. He asserted that "there is substantial actual competition on certain routes within these markets ... actual competitors besides Qantas and Air New Zealand account for approximately 15 percent of capacity on the trans-Tasman routes …on domestic New Zealand routes, Origin Pacific accounts for as much as 35 percent of capacity on certain routes (e.g., on the Christchurch-Nelson route)". He disputed Professor Hazledine's claim that Tasman fifth freedom carriers are fringe competitors by rebutting the claim that fifth freedom carrier flights are at inconvenient times, and by quoting the ACCC which said in a 1998 report that "fifth freedom carriers have provided strong competition... and have been a significant determinant in setting prices".

984. Secondly, Professor Willig disputed Professor Hazledine's assumption regarding the nature of LCC entry, in particular that an LCC will enter with a fixed level of output unaffected by incumbents' prices or levels of output.

985. Thirdly, he criticised the CV parameter assumptions made by Professor Hazledine. He claimed that the CV parameter value of -0.5 could not be justified by the Hazledine et al (2001) study, which were determined by making some arbitrary assumptions about the values of the other unknown variables. He also claimed that Professor Hazledine made some "basic errors" in his earlier studies and his current analysis regarding the CV value.

986. Fourthly, Professor Willig believed that Professor Hazledine was incorrect in setting up his model in such a way that Air NZ had a higher share than Qantas in the Tasman

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[129] R Willig and M Guerin-Calvert, *An Economic Assessment of Professor Tim Hazledine's Model of the Proposed Alliance Between Qantas and Air NZ*, August 19, 2003.

market, and that this overstated the competitive harm to New Zealanders from the proposed Alliance.

987. Fifthly, Professor Willig took issue with Professor Hazledine's aggregation of routes in his analysis, which he said "tends to bias his results against the proposed alliance". He gave a simple illustration of two Tasman routes each of which had one of the Alliance partners with the major share. Separate analysis of these market shares might give little concern, but an average of shares of the two routes would bring them closer to a 50% share each, and so give rise to greater concern.

988. The sixth main point made by Professor Willig concerned Professor Hazledine's claim that his analysis was conservative because he had not adjusted Air New Zealand's profits to account for Qantas's equity stake under the Alliance. He claimed that Professor Hazledine "ignores the fact that Qantas bought the stake in Air New Zealand" and that consistency would require, since the "price of the equity presumably reflected the future flow of discounted earnings", the inclusion of both the initial payment for the equity from Qantas and Qantas's future share of Air NZ's profits.

Response of Professor Hazledine to Professor Willig's Review of his Model

989. In a memorandum circulated during the conference[130] Professor Hazledine responded to the critique by Professor Willig and Dr Guerin-Calvert. He claimed that a number of the points made by Professor Willig "are about marginal judgements" over which experienced modellers might differ. His further rebuttals are summarised below.

990. Professor Hazledine contested Professor Willig's claim that he had excluded the competitive influence in the markets of fringe suppliers. He submitted that the demand curves he used were 'residual' demand curves that encapsulated the presence and effect of other carriers. He further claimed that it is common practice when modelling the impact of firms that supply a very small proportion of the market to set their output levels outside the model.

991. Regarding the nature of LCC entry, he noted that it is more difficult to "model or predict the behaviour and impact of a competitor which does not yet exist". He suggested that recourse must be made to market intelligence information external to the model to forecast the likely level of capacity, and to assume pricing to attain a reasonable load factor. In any event, he claimed he had followed NECG in most of his scenarios, with the exception of one in which the entrant competed as another Cournot player in the market with the cartel, setting capacity according to relative costs and demand substitutability.

992. Professor Hazledine contended that his choices of conjectural variation parameter assumptions turned on "how keen is competition in the air travel market right now, in

[130] *Response by Tim Hazledine*, August 21, 2003.

2003". He believed that, based on current data and his previous research on the Tasman market, current competition is more intense than is consistent with standard Cournot behaviour and that this justified the use of the more general conjectural variations model.

993. Professor Hazledine stated that Professor Willig's claim that he had used incorrect market shares is "simply factually wrong". He claimed to use origin–destination figures (rather than straight capacity on the route), and that the figures were sourced from the ACCC's Draft Determination.

994. Addressing the criticism concerning the aggregation of routes in his modelling, Professor Hazledine contended that this was based on tractability given the available resources and is, he claims, a "quite conventional procedure". He suggested that based on certain of his simulations attempting to replicate the NECG results at the more aggregate level, "aggregation does not appear to be a big issue".

995. Regarding Professor Willig's assertion that his analysis was not conservative, Professor Hazledine claimed that Professor Willig had made some mistakes in reading his work. He further submitted that, in restricting analysis of competitive detriments to just the Tasman and New Zealand markets, his results were conservative because competition under the proposed Alliance would also be affected on Pacific routes.

<u>Professor Willig's further comments on Professor Hazledine's Model</u>

996. In a note to the Commission toward the end of the conference[131] Professor Willig sought to clarify the market shares he had used in modelling the Tasman routes. During the conference he had submitted shares that suggested that Qantas had a [ ] market share on these routes. The figures that he had used were only those for routes which both Applicants currently plied, or had been indicated would be flown in the counterfactual. These figures showed Qantas with a [ ] market share than Air NZ. Hazledine had used figures that the ACCC had presented in its Draft Determination for origin-destination passengers sourced from the Australian Department of Transport and Regional Services, which indicated that Air NZ had the [ ] market share of the two over all Tasman routes. The Commission had used capacity figures for all Tasman routes which fell between these two extremes but indicated that Air NZ had the [ ] market share.

997. Professor Willig applied his preferred figures to certain of the scenarios in Professor Hazledine's model which he also adjusted so that the profit due to Qantas for its 22.5% equity stake was not treated as a detriment. The Hazledine model factual and counterfactual scenarios that Professor Willig thought most appropriate yielded a net benefit from the proposed Alliance.

[131] Robert Willig, *Note on the Relevant Market Shares of Qantas and Air NZ to use in Modelling the Competitive Effects of the Proposed Alliance*, August 22, 2003.

<u>The Commission's View of Professor Hazledine's work</u>

998. The comment in the previous paragraph on Professor Hazledine's model by Professor Willig relied on the use of market shares only for only those routes on which the Applicants directly competed on (or had stated that they would compete on in the counterfactual). This was an extreme approach for an aggregated model, and implicitly ignored the fact that for many Tasman routes serviced by only one of the Applicants, the other was the nearest entrant and was likely to provide a degree of competitive discipline without actual entry.

999. Furthermore the particular scenario pair selected by Professor Willig has no LCC entry in the counterfactual and highly effective competition from an entrant in the factual. This choice of entry pattern led to a wider differential between that in factual and counterfactual than even the original NECG model assumed, and certainly does not reflect the view of the Commission regarding the factual and counterfactual scenarios. The Commission notes that Professor Willig's testing of the model indicates that for certain states of the world – not those considered by the Commission as most likely – it may show allocative benefits due to the proposed Alliance. This indicates, to its credit, that the model can show benefits and does not have detriments "hardwired".

1000. Regarding the treatment of profits in Professor Hazledine's work, the Commission has formed a view based on Professor Willig's argument that it is inconsistent to treat the profits due to Qantas from its equity stake in Air NZ as a detriment and yet to ignore the initial capital injection. Accordingly, in the Commission's approach (see below), the necessary adjustment has been made.

1001. The model developed by Professor Hazledine, and the parameters he has used to calibrate it, are based on published peer reviewed research. It also covers a number of the routes under scrutiny in this adjudication. It also has a number of qualities that recommend it, in particular it:

- draws on historical local data;
- is based on the Cournot approach; and
- uses a technique (conjectural variations) that is frequently employed in empirical industrial economics research.

The Commission's Approach

Introduction

1002. The Commission had its economic expert, Professor Gillen, implement a model for use in assessing allocative efficiency effects due to the proposed Alliance. This

model, which was based on Professor Hazledine's work, formed the basis for the Commission's quantification of allocative inefficiency in the Draft Determination and since that time has had the benefit of review and comment by the Applicants' economists and Professor Zhang. A revised version of the Commission model has been implemented.

1003. In what follows, the Commission's modelling approach is outlined. First, how the distinctive pricing of air travel might affect the impact of the proposed Alliance is briefly addressed. The modelling by Professor Gillen on behalf of the Commission is then described and comments on the approach from NECG, Professor Willig and Professor Zhang are also presented. The revised Commission model and its results for the Tasman and domestic markets are then summarised. Following this is the outline of alternative approaches used on a number of other routes. Finally the comments of Professor Zhang comparing the NECG and Commission models are outlined.

Price Discrimination

1004. In the Draft Determination, the Commission considered the pricing methodology of airlines, and how this might impact on the allocative efficiency of the proposed Alliance. This was based on the observation that using the 'averaged' demand curve and price seems less than ideal given that different passengers, broadly categorised respectively as business and leisure, typically pay significantly different prices for the same journey. This practice, known as price discrimination, is a critical feature of airline pricing. Even if one product market for both business and leisure were assumed, as it is done here, the impact of the proposed Alliance on the two demand segments could differ significantly.

1005. The Commission modelled an Alliance between the Applicants using actual price-quantity data for city-pair routes supplied by the Applicants to derive the residual demand curves for both airlines. This preliminary analysis is described in Appendix 2 of the Draft Determination. A result that emerged is that for the routes modelled, the net deadweight welfare loss would be greater under 3-step pricing than under 5-step pricing. The same number of price steps was used for factual and counterfactual in the respective model runs.

1006. In response to this analysis, NECG submitted that while airlines do offer their product at a variety of prices, the use of a single weighted average price has endorsement in the literature. Secondly, they argued that the analysis of price discrimination in oligopolistic settings is at an early stage of development in economic research, and that the current level of understanding makes modelling of such markets difficult. Thirdly, NECG concurred with the results of the analysis that a greater degree of price discrimination (i.e. 5 price bands rather than 3) results in lower welfare loss. It concluded from this that models that use a single price model overstate the welfare loss and so their approach is conservative. Fourthly, it observed that because airlines engage in extensive price discrimination, the conclusion should be a finding of reduced welfare losses.

1007. The Commission agrees that its modelling in Appendix 2 of the Draft Determination may be outside the sphere of settled economic theory and practice, and as a result it has not developed the approach further. However, there are a number of observations that the Commission would make regarding the effects of the presence of price discrimination in the markets at issue. There is a growing body of literature that address such pricing under oligopoly. In a 1995 article on price discrimination in differentiated product markets, the authors found that the practice facilitates entry deterrence through brand proliferation by a merged entity.[132] In another paper Dana considered the role of demand uncertainty in price discrimination.[133] He found that one of the reasons why firms price in this way is because they face "the trade-off between selling the marginal unit at a low price for sure and at a high price with uncertainty". He predicted that under these conditions, "prices become more dispersed as markets become more competitive", i.e. that the degree of price discrimination actually increases with the number of firms.

1008. Empirical support for Dana's predictions in the case of airlines is found in a recent and widely cited study by Stavins which used OAG data from 5,804 tickets for twelve routes on a single day.[134] She found that "price discrimination decreases with market concentration", and that the change in the spread of fares with respect to a change in concentration takes place at the discount end of the spread, i.e. discount fares are higher under greater concentration. The corollary of this is that price elastic consumers who typically purchase these cheaper fares will be less likely to travel as market concentration increases, and this will be associated with reduced market output and a corresponding reduction in welfare.

1009. It is unclear how these results could be applied to the preliminary modelling in Appendix 2 of the Draft Determination except to suggest that the number of price steps should be reduced in moving from the counterfactual to the factual, which would make the preliminary results in respect of output reduction significantly understate the detrimental effect of the proposed Alliance.

1010. NECG's assertion that single price models understate the welfare effects of the proposed Alliance seems to suggest that such models are something other than single *average* price models. Price increases predicted in such a model are to the average price which includes the entire range of prices offered. If instead price increases were applied, as the Stavins study suggests, primarily to the price sensitive part of the market, the output reduction would be much greater. This suggests that single average price models might understate the resulting change in output.

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[132] James D Reitzes and David T Levy, "Price Discrimination and Mergers", *Canadian Journal of Economics*, Vol. 28, Issue 2, May 1995 pp. 427-436.
[133] James D Dana Jr., "Equilibrium price dispersion under demand uncertainty: the roles of costly capacity and market structure", *RAND Journal of Economics*, Vol. 30, No.4, Winter 1999 pp. 632-660.
[134] Joanna Stavins, "Price Discrimination in the Airline Market: The Effect of Market Concentration", *Review of Economics and Statistics* pp. 83, no. 1 February 2001.

1011. If these results are applied to the proposed Alliance, it is the Commission's view that price discrimination would not assuage competition concerns as NECG has submitted, but rather it is likely that there would be an increase in average price and a reduction in the spread of prices resulting in output and welfare reductions. However, the Commission does not rely upon this finding in its measurement of detriments flowing from the proposed Alliance.

The Commission's Model

In the Draft Determination

1012. As discussed above, a problem with the standard Cournot model is its inability to incorporate the product differentiation evident in the markets under consideration (it assumes a standardised product) The Applicants' air passenger services are strongly branded, and this is likely to become more marked with the different product offering and brand of entrant Virgin Blue. A standard application of the Cournot model would have resulted in the LCC getting a larger share of the markets it enters than either of the incumbents, since the LCC is recognised to have a lower marginal cost than the incumbents,[135] whereas overseas experience suggests that the maximum market share that might be attained by an LCC is no more than 25-30%. One reason why the LCC entrant gains only a small market share is that it offers a service of a lower quality (vertically differentiated) to that offered by the incumbents.

1013. As the Commission was dissatisfied with various aspects of the NECG model, including the absence of explicitly modelled product differentiation it had its economic expert, Professor David Gillen, implement an alternative model for use in assessing allocative efficiency effects. This model, which was based on that designed by Professor Hazledine, formed the main basis for the Commission's quantification of allocative inefficiency in the Draft Determination. It had the following characteristics:

- it was Cournot based, but with a facility to vary the intensity of competition of firms through a conjectural variation parameter;
- the incumbents were assumed to be sales (revenue) maximisers, not profit-maximisers;
- the LCC entrant (when present) was a profit-maximiser;
- market growth was assumed to be associated with LCC (Virgin Blue) entry, in keeping with the observation that LCC entry tends to cause the overall market to expand;

[135] Virgin Blue was assumed to have costs 20% below, and NZ Express 12.5% below, those of the incumbents.

- a capacity elasticity factor of 0.125 was used for the incumbents, and 0.525 for the LCC, the latter reflecting the previous point;

- varying degrees of product differentiation were assumed. A relatively high degree of output substitutability was assumed between Qantas and Air NZ, and a lesser degree between these incumbents and the LCC;

- two scenarios were modeled: the factual, which assumed the proposed Alliance and no LCC entry; and the counterfactual, which assumed no LCC entry and a substantial Qantas presence on domestic New Zealand routes, and some LCC entry on Tasman routes;

- no natural market growth was assumed;

- the two FSAs were assumed to have the same cost structure and so equal outputs; but with market shares then being reallocated on the basis of ex ante capacity shares; and

- Qantas had the full 22.5% share in Air NZ and received a share of Air NZ's profits which were counted as a loss to New Zealand in welfare terms.

1014. The Commission found in the Draft Determination that the model suggested welfare losses would amount to $170 million in Year 3 for domestic New Zealand and the Tasman.

Response of NECG to the Commission's modelling

1015. The Applicants' response to the allocative efficiency part of the Draft Determination was devoted almost exclusively to a critique of the Commission's modelling work. Fourteen pages of NECG's written response were devoted to typographical errors or errors that had been corrected after an audit of the modelling work. Other claims regarding the Commission's modelling made by NECG in their written submission and at the conference can be summarised as follows.

1016. NECG claimed that a CV-based approach is flawed, and that it has been discredited in the literature. NECG cited a theoretical paper by Lindh which described the CV approach as *ad hoc*, and found that Cournot conjectures were the only ones that were *consistent* in a dynamic theoretical sense, i.e. that any other conjectures about another firm's behaviour may be incorrect. NECG also claimed that the conjectures adopted for the relationship between FSAs and LCCs were incorrect or unsupported.

1017. NECG claimed that the product differentiation parameters used were incorrect. First it contended that the elasticity of substitution between FSAs and LCCs was lower than the Commission's model had specified. Secondly, it submitted that there was an

unsupported asymmetry between conjectures that FSAs and LCCs have with respect to one another.

1018. NECG took issue with the modelling of the airlines as revenue maximisers. it submitted that it is not rational for firms to behave in this way, and that if they did there would be no reason why they would be profit maximisers in the factual and revenue maximisers in the counterfactual as assumed.

1019. NECG took issue with LCCs being followers in the market, stating that it was inconsistent with evidence, and would not be a profit-maximising strategy for them to do so.

1020. NECG claimed that the Commission made a number of other assumptions, and produced results, that were "indefensible". NECG claimed that the model compared almost perfect competition without the proposed Alliance to a monopoly with the proposed Alliance. NECG submitted that an LCC is more likely to enter with the proposed Alliance in existence because it would be more profitable for it to do so, whereas the Commission modelled entry as being less likely. NECG also took issue with the lack of competitive constraint from fifth freedom operators in the model and argued that the Commission's modelling suggested that Air NZ would remain viable despite an $83 million decline in profits compared to their current levels of profitability.

Response of Professor Willig to the Commission's Modelling

1021. Professor Willig on behalf of the Applicants also commented on the allocative efficiency part of the Draft Determination. His criticisms of the model generally pertained to certain of the assumptions that he claimed were made.

1022. He considered that the modelling, inappropriately, did not take account of other suppliers in the markets, in particular the fifth freedom operators on the Tasman and Origin Pacific on domestic New Zealand routes.

1023. He also submitted that in the model the LCC capacity was insensitive to the number of competitors and the character of competition, and that the Commission therefore underestimated the degree of competitive pressure that an LCC would bring to bear.

1024. Professor Willig submitted that potential competitors would constrain market prices and would be likely to enter if the proposed Alliance were approved. He cited the (then) recent example of Emirates' imminent entry onto the Tasman. He contended that the barriers to entry were low, and that airlines currently serving in the region could relatively easily enter additional routes if prices on these were to rise because of the proposed Alliance.

1025. He claimed that the Commission modelled Qantas and Air NZ as having symmetric costs, and that this led to a bias in the amount of detriment since under such an assumption firms had equal market shares in a Cournot model. The amalgamation of equal-sized firms has a bigger impact in competition than the merger of disparately sized firms.

1026. Professor Willig submitted that a good case had not been made to model the airlines as seeking to maximise revenue rather than profit, and that the model had incorrectly incorporated a residual demand elasticity of -1 into the market demand. He also submitted that having Qantas and Air NZ seek to maximize revenue in the counterfactual scenario, but seek to maximize profits in the factual scenario, introduces a bias into the welfare estimates.

1027. He claimed that there was insufficient support for the CV parameters chosen and, in particular, that they should be different in the factual compared to the counterfactual. Again he submitted that this introduced a bias to the results.

1028. Professor Willig took issue with the parameters that the Commission had chosen to give effect to product differentiation in the markets. He cited studies that suggested that LCCs have a significant effect on prices in a market as indicating that there is a high degree of substitutability with the offerings of FSAs.

1029. He claimed that the choice of elasticities was arbitrary and unsupported, and in any event that it was incorrect to use a weighted average when the Draft Determination said it "seems inappropriate".

1030. In addition, Professor Willig claimed that it was incorrect to count Qantas's profits from its 22.5% holding in Air NZ in the factual as a detriment to New Zealand given that Qantas had bought the holding, which one could assume would reflect the future flow of discounted profits. To be consistent, if the profits are to be treated in this way, the modelling should count as a positive factor, the purchase price of the shareholding.

1031. Finally, Professor Willig took issue with the Commission model in that it did not incorporate benefits to consumers of improved scheduling and expanded networks. He claimed that these would produce an increase of value to the consumer such that an increase in price effectively purchases a "better" product.

1032. At the conference, Professor Willig reiterated a number of the points he had made in his written submission in the context of a presentation that spelled out his views on best practice modelling. He submitted that model design should meet certain criteria, which were to:

- balance simplicity and completeness;
- capture key elements of markets;
- be grounded to reality with available data;

- apply economic principles;
- be robust – pass sensitivity checks;
- be transparent;
- be feasible to implement; and
- avoid bias.

1033. In concluding his presentation, he asserted that the NECG model used clear and transparent assumptions, was calibrated in a way that was “robust to controversy”, consistent with fact and economic theory, and incorporated the key elements of competition. Regarding the Commission’s and Professor Hazledine’s models, he submitted that they did not properly capture and analyse key elements of the markets, and that they were based on incorrect assumptions that introduced bias.

Professor Zhang’s Review of the Commission model

1034. As mentioned above, Professor Zhang of the University of British Columbia was asked by the Commission to review both the NECG model and the Commission model. His comments regarding the NECG model are incorporated above, his views on the Commission model are summarised below.

1035. Regarding the CV approach, Professor Zhang submitted that the approach was very useful in empirical applications because it allows for the conduct of firms to be readily estimated or calibrated. He noted that the specific conduct parameters used to set up the conjectural variations in the models that Professors Gillen and Hazledine used had been calibrated by Hazledine using 1995-99 data for the Tasman. This, he felt, was a creditable feature of their work.

1036. Concerning the Commission’s assumption of revenue-maximisation and the accompanying choice of conduct parameter, he found that the connection between these was not justified. This is because the Commission had incorrectly specified the relationship between the revenue-maximising behaviour and the conduct parameter. Once the relationship was correctly specified, Professor Zhang showed that at the observed price and quantity variables, revenue maximisation would entail a conduct parameter that suggested price would be below marginal cost in the counterfactual which suggested that revenue maximisation was an inferior representation to profit maximisation in this case.

1037. Professor Zhang suggested that even without the assumption of revenue-maximisation there may be some uncertainty from using conduct parameters from Professor Hazledine’s earlier work. Accordingly he suggested that sensitivity analyses should be carried out in which the conduct parameters were varied in both the base case and the counterfactual.

1038. He noted the assumption in the model that the incumbent airlines had the same costs, and therefore the same market shares, and that this did not reflect the actual

difference in market shares in the counterfactual. He noted that Professor Hazledine's version was modified to correct for this.

1039. Professor Zhang questioned some assumptions used in the spreadsheet calculations In particular, given that the entrant capacity is exogenous, he thought it was unnecessary to estimate the demand curve intercept, and to assume that the cross effects between entrant and incumbents were symmetric. He suggested further discussion of the exogenous nature of entrant capacity when its capacity share was significant.

1040. He commented on certain of the incumbent cross factor parameters used in the spreadsheet calculations, in particular that these appeared to be different in the more competitive base case as compared to the Cournot base case, suggesting that the products were respectively more differentiated in the factual and counterfactual scenarios. Professor Zhang questioned why this should be the case and suggested justification or sensitivity analysis be undertaken. He listed several other parameters on which further justification and sensitivity analysis might be needed.

1041. Professor Zhang made a number of other suggestions regarding the implementation of the Commission's model. For the sake of completeness these are summarised below as follows.

- improved documentation of the estimates and assumptions within the model;
- more extensive sensitivity analyses of assumed parameters, in particular for the base conduct parameters, and the conduct parameters in the counterfactual;
- more extensive scenario comparisons;
- checking of the equilibrium value of a change in incumbents' quantity with respect to the entrant's quantity is not binding in the model;
- some attempt be made to incorporate economies of traffic density on the routes; and
- allowing the incumbents' costs to differ.

The Revised Commission Model

1042. The Commission accepts some of the criticisms of its model by the Applicants and by Professor Zhang, and has modified its model accordingly. The revised Commission modelling is set out below.

Underlying Assumptions and Approach

1043. The earlier modelling was criticised on the assumption of revenue maximisation. Professor Gillen is of the view that the Cournot model's results do not vary very much when different assumptions are made about whether the product suppliers in the model are maximising profits or maximising revenue. However, he felt that the debate over this point detracted from the fundamental purpose of the modelling, which was to model firm strategies and to generate equilibrium values for fares, outputs and costs. Professor Gillen therefore changed the assumptions throughout to profit maximisation.

1044. The markets in question are likely individually to be characterised by a variety of counterfactual market structures, some of which are Cournot and others that are likely to be more competitive. The Commission's modelling continues to represent such differing strategic interactions between firms through the CV parameter. The CV approach was one of the aspects of the modelling criticised by the Applicants. Professor Gillen, in recent advice to the Commission, reviewed the arguments and concluded that "the empirical game theory argues the conjectural variations approach is a useful framework for empirical investigations into the exercise of market power and the competitiveness of an industry".[136] Professor Zhang was of the same view. At the conference, Professor Willig admitted that he had used the approach in some of his own work.

1045. Professor Gillen has contributed to a comprehensive study[137] of air travel demand elasticities and the Commission has used these in its revised model to derive weighted average demand elasticities for each route with respective weights based on NECG model information on the distribution of business and leisure passengers. It is the Commission's view that these route-by-route elasticities better fit the different markets and notes that in NECG's model the same elasticities, regardless of length of haul, are assumed, which is not supported by Professor Gillen's study.

1046. In the revised model, scenarios are calculated for Years 3 and 5 of the proposed Alliance and, meeting a criticism of the original work, results are calculated on a route-by-route basis and then aggregated for the Tasman, domestic trunk and four domestic non-trunk routes. Other relevant markets are analysed separately below.

1047. The Commission is of the view that each of these markets can differ in a number of respects, but for tractability it has limited the variations to the range of values each of the following parameters might take:

- the degree of product differentiation between market participants, in particular incumbent FSA and entrant LCC carriers using cross factors;

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[136] David Gillen, *Allocative Efficiency: Modelling Benefits and Detriments*, October 2003.
[137] See David Gillen, William Morrison and Chris Stewart, *Air Travel Demand Elasticities, Concepts, Issues and Measurement*, Department of Finance, Canada February 2003.

- the strength of competition (whether more or less aggressive) between the market participants using CV parameters;
- the differences in cost between the incumbents and entrant; and
- the amount of capacity the incumbents and the entrant would bring to the market.

1048. Variation in some of these values is used as the basis for sensitivity testing according to Professor Zhang's advice.

1049. Product differentiation can be changed in the model to reflect some or relatively little product differentiation. Professor Gillen advised the Commission that the recent changes in product offerings by the incumbents in domestic and Tasman markets suggested that product substitutability might now be somewhat greater than previously assumed and set the cross factor values accordingly. A range of four cross-factor values has been modelled to simulate four different degrees of product substitution, from very close to somewhat less close.

1050. The CV parameter was set to four values in the counterfactual in addition to Cournot. In the factual the carriers are characterised as a cartel, except in Tasman markets where some fifth freedom capacity is reflected in a CV parameter which reflects their presence. Sensitivity testing is also conducted on the factual CV setting.

1051. The cost difference between the FSAs and LCCs has been changed. In the original model the cost difference between incumbent and entrant carriers was assumed to be 20 %, but this has been reduced to 15 % to reflect Air NZ's Express products and Qantas's JetConnect product. Professor Gillen advised the Commission that a combination of 15 and 20 % cost differences might be used since not all traffic on the Tasman would be carried by the incumbents' low end products. In any event, both values were used to examine the sensitivity of the results to this parameter.

1052. In terms of entrant (Virgin Blue) capacity the Commission's view is that it would not exceed 20% of the market in the counterfactual. Under the factual, due to strategic barriers to expansion as elaborated in the competition analysis, the maximum market share was set at 15%. These maximum market shares are achieved route-by-route in the fifth year after the LCC entrant first serves a route. The capacity values for each route for the base case, and Years 3 and 5, have been generated using the base capacities used by NECG, and a judgement based on the Commission's understanding of the stated intent of Virgin Blue regarding its entry plans, and its growth in Australian markets (after due allowance for the opportunities created by the failure of Ansett), and other relevant information.

1053. The results of welfare calculations would in the Commission's model differ from those of NECG's model because of differences in market demand elasticities, incumbent and entrant capacity assumptions, and the use of product differentiation

parameters. Unlike the NECG model, the welfare calculations are based on equilibrium values generated entirely within the model, including costs. These values calculated at the route level reflect variable costs and, as Professor Zhang has observed, such costs derived within the Cournot model give insight into the (difficult to observe/calculate) network effects on the costs of serving a particular route. Modelled capacities are equilibrium values, not short-term excess capacity responses to entry or expansion by another supplier in particular markets at particular times, such as is envisioned in the competition analysis.

1054. The welfare measures examine the change in profits due to a change in market structure or behaviour and the effects of a resulting change in fares to consumers; the sum of changes to producer and consumer surplus. Only effects on New Zealanders are reported in the results (including the profit gain made by Air New Zealand from foreign travellers paying higher fares).

1055. Regarding the treatment of Qantas's profits from its 22.5% holding in Air NZ in the factual, the Commission has formed a view based on Professor Willig's submissions that it is inconsistent to treat the profits due to Qantas from its equity stake in Air NZ as a detriment and yet to ignore the initial capital injection. Accordingly, the Commission's revised approach in this respect is that the share of Air NZ's profits due to the Qantas equity stake is not to be counted as a loss to New Zealand in welfare terms and that the initial capital injection is ignored.`

The Results

Tasman Markets

1056. The modelling indicated that the lowest welfare loss for routes out of Auckland occurs when the cost factor difference is 15%, products are more substitutable, there is less competitive behaviour in the counterfactual, and there is not pure cartel behaviour in the factual. The highest welfare loss occurs when there are higher cost differences, less substitutability between incumbent and entrant products and behaviour is cartel in the factual and more competitive in the counterfactual. The most important factor affecting economic welfare is the greater likelihood of more competitive behaviour in the absence of the proposed Alliance and strict cartel like behaviour with the Alliance. The least important factor is the cost difference between entrant and incumbent, which probably reflects the conservative range the Commission uses for this. Given that the Tasman market out of Auckland might be considered relatively more competitive because of the presence of the fifth freedom operators, CV parameters reflecting this were applied to these routes. With both Qantas and Air NZ moving to similar single product service on the Tasman, the Commission is of the view that there will be relatively high product substitutability, so a relatively high cross factor was selected as appropriate.

1057. For markets from Wellington and Christchurch to Australian destinations, the key difference in the analysis is that the factual CV parameter is held at 1 to reflect the

likelihood that the factual market structure is likely to be more accurately represented as a cartel. The most important factor influencing the welfare outcome is the product substitutability, and its effect increases the more competitive is the market in the counterfactual. However, the range of welfare outcomes is not very large. The welfare loss magnitudes are smaller than for the Auckland routes because the markets are much smaller. As before, the least important factor affecting welfare is the cost difference.

Domestic New Zealand – Main Trunk Routes

1058. The New Zealand main trunk routes are large in comparison to other markets examined, and so welfare losses from less competitive market circumstances are larger. Also, the range of welfare losses is quite large, indicating that market structure and behaviour has a significant impact. The Commission finds that the most important factors in causing variations in welfare losses are: how competitive the counterfactual market would be; how substitutable the products are; and the behaviour of the proposed Alliance in the factual, whether cartel like or more Cournot-like.

1059. The Commission considers that the domestic trunk is best modelled as being relatively more competitive with the incumbent carriers and entry by an LCC, and so anticipates more Cournot-like behaviour under the factual. The counterfactual is expected to be more competitive with highly comparable products and not large differences in cost.

Domestic New Zealand - Provincial

1060. The welfare outcomes for the four domestic non-trunk New Zealand routes modelled are quite small. These are lesser routes in terms of passenger numbers, and thus the welfare losses from a shift to the Alliance might be expected to be somewhat smaller than other markets. The most important factor appears to be the extent to which the proposed Alliance in the factual will act as a cartel or might be somewhat more Cournot-like.

Summary of results

1061. The summary of the allocative inefficiency and transfer losses derived from the Commission's modelling for the markets outlined above for Years 3 and 5 are given in Table 14.

Table 14
Allocative Inefficiencies and Transfers
Tasman, Main Trunk & Provincial Markets ($m per annum)

Markets	Low		High	
	Year 3	Year 5	Year 3	Year 5
Tasman	$ 25.15	$ 27.8	$ 41.9	$45.1
NZ Dom Other	$ 0.22	$ 0.223	$ 1.56	$1.586
NZ Trunk	$ 16.6	$16.1	$ 20.1	$19.9
Total	**$ 41.97**	**$ 44.12**	**$ 63.6**	**$ 66.59**

Other Routes

1062. On certain of the other routes affected by the proposed Alliance it was considered to be more convenient to use an alternative approach. It is not anticipated that there would be new entry on those routes, and so the competition and welfare analysis is more straightforward. These routes are those to destinations in the Pacific, Asia and to Los Angeles, also the domestic provincial markets not already covered.

1063. The Commission has up a simple Cournot-style framework to examine the likely welfare effects on these routes. It is based on the Cournot best response function for firm k, which is given by the expression:[138]

$$q_k = \frac{\frac{a-m}{b} - \sum_{i \neq k} q_i}{2}$$

where a is the demand curve intercept of the price axis, m is the firm specific marginal cost, and b is the (negative) slope of the linear demand curve. This is an expression for firm k's optimal capacity choice given its marginal cost, market demand and the supply of other firms. The implication of this expression is that a change in quantity by another firm will cause firm k to shift along its best response function by a certain amount, the increase (decrease) in its output being half of the decrease (increase) of the other firm.

1064. The procedure assumes for simplicity that the smaller of the proposed Alliance members exits the route, leaving it to be served by the cheapest (highest margin) partner. This remaining partner responds to the change in quantity according to its best response function. Any other non-Alliance firms also respond to the change. Finally, all firms remaining in the route respond to each others' changes. This entails

[138] See Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization* (2nd Ed), 1994, Appendix 7A.

some iteration until all responses and counter-responses have been played out. This process was implemented in a computer spreadsheet that is set up to accept circular references.[139]

1065. The mechanics of the procedure suggest that it might be suited to a route sharing agreement. While this does not characterise the proposed Alliance completely, the proposed Alliance does have an element of this. As a modelling technique, it meets many of the criteria expounded during the conference regarding model design principles, in particular it is tractable, transparent, simple, calibrates with available data, seems to be quite robust to different market shares, applies economic principles and captures certain of the key elements of the markets. In practice it gives moderate, nuanced results that depend on the degree of aggregation and the number of other suppliers in the market.

1066. The procedure is based on the same schedules, prices, load factors, growth rates and passenger shares as those used by NECG. There would be aggregation under the proposed Alliance in the schedules on only three of the routes in this group, these being Auckland–Nadi, Nadi–Los Angeles, and Auckland–Los Angeles. This modelling indicates that the changes in capacity, price and welfare in Year 3 of the proposed Alliance would be as summarised in Table 15.

Table 15
Additional Allocative Inefficiencies
NZ-Pacific & NZ-US Markets

Route	Capacity change	Price change	Welfare change
Auckland–Nadi	-13%	11%	-$3.2m
Nadi–Los Angeles	-14%	19%	-$11.6m
Auckland–Los Angeles	-9%	14%	-$11.1m

1067. The figures for Auckland–Los Angeles are likely to be conservative due to the base schedules having United Airlines on the route.[140] When the analysis was done without the United Airlines capacity there were larger price changes (20%) and welfare changes (-$30m) but these are likely to overstate the effects, given that the base (and counterfactual) price is that pertaining to a period when all three were supplying the market. Nonetheless, it suggests that the effects of two suppliers going to one will be significantly greater than that shown in the table. As they stand, these figures are indicative of the effect of the Alliance on that route given entry to about 30% of market share by another airline.

[139] An example of a circular reference is a cell at, say, coordinates A3 that refers to another cell that references A3.

[140] Making the change in isolation of removing United's capacity would have undermined the integrity of the model's calibration on a fact based schedule.

1068. A further refinement to this procedure was contemplated. This was to allow the load factor to increase from its base case value. This would recognise a better utilisation of capacity and reduce the welfare losses. However, on all three of the routes, load factors were at or about 80%, which is already high by aviation standards. Accordingly it is likely that opportunities for better utilisation under the proposed Alliance would be limited on these routes.

1069. There are some other routes on which there is no direct aggregation in scheduled capacity but the Commission considers that an SLC would result. These are routes to Asia and the Pacific as outlined in the Competition Analysis. These were modelled on the assumption that price rises of at least 5% are likely to result from the proposed Alliance with corresponding losses in welfare. These routes are described in the competition analysis and the estimated welfare losses are set out in the summary table at the end of the allocative efficiencies section.

1070. The four provincial routes modelled by NECG comprise only about 20% by revenue of all provincial routes. As outlined in the Competition Analysis, it is the Commission's view that there will be an SLC on all provincial routes. The Commission's modelling above calculated a range of detriments for the four main routes, those modelled also by NECG. The Commission considers that the same degree of competitive detriment will occur on all provincial routes and so has, on a *pro rata* basis, determined a range of likely detriments for the routes not modelled based on their respective revenues. These are set out in the summary table at the end of this section.

Professor Zhang's Comparison of the Commission and NECG models

1071. The Commission asked Professor Zhang to compare the modelling done on its behalf by Professor Gillen with that of NECG.

1072. NECG had submitted[141] that the relationship between factual capacity and welfare demonstrated in Professor Zhang's review of its model was also evident in the Commission's modelling. Professor Zhang tested this claim and found that this was not the case. Rather he found that "there is a positive relationship between factual output and welfare, which is normally expected".

1073. Notwithstanding his comments in reviewing the models individually as outlined above, Zhang noted that there were two main factors that would explain the differences in the respective models' outputs. The first is the degree of firms' rivalry introduced through the CV parameter. NECG assumed that this was identical in both factual and counterfactual scenarios, whereas the Commission modelled a higher degree of competition in the counterfactual. The second main point of difference was the extent of assumed LCC entry in the models, in particular in the factual. NECG

[141] The Applicants, *Economists' Response* , 25 August 2003

assumed that the existence of the proposed Alliance would induce significantly more entry than would occur under the counterfactual whereas the Commission's original model had no entry under the factual due to the presence of strategic entry barriers.

1074. In his evaluation of the models, Professor Zhang noted that given Virgin Blue's recent announcements regarding its entry into some of the markets, it would be appropriate to update the factual and counterfactual to reflect this. In its revised modelling the Commission took the view that there would be entry under the factual, although to a lesser degree than under the counterfactual.

1075. Using the Commission's model, Zhang computed welfare changes in the Tasman market using entry and intensity of competition parameters that more closely reflected the assumptions in NECG's model. His conclusion was that the Commission's model generated welfare reductions that were robust, although price increases and consumer welfare reductions were both less under NECG's assumptions.

Conclusion on Allocative Detriments

1076. The Commission has reviewed the models that have been used in this case. NECG's work has been examined by Professor Zhang and the Commission to determine its fitness in informing the decision. The model has been shown to have a number of problems which undermine the Commission's confidence in the results. The main problems are:

- a disconnect in the model between price and capacity;
- a perverse relationship between factual capacity and welfare in the results;
- the assumption of Cournot pricing in all periods;
- the specification of incumbent and entrant capacity;
- no product differentiation being incorporated; and
- the treatment of marginal costs.

1077. Professor Hazledine's work also had its criticisms although in the Commission's view the shortcomings were less serious than those observed in the NECG model. Professor Hazledine's approach has the advantage of being based on recently published research on some of the markets in question. He has been, for the most part, effective in defending his work against criticism, and his model gives the results expected from different scenario inputs. His results consistently indicated that the proposed Alliance would cause substantial welfare detriment to the New Zealand public.

1078. The Commission's own modelling implemented by Professor Gillen drew on the work of Professor Hazledine. The Commission's latest version addresses the major criticisms of the earlier version by the Applicants, and also the issues raised by the review done by Professor Zhang. When the model is configured according to the Commission's view of the most likely factual and counterfactual scenarios, it indicates that the proposed Alliance would cause significant allocative detriment to New Zealand.

1079. Table 16 summarises the allocative efficiency and transfer detriments that the Commission considers on the balance of probabilities are likely to result from the proposed Alliance. The range of estimated losses due to the proposed Alliance is $83 million - $110 million. The Commission is cognisant that international macroeconomic conditions and demand shocks can play a significant role in the performance of airlines which in turn has an influence on their competitive conduct. Airlines tend to behave less aggressively in favourable market conditions, because their strategic goals can be met without the need to aggressively compete. It is the view of the Commission that the outlook of the industry worldwide is beginning to benefit from an improvement in the global economy, and from the elapse of time since the adverse demand shocks of recent years. Anticipated growth in markets has assuaged the Commission's concerns to a degree, and accordingly it considers on the balance of probabilities that the likely allocative loss will be in the lower half of the range.

Table 16
Allocative Welfare Losses and Price Rises (Year 3)

Market	Market revenue $m	Calculation method	Price rise	Welfare loss $m
Tasman	[ ]	Commission model	16%	25.2 – 41.9
Domestic trunk	[ ]	Commission model	17%	16.5 – 20.1
Domestic provincial main routes	[ ]	Commission model	16%	0.22 – 1.56
Other routes	[ ]	*pro rata*	16%	0.98 – 6.96
Auckland - LA	[ ]	Simple Cournot	14%	11.1
Auckland - Nadi	[ ]	Simple Cournot	11%	3.2
Nadi - LA	[ ]	Simple Cournot	19%	11.6
Auckland - Asia	[ ]	SLC => 5% price inc	5%+	12.3+
Other Pacific	[ ]	SLC => 5% price inc	5%+	1.9+
Total	**[ ]**			**83-110**

PRODUCTIVE EFFICIENCY

Introduction

1080. The second commonly recognised dimension of economic efficiency is productive efficiency. Like the first component discussed above, this element is static in nature. It is concerned with the efficiency with which any given output is produced at a particular point in time, or with the avoidance of waste. Resources used unproductively involve a social loss, in terms of the outputs foregone that they could have produced.

Issues

1081. Experience from overseas, and with deregulation in New Zealand, across many industries suggests that dominant firms and monopolists are typically not as efficient as they could be if they were to face competition. A firm with a substantial degree of market power is under less pressure to minimise costs and to avoid waste than its counterparts in a competitive market. "Slackness" or "x-inefficiency" creeps into its operations.[142] In contrast, efficiency is likely to be a survival condition in competitive markets, where buyers are able to purchase elsewhere should a more efficient firm offer a lower price. Moreover, the presence of more than one substantial company in the market helps to facilitate benchmarking comparisons of production costs and efficiency, and provides management with a tool to lever cost savings within the organisation.[143]

1082. In addition, the higher profits generated by market power may encourage rent-seeking behaviour. The supra-normal profits of a firm with market power are eroded by the rent-seeking behaviour of its labour force and other input suppliers, which may be able to capture some of the profit in the form of higher remuneration or reduced effort ("shirking"). This waste is measured by the value of the resources devoted both by groups in rent-seeking activities, and by the company in attempting to combat such activities.[144]

1083. At the same time, there may be mitigating factors present that help to offset the adverse impact of reduced product market competition on productive efficiency:

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[142] The Nobel Laureate Sir John Hicks, in an oft-quoted remark, said that "the best of all monopoly profits is a quiet life." The idea is not a recent one. Adam Smith wrote that "monopoly . . . is a great enemy to good management."
[143] Roger S Franz, *X-efficiency: Theory, Evidence and Applications* (2nd edition), Dordrecht: Kluwer; John J Siegfried and Edwin H Wheeler, "Cost Efficiency and Monopoly Power: A Survey", *Quarterly Journal of Economics and Business*, vol. 21, spring 1981, pp. 25-46.
[144] Richard A Posner, "The Social Costs of Monopoly and Regulation", *Journal of Political Economy*, vol. 83, August 1975, pp. 807-27.

- a managerial concern that career prospects and reputation could be sullied by association with a poorly managed company;

- the operation of the market for corporate control; and

- the risk of the company ultimately being driven to bankruptcy.

1084. The welfare loss caused by productive inefficiency, when present, is measured by the extent to which costs are above the minimum necessary to produce a given output, whether because of x-inefficiency or rent-seeking (together, productive inefficiency).[145] This loss is real in the sense that the wasted inputs could be diverted to productive use elsewhere in the economy, where they could be used to produce valued outputs that are foregone because of their unproductive use by the inefficient firm.

1085. With respect to the aviation industry, there is strong evidence from deregulation in a number of different markets that productive efficiency improved significantly when firms were exposed to competitive pressures. In Canada, for example, productive efficiency improved by 12-15%, and in the United States it improved by in excess of 25% for some carriers. In the *Bodas* decision Dr Tretheway, then acting for Qantas which opposed the proposed merger of Air NZ and Ansett, is quoted as having said:[146]

> Dr Tretheway submitted that the evidence from the transport economics literature, and statements of key figures in the move toward deregulation in the US, such as Dr Alfred Kahn, suggest that the threat of entry is a much less powerful constraint on incumbent airlines than was hoped 15-20 years ago. Studies of Canadian airline markets found inefficiencies in the range of 7-17% of the total costs of individual carriers. Dr Tretheway considered that such inefficiencies appear to be a genuine phenomenon in markets where there is an absence of full competitive pressures.

Dr Tretheway's views were influential in the Commission determining to use a 1-10% range for its estimates of productive inefficiency in that case.

1086. It was also accepted by both Air NZ and Qantas at the conference that they suffered from "legacy costs" because of the complexity of their operations, and the fact that they had been in the market over many years. For example, Mr Norris stated:[147]

> . . . one of the issues that you get with a full service airline is that it carries a lot of legacy cost because of the fact that it is what it is, and it's become that over time where a lot of complexity has been built into the business.

1087. Likewise, Mr Miller said:[148]

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[145] A summary and further supporting references are given in: Jeffrey Church and Roger Ware, *Industrial Organization: A Strategic Approach*, Boston: McGraw-Hill, 2000, pp. 145-48. "Empirical studies have generally confirmed that the introduction of competition results in significant decreases in costs." (p. 146).
[146] *Bodas*, p. 99, para. 467.
[147] Conference transcript, p. 43.
[148] Conference transcript, p. 232.

> And, no matter what Air New Zealand and Qantas can do, because of the different operating models and in some cases some of the legacy overhead costs that both FSAs have, they'll never be able to achieve the lower operating cost of Virgin Blue.

1088. Mr Dixon also mentioned the "... legacy cost of Qantas and Air New Zealand ..."[149] Qantas recently announced that over the next two years it intended to reduce its costs by A$1 billion, which would amount to about 10% of its total costs – a considerable proportion for an industry that the Applicants claim to be highly competitive. Immediately prior to the issuing of this decision, Air NZ announced its intention to reduce its staff numbers by 15% over four years. These moves suggest prior inefficiency, but also an intention by the two companies to address the issue.

1089. The impact of legacy costs for incumbent airlines internationally was discussed in a paper by J P Morgan, which analysed the advantages of "low-fare carriers" compared to "established airlines".[150] The paper argued that: "Labour is the area where low-fare carriers can make the difference. Two issues are key: lower pay rates and higher productivity than the majors." It then goes on to make the following points:

- Labour was the greatest cost of the majors at 32%, compared to 22% for low-fare carriers (although both were calculated using small samples of each carrier type).
- Established airlines had their roots in a regulated era where they were often State-owned and highly unionised. These businesses with many employees at the grade level had trouble with payment by individual results. This encouraged tough bargaining at the next contract renewal to get the rate for the grade increased.
- This unionised environment led to heavily regulated work rules, many small distinctions between jobs, and a complete loss of spontaneity and entrepreneurship. The longer a carrier existed, the more stifling and complex its labour contracts became. Wage drift was endemic in the industry, made worse in the US by leap-frogging of one airline deal over the last one.
- The "emotional baggage" accumulated over the years of past management actions and mistakes, and past grievances, led to inflexibility and to the hindering of attempts to improve performance.
- In contrast, new small carriers tended to have a strong team spirit, with people willing to forsake traditional demarcation lines for the good of the business; pay rates tend to be lower; and employees tend to be there because they wanted to be, not because they were stuck there.

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[149] Conference transcript, p. 83.

[150] "Low-Fare Airline Industry: The Fastest Growth Segment in the Airline Industry", 6 March 2001, London: J. P. Morgan.

1090. An illustration of the inflexibility of established airlines is provided by the following example. Air NZ argued that it knew of no case where an FSA had converted to become an LCC, despite the competitive threat it felt LCCs posed to established carriers. At the conference it disclosed that for its part, the reason for this was the [ ]

1091. The features of the international aviation industry described by J P Morgan are reflected in a speech made by Bob Crandall, former chairman of American Airlines, in 2002:[151]

> But revenue is just half the battle, and the cost picture remains inordinately difficult. Through the profitable mid-to-late 1990s, and into the early parts of this decade, airline costs – and labour costs in particular – have steadily risen.
>
> . . . conflict . . . has characterized airline labour relations during the last three decades.
>
> The fact of the matter is that the industry – at least the major carrier segment of the industry – cannot afford to pay its people as much per unit of output as today. While the billions of dollars the majors have spent in recent years on new aircraft have generated substantial productivity improvements, the benefits of those investments have gone entirely to passengers – in the form of lower fares – and to employees – in the form of increased wages.

1092. Although the factors evident in the industry internationally may not apply with the same force in Australasia, and although such factors may have diminished as the aviation industry has moved from regulation to competition, the frequency with which the terms "legacy carrier" and "legacy costs" are used—even by the carriers themselves—suggest that they do apply to some extent.

Approach in the Draft Determination

1093. The Commission considered that the proposed Alliance would give rise to productive inefficiency in all markets in which a substantial lessening of competition was expected, and that the operations of both Applicants would be equally exposed, but that given the New Zealand focus of the Act with respect to public benefit assessment, the productive inefficiency expected to arise in respect of Qantas's operations in these markets would only be relevant to the extent that the resources it uses were New Zealand-owned.

1094. The Commission produced preliminary estimates of productive inefficiency for the Tasman and domestic main trunk New Zealand markets by assuming that variable costs derived from the Commission's model of allocative efficiency would be inflated by between one and ten percent, which was the range used in the *Bodas* Determination. The resulting range was adjusted to arrive at a final prediction by reference to a number of other qualitative factors.

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[151] Speech to Wings Club, New York, 20 March 2002.

The Applicants' View

1095. In response to the Draft Determination, NECG on behalf of the Applicants compiled a number of arguments to support its view that the Commission was wrong to expect productive inefficiencies to arise under the proposed Alliance.

1096. One of NECG's approaches was to attempt to narrow the scope of the issue by concentrating on the notion of x-efficiency, and to argue that the Commission's concern that the proposed Alliance would lead to greater x-inefficiency was misplaced, on the following grounds:

- X-inefficiency involves transfers of income that are not net losses of income to the economy as a whole.
- It is reasonable to conclude that there would be greater incentives and pressures to improve performance under the proposed Alliance, given the nature of the Alliance arrangements, competitive pressures in the global aviation market and new econometric research on airline efficiency.
- That rents are associated with the process of seeking monopoly, not when the monopoly is attained.
- It disagreed with the view that slackness in the markets affected by the proposed Alliance would impact upon their wider networks. This would imply irrationality on the part of Qantas in compromising the efficiency of its network for a modest increase in profits in areas covered by Alliance.

1097. NECG put forward the view that competitive discipline would be imposed on the Alliance partners by a number of mechanisms, as follows:

- The international aviation industry was evolving rapidly in ways that were increasing competition, through liberalisation, airline privatisation, LCC entry and growth, and the presence of excess capacity. Of Qantas's operations, 85% would be outside the JAO, and significant portions of Air NZ's operations would be subject to third party competition. NECG considered that it was not credible to suggest that the JAO would be unaffected by these competitive pressures.
- Any links found to exist between product market competition and productivity operate through factors that would not be adversely affected by the proposed Alliance. The economics literature focuses on the availability of 'benchmarks' that the owners of the firm can use to assess the performance of their managers. Such benchmarks, in the form of other carriers, exist in abundance, and these firms are already used for this purpose by the Applicants. The proposed Alliance, as with the JSA, would provide various means by which the Applicants could improve benchmarking through the sharing of information on each other's costs,

and could develop programmes for organisational and operational changes yielding productivity improvements.

- The market for corporate control imposes a competitive discipline on managers, in that a firm that fails to perform satisfactorily is likely to experience a falling share price, and through this an increased likelihood of takeover and the risk of managerial job loss. Hence, managers are encouraged to promote efficiency even in firms that have market power for job security reasons.

- It was also argued that to the extent that managers can be identified as contributing to the poor performance of a company, their reputations and future career prospects would be damaged.

- NECG argued that the proposed Alliance would continue to face pressures to be efficient from competition in the aviation markets in which it would operate. The proposed Alliance would continue to face strong competition on most routes directly affected by the proposed Alliance; the conditions of supply of capacity would generally not be changed by the proposed Alliance; and highly integrated firms cannot readily operate with different degrees of managerial slack in different parts of their operations, so that strong competition in some areas will enforce efficiency across their entire operations.

- Further, NECG argued that there would be competitive pressures from the threat of LCC entry. Virgin Blue entered major city-pair markets in Australia from the outset, and now has a prominent presence there. It had publicly stated its wish to target business travellers, and had caused Qantas's overall yields to fall on common routes. Given that LCC costs are below those of FSAs, and the substantial scope to attract consumers preferring LCC-type service on the Tasman, it seemed implausible to suggest for the counterfactual that entry would be precluded, or not have any constraining influence. LCCs are likely to be a permanent feature of international aviation markets. Regardless, NECG considered that LCC entry was not necessary to ensure productive efficiency, as the other competition factors would suffice.

- Finally, NECG criticised the Commission's estimate of productive inefficiency given in the Draft Determination because it exceeded NECG's Year 3 estimate of the total producer surplus accruing to domestic shareholders associated with the proposed Alliance, which implied that all of the prospective benefits of the proposed Alliance would be lost, and that the Applicants were irrational in seeking an Alliance. However, it should be noted that the Commission's own modelling suggested that the incumbents' additional profits would greatly exceed the additional costs.

1098. NECG also criticised the Commission for relying on two studies that did not support the Commission's conclusions, and for ignoring other studies that strongly support the efficiency-enhancing impacts of airline alliances through increased information

sharing, and through securing economies of scope, density and scale. NECG criticised the two studies cited by the Commission in support of airline efficiency declining with increased market concentration as follows:

- Oum and Yu's study did not include explicit measures of competition or liberalisation, but merely drew inferences about the impact of deregulation by comparing growth differences between regions with different liberalisation approaches.

- NECG admitted that the OECD study found a positive and significant statistical effect on efficiency of a less concentrated market structure and more liberal regulatory arrangements. NECG obtained the data and re-ran the results, made adjustments, and came up with less clear-cut results.

1099. NECG reviewed a number of published studies on airline costs:

- It cited two airline studies in the US that showed that economies of traffic density were important in determining airline cost efficiency. That is, unit costs fall as an airline experiences increasing traffic on a route. This was claimed to be important for claimed cost saving benefits.

- NECG reviewed four international studies of airline costs that included the impact of market structure. It concluded that the studies highlighted the importance of economies of density relative to measures of competition in improving productive efficiency, and the adverse impact of government ownership.

- NECG reviewed five international studies of airline alliances that suggested that the effects depend significantly upon whether the alliance is a "parallel" one (the airlines compete on the same routes) or "complementary" one (the airlines link non-overlapping networks). It concluded that the former tend to result in reduced total traffic and sometimes in increased scheduled delay time, but overall emphasised that major alliances (those that involve substantial cooperation) will serve to lower costs from route rationalisation, economies of traffic density, and input sharing. Some alliances showed evidence of lower prices.

1100. NECG argued that the proposed Alliance would lead to improved productive efficiency for the following reasons:

- From the full integration of the Air NZ and Qantas networks within the JAO, with joint profit maximisation being pursued by following a formula comparing the net positions of each party, and extensive benchmarking activities planned.

- Agreement that the party with the highest margin should supply the operating capacity, with a subsidy being required if the other does so.

- JAO performance to be monitored by the SAAG. If Qantas were to innovate more because of its greater exposure to non-JAO markets, Air NZ would be pressured to innovate as well as it would be entitled to recover only the costs that Qantas would recover within the Alliance. This factor, NECG said, would override any pre-commitment to prior market shares.

1101. NECG argued that the comparative costings of the two airlines would be precise, and not incorporate 'tolerances' as the Commission had suggested. NECG also said that the literature reviews quoted above showed that government ownership had a much bigger negative impact on productive efficiency than did reduced competition. The proposed Alliance would serve to reduce the adverse impact of government ownership on efficiency levels in respect of Air NZ.

1102. Finally, a study of Qantas's total factor productivity (discussed further below) and an analysis of its evolution over time found no evidence that it had dissipated productivity gains through slack; its performance had been exceptionally strong, and improved further when its market share increased following the Ansett collapse; and the JSA had also brought productivity gains. In addition, the Applicants had recently announced plans to cut costs, reflecting a cost consciousness.

Views of Other Parties

1103. Infratil et al considered that on productive efficiency, NECG rested its argument on two propositions, which Infratil et aldisputed. The first was that the Applicants would continue to face strong competition on most routes directly affected by the Alliance, including from an LCC entrant. Infratil et al noted that the Commission in its Draft Determination had dismissed the argument that competitive pressures would not be reduced in the New Zealand domestic and Tasman markets.

1104. Secondly, the argument put forward by NECG that firms cannot operate with different degrees of managerial slack, and that competitive pressures on some routes would ensure efficiency was maintained on all, was contested by Infratil et al on the following grounds:

- the companies in question do operate with different degrees of managerial slack – for example, terms and conditions for Qantas's Australian staff were significantly more generous than for JetConnect and Qantas Thai crew, perhaps in excess of 50% better;

- the NECG argument applied less clearly to Air NZ, given the fact that all of its operations would fall within the Alliance; and

- the picture of firm competitiveness is far more complex than the picture painted by the Applicants, and is far more accidental than cited in the submissions (quoting from Dosi, Nelson and Winter, 2000).

1105. Infratil et al also put forward counter-arguments to a number of other points argued by NECG:

- They considered that the Applicants were unconvincing in arguing that the higher degree of shelter from competition stemming from the Alliance could be compensated for by managerial second bests, namely internal management arrangements intended to ensure that productive efficiency would be maintained.

- The NECG argument that the proposed Alliance would facilitate reduced government ownership, and hence mitigate the adverse efficiency impact of government ownership could —if accepted—have the reverse impact to that argued. That is, the identified adverse impact of government ownership could be extended throughout the JAO network, given the close coordination between the two airlines.

- They argued further that the nature of the political connection of the two carriers would be that much stronger with their combination in the Alliance. They would have enhanced power to put pressure on governments on both sides of the Tasman, especially as large corporations in Australia have typically been more influential than those in New Zealand in getting governments to protect and advance their interests.

1106. Infratil et al considered that the Commission's approach was consistent with the approach of major regulatory agencies around the world. Competition authorities had been prepared to recognise the benefits of those mergers and alliances that would bring cost efficiencies and service improvements, but had been very wary of those between airlines operating on the same routes, or where it might allow entry barriers to be raised. In the US the Department of Justice had generally opposed mergers that involved airlines with network overlaps, but it had been urged not necessarily to oppose those with complementary routes. The European Commission had also shown similar concerns. Infratil noted that the alliance literature cited by NECG tended to involve markets where there was a great deal more potential competition than in the New Zealand domestic market. Accordingly, they believed that the Commerce Commission was correct in attributing productive and dynamic efficiency losses to the proposed Alliance.

1107. Professor Hausman also pointed out the rent-seeking concerns in aviation markets. He said that internationally, airlines had come out of a regulated environment in which they had very strong unions that were very good at rent capture. He cited a previous president of American Airlines—Mr Cardy—who once said that if the unions were to put them on the ground for two or three weeks, they would be in Chapter 11.[152] He implied that faced with this threat, airlines would tend to accede to union demands.

[152] Conference transcript, p. 901. Chapter 11 protection in the US provides a statutory framework within which a corporation can obtain protection from its creditors during a period of continued trading. It must formulate an approved plan to reorganise its business and restore profitability.

1108. Mr Geary pointed out that Qantas's labour costs as a percentage of revenues were substantially higher than Air NZ's (about 26%, compared with about 20% in recent years), and that Qantas had experienced more industrial relations difficulties than had Air NZ. He foresaw the potential (which he thought should not be underrated) for Qantas and Air NZ union staff in concert to pressure the jointly managed airline.

1109. In its submission on the Draft Determination, Gullivers Pacific considered that the Commission had used a balanced and objective approach towards the evaluation of productive efficiency. It stated that a more detailed comparison of the cost structures of Air NZ and Freedom Air would likely show how the former's cost structure had become inflated over time as a result of its market power. In contrast, unlike in Air NZ, the whole management and staff at Virgin Blue were involved in reducing costs: for example, Virgin Blue employed no cleaners (cabin staff did cleaning between flights), had no company cars nor car parks, no pension fund, and no executive dining rooms, and check-in staff helped load the aircraft and worked in call centres.

1110. Gullivers Pacific noted Air NZ currently employed about 800 staff processing about $500 million of travel, indicating a much lower productivity than the average leisure or corporate travel agency.

1111. Gullivers Pacific also suggested that the proposed Alliance could lower operating efficiency because of Qantas having control despite holding a minority stake of 22.5%. Since Qantas would keep 100% of every dollar saved in its own operations, but would only gain $0.23 per dollar of any savings in Air NZ, it would have an incentive to use its effective control to shift costs on to Air NZ. Similarly, as Qantas would have the right to approve any changes in Air NZ's international services, it would have an incentive to induce Air NZ to cut services as long as Qantas was able to earn at least $0.23 for every dollar of net revenue lost by Air NZ.

1112. Overall, Gullivers Pacific agreed that with the market power stemming from the Alliance, there would higher prices and reduced incentives to keep costs down.

Commission's Assessment

1113. NECG considered that the productive inefficiencies resulting from the proposed Alliance would not be material. Although it recognised that there would be one-off integration costs (costs which it had not attempted to quantify), NECG viewed these as being small, partly because they were one-off. However, this is questionable: integration is likely to occur progressively over a significant period of time (for example, code-sharing could not begin for two years because of global alliance ramifications), and so transactions costs associated with the proposed Alliance would seem likely to be ongoing.

1114. In addition, former directors spoke of the legacy of ill-feeling amongst management staff towards Qantas that arose during the mid-1990s when Qantas had previously

held a minority shareholding in Air NZ, which had resulted in a situation where management were said to have withheld sensitive information from the Qantas directors. For example, [

]^{153} The current proposal is, of course, different as it involves an alliance rather than merely a shareholding, but there is a reasonable prospect that the same issues could arise again. These are essentially the same competitive organizations, they will keep their independence, and Air NZ is supposed to remain able to unpick the arrangements under the terms of the Cullen letter.

1115. On the issue of rent-seeking, which NECG seemed to prefer to refer to as x-inefficiency, NECG argued that much of this behaviour simply involves transfers that do not result in economic waste. In other words, where the supra-normal profits of a firm with market power are eroded by the rent-seeking behaviour of its labour force and other input suppliers, which are able to capture some of the profit in the form of higher remuneration, this merely results in a transfer of income from the firm to its input suppliers with no overall loss of welfare.[154] However, this is clearly not correct, as the rent-seeking literature makes clear. There are at least two relevant costs:

- the costs incurred by the rent-seekers in pursuing rents, and the monitoring costs of the organisation in monitoring and protecting the rents; and

- the changes in the relative prices of inputs causing a distortion to efficient resource allocation through firms choosing different production technologies.[155]

1116. With respect to the first point, NECG argued that it would be rational for the Alliance parties to conduct monitoring activity up to the point where the marginal increase in efficiency from reduced rent-seeking equals the marginal cost of the extra monitoring effort. Hence, the end result would be that monitoring and agency costs would rationally be incurred, and that there would be a residual amount of shirking, but not an amount that would be economic to remove. However, the point is that rent-seeking behaviour and monitoring efforts would not occur (or not occur to the same extent) absent the Alliance, and hence these costs (or incrementally higher costs) would be attributable to the Alliance.

1117. NECG also argued that rent-seeking costs are incurred only in achieving a monopoly position, and cease once that position has been achieved. The costs that Air NZ has incurred in seeking authorisation for the proposed Alliance—reputedly of $11

[153] Commission file note of meeting.
[154] If accepted, this would influence the calculation of the welfare impact of transfers in the section on allocative efficiency above.
[155] An example is provided by the use of smaller aircraft at highly congested airports, when an airline could and should shift to larger aircraft and consolidate flights. It may not shift because its costs would rise due to higher pilot salaries with larger aircraft. The empirical example of this problem is United Airlines at Los Angeles airport.

million—might be considered to be in that category. However, as just indicated, the relevant costs here also include the ongoing behaviour of input suppliers.

1118. Although NECG in the end recognised that rent-seeking may introduce costs that do constitute an economic waste, it disputed that the proposed Alliance would result in greater rent-seeking than under the counterfactual. This seems questionable, given that the extra profits expected to be generated from the exercise of greater market power through the proposed Alliance would provide both the incentive and opportunity to engage in rent-seeking activities. Moreover, the rent-seeking literature leaves open the possibility that the rents potentially available could be absorbed completely by the resources devoted to obtaining them. Thus, all of the rent could become a cost and thus an economic waste. One study of a particular market estimated that just over half the rents were dissipated in costs. As noted above, Crandall considered that in the US, airline productivity improvements had gone to passengers in lower fares, and to employees in higher remuneration.

1119. A countervailing factor is that the proposed Alliance would result in a virtually monopsony (single) purchaser of aviation labour and other inputs. This might mean that although the power of the unions would be expected to be greater if they were to join forces post-Alliance, they might face a more entrenched employer (to the extent that each airline's employees might otherwise view the other airline as a potential source of employment). In addition, it has recently become clear that the two airlines are becoming more cost-conscious and are taking steps to reduce costs.

1120. Turning to the x-efficiency component of productive efficiency, NECG approached the productive efficiency argument by taking issue with a view ascribed to the ACCC that gains in efficiency from a proposed Alliance of the kind considered here, if not passed on to consumers, would be susceptible to erosion because of reduced competitive discipline. NECG considered that even if such inefficiency were likely, it would be a very small proportion (0.5%) of a relatively small amount. However, this is to miss the key point that the whole of the cost base of the entity concerned, not just the efficiency gains that may flow from the proposed Alliance, would be susceptible to rising costs as competition diminishes.

1121. Any inefficiency resulting from the proposed Alliance would be likely to be small, in NECG's view, for a number of reasons. First, inefficiencies would be contrary to profit-maximisation, and would not be in the interests of shareholders. To accept inefficiencies as likely would be to imply either an unwillingness or inability of the firm to maximise profits, whereas the purpose of the proposed Alliance is to improve profitability. NECG argued that there is no reason to expect that the proposed Alliance would face fewer incentives to reduce costs than the firms acting independently in the counterfactual. However, the Commission anticipates that competition would be weaker in the factual compared to the counterfactual, and so the scope for x-inefficiencies to emerge would be greater. A number of instances can be cited where competition between the two incumbents has spurred efforts to reduce costs, especially where actual entry has been a threat. The recent announcement by

Qantas to reduce its costs by A$1 billion—equivalent to about 10% of costs—over two years is such a case.

1122. Also, the term "legacy carrier" is often used of FSAs, as noted earlier, the implication being that they carry a lot of legacy costs that they find difficult to shed, even in the face of competition from the new low cost carriers. The Australian Ansett operation provides a particularly good example. As Mr Norris said at the conference:[156]

> While it is clear that a high cost base, prior management decisions and the state of Ansett Australia's aircraft contributed to its failure, there can be little doubt that the arrival of Virgin Blue ensured that Ansett Australia was never to have the opportunity to correct its problems.

1123. Secondly, NECG pointed out that the proposed Alliance agreement contains provisions designed to check any incipient tendency to x-inefficiency, suggesting both that x-inefficiency would potentially be a problem, and that the Alliance partners are aware of the need to tackle the issue. One such mechanism is the monitoring of performance that would be provided by the SAAG. A second is the provision for a subsidy margin to be paid by either airline if it were to insist on operating a flight that did not produce the highest margin available. This mechanism could also result in a situation where, if one airline were to become more efficient than the other, pressure would be put on the second to improve its performance.

1124. However, this approach to help enforce efficiency incentives may not be very effective for a number of reasons:

- as Infratil et al noted, it arguably represents a managerial second-best approach that almost by definition would be inferior to the pressures of competition;
- even if rigorously enforced, it would apply only to new flights, not existing ones (a point that is elaborated on in the discussion below on cost saving benefits);
- the allocation mechanism referred to would allocate additional flights to the carrier with the largest margin, not the lowest costs, so it would not be likely uniformly to promote productive efficiency; and
- it seems doubtful that this provision would be rigorously applied, given tolerances attached to the calculation of margins between airlines (with question marks over both costs and revenues), especially when it appears that the contentious matter of beyond benefits are to be included.[157]

1125. In respect of the last point, NECG responded by stating that the internal calculations of the respective costs of Air NZ and Qantas would be "rule based and precise", and "provide little scope for the 'tolerances' claimed" by the Commission. However, this

[156] Conference transcript, p. 14. It is worth noting that Air NZ's proposed acquisition of Ansett Australia was the subject of an authorisation application by the company to the Commission.
[157] This issue was discussed in relation to the counterfactual.

statement can be compared with an earlier one by NECG in which in a different context it spoke of the arbitrariness of cost allocations:[158]

> The average variable costs used in the table above were derived from a cost allocation model used by Qantas. If anything, this cost allocation model is likely to overstate the per passenger variability of costs. All of the direct per passenger activity costs would be captured in the model. However it is common in activity-based cost models to make somewhat arbitrary assignments to one of the chosen cost drivers of costs which may be fundamentally fixed. Thus if this method of estimating average variable costs is biased, that bias is likely to be towards overestimation, leading to an underestimate of the contribution margin.

1126. Overall, the Commission has much greater confidence in the competitive market mechanism promoting efficiency than managerial mechanisms within the firm.

1127. Thirdly, NECG argued that the organisation and its management would be under pressure from capital market disciplines through the threat of takeover. If performance were to slip, a company would expose itself to the risk of takeover, with existing management being replaced. However, there is a body of research that suggests that large firms are less constrained than small by the takeover threat, and history is replete with firms that failed (including airlines) without invoking capital market disciplines. In the present case, Air NZ was within two hours of receivership before the government stepped in with a rescue package, with apparently no corporate takeover in sight.[159] Moreover, the company could not be taken over during the future period in which the government retains majority ownership. In addition, the perception of an implicit 'government guarantee', given the fact that the government bailed out the company that would otherwise have failed, might erode incentives to preserve efficiency. Further, the "knocking it into shape" scenario posed by NECG,[160] which involved an acquirer splitting up and selling parts of the company, seems inconsistent with its views about the importance of network economies in the case of airlines, and with Air NZ's "Kiwi Share" obligations.

1128. Fourthly, NECG pointed out that the proposed Alliance would continue to face competition on many routes, so that the entity would be informed about best practice from those routes. It stated that 85% of Qantas's network would fall outside the JAO. There would be plenty of benchmarking opportunities. Although the Commission is prepared to attach some weight to this view, there are a number of arguments that can be raised against it:

- unlike Qantas, all of Air NZ's network would be inside the JAO;
- although there might be some scope for benchmarking against competitors, some of them may not be fully comparable with the proposed Alliance partners. For example, on the Auckland-Brisbane route cited, an alternative supplier is Freedom

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[158] NECG, *Report on the Competitive Effects and Public Benefits Arising from the Proposed Alliance between Qantas and Air New Zealand*, 8 December 2002, p. 196.
[159] Conference transcript, pp. 1217-18.
[160] NECG, 8 December 2002, *op cit*, footnote 156, p. 129.

Air (albeit that it is an Air NZ subsidiary), and competition could emerge from Virgin Blue, but these are both low cost LCC operators. The other current operators are fifth freedom ones—Thai Airlines and Malaysia Airlines —which only do so as an adjunct of their flights from Australia to home hub, use different aircraft, and both are significantly government-owned and one at least has received significant government subsidies. These considerations muddy the determination of their costs and competitiveness;

- the benchmarking studies supplied by each of the Applicants are relatively high level surveys of other airlines (such as Southwest and British Airways), and lack the detail that would be needed to inform their own operations; and

- productivity studies have shown that the efficiency of international airlines can vary widely, suggesting that while benchmarking could offer benefits, such benefits have not been easily realised in practice.[161]

1129. It would be as easy to argue that 'slackness' that might emerge on those routes could undermine the efficiency across the wider operation, as to argue that competition on some routes would preserve efficiency on those threatened by slackness.

1130. Fifthly, NECG argued that the general uniformity of markets would make it difficult for differing work practices to emerge in competitive and less competitive markets, and in any case, allowing system-wide inefficiencies would be financially disastrous. This is an extension of the previous point. However, it is apparent that system-wide differences exist now, as Infratil et al pointed out (see also Freedom Air). It was accepted by the Applicants that the labour unions tend to be stronger in Australia than in New Zealand, from which it could be inferred that labour costs are likely to be higher (or at least to be more resistant to being reduced) for Qantas than for Air NZ. Indeed, Qantas set up JetConnect as a New Zealand operation in order to take advantage of lower labour costs in this country. It is conceivable that higher labour costs might be transferred to Air NZ through participation in the proposed Alliance, through a desire by Air NZ employees to achieve closer parity with their Australian colleagues.

1131. Sixthly, NECG claimed that various empirical studies of aviation markets overseas suggested that density economies were important in promoting efficiency, and that airline alliances tend to foster efficiency. However, these results tend to be based on a limited number of cases in relatively large overseas markets, usually in the United States, where the scope for competition is usually greater than in Australasia.[162] The

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[161] T H Oum and C Yu, "A Productivity Comparison of the World's Major Airlines", *Journal of Air Transport Management*, vol. 2, no. 3/4, 1995, pp. 181-95.

[162] A recent OECD study supports the argument that there is a negative link between airline productive efficiency and market concentration (a proxy measure of market power), although this finding was disputed by NECG. See: R. Gonenc and G. Nicoletti, *Regulation, Market Structure and Performance in Air Passenger Transportation*, Economics Department Working Papers No. 254, Paris: OECD, 2000. See also: Tae Oum and Chunyan Yu, *Winning Airlines: Productivity and Cost Competitiveness of the World's Major Airlines*, Dordrecht: Kluwer, 1998.

type of alliance also appears to be significant, with alliances between airlines operating on the same routes being more likely to pose a threat to competition than those whose networks do not overlap. NECG also quoted studies that suggested that government ownership was a much bigger negative factor than lack of competition. However, the proposed Alliance would still leave the government as majority shareholder, and in fact the political influence of the two airlines could be greater when joined through the Alliance.

1132. Seventhly, NECG argued that the factor productivity study of Qantas reviewed below showed consistently strong productivity growth over a lengthy period, suggesting that such growth had not faltered during times when the airline's market share had increased. However, apart from limitations with the study's methodology, the periods of increased market share were probably too fleeting to allow x-inefficiency effects to arise.

1133. Finally, NECG considered that any emerging inefficiencies would result in any cost slippage being very gradual. As the cost-reducing effect of the proposed Alliance would come sooner, and be larger, it argued that the net present value of the two combined would be heavily weighted in favour of the benefits. However, it will become apparent in the benefits section below that the achievement of any cost reducing benefits would also occur over a period of years.

1134. On the basis of this assessment, the Commission is not convinced by NECG's arguments that productive inefficiencies flowing from the proposed Alliance—both of the rent-seeking and x-inefficiency kinds—would be immaterial. On the contrary, the Commission considers that on the balance of probabilities, significant productive inefficiencies would be likely to emerge from the proposed Alliance, compared to the situation in the counterfactual. The factors that have influenced the Commission in reaching this view include the following:

- the proposed Alliance would result in Air NZ and Qantas no longer competing on a number of important routes on which they are currently and prospectively the major (and in some cases, the only) operators;

- Virgin Blue is likely to enter on some routes, and to have a limited impact in terms of offsetting the anticompetitive impact of the Alliance over the Commission's timeframe;

- aviation is a rent-seeking-prone industry, and the modelling referred to earlier indicates that profits (rents) are likely to increase significantly under the Alliance (it was common ground that prices would rise to some degree in at least some markets). The presence of such rents would be likely to provide the incentive and the opportunity for rent-seeking behaviour, which would have the effect of converting at least part of the transfers into costs, either from the resources used up by the behaviour itself, or from possible distortions in input use caused by

differentially inflated resource costs through higher factor prices for labour, contracted services or other inputs;

- Air NZ and Qantas have acknowledged that they suffer from "legacy costs", including inflexible work practices, which at least in part are likely to reflect previous rent-seeking behaviour, largely in the context of regulated markets, although recently they have started to address the issue of excessive costs;

- given lessened competition under the factual, managerial slack is likely to emerge, perhaps accentuated by the difficulties in integrating two airlines with different cultures that have traditionally regarded each other as 'the competition'; and

- both airlines receive significant support from their respective governments of varying kinds, and Air NZ was saved from receivorship, and is majority owned, by the government.

1135. On the basis of its assessment above, the Commission has reached the view on the balance of probabilities that the proposed Alliance would be expected to give rise to productive inefficiency in all markets in which there would be a substantial lessening of competition, relative to the likely outcome in the more competitive situation in the counterfactual.

Quantification

1136. Despite the difficulties of so doing, it is incumbent upon the Commission to attempt to quantify the assessed productive inefficiency. On the basis of its assessment above, the Commission considers that there would be likely to be some lessening in productive efficiency in all markets in which there would be a substantial lessening of competition, compared to what would eventuate in the counterfactual with no Alliance and greater competition. Although the operations of both Applicants within the JAO would be equally exposed, given the New Zealand focus of the Act with respect to public benefit assessment discussed above, the productive inefficiency expected to arise in respect of Qantas's operations in these markets would only be relevant to the extent that the resources it uses are New Zealand-based.

1137. As noted above, the *Bodas* decision cited studies of Canadian airline markets in which inefficiencies in the range of 7-17% of the total costs of individual carriers were observed, apparently associated with markets in which there was an absence of full competitive pressures. In retrospect, it is possible that these figures might reflect a difference between outcomes in regulated compared to competitive markets, rather than a difference between a merged and non-merged market in a generally competitive setting, which is the present focus. In that decision the Commission, while noting that no submission had attempted to quantify this detriment in respect of the domestic passenger air services markets in which dominance was expected to be

acquired, put forward the view that "possible orders of magnitude might conceivably fall in the range of 1% to 10% of current costs."

1138. In the present case the Commission received no submission (apart from NECG's) that attempted to quantify this detriment. Based on its assessment of the likely outcomes in the factual and counterfactual, the Commission has pragmatically settled on the conservative range of 1% to 5% of costs as being appropriate in this case. The Commission is of the view on the balance of probabilities that this is the range within which the outcome would be likely to occur. It then applied a number of qualitative factors to assist it in deciding where in the range it considers the most likely outcome to be.

1139. The estimates of potential productive inefficiency losses are set out in Table 17. The market-by-market approach is not intended to reflect great precision, and the Commission places no weight on the estimates for individual markets, which are simply used for computational convenience. Rather, the Commission's focus is on the aggregate result obtained.

1140. The data used, and the way the estimates were computed, was as follows:

- the sizes of each of the different groupings of markets in Table 17 were measured by revenue, and were Year 3 projections taken from the modelling results discussed above (see Table 16);

- for the Tasman and New Zealand main trunk markets, the revenues were scaled down approximately by the capacity market share expected to be gained by Virgin Blue in Year 3, so as to focus on the incumbents (FSAs) only (this calculation made no allowance for the expected lower average price of Virgin Blue);

- the marginal cost data for the incumbents (scaled as a proportion of price) for the Tasman and two New Zealand market groupings were derived from the Commission's modelling, and the Tasman figure was assumed for all of the other international routes;

- the incumbents' total variable costs for each of the route groupings was estimated as the product of their market revenue and the scaled marginal cost;

- the incumbents' total variable costs were scaled down market-by-market roughly to reflect the proportion of the resources that were New Zealand-based; and

- the productive inefficiency in Year 3 was taken to be in the range of 1-5% of this last figure.

Table 17
Estimates of Annual Loss of Productive Efficiency in Year 3
(money figures in $M)

Item	NZ main trunk	NZ provincial	Tasman
Total revenue	[ ]	[ ]	[ ]
Revenue to FSA (LCC %)	[ ] (10%)	[ ] (0%)	[ ] (15%)
Marginal cost (FSA)	0.62	0.64	0.69
Variable cost (FSA)	[ ]	[ ]	[ ]
Proportion NZ-based	1.00	1.00	0.40
Productive inefficiency (1-5% of variable costs)	[ ]	[ ]	[ ]

Continued . . .

Pacific	Asian	US	Totals
[ ]	[ ]	[ ]	[ ]
[ ] (0%)	[ ] (0%)	[ ] (0%)	[ ]
0.69	0.69	0.69	n/a
[ ]	[ ]	[ ]	[ ]
0.50	0.90	0.60	n/a
[ ]	[ ]	[ ]	18.3 – 91.4

1141. The projections point to annual productive inefficiency detriments in the range from about $18 million to about $91 million for the various market groupings combined in Year 3. However, these figures are subject to the following qualifications:

- it was assumed conservatively that productive inefficiency would impact only on variable costs, but fixed costs could be affected, too;

- the revenue market size figures for Year 3 reflect market growth between now and then, and the impact on output of market-power-induced price increases;

- in some other markets where a substantial lessening of competition was found—for example, the Tasman belly-hold freight and national travel wholesale distribution—it has not been possible to quantify the detriment for want of adequate data;

- some purchased inputs, such as aviation fuel, may be less susceptible to productive inefficiency than other components of cost, although the concern would be less with the price paid for the fuel, and more with the efficiency with which the fuel would be used;

- the airline efficiency studies quoted above (and studies of x-inefficiency in other industries) suggest that limited competition is associated with loss of productive efficiency that could easily exceed 10%; and

- the detriments from productive inefficiency would not arise to the levels projected immediately, but would be expected to mount gradually over time (although the force of this point is weakened by the fact that this also applies to the claimed benefits).

1142. On the basis of its assessment of all the of the evidence provided, the calculations it has done, and the evaluation of the various qualitative factors set out above, the Commission concludes on the balance of probabilities that the range within which the productive inefficiency flowing from the proposed Alliance would be likely to fall is between $18 million and $91 million per annum by Year 3. The Commission is confident that a material amount of detriment would arise in the factual compared to the counterfactual, and considers that the actual outcome is most likely to be in the middle of this range. The Commission notes that these figures are not large when compared to the size of the airline operations involved, and it considers them to be conservative.

DYNAMIC EFFICIENCY

Introduction

1143. The third commonly recognised component of economic efficiency is dynamic efficiency. Unlike the first two components discussed above, which are static in nature, this element introduces a time-related aspect to welfare. Essentially, it is concerned with the extent to which firms and industries introduce improved new products that buyers value more highly (‘product innovations’), or lower cost ways of producing existing products (‘process innovations’). Underlying these improvements are advances in technology, and innovative activity by firms.

Issues

1144. Monopolists in general have a reputation for being poor innovators. Although they have the resources to undertake innovative activity, and are well-placed to appropriate the gains from the introduction of a significant innovation (because of the absence of imitating rivals), the lack of any competitive spur to take risks and embrace new ideas has the opposite effect. The removal of competitive pressure lessens the incentive for companies to innovate in order to match or keep ahead of rivals. Lack of innovation may also arise from a conscious decision of the incumbent not to innovate in order to continue to reap returns on its investment in current products and processes. The recent interest on innovation market analysis in merger cases stems from the belief that innovation activity in an industry may suffer from excessive levels of concentration brought about by mergers.

1145. A reduction in innovation may cause social welfare to suffer in two ways: buyers may be deprived of the benefit of product innovations; and the public as a whole would lose the benefit from the introduction of process innovations that save on inputs, measured by the additional outputs that could be produced by the saved inputs being used in alternative employments.

1146. The advantage of having more than one player in a market is that it increases the number of centres from which innovations can spring, and raises the competitive pressure on all players to improve their performances. A number of examples can be cited from experience in Australasian aviation markets where the advent of competition had the effect of stimulating dynamic efficiency:

- the entry of Ansett NZ in 1987 into the domestic New Zealand aviation market following its deregulation had a salutary impact upon Air NZ’s service quality, with the introduction of improvements such as aerobridges, lounges and hot meals, changes that many people still remember and quote to this day;

- the fact that Air NZ did not introduce its frequent flier points system until 1991, ten years after such schemes had been introduced by the major American airlines,

and then only in response to the inroads into Air NZ's business passenger share on the Auckland-Los Angeles route by United Airline's "Mileage Plus" scheme;

- the entry of Kiwi International on the Tasman market with its innovative LCC-type of service prompted Air NZ to respond by introducing its subsidiary, Freedom Air, to provide similar services;

- [ ];

- the introduction by Air NZ of its NZ Express service on domestic New Zealand routes, which was in response both to competition from JetConnect, and from the prospective entry by Virgin Blue. The same comment applies to the planned introduction of the Tasman Express service;

- the statement by Qantas at the conference that a decision was possible by 1 November on the introduction of its own, new low cost domestic carrier in Australia, an innovation no doubt spurred by competition from Virgin Blue; and

- the fact that one-way fares were not introduced until LCCs entered, because the use of return fares paired with other conditions was the basis on which full service carriers practised price discrimination.

1147. Loss of innovative efficiency is potentially a factor making for significant welfare losses in industries that are otherwise technologically dynamic, particularly as the growth induced by innovation may tend to compound over time. However, such losses are not easy to estimate, and in the past the Commission has not attempted to incorporate the compounding factor into its estimates. Assessment has often tended to be based on the following considerations:

- A consideration of the technological progressiveness (or innovative potential) of the industry in question, since industries vary widely in their scope for progressiveness, and hence in the potential for losses of innovative efficiency. The airline industry was assessed by the Commission as being relatively 'high tech' in the *Bodas* decision, and hence a potential productivity growth loss in the range of 1.0-2.5% was assumed.

- An evaluation of the past innovation performance of the companies that are parties to the acquisition, and what residual competitive pressures may encourage innovation post-acquisition.

- A separate assessment where feasible of the scope for 'product' and 'process' innovations.

- Recognition that innovations not developed or implemented result in a cost saving, which reduces the magnitude of the loss from innovative inefficiency.

1148. In the international aviation industry the most important contributors to dynamic efficiency in recent times have been the following:

- the development of LCCs offering new fare/quality-of-service combinations that have encouraged greater air travel (and put greater pressures on full service carriers to lower their prices and otherwise compete);

- the development of international alliances that have extended network reach within which seamless travel can be accomplished; and

- the steady advance in aviation technology, such that, for example, the latest aircraft are much more fuel efficient than older models (with fuel being a substantial cost element in the provision of air services).

1149. Hence, in considering dynamic efficiency gains and losses in the aviation industry there are potentially both supply-side and demand-side effects to assess. The former impacts on welfare through reductions in costs from more efficient supply, while the latter does so through expanding demand and increasing consumers' surplus.

1150. The Commission considers that the aviation industry is a dynamic one, despite the impediments created by the regulation of air rights and ownership restrictions. The concern here is that the proposed Alliance could, by substantially reducing competition across a range of markets, reduce the incentives on the Applicants to continue to innovate, resulting in a loss from impaired dynamic inefficiency in the future relative to that expected in the counterfactual.

Commission's Approach in the Draft Determination

1151. In the Draft Determination the Commission attempted to quantify part of the likely detriment from dynamic inefficiency in terms of the lesser market penetration of the LCC entrant in the factual compared to the counterfactual. This was anticipated to have the following welfare-reducing effects:

- for those passengers already flying on the incumbent airlines, but who would switch to the entrant, if one were present, there would be a decrease in the costs of supply;

- an LCC entrant would be likely to expand the market by its offering low fares, thereby creating additional consumers' surplus for those people who would not otherwise travel by air; and

- the benefits to consumers of various innovations that an LCC would be likely to introduce, and that incumbents would be pressured into imitating, including one-way fares, new service types, new destinations and new links.

1152. Clearly, the extent of this potential loss would depend upon the extent to which Freedom Air, Air NZ's Express and Qantas's JetConnect services had already pre-empted (and, in the factual, would operate and so continue to pre-empt) these low-cost-supply possibilities, and the assumption made there that LCC entry would not be likely in the factual (with the proposed Alliance), but would be likely in the counterfactual in an incremental form on the Tasman.

1153. Apart from the loss of dynamic efficiency gains from blocked LCC entry, no allowance was made for three other potential sources of loss: the loss of benefits arising from the potential switch by Air NZ from the Star to the oneworld alliance; the loss of consumer choice implied by this switch, and the impact on accumulated FPP holdings; and the potential stunting of incentives to improve dynamic efficiency on the part of the partners in the proposed Alliance by virtue of the elimination of the competition between them.

The Applicants' View

1154. In their response to the Draft Determination, the Applicants disagreed with the Commission's concerns over the potential for loss of dynamic efficiency on the following grounds:

- in general, economic analysis suggests that market concentration has ambiguous effects on innovation performance;

- the literature has many contradictory results, but provides some support for an inverted-U shape relationship, such that innovation is less with too little and too much concentration;

- there are some airlines with very strong market positions that have been very innovative, and others facing relatively strong competition that have not (although no airlines were named);

- the Commission's view that the proposed Alliance would prevent LCC entry was not accepted, and so loss of dynamic efficiency stemming from that assumption would not occur;

- the Commission treated all of the difference in costs between the LCC entrant and the incumbents as the measure of the detriment, but this should have been discounted to reflect lower quality of LCC service; and

- the Commission's estimate involved double-counting with the allocative inefficiency detriments.

1155. NECG claimed that dynamic efficiencies would be greater with the proposed Alliance since the "gains of investment are more readily achieved by the investor" than would be the case under the "harsh" competition envisaged in the counterfactual. The latter is likely to result in the following effects: it would encourage a focus on survival and preservation of market share, rather than investment of capital in new equipment to expand services and in measures to reduce costs; it would reduce the resources available for innovation; and it would cause returns to be competed away, thereby reducing the incentives to innovate. Moreover, a major demand-side innovation had been the emergence of LCCs, the entry of which would be encouraged by the proposed Arrangement.

1156. Overall, NECG's view was that dynamic efficiency would not be impaired by the Alliance, and could in fact be improved.

Views of Other Parties

1157. Infratil et al rejected NECG's application to this case of the empirical link found between market concentration and dynamic efficiency (that dynamic efficiency tends to be low in unconcentrated and monopoly markets, but higher in between, suggesting that moderately concentrated industries on average best promote such efficiency). Rather than helping efficiency, as NECG suggested, a move from duopoly to monopoly could result in reduced efficiency. NZ Express occurred in the competitive environment outside of the Alliance. Infratil et al asked whether Air NZ would have made the same changes post-Ansett had it been secure in an Alliance with Qantas. They contended that there was very little evidence of strong innovation by mainstream airlines over a period without a competitive threat. The proposed Alliance would result in almost certain enhanced market concentration in a limited and geographically dispersed and isolated market. Consequently, there was a prima facie case that pressures for dynamic efficiency would decrease.

1158. Infratil et al considered that the Commission's approach was consistent with the approach of major regulatory agencies around the world with respect to its analysis of dynamic efficiency, and that it was correct in attributing productive and dynamic efficiency losses to the Alliance.

1159. Gullivers Pacific considered that there was the potential for a high degree of dynamic inefficiency under the Alliance, given the market power that would result. Airlines aggregate components into bundles of services that are offered to passengers and freight forwarders. Unlike many industries, the research and development (R&D) effort required to develop new services is low. In addition, airlines are not natural monopolies. Competition is therefore more likely than monopoly to provide the incentives to generate dynamic efficiency gains through R&D activity.

1160. The submissions of other parties tended to focus on practical illustrations of how innovative activity in the aviation industry had suffered when there had been a lack of competition.

1161. Invercargill Airport expressed fears that the Alliance would end hopes of direct Tasman flights into the Airport, which local interests wished to encourage to boost regional tourism. It stated that Air NZ's preference to have only two international gateways was only broken down when Kiwi International entered from a secondary airport (Hamilton). Subsequently, Air NZ through Freedom Air expanded into various secondary airports, such as Hamilton, Dunedin and Palmerston North. Jet operations by Air NZ into Queenstown were a reaction to an Ansett NZ initiative, and direct Tasman operations into Queenstown were in response to a Qantas seasonal initiative. It appeared to imply that Air NZ added new international gateways only when forced to do so by the initiatives of competitors.

1162. Polynesian Airlines contrasted the unwillingness of Air NZ to respond to regions like Southland, which have been prepared to invest in local tourism developments, by investing in new routes (direct Tasman service into Invercargill to boost that region's tourism), and the fact that no new routes into New Zealand are proposed under the proposed Alliance. The only exception would be new routes into Australia, which would primarily benefit business travellers. Polynesian Airlines stated that the Applicants had over a long period been extremely unwilling to experiment with new Tasman routes except as the result of competitive pressure (e.g., Hamilton, Palmerston North and Dunedin have international flights as a result of Kiwi International, and because of continuing threat from LCC entry). Flag carriers have an incentive otherwise to minimise international entry points to keep costs down, and to sell more domestic connecting flights. This was not helpful to tourism development.

1163. The TIANZ submission of February 2003 outlined the innovations that were introduced following deregulation and the emergence of competition from Ansett NZ in 1987. TAANZ made the same point, as did Mr Sheridan of WIAL. He argued that in the counterfactual the presence of three companies could lead to a wider range of city-pair markets being serviced, especially with one of the airlines being Virgin Blue.

1164. Mr Stone for Infratil noted that Air NZ did not operate to China, despite having a favourable bilateral since 1992, and despite a common industry belief that tourism potential from China was likely to be great.

1165. Mr Murphy of Bon Voyage pointed out that there would be a loss of benefits to New Zealand travellers from Air NZ switching to oneworld. Save Air NZ claimed that US Airways, which recently joined Star Alliance, estimated that the move would increase its revenue by US$75 million per annum, implying that Air NZ would have much to lose by exiting Star Alliance for oneworld under the proposed Alliance.

Commission's Assessment

1166. NECG considered that economic analysis suggested that market concentration has an ambiguous effect on innovation performance, and that there were many contradictory results, but nonetheless agreed that there was some support for an inverted U-shaped relationship. Once this was acknowledged, it is difficult to argue that the proposed Alliance would improve the prospects for innovation, given that it would involve a move from something close to triopoly to something close to duopoly in some markets, and close to monopoly in others.

1167. Nonetheless, NECG argued that dynamic efficiency would actually be greater under the proposed Alliance, because the gains would be more readily achieved by the investors, more resources would be available for innovation (in the form of retained profit), the unfavourably harsh competitive conditions it believed would exist in the counterfactual would be avoided, and LCC entry would be greater under the Alliance. However, all of these points apart from the last are ones that are normally factored into the reasoning behind shape of the inverse U-shaped relationship, and do not seem likely to operate with any different force in the present case.

1168. The argument that the harsh competition in the counterfactual would discourage innovation, whereas the more benign conditions in the factual would encourage innovation, seem at odds with the actual scenarios as envisaged by the Commission. The former would appear to relate to a situation on the far left of the inverse U-shaped curve, whereas the triopoly that would essentially continue in the counterfactual might more realistically be considered to lie near the peak of the curve where innovation is maximised. Similarly, in the factual the scenario would be one close to duopoly, equivalent to a point on the inverted-U close to its rightward extremity, where conditions would no doubt be "benign", but for that reason not conducive to innovation, which would, according to the theory behind the inverted U-shaped relationship, be expected to be relatively very low. More generally, a number of instances have been cited above showing that threatened or actual competition seems to have been a potent force making for innovation by Air NZ. In short, in the Commission's view both the counterfactual and factual scenarios would lie on the right-hand, downward-sloping portion of the curve, indicating that the proposed Alliance would be likely to result in reduced dynamic efficiency.

1169. In respect of entry, the Commission considers (as discussed earlier) that entry would be less with the proposed Alliance than in the counterfactual, so that the proposed Alliance cannot be seen as promoting LCC entry—and hence the innovation that such entry would bring—as claimed.

1170. NECG undertook a study into Qantas's productivity gains over the period 1975-2002 using a Fisher total factor productivity (TFP) measure (the ratio of combined outputs to combined inputs). It found that the trend in the TFP growth rate had been [ ] per annum over the 28 year period, and [ ] per annum for the last ten years of the period. The purpose of the study was to demonstrate that Qantas's innovation

performance had been consistently good, and that when favourable external events had occurred that increased its market share (and hence, by inference, its market power)—specifically, the acquisition of Australian Airlines and the collapse of Ansett Australia—its productivity did not slacken, as might have been expected if market power were to dampen incentives to improve productivity.

1171. However, this interpretation of the study's findings needs to be questioned. First, the merger between Australian Airlines and Qantas was between a domestic and an international carrier, and so the degree to which market power was augmented is questionable. Secondly, the demise of Ansett was accompanied by the rise of Virgin Blue, and so again the extent of the market power gain by Qantas should be questioned. Thirdly, the faster rate of productivity growth in the last ten years seems to match with the period of aviation deregulation in Australia, and with the subsequent privatisation of Qantas, measures which could be characterised as having increased competition.

1172. Fourthly, the use by the study of a Fisher index, which measures output essentially in RPKs, is susceptible to bias in cases where an airline, for example, were to have expanded on to more long-haul routes over time. It is not known whether that bias is evident in the study at issue.

1173. Fifthly, the use of such an index allowed Qantas's productivity growth trend to be assessed, but not to be compared with those of other airlines (or with notional best practice). Without that, it is not possible to assess how well Qantas had performed. An attempt to fill that gap was made by Professor Forsyth in a recent paper.[163] He undertook two types of productivity comparison – one for changes in Australia over time, using three spaced years before and three spaced years after the 1990 aviation deregulation using a composite of the domestic airlines, Ansett and Australian/Qantas; and one for a cross-country comparison for 1993, mainly with US airlines using a study by Oum and Yu (1995). He cautioned that because of data limitations it was "necessary to rely on some distinctly second best proxies in order to develop comprehensive productivity measures." He stated that the initial period following deregulation was one of intensive competition and substantial fare reductions, but that this period was short-lived, with the industry then moving to a situation of two dominant airlines and rising fares, suggesting that productivity performance had not been particularly good.

1174. Among Forsyth's conclusions were the following:

> The overall productivity results presented here suggest that deregulation has made a difference, but not as great a difference as was expected. Productivity growth in the 1990s has been good . . . However, it still seems that there is a large productivity difference between the domestic airlines and overseas airlines, such as those in North America.

[163] Peter Forsyth, "Total Factor Productivity in Australian Domestic Aviation", ATRG 2000 Conference, Amsterdam, 2-4 July 2003.

> Privatisation and the removal of cost plus regulation has meant that the airlines have the maximum incentive to minimise costs, and no constraints on doing so. In spite of this, they seem to be falling well short of achieving the productivity levels which are feasible. The lack of competition has meant that the airlines have not been forced to minimise costs. This lack of pressure is reflected in the airline labour market. Labour productivity is still low compared to that of overseas airlines, and labour remuneration has been increasing significantly in real terms.

1175. This conclusion is rather different from that which NECG draws from the data.

1176. Another issue related to dynamic efficiency is the prospect that if the proposed Alliance were to proceed, Air NZ would switch from the Star Alliance to the oneworld global alliance so as to be in the same global alliance as Qantas. Air NZ stated that no decision had yet been made, although the potential impact of the change had been considered. NECG claimed that should the change be made, the current benefits of network competition between Star Alliance and oneworld would not be lost in the medium-term, as it expected the Star Alliance to find new ways of connecting into the region through the initiatives of existing members such as United Airlines and Singapore Airlines. However, this view was overtaken by the worsening of the financial plight of United Airlines. It also ignored the likelihood that any entry by another Star Alliance member would almost certainly be into Australia, and not necessarily into New Zealand. [ ]

1177. The Commission considers that if the proposed Alliance were to proceed, the switching of Air NZ between global alliances would be very likely to occur. Given the degree of integration envisaged by the proposed Alliance, particularly with regard to code-sharing, pricing and capacity coordination, the Commission understands that it would be very difficult for the two airlines to remain in separate global alliances. NECG has agreed that the change of Alliance was likely. If the change were made, it would be likely to seriously weaken the Star Alliance as a competitor to oneworld in Australasian markets, and thereby reduce the benefits of competition between the two, without the ready prospect of a replacement being available.

1178. A further source of loss from dynamic inefficiency would be the loss of consumer choice implied by this switch, and the impact on accumulated FPP holdings. NECG asserted that frequent flyer credits would be honoured regardless of alliance changes, so that consumers would not suffer from alliance switching. However, the Star Alliance is a larger alliance and serves a wider range of destinations than does oneworld. Moreover, travellers may have accumulated points on Air NZ in part because they favoured the options available through Star Alliance, options that they would lose should the switch take place. It also is possible that the proposed Alliance could use its market power, and the lack of alternatives available, to reduce the value of the air points holdings of air travellers. The reduced capacity expected in the factual could also make it more difficult for travellers to redeem their holdings, as fewer seats may be available.

1179. To sum up, the Commission considers that on the balance of probabilities, dynamic efficiency is likely to suffer in the proposed Alliance relative to the likely outcome in the counterfactual. There are three areas of concern that can be pinpointed:

- the lessening of dynamic efficiency (or loss of product and process innovations) on the part of the Applicants through the reduction in competition;
- the loss caused by Air NZ's prospective switch between global alliances; and
- the loss resulting from the likely reduced value of accumulated air points holdings.

Quantification

1180. Estimates of the potential loss from reduced dynamic efficiency need to be made in the factual, as compared to the outcome expected in the counterfactual. In *Bodas* the Commission considered that the airline industry was a relatively dynamic industry, and that evidence from Air NZ suggested that it had made significant productivity gains in a recent period. The Commission considered that loss of competition could possibly result in a loss of productivity growth of from 1% to 2.5% per annum. This view reflected a US-based study quoted by Dr Tretheway, in which he found that productivity growth was 2.5% per annum faster after deregulation.

1181. It has to be recognised that predictions of changes in the rate of dynamic efficiency are inherently difficult to make, and even more difficult to quantify. The Commission notes the range used in *Bodas*. In addition, the change in productivity growth is in principle only a partial, supply-side-based, measure of innovative efficiency. The acceleration in Qantas's rate of productivity growth by 0.9% over the last ten years compared to the preceding 18 years may be indicative of the beneficial impact of competition on performance, as noted above. In addition, the demand-side component, reflected in shifts in the demand curve with consequent gains in consumers' surplus across the range of demand, could be equally significant. Included here is the loss of value that travellers would be likely to suffer from the erosion in the value of their frequent flyer point holdings. Bearing these sorts of factors in mind, the Commission is of the view that in respect of general dynamic efficiency, losses can be estimated conservatively by assuming costs higher than they would otherwise be in the range of 0.5 to 1.5% per annum. On the basis of Air NZ's total revenues of $3.6 billion, this would give a loss of between $18 million and $54 million per annum.

1182. In respect of the global alliance, Air NZ reported that it faced [ ] if it were to exit the Star Alliance and join oneworld. These were as follows:

- Air NZ might have to pay an exit fee of [ ][164]

- To provide a seamless service between Air NZ and its oneworld partners would require changing such items as airport signage and upgrading its IT systems. Air NZ stated that these costs were originally thought to be about $[ ], but were now expected to be about $[ ]. The elements in these first two elements would seem to be one-off costs to New Zealand flowing from the proposed Arrangement.

- In addition, a further cost stems from the loss of interline revenue on Air NZ flights due to the transfer from one alliance to the other. These were estimated using the Cameron & Co financial model under the factual to give rise to the following revenue losses: year 1, $[ ]; year 2, $[ ]; and year 3, $[ ]. Air NZ said that the larger figures in the first two years reflected the notice period required by Star Alliance before it could join oneworld, but that it expected to be able to negotiate this away. However, these estimates contrast with those produced by Gellman Research Associates of the effects of the proposed Alliance commissioned by Air NZ. This indicated that the Company would likely be worse off in revenue terms from the switch to oneworld by US$[ ] per annum (NZ$[ ]), or by US$[ ] (NZ$[ ]) if that Alliance were to be "enhanced" by tactical code-sharing and improved connectivity at Los Angeles. It was thought that various optimisation strategies might reduce the negative impact on Air NZ cash flows further.

1183. These payments and revenue losses can be used as the basis for calculating the welfare losses from a New Zealand-based welfare perspective, but certain adjustments are first required, as follows:

- the Commission accepts Air NZ's stated values for the purposes of the evaluation, even though those for the interlining revenues would appear to be conservatively small, and would not be expected to cease after Year 3, given the smaller size of the oneworld Alliance;

- the costs saved from carrying fewer passengers have to be netted off from the lost interlining revenues, but as the revenues are relatively small, it is assumed that the costs saved are only marginal (equal to one-quarter of revenues);

- the Commission includes the exit fee in full; and

- because of its focus on Year 3 benefits and detriments, the initial outlays in the first two points above, which occur in Year 1 only, have to be spread over the full five years of the Commission's evaluation period. This is done technically by

[164] This and subsequent conversions assumes that NZ$ = US$0.60.

calculating an annuity of five years that has the same present value as the initial outlay, when both are discounted at the preferred discount rate (6%).

1184. On the basis of these assumptions, the Commission, on the balance of probabilities, has quantified the dynamic efficiency losses for Years 1 to 5 as set out in Table 18. The Year 3 figures provide a range of from $[ ] million to $[ ] million.

Table 18
Estimated Dynamic Efficiency Losses ($M) by Year

Item	Year 1	Year 2	Year 3	Year 4	Year 5
General	18 - 54	18 - 54	18 - 54	18 - 54	18 - 54
Alliance switch - fixed costs - interlining	 [ ] [ ]	 [ ] [ ]	 [ ] [ ]	 [ ] [ ]	 [ ] [ ]
Total	[ ]	[ ]	[ ]	[ ]	[ ]
Preferred point	[ ]	[ ]	50	[ ]	[ ]

1185. The Commission has settled on a most likely estimate of the loss of dynamic efficiency for Year 3 of $50 million, but does not disclose how this figure was arrived at in order to avoid revealing the confidential information upon which these estimates are based. Such a figure is needed for the overall balancing exercise below.

CONCLUSION ON DETRIMENTS

1186. The Commission's conclusions on detriments are set out in Table 19, which aggregates the three separate components analysed above, namely allocative, productive and dynamic inefficiencies. As explained there, these detriments arise as the result of a substantial lessening of competition in various markets under the proposed Alliance in the factual, compared to the more competitive outcomes in the counterfactual.

Table 19
Summary of Annual Detriments, Year 3 ($M)

Item	Detriments	
	Range	**Most Likely**
Allocative inefficiency and transfers	83 - 110	90
Productive inefficiency	18 - 91	55
Dynamic inefficiency	[ ]	50
Totals	[ ]	195

1187. Table 19 gives the ranges and most likely outcomes for each category of detriment, and for the aggregate. The overall range for detriments is between $[ ] million and $[ ] million, with the most likely outcome (not necessarily at the midpoint of the range) being $195 million.

PUBLIC BENEFITS

Introduction

1188. This section assesses the public benefits that would be generated by the proposed Alliance. The Commission defined "public benefits" in its 1997 *Guidelines to the Analysis of Public Benefits and Detriments*.[165] The Commission described certain properties that an effect must have before it can be identified as a public benefit, and how these properties will affect the value the Commission places on a benefit. A number of them are summarised here, as the benefits claimed for the proposed Alliance are assessed according to these criteria:

- the benefits must be shown to be dependent on the acquisition or practice being considered;
- the assessment of benefits will focus particularly on efficiency gains. These include economies of scale and scope, better utilisation of capacity and cost savings. Efficiencies can also include social and intangible benefits, if these can be shown to be socially efficient;
- net benefits, not gross benefits, are counted;
- transfers of wealth are not counted;
- efficiency gains must be measured by reference to net gains, not to changes in inputs or outputs on their own; and
- the "public" is the public of New Zealand: benefits to overseas parties are counted only to the extent that they also involve benefits to New Zealanders.

1189. The Applicants claim that the proposed Alliance would offer the New Zealand public benefits many times greater than their most pessimistic projection of detriments. Their latest estimates suggest that the proposed Alliance would be most beneficial in the cost savings that it would facilitate. According to the Applicants, the proposed Alliance would also bring a greater number of tourists to New Zealand. Their expenditure represents the second largest claimed benefit. The Applicants claimed further substantial benefits in the form of the continued purchase of New Zealand

[165] The document is being revised to reflect changes to the Commerce Act, but its criteria for identifying public benefits are relevant to the following discussion.

engineering and maintenance services by Qantas. Less important but still significant benefits are attributed to improved schedules, freight services and new flights. There are a number of additional benefits claimed by the Applicants, though they are not given explicit values.

1190. The Applicants' most recent estimates of benefits occurring in Year 3 of the proposed Alliance were presented on the last day of the conference. These are set out in Table 20.

Table 20
Summary of Benefits Attributed to the Alliance by the Applicants ($m) (Year 3)

Benefit	Lower bound	Preferred	Upper bound
Cost savings	96	96	96
Tourism	66	73	130
Freight	3	3	3
Engineering	35	35	35
New direct flights	9	9	9
Scheduling	2	2	2
Total	211	218	275
Online benefits Productive efficiency Dynamic efficiency Avoided social cost of public funds	} Positive, but not quantified		

1191. The list of quantified benefits is the same as that originally submitted, though a number of the estimated benefits have changed significantly. Of benefits claimed but not quantified, productive and dynamic efficiency were dealt with in the original submission in its discussion of potential detriments and in the context of potential network scale economies. The Applications claimed further non-quantified benefits, such as the preservation of the national carrier, global competitiveness and improved governance. "Online benefits", which would arise from the proposed Alliance co-ordinating services to provide the traveller with a greater degree of convenience and timeliness along routes consisting of at least two stages, did not appear as a separate category of benefits in the original Applications.

1192. This section deals with the categories of benefits listed above, with the exceptions of productive and dynamic efficiency gains. Both of these effects are discussed in the section on detriments. In their response to the Draft Determination, the Applicants objected that the Commission placed too little weight on non-quantifiable benefits. This section discusses this issue in addition to benefits listed in Table 19.

1193. The Commission asks five basic questions about potential public benefits of the Alliance:

- Are particular effects attributable to the Alliance?
- What is the extent to which the effects will occur?
- How will they change welfare?
- What is the likelihood of each effect occurring?
- Given the above, what is the Commission's estimate of each type of benefit?

COST SAVINGS

The Applicants' View

1194. NECG claimed cost savings as a public benefit because it said that new services on particular routes would be provided at a lower resource cost under the proposed Alliance than the airlines would be able to achieve without the Alliance. NECG did not claim explicit cost savings arising from network-wide economies of scale. NECG suggested that network-wide economies of scale could be offset by various transaction and implementation costs associated with the implementation of the proposed Alliance. As the net effect of network-wide economies is uncertain, NECG did not quantify it.

1195. According to NECG's presentation on cost savings submitted during the conference, the calculations it undertook were as follows:

Total variable and capital costs under the Alliance	–	Total variable and capital costs without the Alliance	–	Cost savings from price increases	=	Total cost savings

1196. In this formula, variable costs are defined as unit costs attributable to departures, to blockhours and to passengers multiplied by the numbers of departures, blockhours and passengers. Blockhours were respectively assumed not to change as a result of the proposed Alliance and cost savings attributable to a reduction in the number of passengers were subtracted from the total. This left public benefit cost savings as being a function of the number of departures with and without the proposed Alliance, and the difference in unit costs and capital costs under the proposed Alliance and without it.

The Commission's View

1197. The Commission agrees in principle with the Applicants that co-ordinated fleet management could potentially provide cost savings of the type claimed as public

benefits. However, the Commission has a number of reservations about the Applicants' estimates, and about whether the proposed Alliance could and would provide cost savings.

1198. The Commission has discussed in a previous section its concerns about NECG's calculations of cost savings in the context of the detriments analysis.

1199. In addition to concerns about estimation, there are a number of other reasons why cost savings achieved in reality might be less than those projected by NECG. It is not clear, for example, that the co-ordination of services between the Alliance partners would necessarily result in capacity being allocated to the Alliance partner with the cost advantage. The proposed Arrangement provides little detail of how various parts of the proposed Alliance would work, as follows:

- Section 5 of Schedule 2 of the proposed Arrangement states that the relative aggregate capacity contributions of the Alliance partners on JAO Networks will be 70 to 80% for Air NZ and 20 to 30% for Qantas. This suggests some constraint on cost-minimisation. For example, a particular cost-saving allocation of capacity might be available and feasible, but were its realisation to cause the mandated capacity share ratio to be exceeded by one party or the other, it would not be undertaken, according to the rules of the proposed Arrangement.

- The proposed Arrangement states: "Whether or not Qantas or Air NZ … fly any particular … sector will, generally, be determined by which (airline) produces the optimum result. … Generally, this means that the party with the highest margin should supply the operating capacity". This suggests that profit margins rather than costs per se would drive the allocation of capacity under the proposed Alliance. There are reasons to suppose that the airline with the better profit margin on a route might not be the airline with the lower costs. For example, one airline may be able to exercise greater market power on a route or it might be able to price discriminate more effectively. Also, one airline is likely to attract a different mix of through passengers and OD passengers to a particular route than the other, and it is likely that these passengers will yield different margins to airlines.

- The proposed Arrangement allows the less profitable airline to retain a route if it is willing to subsidise the service. It is not clear how often the Alliance partners might make use of these provisions—for strategic, symbolic, network integrity or other reason—but to the extent they do, it would weaken the proposed Alliance's ability to yield cost savings.

1200. The terms of the proposed Arrangement imply that the Alliance partners would bid to operate a particular route. That is, they would offer to provide a return to the proposed Alliance from the operation of particular services. However, their predictions of profit margins could be wrong. They might base their bids on the margins they currently receive on particular routes, but that information might be of

limited use. If both airlines did not fly on the routes, if new entry changed the amount of potential profits, or if returns to new capacity were not constant, a comparison between Qantas's and Air NZ's predicted profit margins may not reveal the more cost-effective provider.

1201. At the conference,[166] Qantas's Executive General Manager of Strategy and Network, Paul Edwards, supported the interpretation of the JAO provisions for capacity allocation that profits margins rather than cost-minimisation would drive capacity allocation. In the context of which airline might provide capacity on new international services, Mr Edwards said:

> I hope I didn't say "the cheapest carrier"; I said the carrier that could generate the largest margin, right. Because we're in the business to make money, right, and so the operation that will make the most money for us is the one that we would, under normal circumstances, prefer to go to. Now, that will actually preclude us from wiping out one brand; right, you know, to take your illustration to the extreme, because both brands are very important.

(Note Mr Edwards mentions brand-preservation as a strategic factor that might limit the airlines' ability to save costs, or even to achieve higher margins.)

1202. As the question was extended, Mr Edwards raised another factor that would limit the airlines' ability to achieve cost savings. He said:

> But don't forget, we're talking about the process for adding capacity, not process for redistributing what is already there. … So, what is there is there, and it's then the question of the growth, how we decide what's the best way of handling the growth opportunities.

1203. In correspondence to the Commission on 26 September 2003, Mr Edwards confirmed his statements at the conference:

> Under the Alliance, only additional capacity will be allocated on the basis of predicted profit margins. Existing capacity is expected to remain allocated between the two airlines as it is today (this is designed to facilitate acceptance of the Alliance and to protect the current brands/operations of each carrier).

1204. According to the proposed Arrangement (section 6 of Schedule 2), proposed new capacity would be handled as follows under the Alliance:

- One airline proposes adding a service to the JAO network calculations, giving reasons;
- SAAG either accepts the proposed addition, using the profit margin criterion described above, or it declines the proposal, and:
  - o includes it in the network, but excludes it from fee and payment calculations; or

[166] Transcript, pp. 204-6.

  - o excludes it from both the network and fee and payment calculations.

- If inclusion in the JAO network is declined, the proposing airline may operate the service and be responsible for all capacity, costs and revenue.

1205. Therefore, capacity allocation on new routes under the proposed Alliance will not necessarily favour the more cost efficient operator.

1206. In short, it is unlikely that NECG's modelling of capacity allocation as cost minimising matches how the proposed Alliance may allocate costs in practice, judging by the provisions of the JAO agreement. The wording of the documents describing the proposed Arrangement and the provisions for the airlines to operate flights outside the profit margin criteria suggest that the cost savings claims would be optimistic. Meanwhile, NECG's modelling seems to be based on a degree of rationalisation that goes beyond the intentions of the proposed Alliance partners: NECG's cost savings are generated by rationalising existing capacity, rather than being limited to the additional capacity.

1207. The Commission's second main concern with the way cost savings have been estimated and presented by the Applicants is that essentially they yield private rather than social benefits. Putting aside the issue of calculation, public benefits are not identical to Air NZ's and Qantas's cost savings to the extent that the proposed Alliance would encourage entry. As the Applicants reduce their output and reduce capacity, during the process of exerting their new-found market power, the entry of competitors would mean that some of the saved capacity would be supplied by another firm (albeit potentially at a lower cost). To the extent there is induced entry (as the Applicants assume occurs in their calculation of allocative efficiency effects), the new capacity replaces saved capacity and uses scarce social resources. However, NECG does not subtract the cost of entrants' capacity from total cost savings, thereby overstating benefits.

1208. The Commission's third concern with the cost savings claim is more practical. In explaining how cost savings are generated, NECG has used the "widget" factory as a metaphor. The widget market is a fiction of economics used when general points are made about how products are produced and traded. The analogy is useful, but glosses over facts peculiar to air transport supply. Aircraft are not selected for routes, but for networks. (Were aircraft selected for routes primarily, there would be considerable added costs imposed on the network, such as more intense labour and equipment specialisation, increased risk associated with not being able to replace aircraft on one route with an aircraft from another route, and so on.) Unlike the widget factory, aircraft costs and output do not necessarily follow related linear paths. Different assumptions about schedules (and cost drivers) may substantially change available benefits.

1209. A fourth concern is that cost savings based on better aircraft utilisation seems inconsistent with the possibilities implied by certain results of NECG's detriments

model. Specifically, as provided in correspondence to the Commission on 18 March 2003, NECG's calculations of Year 3 load factors show that, when routes are grouped geographically, load factors in all groups but one are lower under the proposed Alliance than they would be without it. NECG, then, does not model the airlines as using aircraft more efficiently under the Alliance, but less. This may suggest more about the unreality of the NECG model,[167] but it also shows that the schedules used to calculate detriments and cost savings (and also scheduling benefits and direct flight benefits) are not reliable, because the Commission does not have the information to suggest that the schedules are the products of efficient behaviour.

1210. Given the level of uncertainty about how: the proposed Alliance would operate in practice; the extent to which cost savings would be achievable; and the size of public benefit claimed, the Commission is also concerned that NECG has not carried out sensitivity testing in relation to cost savings.

1211. The sum of these concerns about the cost savings estimates is that the circumstances in which cost savings would be sought are not necessarily as favourable as those modelled by NECG.

1212. While agreeing with the Applicants that, in principle, the proposed Alliance would provide cost savings, the Commission is not satisfied that they are of the order estimated by NECG. Even allowing for the subtraction of the portion attributable to capacity reductions induced by the price increases, the remaining cost savings represent the limit of possible cost savings, rather than their expected value. The NECG number is not conservative: it assumes on strict optimising behaviour by the airlines (although, as mentioned, the schedules themselves are not necessarily the products of optimal decisions) – optimisation that could be defeated by various factors as operations develop under the Alliance. By no means the least among these factors is that Air NZ is under instruction from its principal shareholder to enter into the proposed arrangements in such a way that it can quit the proposed Alliance at a minimal cost. That requirement could potentially provide Air NZ with an incentive to maintain schedules that do not represent optimal integration of services with Qantas.

1213. The schedules used by NECG to calculate benefits and detriments are claimed to reflect the Applicants' views of how they would operate both independently and within the proposed Alliance. As the Commission's modelling and analysis suggest different consequences for how the proposed Alliance would affect capacity allocation and entry, it follows that the Commission cannot accept the proposed schedules. The Commission has not, however, assembled alternative schedules to model air services markets because it lacks the information required to do so. Neither does the Commission have knowledge of both airlines' operations detailed enough to

[167] In the 18 March 2003 correspondence, NECG explained that "Load factors have no impact on the price and volumes we model, that is, when our estimated prices result in very low load factors we don't solve back for price to increase load factors to historic levels." On the other hand, "The airlines would lower price until a minimum load factor was achieved and hence would not get the type of price increases that we model." NECG claimed that their approach erred on the side of conservatism.

calculate potential cost savings with any confidence, even assuming that the JAO decision-making processes were to favour the lower cost provider, and that the airline that would be the lower cost provider for a new service is knowable in advance.

1214. Faced with such uncertainty over the feasibility and extent of potential cost savings, but concluding that some level of cost savings are achievable in principle, the Commission's view is that it is appropriate to adopt an estimate based on conservative assumptions.

1215. In discussing productivity effects of the Alliance, NECG cited a study by Oum, Park and Zhang[168] which contained the results of an empirical study of the effects of airline alliances on airline productivity. According to NECG, this study suggested that alliances produce productivity gains, and the closer the alliance, the greater the gains achieved. According to NECG, the study found that a major strategic alliance "is estimated to improve" total factor productivity of partner airlines by 4.9%, and a minor strategic alliance by 0.9%. According to NECG, the study also showed that average yield decreased following major alliances and profitability improved. (NECG did not report the equivalent yield results for minor alliances because they were not statistically significant.)

1216. The findings of Oum, Park and Zhang cannot be interpreted as strictly supporting the cost savings claimed by NECG. It is unclear whether the estimated increases in total factor productivity can be entirely attributed to better aircraft utilisation. It is unclear whether the estimated productivity gains include or exclude economies of scale achieved through passenger effects. It is also not clear whether the estimated productivity gains include or exclude network-wide efficiencies – which NECG have excluded from their cost savings claims. If the results of this study represent a bundle of effects and efficiencies in addition to aircraft selection, which seems likely, then it is likely that the efficiency gains that could be attributed to better aircraft utilisation would be much smaller.

1217. Professor Zhang, one of the authors of the study, has confirmed this point in correspondence dated 30 September 2003: "Since NECG have claimed … that (marginal cost) is constant … only one part of this 4.9% cost savings is due to fixed-cost savings. In this sense, the NECG result should be smaller than 4.9%." "Cost savings from fleet management is only one part of the 4 possible sources" of productivity gains – others being labour, fuel and materials. Professor Zhang said that the Oum, Park and Zhang (2000) study did not attribute TFP gains to particular inputs.

1218. It is apparent that NECG's cost savings estimates are not reliable because they model a rationalisation of existing capacity, rather than focusing on the much smaller savings in prospect from jointly allocating additional capacity to market growth. Nevertheless, the Commission is of the view that it is appropriate to make some

[168] T. Oum, J. Park and A. Zhang, *Globalisation and Strategic Alliances: The Case of the Airline Industry*, Elsevier Science Ltd., Oxford, 2000.

allowance for potential cost savings of the kind claimed by the Applicants. As NECG's estimate of cost savings is based on the fleets employed by Qantas and Air NZ and observable costs, it is a useful starting point for estimating cost savings, notwithstanding the Commission's concerns about the way NECG models these data.

1219. The Commission's approach should recognise that the proposed Alliance and their combined fleets would provide the Alliance partners with a degree of flexibility in their management of resources, in addition to that which they currently possess. While it is possible that net cost savings would not occur under the proposed Alliance and that they would be inhibited, negated or counterbalanced by the effects discussed above, the Commission considers that it may be appropriate to assume that, in pursuing better profit margins under the Alliance, the airlines might be able to co-ordinate resources in such a way as to accommodate a proportion of natural market growth using current capacity.

1220. The Commission has considered various methods of estimating the cost savings attributable to the proposed Alliance. These include projections based on confidential cost data and adjustments to the NECG model to accommodate concerns raised above.

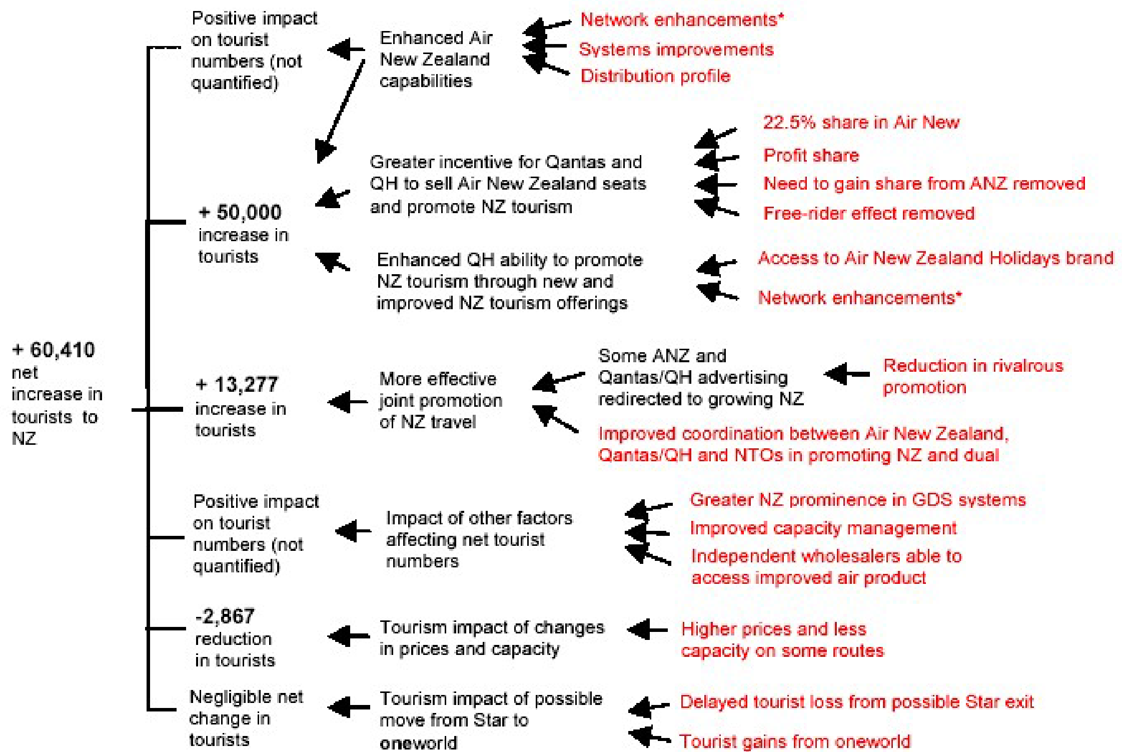
1221. For the purposes of assessing the public benefits of the proposed Alliance, the Commission's view, on the balance of probabilities, is that cost savings would likely be around $30 million. This estimate is based on analysis of a range of data (including confidential data). It takes into account confidential information supplied by the Applicants, NECG's modelling, and the Commission's own analysis of information presented to it.

TOURISM BENEFITS

The Applicants' View

1222. The Applicants claim that the proposed Alliance provides an opportunity for the airlines to co-operate to increase New Zealand tourism. The spending of these additional tourists would benefit suppliers of inputs to the tourism industry whose own spending would induce further economic activity. The Applicants identify opportunities for increasing tourism to New Zealand by aligning the expertise and reach of Qantas Holidays with Air NZ's services and brands. They then apply a general equilibrium model to estimate the additional economic activity generated by increased tourism, and claim the resulting figure as a public benefit of the proposed Alliance.

1223. The Applicants claimed that more than 60,000 tourists who would not have otherwise visited New Zealand, would arrive each year. This figure is based on the addition of a number of effects, as illustrated in the following diagram from paragraph 11.12 of the Applicants' response to the Draft Determination:



1224. The Applicants have presented the sum of the effects given above as follows:

Qantas Holidays effect	+50,000
Enhanced promotional effectiveness	+13,277
Price and income effect	-2,867
Total impact on tourist numbers	+60,410

1225. According to the Applicants, the chief causes of the proposed Alliance's ability to add to New Zealand tourist numbers are:

- the increased promotion effort of the airlines and, in particular, of Qantas Holidays;
- the enhanced effectiveness of both airlines' promotion; and
- an enhanced ability to co-ordinate with Tourism NZ.

1226. An analysis of the NECG modelling of tourism numbers shows that the net effect of the proposed Alliance on New Zealand tourism can alternatively be presented as follows:[169]

Qantas Holidays effect		+50,000
Enhanced promotional effectiveness		+13,277
Price and capacity impact		
Australians	-33,229	
Other foreigners	-54,485	
New Zealanders who would have travelled overseas	+84,848	
Net effect		+60,411

1227. This reveals that the small "price and income effect" of -2,867 actually comprises a mix of 87,714 discouraged foreign visitors and 84,848 New Zealanders deterred from overseas travel.

1228. The reduction in Australian tourist numbers may be decomposed further as follows:

Price and capacity impact on Australian tourist numbers:	
on those coming to NZ	-53,475
on those going from NZ to overseas	+20,246
	-33,229

1229. That is, the -33,229 net figure is composed of 53,475 Australians who no longer travel to New Zealand under the proposed Alliance less 20,246 who no longer travel beyond New Zealand to an overseas, non-Australian destination. The 20,246 are assumed to substitute New Zealand tourism for beyond-New Zealand travel.

1230. The Qantas Holidays effect may be decomposed as follows:

Impact on Australian inbound tourists	+14,000
Impact on other foreign inbound tourists	+36,000
	+50,000

1231. The net impact on inbound foreign tourist numbers, according to the NECG model, may be represented as follows:

Price impact on Australians	-33,229
Qantas Holidays effect on Australians	+14,000
Total impact on Australians	-19,229
Price impact on other foreigners	-54,485
Qantas Holidays effect on other foreigners	+36,000

[169] This representation of NECG's tourism estimates and the decomposition of the impact on Australian tourist numbers were confirmed in correspondence with John Zeitsch of NECG on 13 October 2003.

Enhanced promotional effectiveness	+13,277
Total impact on other foreigners	-5,208
Total impact on all foreigners	-24,437

1232. So there is claimed to be 60,410 additional tourists to New Zealand, comprising 84,848 New Zealanders who cannot afford to travel overseas and 24,438 fewer overseas visitors. That is, there will be fewer tourists visiting New Zealand from overseas.

1233. According to the NECG model, the effect of the proposed Alliance would be to reduce the total number of tourists from Australia and other foreign countries in Year 3, even allowing for the full effect of Qantas Holidays and enhanced promotional effectiveness. It is a reasonable characterisation of the NECG tourism estimate to say that the net 60,410 additional tourists to New Zealand are New Zealanders who, under the proposed Alliance, would find it too expensive to travel overseas.

1234. The impact of higher prices and reduced capacity reduces the demand for New Zealand holidays by foreigners and increases the demand for local tourism by New Zealanders who would have otherwise gone overseas. The claim that 60,000 additional tourists per annum would visit New Zealand under the proposed Alliance is thus a claim about the net effects of reduced competition in the market for air transport and of more and better promotion. According to the Applicants, there are additional factors, such as a potential change from the Star Alliance to the oneworld alliance and various network, dynamic and productive efficiencies, which ought to have a positive or a negligible negative impact on tourist numbers. These were not quantified.

1235. Having arrived at an estimate of an increase in tourist numbers, the Applicants estimated how much these additional tourists would spend in New Zealand, and used computable general equilibrium (CGE) modelling to estimate the effect of that spending on the rest of the economy. They claimed the results of the CGE modelling as public benefits attributable to the proposed Alliance.

1236. The Applicants used three CGE models to produce a range of estimates consisting of a lower bound, a higher bound and what shall be referred to as the "preferred" estimate. The three models and estimates are:

- Australian Bureau of Agricultural and Resource Economics' (ABARE) Global Trade and Environment Model (GTEM). The Year 3 claimed public benefits from increased tourism for Year 3 estimated using this model were $66 million;

- the Monash model, which provided the preferred estimate of claimed public benefits of $73 million in Year 3; and

- the Infometrics model, which provided a Year 3 estimate of $133 million.

1237. As the Applicants explained, GTEM (unlike Monash) includes New Zealand as a separate economy, but does not include a tourism sector, while the Infometrics model was developed in New Zealand specifically to model the New Zealand economy, including a tourism sector. Nonetheless, NECG chose the Monash results because ABARE was reporting dubious results from its model, results that could not be corrected in the time available, and because the Infometrics model provided short-run, comparative static estimates and was not, therefore, ideal for the present application. The Commission will focus here, as did NECG, on the results from the Monash model, the model providing the central estimates.

The Commission's View

1238. The Applicants' tourism claims depend on a series of assumptions and preconditions. Many of these assumptions are highly uncertain. Many of them are critical to the magnitude or even to the existence of positive tourism effects. The assumptions are, by and large, inter-related. Most of them are not verifiable or falsifiable and cannot, therefore, be empirically tested. The estimated effect on the New Zealand economy from the consequences of the proposed Alliance for tourism will depend on the confidence that can be attached to incentives, effectiveness, impact, the ability to succeed without provoking competitive reaction, the realities of the tourism industry and modelling.

1239. The Commission has identified the following key assumptions upon which the Applicants' tourism claims are based:

- that Qantas Holidays can and will promote New Zealand tourism only within the proposed Alliance;
- that Qantas Holidays and the proposed Alliance partners in co-operation with national tourism organisations will be effective in increasing tourism;
- that any success Qantas Holidays achieves in selling tours to New Zealand will be to tourists who would not otherwise have come to New Zealand;
- that any success Qantas Holidays and the airlines achieve will not provoke competitive reactions that would detract from the efforts promised by the proposed Alliance;
- that the tourism industry could and would accommodate the additional business promised by the proposed Alliance;
- that price rises and capacity decreases under the proposed Alliance would deter only a moderate number of overseas tourists from travelling to New Zealand;

- that New Zealanders deterred from travelling overseas by higher prices under the proposed Alliance would spend the money they would have used on their overseas holiday on tourism locally;

- that the welfare effects of those "deterred" New Zealanders who consume tourism locally under proposed Alliance prices and capacities are counted properly; and

- that the general equilibrium effects are appropriately modelled, and that the results expressed as "public benefits" are comparable to welfare measures used elsewhere in this decision.

1240. Most of these points are now considered in turn.

Qantas Holidays can and will Promote New Zealand only within the Proposed Alliance

1241. The Commission accepts that the proposed Alliance would change Qantas's strategy and that Qantas Holidays' objectives could, and probably would, change to a degree as a result of the proposed Alliance. However, the Commission does not accept the argument that the difference between Qantas Holidays' incentives under the proposed Alliance and their incentives without the proposed Alliance is the difference between all and nothing.

1242. There are reasons to believe that Qantas would promote New Zealand tourism more energetically without the proposed Alliance than it might under the proposed Alliance. The Commission agrees with the Applicants that, without the proposed Alliance, Qantas would continue to compete its way further into New Zealand. Qantas itself has stated that it considers New Zealand to be part of its home market. The Applicants have stated that future competition between Qantas and Air NZ will be characterised by an over-supply of capacity. To the extent that the markets develop along such lines, it is unlikely that Qantas would not employ its resources in pursuit of returns on its New Zealand investment. Why would Qantas deploy aircraft capacity but withhold marketing capacity? If marketing is effective, if it is necessary and lucrative, it would seem to be necessary without the proposed Alliance.

1243. The Applicants have argued that branding limits the potential for Qantas to bring tourists to New Zealand. The Qantas brand, they argued, is too strongly associated with Australia. The proposed Alliance would allow Qantas Holidays to sell Air NZ flights, a precondition, according to the Applicants, of succeeding in inbound tourism. The Applicants claimed that Qantas Holidays would not sell Air NZ flights without the proposed Alliance.

1244. The Commission accepts that the proposed Alliance would change the strategic relationship between Qantas and Air NZ operations. It is conceivable that Qantas Holidays might sell Air NZ products only if the proposed Alliance were to be formed. The claim that Qantas Holidays would not sell Air NZ products without the proposed

Alliance, and the claim that Qantas Holidays would sell Air NZ products under the proposed Alliance, are not inevitable, however.

1245. Without the proposed Alliance, Qantas Holidays could still sell competitors' products, as it does now. It sells seats on Garuda, Malaysia Airlines and other competing airlines' flights. The Commission also notes a [

] As the tourists are claimed to be additional passengers, selling them Air NZ flights would not deprive Qantas of any revenue at all. Indeed, by not winning the business of these tourists, Qantas would be denying itself additional revenue.

1246. It is not clear why, under the proposed Alliance, Qantas would allow Qantas Holidays to promote Air NZ flights ahead of Qantas's flights. According to the Applicants' figures, a tourist who buys a package from Qantas Holidays earns the Qantas groups $[ ] in profit, if he or she takes a Qantas flight. Combining Qantas Holidays services with an Air NZ flight, and with Qantas claiming one third of Air NZ's margins from the sale, would earn Qantas $[ ] in profit. A package that included a third party airline's flight would earn the Qantas Group $[ ] profit. On these figures, it would seem to be much more attractive for Qantas to sell packages that include its own flights, with or without the proposed Alliance. If Qantas Holidays acted efficiently, it would allocate tourists between the two airlines until marginal profits were equalised. According to the figures supplied by the Applicants, this objective would favour tourists being allocated to Qantas flights.

1247. It is not clear why Qantas would deny itself a $[ ] profit without the proposed Alliance by not selling packages to New Zealand including Qantas flights. It is also not clear why, under the proposed Alliance, Qantas would sell a package using Air NZ flights when doing so is $[ ] less profitable to Qantas. (The difference in the Qantas group's profits between selling a package with a Qantas flight and selling a package with an allied Air NZ flight is $[ ], according to the Applicants.) The Applicants' response, as articulated by Tourism Futures International in their *Australasian Tourism Report* submitted in support of the Application, is that "in the absence of the Alliance," Qantas Holidays

> would have little incentive to sell New Zealand as a tourist destination. … Qantas currently has a limited network to and within New Zealand which makes many New Zealand related itineraries uneconomical and a combined Australia and New Zealand itinerary too expensive. The Qantas brand is also strongly associated with Australia, making it difficult for (Qantas Holidays) to sell New Zealand only as a destination overseas.

1248. The Applicants appealed to branding as the ultimate barrier to Qantas Holidays being able to sell New Zealand as a destination to tourists. In the conference, the chief operating officer of Qantas Holidays, Simon Bernardi, said:

> We don't have the volume of connections, you know, and seats available to us, and we don't have the branding. And, I know I keep saying branding, branding, branding, but it is so important to

> what we do. You can have the best product in the world, but if no-one sort of knows about it, you can't do anything with it.

1249. According to Mr Bernardi, branding is important, even to Australians:

> I think the branding is very important in Australia, mainly because there is so much competition into New Zealand from Australia. So, you need a brand that is very strongly focused on New Zealand and seen as an expert in that market. ... to somewhere like New Zealand there are so many wholesalers promoting New Zealand at all different sorts of levels, it's a very sort of segmented message, if you like, so I actually see the branding as being quite important in Australia.

1250. The Commission accepts that Qantas Holidays may have an additional incentive to promote tourism to New Zealand under the proposed Alliance in some markets, but not in others.

1251. For example, on the Tasman, Qantas's and Air New Zealand's efforts to promote New Zealand tourism could be greater without the proposed Alliance than within it. If Qantas regards New Zealand as part of its home market, and given that the airlines anticipate increasing capacity across the Tasman, increasing their tourism business may become a more urgent need. The Commission does not accept that branding would be a significant inhibiting factor for Australians wanting to spend holidays in New Zealand. Australians are often exposed to the message that Qantas will take them away and back again, "no matter how far or how wide they roam". New Zealand does not seem to be such an exotic destination that an Australian holiday-maker would doubt Qantas's ability to provide service.

1252. From other international destinations, branding might be more important, but it is likely that the volume of connections would be a telling factor. As Qantas adds international services to New Zealand destinations, its connections will increase, and it could be expected to invest in overcoming any perception problems created by its brands. The difference in incentives under the proposed Alliance and without it might not be as great as the Applicants suggest, but the Commission accepts that the proposed Alliance would provide a more amenable entry for Qantas into the market for international inbound tourism.

1253. The Commission also accepts the Applicants' assertion that, without the proposed Alliance, as now, Qantas would not allow Qantas Holidays to sell Air NZ products, though it does not seem to the Commission to be an optimal strategy. The benefits of depriving both the Qantas group and Air NZ of additional, currently unavailable revenue seem ill-defined. If Qantas wanted to engage in mutually harmful strategies to reduce Air NZ's margins, it would seem to have more effective means at its disposal. For example, it might stop allowing its staff to check in Air NZ passengers, or stop Qantas staff doing Air NZ's ground handling for them. Depriving Air NZ of these inputs would presumably impose additional costs on Air NZ, reduce its margins and reduce its hold on key routes. Depriving Air NZ of additional, unrealised revenue, in contrast, may not undermine Air NZ's viability much at all.

1254. Other network industries characterised by a high degree of rivalry in some markets, such as the mobile telephone industry, can witness competitors combining to increase total traffic. For example, an Australian mobile telephone service provider may refer its customers to a different New Zealand provider, even though these providers may be rivals in Australia. Doing so enhances returns to both providers by increasing usage and subscriptions. They do this rather than investing in the resources they would need to keep their customers within their own brands. National carriers also routinely provide services to other airlines in their home bases. Nonetheless, game theory and casual observation tends to indicate that suboptimality is not a sufficient condition to dismiss a strategy as unlikely. It is at least feasible that Qantas Holidays would not sell Air NZ products without the proposed Alliance, and it is feasible that pursuing this strategy would benefit Qantas. The Commission is not able to discern the costs and benefits of the strategy, but it accepts Qantas's and Qantas Holidays' submission that the strategy would be adopted.

Qantas Holidays' and Alliance Partners' Effectiveness at Promoting New Zealand

1255. The Applicants' submission that the proposed Alliance would increase the airlines' promotional effectiveness includes two prior claims. First, the Applicants claimed that Qantas Holidays would be an effective promoter of New Zealand inbound tourism when it is coupled with Air NZ. Second, the Applicants claimed that the airlines together would be more effective national tourism promoters and would enhance the effectiveness of official tourism promoters.

1256. The Commission has received many comments from the travel and tourism industry and others sceptical of Qantas Holidays' ability to enter and be effective in the inbound international tourist market. These comments included the observation that Qantas Holidays is not a specialist in inbound tourism even in Australia, and not a specialist in New Zealand at all. They pointed out that Qantas Holidays' claims might be more credible were they supported with plans by tourism operators.

1257. Submissions from travel industry participants have suggested that the Applicants' efforts to promote New Zealand could meet with a diminished effort by others who would benefit from the promotion succeeding, namely tourism organisations and industry. This "free-riding" would detract from the effectiveness of the proposed Alliance's efforts.

1258. The Commission notes the characterisation of enhanced promotional effectiveness by NZIER and Professor Hazledine. Another way to view the Applicants' statement that they could increase promotional effectiveness by 10% is equivalent to saying that currently 10% of promotion spending is socially wasteful or that they can increase the elasticity of demand with respect to promotion by 10%.

1259. The Commission accepts that Qantas Holidays and the airlines acting together have the ability to promote New Zealand effectively. It would be reasonable to expect that Qantas Holidays could sell 50,000 packages to Australian and other foreign

tourists.[170] However, this is not to say that these would be additional tourists, nor is it the case that Qantas Holidays could and would only meet this target under the proposed Alliance. In the Commission's view, it is also feasible that the allied Air NZ and Qantas would focus their promotion more effectively on building their joint market rather than, say, promoting their brands in order to bid customers away from each other.

Additional Tourists

1260. The Applicants have argued (and the public benefits claim depends on the assumption) that the 60,000 tourists, whom they claimed would be induced to come to New Zealand because of the proposed Alliance, would be additional to those who already come to New Zealand. The Applicants assumed that these tourists are those who would have visited another destination were it not for Qantas Holidays' new advocacy of New Zealand and the increased promotional effectiveness of the airlines and national tourism bodies combined.

1261. The Applicants offered several reasons why the 60,000 tourists are additional to those who already consume tourism in New Zealand in their response to the Commission's Draft Determination, including the following:

- it fits the general aim of the proposed Alliance: "the focus of the Alliance is to create market growth, and not to increase market share";
- the Applicants expect Qantas Holidays to target additional tourists. They expect the promotions, furthermore, to appeal to tourists' destination choice rather than their brand/carrier choice; and
- the 60,000 tourists are a small percentage of regional tourism (defining the region roughly as Asia-Pacific).

1262. On the other hand, various submissions have argued that Qantas Holidays would only succeed (to the extent that it could succeed) in winning business away from other providers. They questioned whether Qantas Holidays would find it easier to target people who presently do not want to visit New Zealand rather than those who presently do. Against the Applicants' view that 60,000 is in fact a small number of tourists, various submissions have pointed out that it is a large proportion of a growth projection in the number of holiday-makers that may already be optimistic. It is also likely, in the Commission's view, that it would be more expensive for Qantas Holidays to attract people into the New Zealand market than it would be to achieve other marketing objectives: achieving or maintaining market share, for example. It is not clear that this is included in Qantas Holidays' estimates.

[170] According to Qantas Holidays' business plan, their potential for winning New Zealand inbound tourism business could exceed 75,000, but for the purposes of estimating the public benefits of the proposed Alliance, the Applicants attribute only 50,000 additional tourists to Qantas Holidays.

1263. The Commission accepts that, to the extent that Qantas Holidays and the airlines are effective at promoting tourists, their efforts would result in some tourists coming to New Zealand who might otherwise not have come. However, the critical factor is the net impact on inbound tourism and the contribution of New Zealanders to the net increase in tourist numbers, a subject which is discussed below.

Competitive Reaction

1264. The Applicants submitted that there would not be a reaction by competitors that would undermine the effects of the proposed Alliance. The principal reason given was that the number of tourists targeted is too small to attract rivals' attention. A second reason was that many additional tourists would be Australia-New Zealand dual-destination tourists, who would be welcomed by rival state tourism bodies and industries.

1265. The Applicants' own consultants—Tourism Futures International—describe the competition for inbound tourists as "intensifying with an estimated 175 National Tourism Offices (NTOs) now competing for a share of the international travel market. … Australia and New Zealand are competing within an international tourism industry that is becoming increasingly sophisticated and integrated".

1266. By its nature, promotion is conspicuous and it is doubtful whether a successful campaign by Qantas Holidays or the proposed Alliance partners would go unnoticed and unchallenged. The Applicants' argument that Australian states would not begrudge additional New Zealand tourism if it were of the dual destination type might be true, but the states would be likely pursue opportunities to attract newly-won mono-destination tourists from New Zealand. Intending dual destination tourists could be persuaded to undertake mono destination travel.

1267. The Commission is of the view that, on the balance of probabilities, a highly competitive tourism industry would provide the proposed Alliance with competitive reaction to its increased promotion effort. The Commission's view is that the proposed Alliance could find a niche. Were this the case, competitors might have only intermittent success in eroding Qantas and Air NZ's targets.

Capacity Constraints on Tourism Growth

1268. The Applicants have suggested that since the projected increase in tourism numbers is a relatively small proportion of total inbound tourism, the industry and the airlines would be able to accommodate the additional arrivals.

1269. The Commission has received a number of views from the tourism industry and experts suggesting that industry resources are strained currently and that, even on projected growth, the industry may have trouble meeting demand.

1270. The Commission acknowledges that there are merits in both arguments. Capacity may be constrained in one place and available in another, and whether or not it becomes a serious problem would depend on the disposition and distribution of tourists. Over time, if there were sufficient demand and expectations of demand, the Commission would expect to see investment in new capacity. The Commission is of the view that an appropriate method of dealing with this issue is by modelling resource costs appropriately.

Higher Prices and Reduced Capacity: Impact on Tourist Numbers

1271. As discussed earlier, the Commission's view is that the proposed Alliance would generate higher prices and result in less capacity than the Applicants have submitted. Consequently, the Commission expects that it is likely more tourists would be deterred from travelling to New Zealand than NECG's modelling suggests. In the Commission's view, more New Zealanders would elect not to travel overseas too, but fewer New Zealanders than modelled would elect to consume tourism locally instead.

1272. The Commission also notes that, in one respect, the NECG model understates price effects on tourism numbers. NECG averages elasticities when calculating detriments. Tourists' elasticities are typically greater than average and their numbers more responsive to changes in price than NECG's results suggest. Consequently, NECG's model understates price-induced changes to the number of New Zealanders deterred from overseas travel and the number of foreign tourists deterred from visiting New Zealand.

1273. The Commission's model of competition effects found that the proposed Alliance would generally be likely to cause prices to rise and demand to contract to a greater extent than estimated by the NECG model, compared with what might be expected without the proposed Alliance. The Commission used the NECG spreadsheet to estimate the effect of the Commission model's results on tourism numbers. Results of the Commission's modelling and those of NECG appear in Table 21.

Table 21
NECG & Commission Estimates of Tourists
Deterred by Higher Fares and Reduced Capacity (Year 3)

	NECG	Commission
New Zealanders	84,848	189,003
Australians	33,229	139,962
Other foreigners	54,485	34,833

1274. In Table 21, the New Zealanders are deterred from travelling overseas, and the foreigners are deterred from travelling to New Zealand. The Commission's modelling suggests that there would be a greater impact on New Zealanders and Australians than does NECG's modelling, but estimates a smaller impact on non-Australian foreign tourists. The Commission's modelling estimates a smaller impact on certain key routes heavily trafficked by "other foreigners", such as Auckland to

Los Angeles, mainly because of the different way the detriments models of NECG and the Commission derive passenger numbers. While NECG models passenger numbers explicitly, and capacity is determined outside the model, the Commission models capacity and implies passenger numbers based on load factors.

1275. Both the NECG and Commission models exaggerate the number of tourists arriving in New Zealand (and those deterred from arriving). For example, without the proposed Alliance there would be 873,000 Australians and 886,000 other foreigners visiting New Zealand in year 3, according to the NECG model. Since there were only 243,000 inbound Australian holiday-makers to New Zealand in 2002, NECG is either modelling an exogenous and enormous increase in the number of Australian tourists or it is modelling more than just holiday-makers.[171] Using the capacity schedules developed by the Commission for the purpose of modelling detriments provides a more conservative estimate than using NECG's schedules, but the results still indicate that more than just holiday-makers are likely being counted in the estimate of tourist numbers. Both NECG's and the Commission's models also do not take into account the fact that inbound tourists are likely to substitute longer stays for more frequent travel.[172]

1276. For the purposes of assessing the impact of the Alliance on tourism, estimates obtained by using the Commission detriments model results within NECG's tourism model should be understood to include a wider class of tourists than only holiday-makers.

1277. In addition to the number of Australians deterred from coming to New Zealand under the Alliance, there is a further likely negative impact on Australians. According to the Commission's modelling, higher prices and reduced capacity under the proposed Alliance would deter 12,243 Australians from travelling from a New Zealand airport to a non-Australian foreign airport. In NECG's model, the number of Australians deterred from taking these trips would be 20,246.

The Net Price Impact on the Number of Tourists Consuming Tourism in New Zealand

1278. NECG's model shows net reductions in the number of foreign tourists, even fully allowing for the effect of Qantas Holidays' plans and enhanced promotional effectiveness. Any gain to the local tourism industry is estimated to come from New Zealanders who switch to local tourism consumption rather than go overseas. According to NECG calculations, 84,848 New Zealanders leisure passengers who would have travelled overseas without the proposed Alliance would not travel overseas as a result of the proposed Alliance in Year 3. NECG calculations show that there would be a net reduction in Australian and other foreign tourists of 19,229 and

[171] Those visiting friends and relatives fall into a different category of short-term arrivals than holiday-makers, for example. There is typically a large proportion of those visiting friends and relatives among Australian arrivals each year.

[172] They will come to New Zealand less often, but stay longer. The same effect is likely for outbound New Zealanders: they might travel overseas less often, but stay longer and spend more when they do.

5,208 in Year 3. Subtracting the sum of Australian and other foreign tourists from the number of New Zealanders deterred from overseas leisure travel leaves 60,411 New Zealanders. For the purposes of modelling and calculating the tourism benefits of the proposed Alliance, NECG claimed that 60,410 of these New Zealanders would consume tourism locally instead.

1279. The Applicants' do not support their view that all New Zealanders deterred from overseas leisure travel would necessarily, as their second preference, consume tourism locally with evidence or argument. It is not clear why domestic tourism is modelled as necessarily being outbound New Zealanders' next-best consumption choice. It might be that many of those who would otherwise have travelled overseas would instead, for example, reduce outstanding mortgages, undertake study, invest in home improvements, or some other choice, including continuing to save until they regarded overseas travel as affordable, or spending the money they might have spent overseas entirely on imports.

1280. The Commission's calculations suggest that NECG is likely to have underestimated the number of outbound New Zealand leisure passengers deterred from travelling overseas. The Commission's model suggests that 189,003 New Zealand leisure passengers would be deterred from travelling overseas. Furthermore, the Commission's view is that the next-best consumption choice for all of these consumers is not necessarily domestic tourism. For the purposes of estimating the number of New Zealanders who would consume domestic tourism for whom overseas travel becomes too expensive under the proposed Alliance, the Commission assumes a proportion of 14%, the proportion of New Zealanders' annual expenditure on domestic tourism to total annual household expenditure.[173] This method could itself exaggerate the amount of New Zealanders consuming tourism locally because it assumes that the would-be outbound tourists are determined to spend their money. They could choose, instead, to save or invest what they would have spent overseas. On the other hand, the method could result in an underestimate, since it might be argued that these would-be overseas tourists would have a greater propensity to travel domestically than the average consumer. According to the Commission's modelling, the number of New Zealand tourists who forgo overseas trips in Year 3 of the Alliance and consume New Zealand tourism instead is 26,460. This number probably exaggerates the number of New Zealanders who would consume domestic tourism because, given higher prices on trunk and provincial routes, the proposed Alliance would presumably deter some internal tourist travel as well. (This negative effect would apply to all New Zealanders who travel by air for the purposes of tourism, not only those who would be deterred from overseas travel.)

1281. NECG assumed that 100% of those Australians who are deterred from travelling between New Zealand and non-Australian overseas destinations under the proposed Alliance would instead consume tourism in New Zealand. NECG has not supported this assumption with evidence or argument. It is not clear why Australians who found the New Zealand-overseas leg of a trip too expensive under the proposed

[173] Based on numbers supplied by Statistics NZ and the Tourism Research Commission NZ.

Alliance would not likely avoid New Zealand altogether. They might find an alternative route to their preferred destination, or might substitute a completely different holiday destination, without the need for an ex-New Zealand flight.

1282. Nonetheless, it is feasible that some of these Australians would substitute New Zealand tourism once their preferred destination became too expensive to reach under the proposed Alliance. For the purposes of estimating the number of Australians who would substitute New Zealand tourism for overseas tourism under the proposed Alliance, the Commission assumes a figure of 16% of Australian tourists deterred from undertaking New Zealand-overseas trips. This figure is suggested by the proportion of Australians choosing New Zealand as an overseas tourist destination.[174] This method will also likely exaggerate the positive impact on New Zealand tourism because it assumes that, forgoing their preferred holiday, all these Australians will consume overseas tourism anyway, rather than spend their time and money on something else. According to the Commission's modelling, the number of Australian tourists who forgo New Zealand-overseas trips in year 3 of the Alliance and consume New Zealand tourism instead is 1,959.

1283. Subtracting the 1,959 Australians who substitute New Zealand tourism for travel beyond New Zealand from the total number of 139,962 Australians who find travel to New Zealand too expensive means that, according to the Commission's modelling, the net impact is that there is likely to be, on the balance of probabilities, 138,003 fewer Australians travelling to New Zealand in Year 3.

Conclusion on Tourist Numbers

1284. The Applicants' claimed tourism numbers are uncertain. However, the Commission acknowledges that Qantas Holidays may engage in efforts to attract more tourists to New Zealand, particularly on non-Tasman routes. Further, the Commission acknowledges that its efforts are likely to be effective to some degree, more so in international markets than in the Australian market. Its efforts will work to some degree because of the proposed Alliance's enhanced network and the coupling of Qantas Holidays' resources with Air NZ's services, and to a lesser extent, with its brands. The Commission's view, on the balance of probabilities, is that Qantas Holidays' efforts could increase inbound tourists in the order of 28,000. This figure is 80% of the projected 36,000 addition to tourist numbers from markets other than Australia. The Commission's view is that, on the balance of probabilities, Qantas Holidays' efforts are likely to have no net effect on the Tasman markets. The disallowance of additional Australian tourists reflects the Commission's view that the airlines might more vigorously promote trans-Tasman tourism without the proposed Alliance. The assumption that Qantas Holidays' targets will be 80% met partly reflects the Commission's uncertainty about various assumptions discussed in previous sections.

[174] Based on numbers supplied by the Australian Bureau of Statistics.

1285. The Commission's considers that the claim that promotional effectiveness would increase by 10% is uncertain. However, the Commission's view is that enhanced promotional effectiveness is a possible result of the proposed Alliance and the Commission is prepared partly to accept the Applicants' assessment of its effect. For the purposes of estimating the tourism benefits attributable to the proposed Alliance, the Commission will, on the balance of probabilities, adopt a figure of 10,622, 80% of the Applicants' estimate of enhanced promotional effectiveness in year 3 of the proposed Alliance.

1286. The Commission disagrees with the Applicants' estimate of adjustments for higher prices and reduced capacity on two grounds:

- First, the Applicants' claim that only 2,867 fewer tourists would come to New Zealand as a result of fare and capacity changes in year 3 does not reflect their own modelling. Their modelling shows that 33,229 fewer Australians and 54,485 fewer other foreign tourists would visit New Zealand in year 3 of the proposed Alliance. The Commission's figures are 138,003 fewer Australians and 34,833 fewer other foreign tourists.

- Second, the Commission does not accept that all New Zealanders expected to remain in New Zealand because of higher prices and reduced capacity will necessarily consume tourism locally. The Commission estimates that 189,003 New Zealanders would be deterred from overseas travel in year 3 of the proposed Alliance. For the purposes of estimating tourism benefits, the Commission will assume that 26,460 of these New Zealanders will substitute local tourism for forgone overseas tourism.

1287. For the purposes of estimating the tourism benefits of the proposed Alliance, the Commission will assume that the impact of the proposed Alliance in year 3 are as given in Table 22.

Table 22
The Impact of the Proposed Alliance
on the Number of Tourists in New Zealand
(Year 3)

Gains	
Qantas Holidays effect	28,000
Enhanced promotion	10,622
New Zealanders forgoing overseas travel	26,460
Sub-total	65,082
Losses	
Australians	138,003
Other foreign	34,833
Sub-total	172,846
Total	106,954

1288. The net effect is that 106,954 fewer tourists would use New Zealand tourism facilities in Year 3 of the Alliance.

The Public Benefits of New Zealanders Substituting Domestic Tourism for Overseas Tourism

1289. The argument for estimating welfare gains from increases in local tourism by New Zealanders as a result of the proposed Alliance must be that the detriments are already captured in the Cournot model. That is to say, the loss of welfare they suffer from not being able to access their preferred choice is reflected in the loss of allocative efficiency already calculated earlier.[175] Benefits flow from the additional local spending that the claimed 60,410 New Zealanders would have otherwise spent overseas.

1290. The fact that the tourism benefits claimed by NECG are much larger than the sum of all detriments NECG estimates suggests that, accepting the NECG view of the world, New Zealand would be much better off if it could increase local tourism by making it too expensive to fly overseas. It is analogous to an argument advanced by those seeking import tariffs: by making imports more expensive, consumers are driven to consume domestically produced substitutes. The country as a whole is said to be better off because domestic industry expands to meet the new demand. Economic analysis tends to show, however, that import tariffs do not improve welfare overall. Instead, they reduce consumer surplus and generate productive inefficiency. For such reasons, the Commission is of the view that protecting a competitive and vigorous local tourism industry from foreign competition is unlikely to enhance public welfare.

1291. Commonly, overseas holidays are more expensive than local tourism. That people choose to pay a premium to consume tourism overseas suggests that those people value overseas travel more than the local product or, to put it another way, that the local product is not a substitute for overseas tourism. It is clear, at least, that local and overseas tourism are significantly differentiated products. NECG assumed that, once the proposed Alliance raised prices, 84,848 New Zealanders would switch to the local product. But then, to model the impact of these additional tourists, NECG assumed that their spending on domestic tourism is a weighted average of what they would have spent in overseas markets. The Commission is of the view that it is not necessarily true that New Zealanders would be prepared to spend on tourism locally what they would have spent overseas. It is reasonable to suppose that local New Zealand tourists could avoid at least some of the accommodation and transport costs that they might have incurred overseas.

1292. It may be the case that, given that the imported product (an overseas holiday) becomes more expensive, more of the local product is produced at a higher cost. If so, having a more expensive local product that could be imported more cheaply

[175] This assumes that the derived demand function for airfares sufficiently captures the utility gained from the whole trip, including the associated consumption of goods and services overseas. However, such an assumption is questionable.

without the proposed Alliance should be represented as productive inefficiency: a welfare loss. It is not clear that NECG has calculated and included this loss. Rather, the fact that under the proposed Alliance, New Zealanders who demand tourism have to pay the same amount of money to receive less utility, becomes a benefit to the whole economy, according to NECG.

1293. The analysis of the lost welfare generated by New Zealanders forgoing overseas travel to consume tourism locally illustrates the difficulty of comparing different kinds of welfare measures. While the Commission agrees with Peter Dixon's advice to NECG that the Monash model results imply welfare changes, it does not follow that the results are identical to or comparable with the welfare change implied by the partial equilibrium model used to find competitive detriments. Assuming that there is an almost complete substitution of domestic consumption for imports is not tenable, even in a partial, one-product model of an open economy. The standard analysis of the imposition of an import tariff, for example, shows that local consumption of the product decreases. According to the NECG analysis, however, New Zealanders respond to a price rise in the import by consuming at almost exactly the same level, not only substituting a lower-utility local product for the import, but paying what they would have paid for the import without the proposed Alliance.

1294. The Commission notes that the approach to modelling outbound New Zealander tourists is not explicitly extended to other New Zealand air travellers who are deterred from taking trips by the proposed Alliance. Outbound business travellers would presumably spend their money in some other way if the proposed Alliance made air travel too expensive and it could be assumed that all those affected by higher fares are potentially local tourists. This potential additional spending could be modelled using general equilibrium analysis. (It is possible that a proportion of these passengers is counted since, as mentioned, the NECG spreadsheet appears to be counting more than holiday-makers in estimating the impact of the proposed Alliance on tourist numbers.)

1295. The Applicants have not supported the estimates of tourism benefits with arguments or evidence. Despite the volume and quality of arguments in favour of the Qantas Holidays and enhanced promotion effects, the claim of an increase in tourist numbers remains unjustified. The fact that 84,848 New Zealanders would be deterred from consuming tourism overseas under the proposed Alliance does not imply that they would all consume tourism locally instead. It cannot be assumed that the money they would have spent on their overseas holiday would be spent on local tourism. It also cannot be assumed that there would be no productive inefficiency in the local industry. Using more plausible assumptions would presumably reduce the local tourism spending by New Zealanders. The Commission is therefore reluctant to accept the welfare measure suggested by NECG's modelling.

Modelling and Expression of Public Benefits

1296. The Applicants have only applied general equilibrium analysis to the tourism benefits. Yet, to be consistent and to generate estimates of different effects that are comparable, the model should be applicable to other consequences of the proposed Alliance. The single application of the model to tourism creates problems when trying to assess the public benefits and detriments of the proposed Alliance. Other parts of the analysis were done with partial equilibrium models or omitted altogether. There is no general equilibrium impact estimate (or any other kind) of foreign business travellers who decide not to travel to New Zealand, nor of the effects of higher airfares more generally. The Monash model is not used to estimate the flow-on effects of reduced capacity. It is unclear how comparable are the partial equilibrium estimates and the general equilibrium estimates.

1297. The Commission is satisfied that the Monash model is credible, widely used and can be used to provide analysis that is, in principle, admissible in evaluations of the kind being considered here. It is also true that Monash models an economy which is similar to New Zealand's in certain relevant respects, such as the level of economic development, low unemployment and the importance of tourism. On the other hand, using Australian data is likely to misrepresent some important characteristics of the New Zealand economy.

1298. Like all models of its kind, the Monash model is highly complex, and that fact itself suggests that a cautious approach must be adopted when considering its results. The Applicants switched to results generated by the Monash model on 20 June 2003 and provided the Commission with its output files on 14 August 2003. The Commission has not had time to critically examine the detailed modelling, and is therefore unable to assess or comment upon important factors contributing to the results. In accepting in principle the use of the Monash model, the Commission is assuming a great deal about the applicability and implementation of the model that might not withstand closer scrutiny. After making the point that all Australian general equilibrium models of the New Zealand economy are based on 1987 input-output tables, Ralph Lattimore[176] explained at the conference that:

> the second problem that's particularly acute for computable general equilibrium models of the New Zealand economy is that, of the hundreds and thousands of parameters in the model, 99% of them are guesstimates. They have never been estimated in a New Zealand market environment

1299. That is, even a model defined as a model of the New Zealand economy could be inapt in many subtle ways, with unknowable consequences for the validity of the results.

1300. There remain a number of key issues that the Commission must comment upon. They relate generally to modelling preferences rather than to criticisms of the Monash model.

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[176] Dr Lattimore is a senior fellow at NZIER, who were employed in support of Gulliver's submission.

1301. In the Applicants' original submission, tourism benefits modelling was accompanied by a sensitivity analysis using GTEM run using the assumption of fixed employment. In its Draft Determination, the Commission expressed a preference for assuming fixed employment for the purposes of modelling tourism benefits in relation to the present Application. In its most recent estimates of tourism benefits, the Applicants have not presented results using a model that assumes fixed employment, even as a sensitivity test. The Commission notes that NECG believes that a short-run outlook is preferable, characterised by sticky wages and flexible employment, but considers that estimates modelled on the basis of fixed employment would have been helpful for assessing the present tourism benefits claims. As the Applicants' economic expert, Professor Willig, said to the Commission on the subject of sensitivity testing:

> … it's really important to try to understand, either quantitatively or qualitatively, what the impact of the particular choice of design would be on the answers that matter, and how much would the answers that matter change if some reasonable variation were made in that portion of the model design.
>
> So, it's testing the areas that seem to matter the most, where the uncertainty about the construction is valid and perhaps inevitable.

1302. The Applicants have raised a number of objections to modelling tourism benefits under an assumption of fixed employment. For example, in their response to the Commission's Draft Determination and during the conference, the Applicants suggested that assuming fixed wages and flexible employment is standard in Australian policy analysis. During the conference and in response to the Draft Determination, the Applicants offered examples such as the Productivity Commission's assessment of industry assistance programmes. Mr Ergas also mentioned the example of employment programmes: if they were assessed using models restricted by the assumption of fixed employment, they would have no positive effect. The Commission accepts that relaxing the assumption of fixed employment may be desirable in modelling such programmes. In fact, the same Treasury minute to which the Commission referred in its Draft Determination explicitly mentions proposals relating to unemployment as an exceptional case where full employment need not be adopted. The Commission also notes that the promotional effectiveness and expenditure claimed to flow from the proposed Alliance are not industry assistance schemes or employment schemes. They are not designed, like such schemes, to spend social resources on welfare goals. They are, according to the rationale supporting them, designed to fill seats on aircraft. They are claimed to be commercial or market outcomes, and are not, like industry assistance schemes and employment schemes, designed to correct market failure.

1303. Given that tourism benefits are driven by import replacement (that is, New Zealanders' replacement of foreign holidays with local tourism), the proposed Alliance appears to have the same effect as an import tariff. It is possible that, were the proposed Alliance intended as a means to achieve the same ends as an import tariff, then the appropriate modelling assumptions would need to be made. But the argument that the proposed Alliance would create barriers to trade and so benefit local industry has not been offered to the Commission.

1304. Lacking evidence that the benefits to tourism would be delivered by the airlines to achieve social objectives, such as job creation or regional development, the Commission does not accept the argument that because fixed employment is not an assumption used to assess social programmes, it is not an appropriate assumption for the present purposes.

1305. The Applicants also argued that the Commission should adopt a short-term perspective. In their response to the Commission's Draft Determination, in answer to question 63, the Applicants said that "the Commission is required to assess the costs and benefits of the proposed Alliance over the period of time for which authorisation is being sought". In fact, the Commission is required to assess the competitive detriments and public benefits produced by the proposed Alliance, whether they are ephemeral or occur in perpetuity. The Commission has not been advised that the proposed Alliance or its effects would disappear in the short-run, and is therefore of the view that it can take a longer term outlook. In assessing public benefits and detriments, the Commission has assumed an outlook of three to five years. The Commission considers that this is at least a medium term outlook in which the labour market may adjust to restore employment to some fixed level, even if the physical capital stock may not adjust. The Commission is not considering, and is not being asked to consider, a single period effect, but a claim that there will be a sustained increase in the number of tourists visiting New Zealand as a direct consequence of the proposed Alliance. This view is consistent with the purpose of the Commerce Act, which is to promote competition in markets for the long-term benefit of consumers within New Zealand.

1306. The Applicants argued that to assume fixed employment is equivalent to saying that unemployment is voluntary. Professor Dixon suggested that counting unemployed people's leisure as a positive measure of welfare can lead to "ridiculous conclusions," such as that "the 1930s were not a period of intense economic suffering". However, the New Zealand labour market is in a relatively good state and is projected to remain so for some years. This is not equivalent to saying that all employment is voluntary – merely that in the medium-to-long term, the labour market ought to be modelled as adjusting to a fixed level.

1307. For the purposes of estimating the public benefits of the Alliance, the Commission does not accept the Applicants' CGE modelling results. In order to be consistent with other estimates used in assessing the present Application, the Commission has adopted a partial equilibrium approach.

1308. The Commission has adopted the methods used by NECG to estimate the average expenditure on domestic tourism as a result of the Alliance although, as mentioned above, it is unlikely that New Zealanders and Australians would spend 100% of what they would have spent overseas on New Zealand tourism. The Commission has assumed that consumer losses from New Zealanders forgoing a more highly valued holiday destination and substituting a less valued alternative are accurately

represented in the Cournot model of airfares, though it is likely that the welfare losses are under-estimated. The Commission has assumed that, given that the New Zealand tourism industry is, overall, reasonably competitive, economic profits (producer surplus), will be a small proportion of tourism spending.[177] The Commission assumes a range of figures to estimate the sensitivity of the welfare impact of the proposed Alliance on tourism, namely 2%, 5% and 10%.

Table 23
Estimated Public Benefits from a Change in Tourism Expenditure under the Proposed Alliance
(Year 3)

Change in tourist numbers	Change in total expenditure	2%	5%	10%
−106,954	−$176,113,560	−$3,522,271	−$8,805,678	−$17,611,356

1309. The estimates in Table 23 can be interpreted as how much worse off in terms of economic profits would the domestic tourism industry be were the proposed Alliance to proceed. The welfare effects included here do not represent losses to New Zealand tourists themselves. The losses faced by New Zealand tourist are partly represented in the modelling of the detriments attributed to higher airfares. There is likely to be an additional detriment from New Zealanders having to forgo their preferred travel and consume a less-preferred alternative. The numbers above also partly include transfers from producers to consumers. In practice, local tourists would need to pay more to fly on trunk and provincial routes. Higher domestic airfares diminish the total amount of utility enjoyed by domestic tourists for a given level of expenditure.

1310. The estimates in Table 23 are based on the assumption that New Zealanders diverted from overseas travel to domestic tourism will spend the entire amount they would have spent on local tourism. This might not necessarily be so in practice. By using their own vehicles, relying on friends for accommodation and various other preparations, New Zealanders travelling domestically might not need to spend all of what they would have overseas on domestic tourism. In this sense, the benefits to the tourism industry of New Zealanders consuming tourism domestically rather than travelling overseas could be exaggerated.

The Public Benefits of New Zealanders Substituting Other Domestic Consumption for Overseas Tourism

1311. New Zealanders who would find it too expensive to travel overseas under the proposed Alliance would still spend locally part of what they might have spent overseas. The Commission has assumed as part of the analysis in Table 20 that 14% of outbound New Zealanders would substitute domestic tourism for overseas travel. This means that the balance of the 86% might consume a part of what they would

[177] Economic profits are gross revenue, or tourist expenditure, less the sum of the cost of resources used to supply tourism services and a normal return.

have spent overseas on goods and services produced locally. It is arguable that this spending provides a public benefit attributable to the proposed Alliance.

1312. Benefits from domestic, non-tourism expenditure were estimated by the Commerce Commission as follows. The number of New Zealanders who were assumed not to substitute domestic tourism for forgone overseas travel (162,542)[178] was multiplied by their average overseas spending ($1,744) to give their total overseas expenditure ($283,505,314). They were assumed to spend all of this domestically, less what they would be assumed to spend on imports ($57,154,671). Spending on imports was subtracted because this would provide producer benefits not to New Zealand producers, but to foreigners. The deduction for imports was based on the value of imports to New Zealand as a percentage of gross national expenditure, 28%.[179] The amount spent domestically was therefore assumed to be $204,123,826.

1313. Economic profits were assumed to be a small proportion of revenue because the New Zealand economy was assumed to be reasonably competitive. The same range of percentages was used to estimate the sensitivity of other domestic consumption benefits to assumptions about the proportion of expenditure captured as economic profits. The results appear in Table 24.

Table 24
Estimated Public Benefits from a Change in Domestic Spending from New Zealanders Deterred from Overseas Travel under the Proposed Alliance ($) (Year 3)

Change in local expenditure	2%	5%	10%
204,123,826	4,082,477	10,206,191	20,412,383

1314. The estimates in Table 24 can be used to indicate how much better off in terms of economic profits would domestic producers other than tourism producers (which are covered in Table 23) be were the proposed Alliance to proceed. As with the tourism benefits above, the welfare effects included here do not include the losses to New Zealand tourists themselves. The losses faced by New Zealand tourist are partly represented in the modelling of the detriments attributed to higher airfares. There is an additional detriment from New Zealanders having to forgo their preferred consumption (overseas travel) for less-preferred consumption. These additional detriments are partly counted in the Commission's detriments modelling.

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[178] Eighty-six per cent of the total number of New Zealanders deterred from overseas travel, 189,003.
[179] See Statistics New Zealand, *Consumer Expenditure Statistics 1998*, Wellington, 1998, Table 1.1.

ENGINEERING AND MAINTENANCE CONTRACTS

The Applicants' View

1315. In their response to the Commission's Draft Determination, the Applicants claimed that, "under the Alliance, Qantas would have an incentive to direct up to 80% of its subcontracted external engineering and maintenance work … to Air New Zealand". Without the Alliance, the Applicants claimed, Qantas might direct up to only 10% of external engineering and maintenance contracts to Air New Zealand Engineering Services (ANZES). The Applicants repeated their submission that "the benefit to Air New Zealand" would be $35 million a year. The Applicants have identified this $35 million benefit to Air NZ as a public benefit.

1316. The Applicants explained in their response to the Draft Determination that decisions to award engineering and maintenance external contracts are driven by a combination of the following considerations:

- price;
- proximity;
- quality;
- urgency of the work needed; and
- "other strategic imperatives aligned with the motivation to maximise Qantas's group-wide profitability"

1317. According to the Applicants, the proposed Alliance would change Qantas's strategic imperatives, such that Qantas's allocating 80% of external contracts to ANZES would be the norm. Without the Alliance, the same strategic imperatives would induce Qantas to contract ANZES to supply only 10% of Qantas's external engineering services.

1318. In its Draft Determination, the Commission noted that Qantas directed [ ]its external engineering contracts to ANZES in the 2002-3 financial year. The Commission asked why, if Qantas purchases [ ] of external engineering services from ANZES now, should the Commission accept that Qantas would purchase only 10% were the proposed Alliance not to proceed? The Applicants answered that 2002-3 was an extraordinary year. Ansett's failure meant that Qantas deployed more aircraft and used its existing fleet more intensively. Under such circumstances, proximity and urgency were promoted to positions of primacy among the considerations determining choice of engineering services providers. Strategic concerns receded temporarily within the array of deciding factors.

1319. It is worth noting that Qantas also provides heavy maintenance to Air NZ on an *ad hoc* basis at its Sydney International Airport plant. It also provides maintenance to Air Pacific and, at its facilities in Melbourne, serves Air Nauru and Polynesian Airlines. The Commission has not been informed whether Qantas would continue to serve Air NZ aircraft were the proposed Alliance not to proceed, or whether Air NZ would for strategic reasons seek another supplier.

1320. The Applicants explained that the volatility and variability of Qantas's patronage of ANZES would continue without the proposed Alliance, but would decrease under the Alliance. According to paragraph 13.28 of their response to the Draft Determination, "under the Alliance Qantas will have an incentive to provide a *significant and certain level*" (emphasis added) of contract work to ANZES.

1321. During the conference, Qantas suggested that there were times when alternative suppliers might easily have won contracts ultimately won by ANZES. Paul Edwards said "There have been occasions over the last 12 months where we could just as easily have given the work to another external supplier, but we decided in the interests of building the relationship to give it to Air New Zealand."[180] The contracts were decided in ANZES's favour because Qantas was attempting to build a relationship with Air New Zealand. [

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The Commission's View

1322. The Commission accepts that strategic incentives would change under the proposed Alliance, and that this change in incentives could potentially be reflected in Qantas's external purchases of engineering and maintenance services. The Commission cannot, however, accept the Applicants' claim of annual benefits in Year 3 of $35 million. The Commission's two principle grounds for rejecting the figure are:

- identifying $35 million as the expected annual worth of Qantas patronage that could be attributed to the Alliance; and

- identifying this number as a measure of public benefit.

1323. In addition, the Commission notes that it is common for national carriers, including Qantas and Air NZ, to provide each other with services in their home bases.

1324. The Commission accepts the Applicants' argument that, everything else being equal, on the balance of probabilities, Qantas would prefer not to use its neighbouring rival's services if that could be avoided. But while strategic concerns might increase in importance when considering which supplier to choose, that does not mean that price, proximity, quality and urgency would diminish in importance, except relatively. The

[180] See conference transcripts, pp. 101-2.

Commission considers, on the balance of probabilities, that it is reasonable to expect that ANZES would perceive the commercial disadvantage that it would suffer by its association with Air NZ and react accordingly. ANZES might adjust its price to a level where Qantas would calculate that the price and other advantages of ANZES weighed in its favour when compared with the indefinite and vague strategic benefits to Qantas of depriving ANZES of business. In the long run, ANZES might expand its plant in Australia to enhance location benefits.

1325. Rivals for Qantas's business could, in turn, react to ANZES's pricing designed to retain Qantas contracts, and it is possible that the successful bidder would depend on which suppliers had advantages in terms of strategic considerations, proximity, quality, urgency and other factors, including the value of alternative clients.

1326. The Commission considers that it is unlikely that, without the Alliance, the business that ANZES would lose from Qantas as a result of strategic withdrawal of patronage would translate into an expected difference of 70% in the amount of external engineering services purchased from ANZES. For the purposes of calculating the net public benefits of the proposed Alliance, and in the light of the information and evidence received, on the balance of probabilities, the Commission estimates a range of 20% to 40% as the expected difference in Qantas's external contracts being won by ANZES.

1327. NECG's estimates of engineering benefits implied that, were additional business retained by ANZES as a consequence of the Alliance, the gross difference in expenditure by Qantas would represent a public benefit. That is, it assumed that ANZES could not win any alternative contracts, and that any extra work it did receive as a consequence of the Alliance could be performed without incurring resource costs. It is uncertain as to whether ANZES could not find business to replace Qantas's. It is highly unlikely that ANZES could do work for Qantas (or anyone else) without incurring additional resource costs. Even if ANZES were irrevocably to lose business as a result of the Alliance not proceeding, it is highly likely that the resources it would have used to meet Qantas's demand would be employed in other production within New Zealand. On the basis of the information and evidence provided to it, the Commission estimates, on the balance of probabilities, the proportion of revenue spent on resource costs at 50%.

1328. For the purposes of calculating net public benefits, the Commission considers, on the balance of probabilities, that the public benefits attributable to engineering and maintenance contracts won by ANZES as a result of the proposed Alliance would fall within the range of $5 million to $10 million. This number is derived from the Applicants' year 3 claimed engineering benefits and discounting it by the proportions suggested above.

IMPROVED SCHEDULING

The Applicants' View

1329. The Applicants submitted that the proposed Alliance would result in scheduling benefits arising from improved flight frequency, enhanced connectivity and additional direct services. In short, the airlines under the proposed Alliance would stop scheduling services at the same time, and instead schedule their flights more evenly throughout the day at times more suitable to a significant number of travellers. The Applicants claimed these travellers would benefit from being able to travel at times they prefer, rather than as now at times as now suited to airline competition for the median passenger.

1330. Scheduling benefits to New Zealand were estimated to be around $13 million in the first year of the proposed Alliance, around $4 million in the next and $2 million in each following year. Hypothesised schedules under the proposed Alliance were compared to current schedules. This is the only estimate that is not a comparison of the factual to counterfactual scenarios. The reason for the departure from the usual practice is that schedules under the counterfactual were not known. Benefits were calculated from savings in waiting time using values of time of $100 per hour for business travellers, and $20 per hour for leisure travellers.

The Commission's View

1331. The Commission agrees with the Applicants that more convenient schedules would benefit passengers. The Commission also agrees that the airlines under the proposed Alliance would be less likely to compete for the median passenger than they would be as competitors. So, to the extent that the proposed Alliance would deliver more diverse scheduling, passengers would benefit.

1332. Submissions have criticised scheduling benefits on the basis that people appear to want to fly at the times that they do now, and so would not necessarily benefit from flights being available at less popular times. The Commission also acknowledges the comment that, without the proposed Alliance, were surplus capacity deployed, it might be deployed outside peak times. So scheduling benefits would occur to some extent without the proposed Alliance. The Commission accepts these comments, but concludes that, on balance, the proposed Alliance would likely result in some flights being available at times to better suit those who prefer to travel at less popular times. The proposed Alliance is likely to offer these travellers an amenity, and that should be reflected in the Commission's assessment of public benefits.

1333. While agreeing with the Applicants that the proposed Alliance would provide scheduling benefits in principle, the Commission is of the view that NECG's calculations of scheduling benefits are not reliable for two reasons. First, the time values used by NECG to calculate benefits are too high, and are wrongly applied. As

various submissions have pointed out, it is not legitimate for NECG to claim benefits based on the full value people place on time. People do not completely waste the time between their preferred travel times and the times flights are actually available. They find other (albeit sub-optimal) ways to use that time. It is not appropriate, therefore, to assume that they bear the full cost of the time between their preferred travel times and those available to them. Even as full hourly time values, the values assumed by NECG are higher than the Commission considers would normally be appropriate for modelling the behaviour of New Zealand air travellers.

1334. The Commission also has concerns over NECG's calculations: for example, the Wellington to Melbourne route in year 1 of the proposed Alliance.

Time	Schedule now	Alliance schedule
6.00am	Air NZ	
6.15	Qantas	
9.10		Air NZ
3.40pm	Qantas	Qantas

1335. As modelled by NECG, the schedule now has two early morning flights – one each by Air NZ and Qantas. Qantas provides the only other and last flight of the day at 3.40 pm. Under the proposed Alliance, there are no flights offered before a single Air NZ flight at 9.10 am, and then the 3.40 pm Qantas flight. On this route alone, year 1 scheduling benefits are estimated to be almost $1 million. This raises the question, if passengers place a greater value on a single 9.10am flight in preference to two flights closer to 6am, why would the airlines fail either to perceive this or to act on it without the proposed Alliance?

1336. Another concern with NECG's scheduling calculations is that they appear to contradict the airlines' understanding of how capacity-allocation on JAO routes would operate under the proposed Alliance. On the year 1 Wellington to Melbourne route, for the purposes of modelling scheduling benefits, NECG has eliminated current capacity – something which the Commission understands from the Applicants' statements would not happen.

1337. To estimate the scheduling benefits of the proposed Alliance, the Commission has adjusted the NECG model only to represent the fact that people might bear as a cost only 20% of the difference between being able to fly closer to their preferred travel time under the proposed Alliance and the times they have to fly according to the schedules currently offered. This adjustment means that business travellers' scheduling benefits are valued at $20 per hour while leisure passengers' benefits are valued at $4 per hour. This adjustment reduces scheduling benefits to around $476,000. The Commission regards, on the balance of probabilities, this figure as an upper limit of the potential scheduling benefits offered by the proposed Alliance, but will adopt it for the purposes of calculating the public benefits of the proposed Alliance.

NEW DIRECT FLIGHTS

The Applicants' View

1338. NECG estimated the benefits of time savings by being able to travel to particular destinations directly under the proposed Alliance, rather than indirectly. Benefits of new direct flights are projected to be around $9 million in year 3. New direct flights are anticipated (and declared in the Applicants' undertakings) to include flights between Auckland and Adelaide, by Air NZ, while Qantas would fly between Auckland and Hobart, Auckland and Canberra, and Wellington and Canberra. Time savings were valued at $100 per hour and $20 per hour for business and leisure passengers respectively, and expected patronage on these services were the basis of benefit estimates.

The Commission's View

1339. Industry sources have asked the question: if these flights were profitable, why are they not available now? Current competition should allow the more efficient airline to serve these markets if it were possible to do so under the proposed Alliance. NECG answered that, under competition and where there are fixed costs, neither airline could "bind the other to act in such a way as to assure it of fixed cost coverage once it extends its product range". So the routes are profitable for a single airline, not for two competitors, but with competition, if one entered, the other would feel obliged to follow. This assumes there is a business stealing effect of having two competitors, or that the market would not respond to lower fares and higher service levels. However, this market reaction is well documented and is implied by other parts of the NECG report. Other criticisms of these benefits concern travel time values and the assumed traffic levels on the new routes, both of which the critics argue are exaggerated.

1340. NECG referred to Quality of Service Index (QSI) increases resulting from improved connectivity, marketing and sharing frequent flyer points in order to make the routes profitable under the proposed Alliance. Even so, the viability of the routes would depend both on how much demand can really be stimulated this way, and by the response of Virgin Blue, which has shown that it is willing to contest thinner markets that the larger airlines are hesitant to enter. Furthermore, the proportion of the market sensitive to these non-fare service factors in the QSI is low and currently shrinking.

1341. In NECG's estimates of the benefits no consideration was given to passengers who would shift from current indirect to direct flights, and to what the distribution between business and leisure passengers might be. If there were direct services with no fare differences, one might expect a pure transfer. However, the gains to passengers may well be offset by the higher costs to airlines. Based on the uncertainty of the relationship between the proposed Alliance and the economic viability of these new direct services, the Commission estimates the public benefits of direct flights as being nil.

INCREASED FREIGHT SERVICES

The Applicants' View

1342. Improved freight operations under the Alliance are projected to provide a relatively small stream of benefits to New Zealand. These benefits result from proposed additional freight services along with improved scheduling, cost savings and "the possibility that the two airlines could operate joint freighter services". Proposed additional freight services include "back of the clock" flights of 767 aircraft. The additional freight capacity on Tasman and Asian routes was valued at [ ] per tonne kilometre, an average yield figure, providing the total freight benefit claimed of $2.5 million.

The Commission's View

1343. In their response to the Draft Determination, the Applicants interpreted the Commission's view as appearing "not to take issue with the freight benefits claimed". The Commission in fact was not and is not satisfied as to the nature of the freight benefits claimed. In particular:

- it is not clear that additional capacity projected on certain routes is guaranteed to occur, and were it to be introduced, it is not clear how reduced competition under the Alliance would affect freight rates;

- it is not clear to the Commission why, if new freight services would be profitable under the Alliance, they are not offered now either by the Applicants or others;

- the Commission is of the view that there is an apparent contradiction between the Applicants' claim that there would be no competition concerns in the freight market as a result of the proposed Alliance, and yet there exist freight markets that are unavailable to new entrants or either Air NZ or Qantas in competition with each other; and

- the Commission is of the view it is not appropriate to use total additional revenue, based on an average yield figure and projected tonnage carried, halve it, and claim the product as a welfare gain.

1344. Since their original submission, the Applicants' arguments in support of their freight benefits claims have centred on the issue of market definition and entry. In assessing the Applicants' claim both of freight benefits themselves and freight benefits in relation to other assumptions about the market, it would have been instructive to see these links explicitly modelled.

1345. For example, NECG's passenger detriments model could have been extended to accommodate freight markets. At the conference, Professor Willig said referred to submissions from Virgin Blue that an airplane was "just a flying steel cylinder into which either people or freight could be stuffed", and said that "given what they (Virgin Blue) said one couldn't really model freight separately, since freight and passenger service in some respects seem to be joint products of the same aircraft capacity".

1346. To model freight using the same framework as it had used for passenger markets, NECG would have needed to propose:

- demand and cost functions; and
- base and projected entry and incumbent schedules and capacities with and without the Alliance.

1347. As the Applicants claimed that free entry into the dedicated freight market, and substitutability between belly-hold and dedicated freight services, are enough to avoid lessening competition substantially or creating detriments, it would have been informative to see the type and extent of entry required to support their claim. It would have been useful to have seen a Cournot model of the freight market would have estimated the prospects of dedicated freighters providing belly-hold incumbents with restraining competition, especially when passenger airlines can profitably offer freight services at relatively low, marginal cost-based, prices while dedicated freighters need to cover substantial average costs. It would also have been instructive to see the surpluses generated by the proposed freight services underpinning the present claimed benefit, and the size of those services. Without such analysis and evidence, the Commission is unable to accept that the freight services forming the basis of the Applicants' freight benefits claim would be viable.

1348. The Commission notes that the Applicants envisage providing additional freight services subject to the market supporting the additional capacity. In other words, the Applicants' commitments to additional freight capacity under the proposed Alliance are subject to the same conditions presumably required by airlines now before they would commit to such services.

1349. The Commission is not satisfied that the new "back-of-the-clock" services included in the Applicants' claim would be viable. Using passenger aircraft as dedicated freight aircraft means either regularly reconfiguring the aircraft, or using only the belly-hold space. If the latter is proposed, it seems to the Commission likely to be an inefficient use of aircraft. The Commission cannot therefore be satisfied, on the balance of probabilities, that the Applicants would maintain these services.

1350. Another aspect of the Applicants' claim is the deployment of Qantas B744ER capacity. The Commission notes that this equipment would be available regardless of whether or not the proposed Alliance proceeds, and it would presumably be used, so

the Commission does not accept its deployment as offering a benefit attributable to the proposed Alliance.

1351. For the purposes of estimating the public benefits of the proposed Alliance, the Commission estimates that freight benefits would be nil.

ONLINE BENEFITS

The Applicants' View

1352. Approximately one month after submitting their cross-submissions, the Applicants supplied the Commission with a further submission containing new analysis by Robert Willig and Margaret Guerin-Calvert. This submission claimed to identify a previously unclaimed class of consumer benefits and claimed that the Commission had ignored these benefits. In particular, they claimed that:

- the proposed Alliance would produce significant gross consumer welfare benefits;
- as supported by evidence in academic literature, the proposed Alliance could offer important consumer benefits, including more online flight options (which tend to be cheaper than interline flights), a more seamless travel experience, shorter durations, and improved scheduling;
- The proposed Alliance could offer new online service on up to 855 non-directional city-pair routes between New Zealand and Australia that currently have only interline services;
- there are a total of 226 directional city-pair routes originating or terminating in New Zealand (to and from Australia and other destinations) that would obtain reductions in the shortest online travel time as a result of the new online flight options;
- the movement from interline to online itineraries would likely result in substantial monetary savings for consumers, as well as other benefits (such as more seamless flights and shorter travel times); and
- the value to consumers of new online flight options would range from $42 million to $66 million per year. The value to New Zealanders of the new online flight options would range between $21 million and $33 million per year.

1353. A claim of $21 million from online benefits was presented by the Applicants to the Commission at the conference. The Applicants' final summary of benefits, presented at the end of the conference, showed that the explicit numerical claim associated with online benefits had been withdrawn. There remained the claim only that online benefits would be positive.

1354. Professor Willig and Ms Guerin-Calvert estimated online benefits as follows:

- Using fares collected from Qantas's and Air NZ's web sites, they collected and "compared the round-trip, one-stop, online itinerary prices offered for a business class seat on Qantas, and the interline price offered if a passenger wanted to fly on the trans-Tasman segment (e.g., Auckland to Sydney) on Air New Zealand and the segment within Australia (e.g., Sydney to Cairns) on Qantas. Professor Willig and Ms Guerin-Calvert collected these values for 20 different routes, assuming a trip departing Monday 4 August 2003 and returning on Wednesday 6 August 2003. The survey was conducted at least a week before the departure date, judging by the 28 July date of their submission, but it is not clear to the Commission how long before that date the survey was collected or the time it took to collect all observations. They found from their survey that online fares were, on average, 21% lower than interline fares.

- Based on information supplied by the Applicants, Professor Willig and Ms Guerin-Calvert estimated that consumers spend a total of $114 million on interline fares. They conducted sensitivity testing using assumptions of $85.5 million interline expenditure and $142.5 million, 25% more and less than the number suggested by the Applicants' figures.

- In addition to the reduction in fares attributed to online flights, Professor Willig and Ms Guerin-Calvert identified further consumer benefits associated with time savings and convenience. The authors referred to a study[181] that estimated the time and convenience benefits of online itineraries as 10% to 20% of the fare price.

- Professor Willig and Ms Guerin-Calvert added the price benefit to the time and convenience benefits to produce claimed consumer benefits as a proportion of the fare price. The authors assumed a range of consumer benefits attributable to lower fares, beginning with the 21% suggested by their survey and assuming 25% as the high end of the range. Adding 21% to 10% and adding 25% to 20% gave them their total benefit range of 31% to 45% of fares.

- Professor Willig and Ms Guerin-Calvert assumed a price elasticity of demand with respect to fares of -1.3 (consistent with NECG's estimate of elasticity across the Tasman) as their central case and test the sensitivity of results using elasticities of -1.0 and -1.7.

- Consumer benefits were then derived using the following formula:

  Online benefits = Interline expenditure × Benefits as % of fares

[181] J. Ordover and M. Novy-Marx, "Consumer benefits to online passengers resulting from a British Airways-American Airlines alliance", Mimeo, November, 2001.

× (1 – Benefits as % of fares × Demand elasticity / 2)

- In other words, online benefits are estimated to be 31% to 45% of current expenditure on interline fares plus further time and convenience benefits from people attracted into the market by lower online fares.

1355. The estimates of Professor Willig and Ms Guerin-Calvert appear in Table 25.

Table 25
The Estimates of Online Benefits Estimated by Professor Willig and Ms Guerin-Calvert

		Interline expenditure ($m)		
Benefits as % of expenditure	Elasticity	85.5	114	142.5
		Benefits ($m)		
31%	-1.0	31	41	51
	-1.3	32	42	53
	-1.7	33	45	56
45%	-1.0	47	63	79
	-1.3	50	66	83
	-1.7	53	71	89

1356. Professor Willig and Ms Guerin-Calvert then assumed, for the purposes of estimating public benefits, that New Zealanders' share of total online benefits is 50%. They claimed that the benefits would be $21 million to $33 million, half of the range of values estimated assuming total interline expenditure of $114 million and demand elasticity of -1.3.

1357. As mentioned, Professor Willig and Ms Guerin-Calvert's estimates appeared as explicit values in the table of claimed benefits presented by the Applicants at the beginning of the conference, but only as "+ve" in the table of claims finally presented. NECG had considered the benefits attributable to online services in its original submission in 2002. The NECG Report concluded that:

> While enhanced connectivity is definitely a benefit associated with the Alliance, the quantification of that benefit is problematic. For example, it is not the case that passengers will necessarily take less time to make interline connections – that will depend on the schedules themselves. Rather, the primary benefits are likely to be slightly less tangible. The reduction in stress associated with receiving all boarding passes at the start of the journey, for example, and the fact that the consequences of delays are likely to be borne by the airline to a greater extent, are examples of these effects. We have no reliable way of evaluating these benefits, though it is apparent that they exist. Accordingly, this benefit is excluded from our quantifications, which are consequently more conservative in understating the net public benefits from the Alliance.

The Commission's View

1358. The Commission accepts that the proposed Alliance could potentially offer online benefits, but shares NECG's doubts about quantifying these benefits. The Commission does not accept Professor Willig's and Ms Guerin-Calvert's analysis or estimates of online benefits.

1359. In addition to the conceptual objections raised by NECG, the Commission has raised a number of doubts about Professor Willig's and Ms Guerin-Calvert's analysis. In particular:

- it is not clear that the sample used to estimate the difference between online and interline fares is representative;
- the sample includes some itineraries for which the estimation of time-saving and convenience benefits could be problematic. For example, the survey includes a Wellington-Melbourne-Canberra itinerary. However, those who value convenience and time saving more than they do the time spent on the ground at Melbourne ought presumably to travel via Sydney;
- part of the gain to consumers is likely to be a transfer from the airlines rather than a welfare gain;
- the estimate does not make allowance for the cost of providing online services; and
- the estimates are based on current prices and not those that would occur under the proposed Alliance.

1360. Professor Willig's and Ms Guerin-Calvert's analysis showed that people are presently not served by online services between certain city pairs. Examples they provided of such city-pairs are between Canberra (Australia) and Blenheim (New Zealand), and between Adelaide (Australia) and Napier (New Zealand). It is not clear how many people would benefit from easier passage on Canberra-Blenheim or Adelaide-Napier routes, or what the social cost of their present state of inconvenience is. The Commission is not satisfied, on the balance of probabilities, that the public benefits accredited to online benefits on Australian and New Zealand city combinations such as these, or on city combinations that Professor Willig and Ms Guerin-Calvert do not mention by way of example, are as large as the authors claim or even countable using their method.

1361. In its submission to the conference, travel agents Bon Voyage explained that the incentives to create interline fares that are more convenient for consumers already operate. In fact, they claimed that Air NZ and Qantas already "negotiate with countless other airlines worldwide including competitors to create interline fares in all continents". They further explain:

> The authors conveniently overlook the fact that these online/interline fares already exist between Air NZ and Qantas. They cite 20 routing examples to demonstrate sayings of an average of 21.1%.
>
> What they fail to tell us is that Air New Zealand currently offers interline through fares at these levels, between at least 414 city pairs combining Air NZ and Qantas flights. Therefore these savings of $23M to New Zealanders are simply non-existent!

1362. The Commission accepts the Applicants' claim that online benefits would likely be positive under the proposed Alliance, but agrees with NECG that their quantification is problematic. Consequently, the Commission agrees with NECG that it is not appropriate to ascribe an explicit welfare measure to online benefits.

MISCELLANEOUS BENEFITS

The Applicants' View

1363. The Applicants claim that the proposed Alliance would offer a number of public benefits in addition to those explicitly estimated. In their final presentation of the public benefits of the proposed Alliance at the conference, the claimed miscellaneous benefits were:

- avoided social costs of public funds;
- productive efficiency; and
- dynamic efficiency.

1364. In their original submission, the Applicants claimed further non-quantified benefits, as follows:

- improved governance;
- global competitiveness; and
- the preservation of the national flag carrier.

1365. The Commission has identified further public benefits of the proposed Alliance which the Applicants have since accepted. These were positive externalities associated with reduced flights, manifested in:

- reduced noise;
- reduced risk to safety; and
- reduced risk to national security.

1366. The Commission has discussed the implications of the proposed Alliance on productive and dynamic efficiency above.

1367. The Applicants presented arguments in support of their claims that the proposed Alliance would avoid the social cost of public funds with their original submission. According to the NECG Report, the proposed Alliance is expected to allow the New Zealand Government "to sell down its stake in Air New Zealand and/or avoid contributing further capital to the firm". NECG stated that benefits occur from the increased commercial incentives of the Air NZ board and management, and to the extent that government capital has a higher opportunity cost than private capital, society is better off.

1368. The Applicants argued that the proposed Alliance would help Air NZ behave less like a firm dependant on public funding, and all that that entails for managerial incentives. An increased reliance on private capital would shift managerial incentives within Air NZ in a way that encouraged greater efficiency and generated social welfare gains.

1369. Global competitiveness benefits are claimed to occur from having "a more robust and viable international airline" in the region. A final claimed intangible benefit is the preservation of a national carrier, whose viability is assumed to be affected by the proposed Alliance.

1370. While not claiming that Air NZ would go out of business in the short term in the absence of the proposed Alliance, the Applicants nevertheless asserted that the proposed Alliance would provide the national carrier with greater security. They interpreted the capital provided by the Government as a lower bound on the value it then placed on the preservation of the national carrier.

1371. The Applicants suggested that the Commission had not placed enough weight on non-quantifiable benefits, but they did not suggest what weight ought to be attached to them.

The Commission's View

1372. The Commission does not accept that government capital has a higher cost. With the Government as a shareholder, the cost of capital should be low due to risk-spreading. If NECG is referring to profit, the opportunity cost is the same with or without the proposed Alliance since there are forgone opportunities, though under the proposed Alliance there is more profit. It is also not clear what the difference would be with or without the proposed Alliance upon the Government's holding of Air NZ shares.

1373. Some additional benefits would likely occur because the proposed Alliance might avoid the need for the Government to use tax revenue to finance Air NZ. The use of taxes that fall on consumption and investment generates deadweight losses. Assessing this benefit would require an estimate of the probability and extent of

future commitment of Government funds. It also assumes that taxes would decrease in the absence of the Government investment. The proper measure is the opportunity cost (in terms of forgone welfare) of using tax money in this endeavour rather than somewhere else.

1374. There is some reason to credit the arguments concerning Air NZ's global competitiveness and its value as the national flag carrier. But, as NECG pointed out, the benefits of these effects are difficult, if not impossible, to quantify.

1375. The Commission also accepts the argument about improved governance because of an increased reliance on private funds. However, given that Air NZ is not currently operating as a public company with public objectives and, under the proposed Alliance, Air NZ's major shareholder would still be the Government, the degree and extent of this effect is uncertain and unquantifiable. It would also be likely to be offset were the Government required to intervene more in the aviation industry as a consequence of Air NZ's tending to adopt more private rather than public objectives.

1376. The Commission accepts, on the balance of probabilities, that the public is likely to value the existence of a national carrier. It has a non-quantifiable symbolic value. The Commission agrees with the Applicants that the Government's financial support of Air NZ can be viewed as a gesture affirming the Government's view that maintaining the national carrier provides benefits to the New Zealand public. The Commission does not, however, agree that the amount of the Government's gross capital contribution is a useful indicator of the value of this benefit.

1377. The Commission has received several submissions concerned that the proposed Alliance would diminish the symbolic integrity of the national flag carrier and the implications for the nation as a whole. For example, the Debate Air NZ postcards state that the proposed Alliance "detracts from, rather than strengthens, New Zealand's identity as a unique multicultural society, with our new-found and growing sense of mana, brought about through our remarkable physical environment and our endeavours in arts, sports and business."

1378. In addition to the benefits raised by NECG, the Commission notes that public benefits could include the effect of the proposed Alliance on externalities. To the extent that the proposed Alliance would result in a reduced number of flights and different aircraft, then noise, safety and security externalities could be affected. The Commission also notes that the reduction in flights under the proposed Alliance would likely decrease the likelihood of air traffic congestion and reduce pollution, visual disamenity and environmental effects. These effects are likely to be relatively minor.

1379. The Commission acknowledges the validity of some of the Applicants' arguments that the proposed Alliance would offer a number of non-quantifiable benefits, including maintaining global competitiveness, improving governance, providing a degree of security to the national carrier and potentially reducing certain externalities.

1380. The Commission does not accept the Applicants' assertion that the Commission has not placed enough weight on non-quantifiable benefits. The Commission remains of the view, on the balance of probabilities, that it is not appropriate to quantify the miscellaneous benefits.

CONCLUSION ON PUBLIC BENEFITS

1381. The Commission does not accept the approach of the Applicants to the final balancing of their claimed public benefits and detriments. Even if the Commission were to accept in its entirety the Applicants' position, proposals, and evidence, the Commission does not agree that the various components of detriment and public benefit estimated by NECG can be summed to arrive at a measure of net public benefit.

1382. The detriments and benefits compiled by NECG consist of a number of components developed using different methods. It is apparent that they measure different classes of monetary effects. For example, NECG provided:

- a partial equilibrium model of competitive detriments showing changes in consumer and producer surplus;

- a general equilibrium estimate of increased activity economy-wide resulting from increased tourism expenditure;

- measures of gross revenues, such as the claims of freight and engineering benefits; and

- gross time saving benefits, such as the scheduling benefits (which were applied incorrectly for the reasons already stated).

1383. Thus, NECG added consumer and producer surplus changes to a measure of economic activity, and then added gross effects based on freight and engineering revenue, together with an assumption about the time cost to people who would prefer different flight times from those currently available. In the NECG analysis, there are flow-on effects and first-round welfare effects, accounting measures and economic measures, estimates that include resource costs and those that ignore them. While it might be acceptable to claim and debate each one of these effects separately, in its own terms, and to argue that they imply certain benefits, from an analytical point of view it is questionable to compare these different measures as if they had a common basis, and not acceptable to add them together and claim the aggregate sum as a welfare measure.

1384. The Commission acknowledges the theoretical problems associated with making welfare comparisons. However, as a general principle, detriments and benefits

analyses should be presented in a form that allows them to be compared, so that the claimed net public benefit can be comprehended. The Commission bases its assessment on measures of economic welfare. In general, because the Commission is required to compare public benefits with the competitive detriments in affected markets, it prefers partial equilibrium analysis. In assessing public benefits and detriments, the Commission seeks to estimate changes in consumer and producer surplus. Applicants are not bound to adopt this approach in support of their claims, but, if they claim total welfare gains, if they add different effects together, then the estimation methods they use should be consistent and should provide results that quantify comparable values. If general equilibrium models are used, they should be used consistently and model all effects. If partial equilibrium models are used to estimate consumer and producer surplus, these should be used consistently through the application.

1385. The Commission's view, on the balance of probabilities, is that the public benefits attributable to the proposed Alliance will fall within the range -$22.667 million to $57.336 million. This range is calculated as shown in Table 26.

Table 26
Estimates of Public Benefits from the Proposed Alliance
($ million) (Year 3)

Source	Range of benefits
Cost savings	30
Tourism	(3.522) – (17.611)
Increased domestic consumption by deterred outbound New Zealanders	4.802 – 20.412
Engineering and maintenance	5 – 10
Scheduling	0.476
Total	22.667—57.336

1386. The Commission's considers, on the balance of probabilities, that the largest benefits would likely be due to cost savings. There are no tourism benefits, but rather there will be some reduction in tourists coming to New Zealand. There is a quantifiable benefit due to increased domestic consumption by New Zealanders who are deterred from travelling overseas due to higher prices arising from the proposed Alliance.

10 BALANCING

1387. The determination of each of the two Applications involves, in each case, the Commission considering and balancing the net public benefits against the net detriments. Only where, on the balance of probabilities, any detriments are clearly outweighed by public benefits, so there is a net public benefit, would the Commission be able to be satisfied that the relevant Application should be authorised.

1388. The nature and quantification of the benefits and detriments resulting from the elements of the proposed Alliance, as compared to the counterfactual of no Alliance, have been discussed extensively above, and are summarised in Table 26. Although these have been considered in relation to each Application, it would be needlessly repetitious to set these out twice at this point, and the following discussion applies to each such assessment.

1389. Before discussing the balancing of the particular benefits and detriments, two general elements in the process are considered. First, the quantification of benefits and detriments is a process designed to inform the Commission, and to assist it in the application of its judgement when its decisions are made.[182] In this present case there is no overlap in the two ranges of benefits and detriments, and so the quantification process has strongly confirmed the Commission's judgment based on qualitative assessments.

1390. Secondly, most of the components of both the benefits and detriments would be likely to build up over time. Hence the balancing of the two would tend to produce varying results, depending upon the year chosen. For example, some benefit effects would require investment, investigation and adjustment. Other effects could feasibly occur almost immediately following authorisation.

1391. In general, the Commission expects that in the present Applications the allocative inefficiency component of the detriments would be generated more quickly than the benefits. Airlines are able to change fare structures very readily. Reduced capacity is likely to feed into higher average fares through the operation of their yield management systems. Once co-ordination of fares became possible under the proposed Alliance, it would require only a short time to prepare and publish an updated schedule of fares. In contrast, a longer period of planning and projection would be required before the initiation of changes in capacity allocation, and the following implementation period would lead to a long delay before capacity allocation provided the full level of expected cost savings. In tourism development, the Applicants recognised that the results of Qantas Holidays' efforts would take time to achieve full effect. It is readily apparent that increases in numbers could be expected to lag well behind new fares as potential new tourists would need time to plan their holidays in response to marketing initiatives, and to make their own

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[182] For further discussion see Commerce Commission, *Guidelines to the Analysis of Public Benefits and Detriments*, 1997.

response to changes in airfares. Scheduling efficiencies require a period of development and refinement, necessarily in part a matter of trial and error, while achieving enhanced promotional effectiveness in tourism requires time to achieve learning, building relationships and adaptation.

1392. The Commission has estimated single-period benefits and detriments, based on Year 3 of the proposed Alliance, but has also considered how detriments and benefits may accrue over an initial five year period under the proposed Alliance. The Commission considers that Year 3 may be regarded as representative of the relative sizes of benefits and detriments that would accrue in one year under the proposed Alliance. This view accords with the approach taken by NECG, who also used Year 3 as representative of the benefits and detriments accruing during one year of the proposed Alliance. The Commission also notes that benefits and detriments may extend beyond a five year period, but considers that this further period is too distant and uncertain to allow projections to be made.

1393. The Commission has not discussed, in general, how quickly the various benefit and detriment effects may take hold, or how quickly they might grow to their expected annual value. The Commission has not attempted to adjust estimates to account for different timing. However, it is satisfied, based on the considerations just discussed, that its Year 3 estimates are the appropriate ones upon which to help base its assessment of the Applications. This takes into account the time factors discussed above, allows the benefits intended by the Applicants to come into effect, and is also consistent with the purpose of the Act, which directs attention to the long term effects for consumers.

1394. The Commission's findings are summarised in Table 27.[183] This shows that the proposed Alliance would be likely to generate net detriments in the order of $[ ] million to $[ ] million per annum in Year 3. The Commission considers, on the balance of probabilities, that the most likely outcomes are those listed in the third column of the Table. Hence, it expects that the proposed Alliance would, in Year 3, result in detriments of $195 million and benefits of $40.5 million, giving an overall net detriment of $154.5 million.

[183] There are small rounding errors between the rounded numbers for benefits in Table 26, and those reported in Table 25.

Table 27
Summary of Annual Net Public Benefits ($M) (Year 3)

Item	Range	Most likely
Detriments		
• allocative inefficiency and transfers	(110) – (83)	(90)
• productive inefficiency	(91) – (18)	(55)
• dynamic inefficiency*	([ ]) – ([ ])	(50)
Sub-total	**([ ]) – ([ ])**	**(195)**
Benefits		
• tourism	(18) – (4)	(11)
• domestic spending by NZers deterred from overseas travel	5 – 20	13
• cost savings	30	30
• engineering & maintenance	5 – 10	8
• scheduling	0.5	0.5
• new freight services, direct flights, online benefits and miscellaneous	0	0
Sub-total	**22.5 – 56.5**	**40.5**
TOTAL NET BENEFITS/(DETRIMENTS)	**([ ]) – ([ ])**	**(154.5)**

* The Commission's estimate is an intermediate point in a range partly bound by an estimate derived from confidential information. Consequently, the range cannot be disclosed for the purposes of balancing public benefits and detriments.

1395. On the basis of all of its analysis, the Commission concludes, on the balance of probabilities, that the detriments from the proposed Alliance substantially outweigh the benefits. This is true both in the time period considered, and in the prior period, and as a continuing trend. It remains true even if the NECG summation approach rejected by the Commission (see public benefits section) were followed. It is also true not only for the point estimates, but also for the ranges, which are far from

overlapping. Accordingly the Commission finds that the Applicants have failed to discharge the onus upon them to satisfy the Commission that there would be a net public benefit from the proposed Alliance.

11 CONDITIONS

INTRODUCTION

1396. Section 61(2) of the Act states:

> "Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit."

1397. In their joint submissions of 20 June 2003 the Applicants submitted[184] that to the extent that the Commission found that the proposed Alliance would, or would be likely to, result in a substantial lessening of competition and that the benefits of the proposed Arrangement did not outweigh the detriments, conditions should provide the Commission with the necessary comfort that those concerns would not materialise.

1398. The Applicants claimed[185] that conditions they proposed, would facilitate substantive new entry on Tasman and domestic New Zealand routes and therefore, materially reduce any competitive detriment arising from the proposed Arrangement and would also ensure the delivery of other significant public benefits that flow from the proposed Arrangement.

1399. The Applicants noted in the proposed Arrangement application that conditions might assist the Commission's consideration.. They indicated that any conditions proffered should be designed to achieve the following objectives:

- to facilitate and protect new entry on trans-Tasman routes, including (if necessary) access to terminals, ground services and engineering facilities;
- to ensure that the Alliance will not take unreasonable actions relating to capacity and prices on routes where the Applicants will be the sole operators; and
- to ensure delivery of certain of the public benefits identified in the Application.

1400. Prior to the Commission issuing its Draft Determination, the Applicants supplied the Commission with an outline of a suggested scheme of conditions to apply to certain trans-Tasman and New Zealand services ("Outline Conditions"). These Outline Conditions applied to city pairs between Australia and New Zealand and the city pairs between Auckland, Christchurch and Wellington in both cases where both Qantas and Air NZ but no other airline operated flights.

1401. Subsequently, in the Applicants joint submissions dated 20 June 2003, the Applicants offered substantive conditions ("Conditions").

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[184] Applicants joint submissions of 20 June 2003, paragraph 1.61
[185] Applicants joint submissions of 20 June 2003, paragraph 14.4

1402. The Conditions were divided into Part A and Part B. The Applicants stated that the Part A conditions were simple, easy to police and enforce and costless. In summary the Applicants said they comprised:

- access to facilities;
- access to aircraft;
- restrictions on the operations of Freedom Air; and
- capacity restrictions on the Applicants.

1403. The Applicants submitted that the Part A Conditions would facilitate substantive new entry on Tasman and domestic New Zealand routes and therefore, materially reduce any competitive detriment arising from the Alliance.

1404. The Part B conditions were said to be more complex. They comprised:

- the establishment of a capacity floor;
- the establishment of a price cap on Tasman services;
- a condition whereby the Applicants will commence services on certain new direct routes;
- a commitment to spend a specified amount on implementing the Qantas Holidays' Business Plan;
- the operation of back of the clock freight services; and
- the establishment of an independent third party to monitor the Applicants compliance with the Part A Conditions and Part B Conditions.

1405. The Applicants acknowledged the practical considerations the Commission suggested[186] might need to be taken into account in considering whether conditions would be appropriate. Namely:

- to be effective in a complex and dynamic market, conditions may need to be so intrusive as to likely stifle competition and competitive processes[187];
- the enforcement of conditions may be difficult and of necessity will only occur after a breach;
- conditions require frequent monitoring;
- conditions are inflexible and unresponsive to market changes.

1406. It appears to the Commission that the Applicants have attempted to group the Conditions into those that could more readily meet the criteria described in the paragraph immediately above and those that would not.

[186] Draft determination para. 893.
[187] Similar concerns are identified in the ACCC Merger Guidelines in relation to undertakings

The Conditions

1407. The Conditions offered by the Applicants were as follows.

Part A

Facilities and Services Condition

1408. The following facilities and services are included in this condition :

- departure and arrival slots:
- airport gates;
- airport counter facilities;
- line maintenance services (including spares and parts as part of those services); and
- ground handling services.

1409. The Applicants offered a condition to alter Alliance schedules on Tasman routes to provide new entrants to Tasman routes access to such facilities and services at Auckland, Sydney and Christchurch airports (and such other airports as the Commission may identify) as may be reasonably required for the new entrants (in aggregate) to establish and operate a five aircraft schedule on the Tasman routes.

1410. For domestic New Zealand routes, the Applicants offered a condition to alter Alliance schedules to provide new entrants to domestic New Zealand routes access to such facilities and services as may be reasonably required for the new entrants (in aggregate) to establish and operate a level up to or equivalent to the five B737 aircraft schedule operated by Qantas in domestic New Zealand during April 2003.

1411. The facilities and services would be provided on the following terms:

- at an equivalent rate and on similar conditions to those offered by the Applicants at the relevant airport to other airlines with similar requirements (but disregarding terms attributable to global alliance membership and reciprocity); or
- where the facility or service is not provided by the Applicants to another airline at the relevant airport, on reasonable commercial terms.

1412. The facilities and services in this condition would not include facilities and services that:

- were not controlled by one of the Applicants;

- were not used by one of the Applicants to provide services on Tasman routes or domestic New Zealand routes;

- were required by the new entrants to operate schedules which do not distribute flights through the day and to airports on a similar basis to those provided by the Applicants;

- would require the Applicants to alter more than 25% of the Alliance's schedules on the Tasman routes; or

- were available to the new entrants on similar commercial terms from the airport or other third parties.

1413. Where facilities and services were utilised by the Applicants but must be made available to a new entrant by an airport or other third party, the Applicants will use all reasonable endeavours to assist a new entrant to obtain those facilities and services on terms similar to those previously obtained by the Applicants.

1414. This condition and the provision of any facilities and services under it, would terminate upon the first to occur of the expiry of the authorisation granted by the Commission or five years from the date of satisfaction of the conditions precedent in the Strategic Alliance Agreement (including grant of authorisation by the Commission and the ACCC and, Air NZ shareholder approval ("the Effective Date").

Freedom Air

1415. From the date that a new entrant commences Trans-Tasman services into Brisbane, Air NZ offered a condition that, within three months of being advised, Freedom Air would only operate Trans-Tasman services into Brisbane that operated from secondary airports in New Zealand (that is airports other than Auckland, Wellington or Christchurch).

1416. From the date that a new entrant commenced Trans-Tasman services into Melbourne, Air NZ offered a condition that, within three months of being advised, Freedom Air would only operate Trans-Tasman services into Melbourne that operated from secondary airports in New Zealand (that is airports other than Auckland, Wellington or Christchurch).

1417. From the date that a new entrant commenced Trans-Tasman Services into Sydney, Air NZ offered a condition that, within three months of being advised, Freedom Air would only operate Trans-Tasman services into Sydney that operated from secondary airports in New Zealand (that is airports other than Auckland, Wellington or Christchurch).

1418. From the date a new entrant commences Trans-Tasman Services, Air NZ offered a condition that Freedom Air would not grow its Tasman schedules by more than one aircraft each calendar year.

1419. Air NZ offered a condition that Freedom Air would not operate on Domestic New Zealand routes.

1420. These conditions would terminate:

- three years after the Effective Date; or
- except in respect of clause 29, on a City Pair by City Pair basis upon a New entrant or New entrants achieving 50% of the Alliance capacity on that City Pair.

Market Entry

1421. The Applicants offered a condition to lease up to four B737 -300 aircraft to one new entrant for operations on Tasman and/or Domestic New Zealand routes.

1422. The leases would be subject to receipt of six months notice (to allow the Applicants to implement the leases) and would be provided on the following terms:

- the aircraft would be in an all economy configuration;
- the aircraft would be leased at market rates (based on those then paid by Freedom Air (to be verified by a person appointed jointly by the Operating Carriers, after obtaining approval of the candidate by the Commission. ("the Independent Third Party"));
- the term of the lease would be up to three years;
- the leases would be subject to the provision of normal financial security;
- the leases would include aircraft maintenance provided by the Applicants; and
- the Applicants would be willing to include in the leases technical and/or cabin crews for the period required for the new entrant to train their own staff (the technical and cabin crew could be withdrawn with six months notice).

1423. This condition would terminate three years after the Effective Date.

Capacity Ceiling Condition

1424. The Applicants offered a condition, in respect of each of a city pair in the Tasman routes and a city pair in the domestic New Zealand routes on which, on the Effective Date, the Applicants or either of them operate flights and no other airline (other than Origin Pacific) operated flights ("Regulated City Pair"), not to increase the Applicants' combined capacity on that city pair during the period of 18 months following the date on which the first new entrant officially announced its intention to commence operating flights on that city pair, except as set out below.

1425. This condition would be terminated in respect of any Regulated City Pair:

- if the new entrant did not accept bookings within three months of officially announcing its intention to commence operating fights on that Regulated City Pair;
- if the new entrant did not commence scheduled flights within six months of officially announcing its intention to commence operating flights on that Regulated City Pair; or

- if the new entrant ceased to operate flights on that Regulated City Pair.

1426. The condition would not apply to:

- temporary increases in capacity for periods not greater than 14 days (for example, changing aircraft type to cover operational requirements such as planned and unplanned maintenance and engineering);
- increases in capacity announced by either of the Applicants prior to the new entrant's official announcement of its intention to commence operating flights; or
- the capacity added to meet the freight condition offered.

1427. The following would not be treated as an increase in capacity on any city pair:

- for Air NZ, the replacement of B737 aircraft with an equivalent number of A320 aircraft; and
- for each Applicant, the replacement of any aircraft series (for example B737-300) with an equivalent number of aircraft of the same type (for example B737-800).

1428. This condition, and the restrictions would terminate:

- upon the first to occur of the expiry of the authorisation granted by the Commission or five years from the Effective Date; or
- on any Regulated City Pair, upon the new entrants achieving capacity equal to 50% of the Applicants' capacity on that Regulated City Pair.

Capacity Floor Condition

1429. The Applicants offered a condition, in respect of each Regulated City Pair, not to reduce the Applicants combined capacity on that city pair, except as permitted by this condition.

1430. The Applicants offered a condition to increase capacity on each Regulated City Pair at the same average rate as the remainder of the Tasman routes or domestic New Zealand routes (as applicable).

1431. This condition would terminate in respect of any Regulated City Pair on the earlier of:

- the first to occur of the expiry of the authorisation granted by the Commission or five years from the Effective Date; or
- another airline commencing operating flights and, (in respect of the condition not to reduce the Applicants combined capacity), achieving a 20% capacity share on that city pair.

1432. Under this condition, the Applicants may reduce capacity on a Regulated City Pair if, for any continuous three month period, seat factors decline to less than 70% or

yield declines by more than 5%, provided they first obtain the written confirmation of the Independent Third Party.

Tasman Price Cap Condition

1433. The Applicants offered a condition not to increase prices on Regulated City Pairs on the Tasman beyond airline cost base increases (measured in accordance with an appropriate structured producer price index for an Australasian airline operating on the Tasman) for market and fare segments (originating from Australia or New Zealand) to be agreed with the Commission.

1434. This condition would terminate in respect of any Regulated City Pair on the Tasman on the earlier of:

- the first to occur of the expiry of the authorisation granted by the Commission or five years from the Effective Date; or
- another airline commencing operating flights on that city pair.

New Services Condition

1435. The Applicants offered a condition to commence operating:

- eight weekly flights (four return services) between Auckland and Adelaide within one year of the Effective Date; and
- two weekly flights (one return service) on each of the following city pairs within one year of the Effective Date: Auckland -Hobart; Wellington - Canberra; and Auckland –Canberra.

1436. The Applicants would continue operating flights on these city pairs for a period of one year.

1437. The Applicants may reduce capacity, or cease operating, on a city pair in clause 28 if, for any continuous three month period, seat factors decline to less than 70% or yield declines by more than 5% (against the business case), provided they first obtain the written confirmation of the Independent Third Party.

Tourism Condition

1438. This condition would terminate in respect of a city pair immediately upon another airline commencing operating flights on that city pair.

1439. The Applicants offered a condition to spend an additional A$5.4 million in the year following the Effective Date on costs directly associated with the implementation of the Qantas Holidays business plan and designed to stimulate an additional 50,000 tourists to New Zealand (including 18,000 dual destination tourists) which included A$1.75 million on direct sales and marketing.

1440. The A$1. 75 million would be spent in conjunction with national and state tourism bodies where that was likely to maximise tourism flow.

1441. If tourism targets were not met for any reason other than force majeure (such as SARS) by the end of year 3, the Applicants would spend a further A$5.4 million on direct sales and marketing in conjunction with national and state bodies where that is likely to maximise tourism flow.

Freight Condition

1442. The Applicants offered a condition to add two weekly return Tasman wide-bodied "back of the clock" services specifically for freight to each of Auckland and Christchurch.

1443. The Applicants may reduce capacity, or cease operating, the additional freight services to Auckland and Christchurch for any period where there is a material adverse change to the financial returns earned by the Applicants on that service.

Monitoring

1444. The Applicants offered a condition to provide annual audited reports (in a form to be agreed with the Commission) to the Commission demonstrating compliance with the Conditions.

1445. Should the Commission request, the Applicants would fund an Independent Third Party to receive the annual audited reports and monitor compliance with the Part A Conditions and the Part B Conditions.

1446. Any Independent Third Party would act as agent of the Commission, and would be obliged to deal with all issues concerning implementation of these conditions, including the adjudication of all disputes arising in the course of implementation and report to the Commission on compliance.

1447. Protocols for duties of any Independent Third Party to the Commission and to the Applicants would be prepared for approval by the Commission.

Timing of Authorisation

1448. At the conference the Applicants suggested that the Commission should "…authorise the Alliance either permanently or for a period long enough to enable the benefits to be achieved and demonstrated".[188] This suggestion is considered in the section on undertakings below.

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[188] Conference transcript pp 441, 1306

SUBMISSIONS OF OTHER PARTIES

Infratil et al

1449. Infratil et al submitted it was important to consider whether the subject matter of a particular condition was properly a matter to be dealt within terms of the Commerce Act. They argued that if detailed behavioural constraints were required to mitigate the effects of the proposed Arrangement (or any restrictive trade practice) on an on-going basis, this should only be done by way of a regime that ensured adequate participation by all interested parties and was properly resourced. This they submitted required specific legislation and they noted by way of example the Dairy Industry Restructuring Act 2001.

1450. Infratil et al further submitted it was not a function of the Commission or within the powers of the Commission to de facto legislate by imposing extensive conditions that it could not be sure of enforcing.

1451. In Infratil et al's view, the Commission must have regard to whether the proposed conditions would, or could in practice, create new competition concerns in the same or other markets. For example, they suggested the Commission should be reluctant to impose any condition which itself gave rise to a cross-subsidy or created a barrier to entry.

Virgin Blue

1452. Virgin Blue submitted that substantial competitive issues, particularly with respect to the extent and sustainability of a new entrant facing a combined Qantas and Air NZ could only be addressed by ensuring that appropriate conditions existed to enable new entrants such as Virgin Blue to be a competitive, sustainable and significant competitor to the Alliance.

1453. In its initial submissions[189] Virgin Blue argued that the Applications should only be authorised if Virgin Blue (or someone else) had actually entered on a substantial scale on Tasman and domestic New Zealand routes prior to the Proposed Alliance coming into effect. It proposed a number of structural and other market changes that would be required to enable a new entrant to enter on a substantial scale and in a meaningful time-frame. In particular it suggested that:

- Air NZ should divest Freedom Air in order to "remove a bullet from the Applicants' gun";

- Air NZ and Qantas be restricted from establishing another low fare airline and Qantas should be restrained from flying Australian Airlines in addition to Impulse and Jet Connect aircraft on the Tasman, domestic New Zealand and Pacific routes for a period of three years;

[189] Dated 12 February 2002

- new entrants be provided with access to terminal facilities at the key gateway ports of Sydney, Auckland and Christchurch on a level equivalent to that enjoyed by the Applicants, particularly during peak times;

- Air NZ enter into satisfactory commercial arrangements for maintenance services, spares and parts, ground handling services and equipment at all major airports; and route reprotection (sic); and

- the Applicants should undertake to limit their capacity response to new entry, prohibiting them from increasing capacity for a period of two years on any route following new entry.

1454. In cross submissions dated 21 July 2003 Virgin Blue modified its comments on the Conditions. In particular, while continuing to advocate a capacity ceiling and to maintain that the divestment of Freedom Air would enhance Virgin Blue's competitive position it accepted that the divestiture of Freedom Air would be a less effective means of addressing the Alliances strategic conduct than they had previously suggested.

ANALYSIS OF THE CONDITIONS

1455. The following points are relevant in considering when and what sort of conditions the Commission could impose[190]:

- the discretion given to the Commission appears to be wide, subject only to the important qualification of consistency with the Act;

- conditions designed to enhance competition or to remove detriments following from the absence of competition could be appropriate;

- conditions designed to help ensure the continuation or effectiveness of public benefit found to exist in respect of any application could also be considered;

- the enforceability of the conditions is important, particularly if used to "tip the balance" in favour of authorisation;

- the Commission will take into account considerations such as compliance costs for the parties, enforceability, precision, monitoring, etc when imposing such conditions;

- it is important that any authorisation not hinder or stand in the way of an industry review or organisation. In such cases it may be necessary to grant the authorisation for a limited period only; and

- the Commission may only impose conditions in relation to the proposed Arrangement.[191].

[190] *Re NZ Kiwifruit Exporters Assn (Inc)/NZ Kiwifruit Coolstores Assn (Inc)* (1989) 2 NZBLC 104, 485, 104,510-104,512; para. 7.4.

Access to Facilities

1456. With the possible exception of the Auckland domestic terminal there was no evidence provided to the Commission of any potential difficulty for a new entrant to secure facilities in the form of slots, gates, counter facilities, maintenance and ground handling services on reasonable terms and timings. Both WIAL and CIAL said in submissions to the conference that they had capacity to accommodate new entrants and the price for access to facilities would be the same as for incumbent operators.

1457. Virgin Blue submitted that in its experience, access to facilities could become a major issue, particularly on international routes but advised that it had not thus far experienced problems in obtaining access to facilities on international terminals. Nor when questioned by the Commission did it identify any specific problems in obtaining facilities at domestic New Zealand airports. Indeed it noted that the slot allocation process and in particular Air NZ as Slot Committee Chair had been quite helpful in assisting Virgin Blue in obtaining the slots it wanted.[192]

1458. The one potential difficulty identified by Virgin Blue was access to Auckland domestic terminal. There, where there was no formal slot allocation process, the issue was said to be one of facilities as opposed to availability of slots. However, it was indicated that Auckland Airport believed a long term solution could be provided.[193] In the past Virgin Blue has "worked out of a tin shed and a marquee"[194] and although the heightened security arrangements post September 11 made these measures harder to utilise it did not appear to the Commission that innovative arrangements could not be entered into to cover an initial period while more substantial facilities were organised.

1459. The Commission considers, on the balance of probabilities, that access to facilities is unlikely to represent a sufficient barrier to require the imposition of this form of condition, which would not appear to reduce any competitively significant detriment.

Access to Aircraft

1460. The offer to lease up to four B737 -300 aircraft to one new entrant for operations on Tasman and/or domestic New Zealand routes might be relevant in circumstances where access to aircraft, crew or maintenance services was limited.

1461. However there was no evidence before the Commission to suggest that this was the case. Nor was it shown that the terms offered would represent any improvement on what might otherwise be available to a new entrant on the open market. In the case of Virgin Blue, or example, the Commission notes that it has

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[191] The extent to which the Commission might consider undertakings to divest shares or assets is discussed at paragraphs 91 to 98.
[192] Conference Transcript page 778, lines 12 to 20.
[193] Conference Transcript page 7781, line 14 to 17.
[194] Conference Transcript page 791, lines 8 and 9.

recently increased its fleet with the addition of several new and higher specified 737-800 aircraft.

1462. The Commission does not consider that the availability of second hand B737 – 300 aircraft would be sufficient to materially reduce any competitive detriment arising from the proposed Arrangement.

Restrictions on the operations of Freedom Air

1463. This proposed condition represents an intrusive approach to competitive behaviour which, in the circumstances, the Commission is not satisfied is consistent with the Act. In any event, the Commission considers there is little if anything to be achieved by restricting the operations of Freedom Air. The Applicants would still be free to operate a form of lower cost offering in competition to a new entrant e.g. in the case of Air NZ their Tasman Express service and in the case of Qantas the use of their of Jet Connect service on the Tasman. As was conceded by Virgin Blue in its cross submissions, if Freedom Air was divested rather than made subject to restriction, the Applicants would still have the ability to engage in a competitive response to LCC entry in the markets currently served by Freedom Air.

1464. Monitoring and enforcing this condition would potentially be difficult.

Capacity restrictions on the Applicants and the establishment of a capacity floor, price cap on Tasman services and a condition whereby the Applicants will commence services on certain new direct routes

1465. This form of condition could in some circumstances have the effect of limiting the extent to which the Applicants could engage in a strategic response to new entry, thereby removing a potential impediment to the entry and expansion of a new entrant.

1466. However the Commission has strong reservations about the imposition of a constraint on capacity. The purpose of the Commerce Act is to promote competition in markets for the long term benefit of consumers in New Zealand. There is a real risk that restrictions on capacity would have the effect of reducing competition and hence be inconsistent with the Act.

1467. Such a condition would be very difficult to monitor and enforce. It would require detailed auditing of the Applicants' and third parties' activities and would presumably include the analysis of yield management processes.

1468. The condition as proposed would not apply to any routes not flown by one or both of the Applicants or Origin Pacific on the Effective Date. Nor would it apply to a city pair if a new entrant having begun service ceased operating flights on that city pair. Second and subsequent new entrants would not be covered.

1469. There are also practical difficulties in drafting a condition of this type to be effective in achieving its desired effect. While not going as far as one submitter,

who suggested that as drafted, the condition contained loopholes big enough to fly one of the Applicants' aircraft through,[195] the draft as proposed illustrates the interpretive problems that might arise in seeking to enforce the condition.

1470. The Commission considers that these conditions, if implemented, would not be sufficient to enhance competition or reduce the detriments likely to flow from the proposed Arrangements.

1471. Monitoring and enforcing this condition in the event that it was not complied with would prove difficult

The commitment to spend a specified amount on implementing the Qantas Holidays' Business Plan

1472. The commitment to spend A$5.4 million in the first year on the implementation of the Qantas Holidays business plan would provide some comfort to the Commission that the Applicants were seeking to deliver on their proposition that they would be able to encourage significant additional tourists to New Zealand.

1473. The Commission notes that of the A$5.4 million only A$1.75 would be committed to direct sales and marketing.

1474. For the reasons set out earlier, the Commission considers that this condition would not be effective to ensure that the tourism numbers claimed would eventuate. At best it would merely mitigate the number of tourists lost to New Zealand. Also, the extent to which tourism is a benefit can be assessed without the need to rely on this condition.

1475. This condition would likely require intrusive audit requirements to ensure compliance.

The operation of back of the clock freight services

1476. Under this condition, the Applicants retain a very broad ability to reduce capacity, or cease operating, the additional freight services to Auckland and Christchurch for any period where there was a material adverse change to the financial returns earned by the Applicants on that service.

1477. The Commission considers that this condition, should it be possible to effectively impose it, would not be sufficient to materially reduce any competitive detriment arising from the proposed Arrangement.

1478. Monitoring and enforcing this condition is likely to prove difficult.

[195] Conference Transcript page 727, lines 18.

The establishment of an independent third party to monitor the Applicants compliance with the Part A Conditions and Part B Conditions.

1479. The Commission is not in favour of use of an independent third party to undertake a monitoring and dispute resolution role. This would in effect amount to an Airlines Commissioner to regulate access and behaviour in the domestic New Zealand and Tasman markets Such an approach would amount to a form of regulation outside the ambit of these applications. It suggests to the Commission that the Conditions are likely to be sufficiently complicated, difficult to police and enforce and costly as to render them inappropriate.

1480. Substantial control would be ceded to an independent third party required to monitor compliance. Such an arrangement is only rarely used and normally only under the authority of Parliament in areas determined by Government directly e.g. telecommunications and electricity or where recommended to the Government by the Commission under Part 4 of the Act. The Commission may recommend control where there is limited competition or competition is likely to be lessened and it is necessary and desirable in the interests of acquirers. It is then for the relevant Minister to recommend control to the Governor General.

1481. It would not be appropriate for the Commission to impose such a condition and it would likely be inconsistent with the Act.

The Commission's Decision on Conditions

1482. The Commission considers that a number of the Conditions should be rejected on the grounds that they would be difficult or impossible to enforce and that with respect to those conditions imposing behavioural constraints the level of oversight and monitoring required would be considerable and unacceptable.

1483. To the extent that there might be conditions acceptable to the Commission, the Commission considers on the balance of probabilities that they would not be sufficient to materially reduce any competitive detriment arising from the proposed Arrangement and nor would they deliver such public benefits so as to mitigate the lessening in competition that would result, or would be likely to result from the proposed Arrangement.

1484. Have taken these factors into account in this determination, the Commission does not consider the Conditions to be necessary or sufficient to alter the Commission's analysis in favour of authorisation.

1485. The Commission finds on the balance of probabilities that the Conditions would not be such as to over come the significant gap between the benefits and detriments and that the Conditions would not be sufficient to make the difference between granting and declining the authorisation.

UNDERTAKINGS

1486. Section 69A of the Act allows the Commission to accept written undertakings from applicants to dispose of shares or assets in relation to authorisation applications.[196]

1487. The Applicants have not offered any structural undertakings to divest assets or shares and therefore the Commission has not considered undertakings.

1488. The Applicants proposed that the Commission's authorisation could be revoked in the event that claimed benefits were not achieved. This possibility was raised orally by the Applicants at the conference where it was suggested that the Commission should "…authorise the Alliance either permanently or for a period long enough to enable the benefits to be achieved and demonstrated".[197]

1489. In order to have proper regard to all matters raised at the conference, the Commission has considered this suggestion, which appears to relate to the proposed Arrangement (pursuant to s 58 of the Act) rather than the proposed Acquisition[198]. The Commission considers that to be of any effect such a proposal would need to be combined with the disposal by Qantas of its 22.5% equity stake as part of the proposed Acquisition.

1490. As part of the Applicants' closing submissions entitled *Supplementary Submissions on Process Issues* the Applicants took the position that, if the proposed Arrangement authorisation was terminated, Qantas and Air NZ would not be associated persons notwithstanding that Qantas would retain the 22.5% shareholding in Air NZ. As noted above in considering the proposed Acquisition, the issue is whether the 22.5% shareholding of itself would or is likely to substantially lessen competition. In taking this position the Applicants appear to be suggesting that the 22.5% interest is not likely to substantially lessen competition by itself if the proposed Arrangement comes to an end and hence no divestment undertaking is necessary.

1491. The Commission does not accept that view. The position would need to be considered at the time. However, the Commission is of the view that in order to give serious consideration to a condition limited as to time, there would need to be an offer to divest the equity stake held in order to ensure that an argument of the type outlined above did not frustrate the effectiveness of an authorisation limited as to time.

1492. As noted above, the Applicants have not offered any undertakings to divest assets or shares and the Commission has consistently taken the view that, as such, it is the responsibility of the applicant to define the parameters of undertakings.

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[196] Section 69A (2) prohibits the Commission from accepting behavioural undertakings; for example relating to price, quality, capacity or service measures.
[197] Conference transcript pp 441, 1306
[198] Section 61(2) entitles the Commission to grant an authorisation pursuant to s 58 for such period as the Commission thinks fit.

1493. Furthermore, the Commission does not consider that an authorisation limited as to time to be appropriate in all the circumstances.

12 CONCLUSIONS

1494. In arriving at its conclusions, the Commission has assessed the extent of the impact of the proposed Acquisition and Arrangement on competition in the relevant markets and considered the benefits and detriments described above, largely on the basis of a quantitative assessment. In addition, the Commission has stood back and had regard to the cumulative effect of all relevant considerations. In this context, the Commission has also conducted a qualitative assessment to ensure that it has in all the circumstances properly taken account of the matters set out in s 61(6) of the Act.

1495. The Commission finds on the balance of probabilities, that the proposed Acquisition results in a substantial lessening of competition, or is deemed to result in a substantial lessening of competition, in the markets listed below.

1496. The Commission finds on the balance of probabilities that the proposed Arrangement results in a substantial lessening of competition, or is deemed to result in a substantial lessening of competition, in the markets listed below.

1497. The markets referred to in the two paragraphs above (the affected markets) are:

- The main trunk market:
- The provincial market;
- The Tasman market;
- The NZ-Asia market;
- The NZ - Pacific market;
- The NZ-US market
- The international market;
- The Tasman belly hold freight market;
- The international belly hold freight market; and
- The national wholesale travel distribution market.

1498. The Commission is not satisfied in all the circumstances that the proposed Acquisition and the proposed Arrangement would result or be likely to result, in a benefit to the public that would outweigh the lessening in competition that would result or be likely to result or is deemed to result.

1499. Accordingly, the Commission concludes on the balance of probabilities that:

- it is not satisfied that the proposed Acquisition:
    - would not have, or would not be likely to have, the effect of substantially lessening competition in the affected markets; or,
    - will result, or will be likely to result, in such a benefit to the public that it should be permitted.
- is not satisfied that the proposed Arrangement will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh

the lessening in competition that would result, or would be likely to result or is deemed to result therefrom.

DETERMINATIONS

1500. Pursuant to s 67(3)(c) of the Act the Commission determines to decline the application by Qantas for authorisation of the subscription by Qantas Limited of up to 22.5% of the voting equity in Air NZ pursuant to a Subscription Agreement between Air NZ and Qantas.

1501. Pursuant to s 61(1)(b) of the Act, the Commission determines to decline the application by Air NZ and Qantas for authorisation under s 61 of the Act to implement the terms of a Strategic Alliance arrangement.

APPENDIX I

INFORMATION SOURCES

Written submissions on the Applications were received from the following parties

Australasian Business Travel Association
Chris Adams
Air Freight Council of Queensland Ltd
Atlantic Pacific RADIUS
Aviation Ground Services
Derek and Gay Ball
Jared Ball
Reuben Barclay
Harvey Bell
Bon Voyage Cruises & Travel
Brisbane Airport Corporation
Alan Burlton
David Butler
Christchurch International Airport Ltd
Consumers Institute NZ Inc
K.W. Cory-Wright
Dunedin City Council
Enterprise Waitakere
Export New Zealand
Rod Fabish
Bernard Feehan
Sean Fletcher
Norman Geary
Peter Graham
Alex Gray
Gullivers Pacific Group
Simon Gunson
Hamilton Aero Maintenance Ltd
Professor Tim Hazledine
Margaret Hicks
Jarrod Holter
Hospitality Association of New Zealand
House of Travel
Importers Institute of New Zealand
Inbound Tour Operators Council of New Zealand
Infratil Ltd, Gullivers Pacific Group, Major Accommodation Providers Group, Kerry Prendergast, Talley Fisheries and Wellington International Airport (together)
Invercargill Airport
Jumpjet Airlines Ltd
John Kershaw

Chris King
Roger Lascelles
Jeremy Laurenson
Katalina Levao
Mackenzie District Council
Andrew McDouall
Maurice McGreal
Major Accommodation Providers
A.L.R and L. Merrifield
New Zealand Chamber of Commerce and Industry
National Council of Women of New Zealand
New Zealand Council of Trade Unions
NZ Amalgamated Engineering, Printing & Manufacturing Union
New Zealand Export Orchid Growers Association Inc
Origin Pacific Airways
Palmerston North International Airport
David J.M. Peart, J.P
Peter Read Consultancy Ltd
Lorraine and Trevor Polglase
Suresh Rama
Morgan Read
Alistair and Jan Rivers
Save Air New Zealand
Screen Directors Guild of New Zealand
J Shallcrass
Sydney Airports Corporation Ltd
Stan Scorringe
Technix Group Ltd
Margaret Templeton
Thomas Fels Thompson
Tourism Industry Association New Zealand
Travel Agents Association of New Zealand
Bruce Tulloch
Clive Tunley
United Travel
Virgin Blue
Waikato Regional Airport Ltd
Peter Wakeman
Tracey Waters
Doug Weir
Wellington International Airport
Sara Wheeler
Ewan Wilson
Various members of the public sent Save Air New Zealand postcards

Additional information and opinions on the issues raised by the Applicants were obtained from:

Aerolineas Argentinas
Asian Express Airlines Pty Ltd

Auckland International Airport Limited
Tourism Auckland
Business Roundtable
Cargolux Airlines International S.A.
Christchurch & Canterbury Marketing
Christchurch International Airport Ltd
Civil Aviation Authority
Consumers Institute New Zealand Inc
Elizabeth Coutts
Anthony Dentice
Destination Queenstown
Emery Worldwide
Emirates Airline
Export Institute of New Zealand Inc.
Dr J Farmer
David Figgins
Freedom Air
Norman Geary
Gullivers Pacific Group
Michael Hall representing Lan Chile & Royal Brunei
House of Travel
Importers Institute
Industry NZ
Jumpjet Airlines Ltd
Jim McCrae
Mainfreight International Ltd
Malaysia Airlines
Robert Matthews
Ministry of Tourism
Ministry of Transport
Morrison & Co
NZ Amalgamated Engineering, Printing & Manufacturing Union
New Zealand Flower Exporters Association
NZ Fruitgrowers Association
New Zealand Post Ltd
New Zealand Seafood Industry Council
New Zealand Vegetable and Potato Growers' Federation
Origin Pacific Airways Ltd
Priority Fresh
Queenstown Airport Corporation Ltd
Soundsair Ltd
The Treasury
STA Travel
Gary Toomey
Tourism New Zealand
Tourism Industry Association NZ
Travel Agents Association of New Zealand
Travel Masters
Virgin Blue
Waitakere City Council

Wellington International Airport Limited
United Airlines Ltd & United Cargo

Written submissions on the Draft Determination were received from:

Air New Zealand Ltd & Qantas Airways Ltd
Patric Barry
Bon Voyage Cruises and Travel
Simon Cave
Gerald Chambers
Christchurch International Airport Ltd
Consumers Institute NZ Inc
Dunedin City Council
Flower Industry Federation of Growers
Norman Geary
Gullivers Pacific Group
Hospitality Association of New Zealand
Infratil Ltd, Gullivers Pacific Group, Major Accommodation Providers Group, Kerry Prendergast, Talley Fisheries and Wellington International Airport (together)
Invercargill Airport Ltd
Jumpjet Airlines Ltd
ALR & L Merrifield
Origin Pacific Airways Ltd
Polynesian Airlines
John Ruck
Save Air New Zealand
Travel Agents Association of New Zealand & Inbound Tour Operators Council
Virgin Blue
Doug Weir
Wellington International Airport Ltd

Cross submissions on the Applicants' submissions on the Draft Determination were received from:

Bon Voyage Cruises and Travel
Christchurch International Airport Ltd
Gullivers Pacific Group
Infratil Ltd, Gullivers Pacific Group, Major Accommodation Providers Group, Kerry Prendergast, Talley Fisheries and Wellington International Airport (together)
Invercargill Airport Ltd
Jumpjet Airlines Ltd
Origin Pacific Airways Ltd
Polynesian Airlines
Save Air New Zealand
Travel Agents Association of New Zealand
Virgin Blue
Wellington International Airport Ltd

APPENDIX II

AIRLINE OPERATIONS ON RELEVANT ROUTES

(Includes indirect services involving one stop only, service frequency is return)

Trans-Tasman Routes

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Alliance
Auckland	Sydney	Air NZ	Direct		Star Alliance
		Thai Airways	Direct - As part of services to/from Bangkok		
		Code-share:			
		▪ United Airlines (on Air NZ)			
		Singapore Airlines Freighter	As part of services to/from Singapore		
		Qantas	Direct	36x week	Oneworld
		Lan Chile	Direct - As part of services to/from Santiago	3x week	
		Code-share:			
		▪ Air Tahiti Nui (on Qantas)	Direct	2x week	
		▪ American Airlines (on Qantas)	Direct	13x week	
		▪ British Airways (on Qantas)	Direct	21x week	
		▪ Qantas (on Lan Chile)	Direct – As part of services to/from Santiago	3x week	
		Qantas Freighter		4x week	
		Aerolineas Argentina	Direct - As part of services to/from Buenos Aires	2x week	
		Polynesian Airlines	Direct – As part of services to/from Samoa	3x week	
		Royal Tongan Airlines	Direct - As part of services to/from Tonga	2x week	
		Emirates	Direct - As part of services to/from Singapore	7x week	
		Asian Express (DHL) Freighter	Direct	5x week	
Auckland	Brisbane				Star Alliance
		Air NZ	Direct	8x week	
		Freedom Air	Direct	4x week	
		Thai Airways	Direct -As part of services to/from Bangkok	3x week	
		Code-share:			
		▪ United Airlines (on Air NZ)	Direct	7x week	

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Alliance
		Qantas *Code-share:* ▪ American Airlines (on Qantas)	Direct Direct	7x week 7x week	oneworld
		Malaysia Airlines Garuda Indonesia Emirates Royal Brunei	Direct - As part of services to/from Kuala Lumpur Direct – As part of services to/from Bali Direct - As part of services to/from Singapore Direct - As part of services to/from Brunei	3x week 2x week 7x week (from 27/10/03) 4x week (from 27/10/03)	
Auckland	Melbourne	Air NZ *Code-share:* ▪ United Airlines (on Air NZ) Lufthansa Freighter *Code-share:* ▪ Air NZ (has 95% capacity on Lufthansa Freighter)	Direct Direct Direct - As part of services to/from Chicago back through to Frankfurt Direct - As part of services to/from Honolulu	14x week 14x week 2-3x week 2-3x week	Star Alliance
		Qantas *Code share* ▪ British Airways (on Qantas)	Direct Direct	14x week 7x week	oneworld
		Emirates *Code-share:* • Polynesian Airlines (on Qantas) Cargolux Freighter (Melbourne – Auckland direction only)	Direct - As part of services to/from Singapore Direct Direct – Eastbound only as part of services to/from Luxembourg	7x week 2x week 2x week	
Auckland	Coolangatta	Freedom Air	Direct	7x week	Star Alliance
Auckland	Cairns	Air NZ *Code-share:* ▪ United Airlines (on Air NZ)	Direct Direct	2x week 2x week	Star Alliance
Auckland	Perth	Air NZ *Code-share:* ▪ United Airlines (on Air NZ)	Direct Direct	4x week 4x week	Star Alliance

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Alliance
Wellington	Sydney Brisbane Melbourne	Air NZ (Sydney) *Code-share (Sydney):* • United Airlines (on Air NZ) Air NZ (Melbourne) Freedom Air (Brisbane)	Direct Direct Direct Direct	11x week 11x week 7x week 6x week	Star Alliance
		Qantas (Sydney) *Code-share(Sydney):* • British Airways (on Qantas) Qantas (Melbourne) Qantas (Brisbane)	Direct Direct Direct Direct	14x week 7x week 5x week 3x week	oneworld
Christchurch	Sydney Brisbane Melbourne Coolangatta	Air NZ (Sydney) *Code-share (Sydney):* • United Airlines (on Air NZ) Air NZ (Melbourne) Air NZ (Brisbane) Freedom Air (Brisbane) Freedom Air (Coolangatta)	Direct Direct Direct Direct Direct Direct	14x week 14x week 7x week 2x week 7x week 3x week	Star Alliance
		Qantas (Sydney) *Code-share(Sydney):* • American Airlines (on Qantas) • British Airways (on Qantas) Qantas (Melbourne) Qantas (Brisbane)	Direct Direct Direct Direct Direct	21x week 21x week 14x week 6x week 3x week	oneworld

Pacific Island Routes

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
Auckland	Noumea, New Caledonia	Air NZ *Code-share:* ▪ Aircalin (on Air NZ)	Direct Direct	2x week 2x week	Star Alliance

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
		Air Caledonie (Aircalin) *Code-share:* ▪ Air NZ (on Aircalin) ▪	Direct Direct	2x week 2x week	
Auckland	Papeete, Tahiti	Air NZ Air NZ	Direct – As part of services to Los Angeles Indirect via Cook Islands (Some as part of services to Los Angeles)	2x week 3x week	Star Alliance
		Code-share: ▪ Qantas (on Air Tahiti Nui)	 Direct	 2x week	oneworld
		Air Tahiti Nui	Direct – as part of services to/from Los Angeles	2x week	
Auckland	Nadi, Fiji	Air NZ *Code-share:* • United Airlines (on Air NZ)	Direct – some as part of services to/from Coral Route or Los Angeles. Direct	9x week 8x week	Star Alliance
		Code-share ▪ Qantas (on Air Pacific)		 9x week	oneworld
		Air Pacific	Direct (some as part of services to/from Honolulu or Los Angeles	9x week	
	Suva, Fiji	Air Pacific	Direct	2x week	
Auckland	Apia, Samoa	Air NZ Air NZ *Code-share:* • United Airlines (on Air NZ)	Direct Indirect via Tonga – as part of service to Los Angeles Direct	3x week 1x week 3x week	Star Alliance
		Code-share: ▪ Qantas (on Polynesian) ▪ Qantas (on Polynesian)	 Direct Indirect via Tonga	 1x week 1x week	oneworld
		Polynesian Airlines Asian Express Freighter	Direct Indirect (1 via Tonga/ 1 via Niue As part of services to/from Honolulu	4x week 2x week	
Wellington		Polynesian Airlines	Indirect via Tonga	1x week	
Auckland	Nuku'alofa, Tonga	Air NZ	Direct	5x week	Star Alliance

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
		Polynesian Airlines Royal Tongan Airlines	Direct Direct	1x week 4x week	
Wellington		Polynesian Airlines	Direct – As part of service to Apia	1x week	

Asia Routes

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
Auckland	Nagoya, Japan	Air NZ *Code-share:* • JAL (on Air NZ)	Direct Direct	2x week 2x week	Star Alliance
	Osaka, Japan	Air NZ Air NZ *Code-share:* ▪ JAL (on Air NZ)	Direct Indirect via Tokyo Direct	5x week 2x week 5x week	Star Alliance
	Narita, Tokyo, Japan	Air NZ *Code-share:* ▪ JAL (on Air NZ)	Direct Direct	7x week 4x week	Star Alliance
Christchurch		Air NZ *Code-share:* ▪ JAL (on Air NZ)	Direct inbound only, continuing to Auckland Direct inbound only, continuing to Auckland	3x week 3x week	Star Alliance
Auckland	Taipei	Air NZ *Code-share*: • EVA Air (on Air NZ)	Direct Direct	2x week 2x week	Star Alliance
Auckland	Hong Kong	Air NZ *Code-share:* ▪ Lufthansa (on Air NZ)	Direct Direct	5x week 5x week	Star Alliance
		Cathay Pacific *Code-share:* ▪ British Airways (on Cathay Pacific)	Direct Direct	10x week 10x week	oneworld
		Cargolux Freighter	Direct Northbound only	1x week	

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
Auckland	Singapore	Air NZ Singapore Airlines *Code-share:* ▪ Lufthansa (on Air NZ) ▪ Air NZ (on Singapore) ▪ Singapore (on Air NZ) Singapore Airlines Freighter	Direct Direct Direct Direct Direct Direct Indirect (via Sydney)	6x week 7x week 6x week 7x week 6x week 2x week 2x week	Star Alliance
		Emirates	via Sydney, Melbourne and Brisbane (services continue on to Dubai)	14x week	
Christchurch		Singapore Airlines *Code Share:* • Air NZ (on Singapore)	Direct Direct	5x week 5x week	Star Alliance
Auckland	Bangkok, Thailand	Thai Airways *Code-share:* ▪ Lufthansa (on Thai)	Indirect via Sydney (7x) and Brisbane (3x) Indirect via Sydney (7x) and Brisbane (3x)	10x week 10x week	Star Alliance
Auckland	Incheon, Seoul, Korea	Asiana Airlines	Direct	4x week (from 27/10/03)	Star Alliance
		Korean Air *Code-share:* ▪ Delta Air Lines (on Korean)	Direct	7x week	
Auckland	Bali, Indonesia	Garuda Indonesia	Indirect via Brisbane	2x week	
Auckland	Kuala Lumpur, Malaysia	Malaysia Airlines Malaysia Airlines *Code-share:* ▪ KLM (on Malaysia) ▪ KLM (on Malaysia)	Direct Indirect via Brisbane Direct Indirect via Brisbane	4x week 3x week 4x week 3x week	

Los Angeles

NZ Airport(s)	Foreign Airport(s)	Current Airline(s)	Direct or Indirect Route	Frequency of Services	Potential
Auckland	Los Angeles	Air NZ Air NZ *Code-share:* ▪ Lufthansa (on Air NZ) ▪ United Airlines (on Air NZ) ▪ Air Canada (on Air NZ) ▪ Mexicana (on Air NZ) Lufthansa Freighter *Code-share:* ▪ Air NZ (on Lufthansa Freighter)	Direct (1 service continues to London) Indirect (3x via Nadi, 1x via Papeete) Direct Direct Direct Direct Direct	17x week 4x week 10x week 17x week 17x week 17x week 2 times a week	Star Alliance
		Qantas *Code-share:* ▪ American Airlines (on Qantas) ▪ British Airways (on Qantas)	Direct Direct Direct	9x week 9x week 7x week	oneworld
		Air Tahiti Nui Cargolux Freighter	Indirect via Papeete Direct Eastbound only	2x week 1x week	

APPENDIX III

GLOSSARY

Air Services Agreement (ASA)	An agreement (usually but not necessarily of treaty status) between governments regulating international air services to and from their territories.
Available Seat Kilometres (ASKs)	The number of seats made available for sale multiplied by the distance (in kilometers) flown – used as a measure of capacity.
Available Tonne Kilometres (ATKs)	The number of tones of capacity available for the carriage of revenue load (passengers and cargo) multiplied by the distance flown (in kilometers).
Beyond Rights	The right of a carrier from one country to fly to another country then beyond to a third country picking up passengers in that second country (a form of Fifth Freedom rights).
Bilateral	An ASA between two countries.
Breakeven Load Factor	The load factor required to equate total traffic revenue with operating cost.
BTRE	Bureau of Transport and Regional Economics (Australia)
Cabotage	Provision of commercial domestic air services and carriage of domestic traffic within a country.
Capacity Allocation	The allocation of capacity entitlements to individual airlines to fly services available under ASAs.
City Designation	The designation of air services to particular cities, or a choice of cities specified under an ASA.
City Pair	An air route between two cities.
City Presence	City Presence represents the additional revenue beyond fair revenue share that is earned by the market-leading carrier in a city. The additional revenue represents a premium for factors such as providing more capacity, frequency, and/or breadth of service out of a city. In general, a carrier accrues a revenue advantage once it is established as the clear number one carrier in a city.

Code-sharing	The performance of a flight and sale/carriage of traffic on that flight under the designator codes of the operating carrier and one or more Marketing Carriers. For example the operation of a service by Air New Zealand which corners the 'NZ' and 'QF' codes and is sold as an Air New Zealand and Qantas service.
Computer Reservation System (CRS)	Airlines' internal computerized reservation system which provides information to subscribers (often travel agents) on airline schedules, fares and seat availability.
Connectivity	The ability of a carrier to supplement local passengers on a give sector with passengers that connect at the origin or destination city. E.g., for Air New Zealand, providing the sector WLG-AKL with connections to LAX, SIN, NRT, etc. Connectivity is divided into two components: Online - Connections that are made on the same carrier Interline - Connections that are made to a different carrier
Consolidator	Organisation which combines airfares (often as part of, for example, a package holiday) on a wholesale basis to retail agents.
Cost per ASK	Cost divided by the number of ASKs flown – measure of unit cost.
Dedicated Freighter	An aircraft set up to transport freight only.
Direct Flight	A flight (may involve intermediate stops), with no change of aircraft.
Dry Lease	Aircraft only lease, i.e. without crew.
Economies of Network Size	A fall in average unit costs as the number of routes increases.
Economies of Traffic Density	A fall in average unit costs as the number of passengers traveling on a particular route(s) increases.
Filed/Published Fare	Retail fares established and published by airlines in CRSs and by other means and available for sale to the public.
Flag Carrier	A country's national airline.
Freedoms of the Air	Types of international aviation rights established under ASAs.
Freight-Tonne Kilometres	The number of revenue tonnes of freight multiplied by the kilometers flown.

Frequent-Flyer Programs (FFPs)	Airline loyalty programs granting customers "points" or flights on the basis, among other things, of the distance they have flown. Points generally can be cashed in for free flights, upgrades in cabin services, or non-airline services or items.
Full Service Airline (FSA)	An airline with a higher cost structure than a LCC due to "frills service", extensive networks, interlining and FFP (among other features).
Global Distribution System (GDSs)	A tool that allows travel agents or other licensed users to generate travel service options available in response to a particular query, for example all flights from Auckland to Sydney on 1 February 2003.
Hard Block	Within a code-share agreement, where a Marketing Carrier buys a fixed number of seats from the operating carrier and is unable to return the unsold seats.
Hub and Spoke Network	A network of routes operating through a central hub point. Airlines may channel and increase traffic through hub points.
Interline Agreement	An agreement between two airlines for interlining.
Interlining	The issue by one airline (the ticketing carrier) of a ticket coupon for carriage by another airline, where the ticketing carrier is acting as agent of the other airline.
International Air Transport Association (IATA)	International trade association representing the interests of over 230 airlines offering scheduled services.
International Civil Aviation Organisation (ICAO)	Inter-government organization involved in matters affecting aviation safety and security.
Joint Airline Operations (JAO)	The Agreements reached by the Applicants as set out in the Strategic Alliance Agreement to co-operate and co-ordinate their respective operations in relation to the JAO Networks.
JAO Networks	The entire network of sectors flown from time to time (both within domestic New Zealand and internationally) by Air New Zealand, its subsidiaries or airlines Air New Zealand effectively controls (excluding Freedom Air) including that proportion of flights operated by other airlines on which Air New Zealand code-shares, and all domestic New Zealand sectors and international sectors departing from or arriving in New Zealand flown from time to time by Qantas, its subsidiaries or airlines Qantas effectively controls, including flights operated by other airlines on which Qantas code-shares.

Landing and Take-off Slots	A landing and/or take-off time at an airport. (Usually associated with an allocation to carriers of specific scheduled arrival/departure time slots for aircraft movements at slot coordinated airports).
Load Factor	Proportion of seats on an aircraft occupied by passengers.
Low Cost Carrier (LCC)	An airline with a low cost structure due to strategies such as "no-frills" services, uniform fleet, short haul and point-to-point services, direct services and high aircraft utilisation – also referred to as a VBA.
Marketing Alliances	Typically offer the consumer the benefit of broader networks, more seamless travel and expanded loyalty programmes. Member airlines generally continue to offer fares, schedules and services independently.
Marketing Carrier	A carrier that markets and sells space on another carrier's aircraft (Operating Carrier) under its own code.
Memorandum of Understanding (MOU)	An agreement between two countries. With regard to ASAs, it is a less formal type of agreement (without treaty status) that is considered to be as binding as a formal agreement.
Multilateral Agreement for Liberalisation of Air Transportation (MALIAT)	A multilateral open skies agreement signed by New Zealand, Brunei, Chile, Peru, Samoa, Singapore and United States.
Multiple Designation	Provision for more than one national airline of a country to be designated by its Government for international air services under that country's ASAs.
Net Fare	Unpublished fare, the value of which is expressed as the amount the airline expects the travel agent to remit to the airline for the fare, net of commission or taxes. Net fares are generally referred to as non-commissionable, since the agent's commission is actually the selling mark-up above the net fare amount.
Non-stop Flight	A flight with no intermediate stops.
oneworld	The airline alliance between Aer Lingus, American Airlines, British Airways, Cathay Pacific, Finnair, Iberia, LanChile and Qantas.
Open Skies	A liberal ASA under which participating Governments agree to the removal of restrictions on access to each country's market, such as restrictions on capacity, frequency, ability to code-share and points of access. Commonly restrictions remain on cabotage, Seventh Freedom, foreign control and sometimes on foreign ownership requirements.

Operating Carrier	A carrier under a Code-share arrangement that operates the relevant service.
Origin-Destination (OD) Traffic	A measure of airline (passenger) traffic between the commencement point of an air passenger's journey and the end point or turnaround point of the journey, as distinguished from uplift – discharge traffic.
Passenger Load Factor (LF)	Revenue Passenger kilometers (RPKs) as a percentage of Available Seat Kilometres (ASKs).
Revenue Load Factor (LF)	Revenue Tonne Kilometres (RTKs) as a percentage of ATKs.
Revenue Management	Manipulation of availability of fares to attempt to maximise revenue from each flight. Revenue management systems are based on estimating the number of full fare tickets that would be sold on a particular flight, then offering the remaining tickets at varying discounts to induce demand from more price-sensitive passengers.
Revenue Passenger Kilometres (RPKs)	The number of paying passengers carried multiplied by the number of kilometers flown.
Revenue per Available Seat Kilometre (RASK)	Net Revenue divided by the number of ASKs flown. A measure of unit revenue.
Revenue Pooling	An agreement between airlines to share all revenue on a route or sector irrespective of the revenue generated by each individual airline on the route. Also referred to as Revenue Sharing.
Revenue Tonne Kilometres (RTKs)	The revenue load (passengers and cargo) multiplied by the distance flown
Route	An air service between two points.
Scheduled Airline	Any air transport entity offering or operating a regular air service according to a published timetable (can also operate non-scheduled services).
Scheduled Services	Flights listed in a published timetable (or that are so regular and frequent as to constitute a recognizable pattern).
Sector	A non-stop (excluding technical stops where no passenger or freight are picked up or dropped off) flight leg between two points.
Single Aviation Market (SAM)	A formal agreement between New Zealand and Australia, under which the two countries are treated as if they were one.
Single Designation	Provision for only one national airline of a country to be designated by its Government for international air services under that country's ASAs.

Soft Block	A block of seats which are allocated to the Marketing Carrier under a Code-share arrangement, but where the Marketing Carrier can hand back unsold seats without incurring the seat charge (as per the agreement).
Stage Length	The distance flown between take-off and landing.
Stop-over Traffic	Passengers that fly to a city, spend a period longer than 24 hours at the city, and then continue to a different city.
Substantial Ownership	All or majority ownership of an airline by citizens in the country of registration. There is no internationally agreed standard, so each country can determine what it accepts as substantial ownership.
Star Alliance	The airline alliance between Air Canada, Air New Zealand, All Nippon Airways, Austrian Airlines, Asiana Airlines, British Midland, Lauda Air, Lufthansa, Mexicana, SAS, Singapore Airlines, Spanair, Thai Airways, Tyrolean Airways, United Airlines and Varig.
Tariff	Passenger airfare and/or cargo rate.
Terminal Slot	A gate at an airport terminal for unloading and boarding passengers and/or freight at a specified time.
Thin Route	Route over which traffic and frequency is low.
Tonne Kilometres Available	A measure of tones available for the carriage of freight, mail and passengers, multiplied by the distance flown.
Wet Lease	The lease of an aircraft with all crew (flight deck and cabin crew).
Yield	Airline revenue per unit of traffic. Passenger yield is airline revenue per passenger kilometre.

APPENDIX IV

STATISTICAL ANALYSIS OF THE IMPACT OF VIRGIN BLUE'S ENTRY IN AUSTRALIA

1. Professor Morrison and Dr Winston, on behalf of the Applicants, provided evidence from a statistical study of the impact of the presence of Ansett Australia and of Virgin Blue on Qantas's fares in a number of city-pair routes in Australia. The study found that the presence of Ansett on a route had lowered Qantas's fares on average by 6.1%, and the presence of Virgin Blue had reduced fares on average by nearly 10%. The Applicants used these findings to support their view that Virgin Blue had been a more effective competitor than Ansett had been in constraining the market power of the incumbent. It was inferred that Virgin Blue would also effectively constrain the proposed Alliance.

2. These findings were challenged by Professor Hausman, acting for Infratil, who found that after correcting for some time variables in the regression on the same data set, the impact of Virgin Blue on a route was substantially less than that found by Morrison and Winston. Specifically, he found that the presence of Virgin Blue reduced fares by 4%, and Ansett by 3%. In one regression the impact of Virgin Blue was not statistically significant.

3. Given the contradictory findings, the Commission obtained the data set used by both Morrison and Winston and by Hausman and ran its own regressions. It was felt that these would shed light on the impact on Qantas of competition from both an FSA (Ansett) and an LCC (Virgin Blue), and from the two combined, and thereby provide an insight on the impact of LCC competition of potentially more relevance to Australasian conditions than information quoted by the Applicants based on US markets. The regressions were also expected to provide a basis for judging the degree of product differentiation that was expected to exist between an FSA and an LCC.

4. The data set consisted of a pooled set of 24 routes for a period of 52 months between February 1998 and June 2002. The routes included in the data set are listed in Table 1. The dependent variable used was Qantas's average real fare by route and month (the actual fares being discounted by the Consumer Price Index). The independent or explanatory variables were the following (all variables were measured in logarithmic form):[199]

   - LDIST = route distance;
   - AN = dummy variable for the presence of Ansett;
   - DJ = dummy variable for the presence of Virgin Blue;
   - SEPT11TH = dummy variable for the impact of terrorist attack in New York;
   - D1999 = dummy variable for 1999 year;
   - D2000 = dummy variable for 2000 year;
   - D2001 = dummy variable for 2001 year; and
   - D2002 = dummy variable for 2002 year.

5. In common with Morrison and Winston, and Hausman, regression equations were generated using Pooled Least Squares with a robust standard error, and estimated using Generalised Least Squares weighted least squares. Our specification differed from that of

[199] Two functional forms, linear and log-linear, were estimated, but only the latter is reported here because it provided a better fit to the data, and both Morrison and Winston and Hausman reported only log-linear results.

Morrison and Winston in that corrections were made for serial correlation, and dummy variables were included for each year and for September 11th. We also improved the data set by using a consistent set of monthly values for each variable, whereas both Morrison and Winston, and Hausman, used quarterly values of the CPI and assumed the index applied for each month in the quarter. Otherwise the data sets were the same.

TABLE 1
Routes Included in the Data Set

ADLBNE	BNETSV
ADLMEL	CBRMEL
ADLPER	CBRSYD
ADLSYD	CNSMEL
AYQSYD	HBAMEL
BNECNS	KGIPER
BNEDRW	KTAPER
BNEGLT	MELOOL
BNEMEL	MELPER
BNEPER	MELSYD
BNEROK	OOLSYD
BNESYD	PERSYD

6. The results are shown in Table 2, which includes the DG dummy variable, and Table 3, where this variable is excluded. In both tables the first column shows the listing of the independent variables, and the second column the parameter value for each variable estimated by the regression programme. The third, fourth and fifth columns indicate that all of the parameter values are highly significant from a statistical perspective (i.e., there is a very low probability that they occur by chance). Nonetheless, the precise mechanisms by which variations in the designated variables impact upon Qantas fares, as captured in their respective parameter values, require interpretation and judgment. The lower halves of both tables provide further statistics indicating that both of the equations provide a good ‘fit’ to the data, including that the variables account for virtually all of the observed variation in Qantas’s real fares over the period in question.

7. In Table 2 the parameter on the distance variable (LDIST) is statistically significant and positive, indicating that as expected, fares increase less than proportionately with distance (a 10% increase in distance led on average to a 6.5% increase in the real fare, all else being the same). The September 11th dummy controls for the impact of the event of that date. Its parameter value indicates that the event led to a reduction in Qantas’s fares by about 1% on average.

TABLE 2
Regression Results, Virgin Blue Dummy Included

Convergence achieved after 20 iteration(s)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.402005	0.016732	24.02626	0.0000
LDIST	0.656376	0.004718	139.1279	0.0000
AN	-0.067870	0.004854	-13.98360	0.0000
DJ	-0.015803	0.004207	-3.756899	0.0002
SEPT11TH	-0.009674	0.003068	-3.153014	0.0017
D1999	-0.008292	0.001882	-4.405796	0.0000
D2000	0.012041	0.002334	5.159741	0.0000
D2001	-0.063019	0.004325	-14.56927	0.0000
D2002	-0.086766	0.005450	-15.91909	0.0000
AR(1)	0.124352	0.028415	4.376352	0.0000
AR(2)	-0.274764	0.030327	-9.060124	0.0000
Weighted Statistics				
R-squared	0.990057	Mean dependent var		2.436429
Adjusted R-squared	0.989974	S.D. dependent var		0.242576
S.E. of regression	0.024290	Sum squared resid		0.701493
Log likelihood	2764.046	F-statistic		11839.52
Durbin-Watson stat	2.020176	Prob(F-statistic)		0.000000
Unweighted Statistics				
R-squared	0.990057	Mean dependent var		2.436429
Adjusted R-squared	0.989974	S.D. dependent var		0.242576
S.E. of regression	0.024290	Sum squared resid		0.701493
Durbin-Watson stat	2.020176			

8. The variables of most interest are those indicating the presence of Virgin Blue and Ansett. The associated parameter values, both of which are statistically significant, indicate the magnitude of the impact that the presence of those airlines had on Qantas's fares on average. The presence of Ansett on a route reduced Qantas's real fares on average by about 6.8%, and of Virgin Blue by about 1.6%.[200] Thus, the results suggested that Ansett had a bigger impact on Qantas's fares than did Virgin Blue, which might be interpreted to mean that Ansett's service was a closer substitute for Qantas's service than that provided by Virgin Blue. This seems plausible given that Qantas and Ansett were full service airlines whereas Virgin Blue was a low cost carrier.

9. However, it is important to consider the impact of the year dummy variables. It is likely that they picked up a number of time-related influences on Qantas's fares, including the following: the impact of macroeconomic affects, such as upturns and downturns in the broader economy; the numbers of competitors in the market; and changes in capacity by both Virgin Blue and the other carriers on the routes considered. Of these affects, the most important may have been the increasing presence of Virgin Blue. It was not present in any markets in 1998 and 1999, it entered only two in 2000, added several more in 2001, and two more in 2002 (see Table 4 for a list of routes entered).

[200] The percentage impact on a dependent variable from a dummy variable is calculated as the exp (dummy parameter) -1.

10. In Table 2 the negative sign on the D1999 parameter, which is very small, can be attributed to route and macro affects exclusive of Virgin Blue. The D2000 parameter is positive, and may be picking up the tech boom and the strong macroeconomic environment that existed until about mid-2000. The parameter for D2001 is negative and quite large in comparison to the previous two years' dummies, which may reflect the expansion of Virgin Blue, but perhaps also incorporating the fact that Ansett was in difficulties. The parameter on D2002 is higher than that for D2001, but the change from the previous year is relatively small.

11. One way of exploring the extent to which the year dummy variables captured the impact of Virgin Blue's entry and expansion was to remove the DJ dummy from the regression specification, and to observe how the remaining parameters changed, in particular those on the years and AN dummies. The results are shown in Table 3. The values of the parameters on D2001 and D2002 increase by about half of a percentage point in both cases. These changes are equivalent only to about 10% and 6% respectively, implying that quite a small portion of the year dummy parameters reflect Virgin Blue's entry and expansion.

TABLE 3
Regression Results, Virgin Blue Dummy Excluded

Convergence achieved after 9 iteration(s)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.395829	0.017526	22.58517	0.0000
LDIST	0.654723	0.004865	134.5668	0.0000
AN	-0.055161	0.003384	-16.30272	0.0000
SEPT11TH	-0.013547	0.002951	-4.589957	0.0000
D1999	-0.008585	0.001963	-4.373479	0.0000
D2000	0.011007	0.002421	4.547291	0.0000
D2001	-0.069365	0.004030	-17.21414	0.0000
D2002	-0.092083	0.005455	-16.88185	0.0000
AR(1)	0.143586	0.027589	5.204545	0.0000
AR(2)	-0.246871	0.028248	-8.739418	0.0000
Weighted Statistics				
R-squared	0.989919	Mean dependent var		2.436429
Adjusted R-squared	0.989843	S.D. dependent var		0.242576
S.E. of regression	0.024448	Sum squared resid		0.711242
Log likelihood	2755.766	F-statistic		12983.82
Durbin-Watson stat	2.006710	Prob(F-statistic)		0.000000
Unweighted Statistics				
R-squared	0.989919	Mean dependent var		2.436429
Adjusted R-squared	0.989843	S.D. dependent var		0.242576
S.E. of regression	0.024448	Sum squared resid		0.711242
Durbin-Watson stat	2.006710			

12. The preferred way to allocate the effect of the various influences captured by the year dummy parameters would be to use capacity data to estimate the direct influence of capacity growth on fares, but these data were not readily available.[201] At the lower end, not taking account of the increase in capacity growth in the market, the effect of the

[201] The overall capacity growth will have depended upon how the incumbent and other participants reacted to the entry (and growth) of Virgin Blue. If there was an accommodating response, market growth would have been less, and hence the downward pressure on fares would have been less.

presence of Virgin Blue was to reduce fares by 1.5%. If all of the impact of the year dummies were attributed to Virgin Blue (thereby providing an upper bound estimate), the impact of Virgin Blue was to lower Qantas's average fare by the following: 0.4% in 2000; 7.9% in 2001; and 10.3% in 2002. A more reasonable approach might be to assume half of the impact captured by the year dummy parameters is due to the influence of Virgin Blue,[202] which gives the following alternative estimates: 1.01% in 2000; 4.7% in 2001; and 5.9% in 2002.

TABLE 4
Entry Dates of Virgin Blue on Australian City-pairs

Entry Date	Route
2000 - 8th month	BNE-MEL
	BNE-SYD
2001 - 1st month	BNE-ADL
2001 - 4th month	ADL-SYD
2001 - 7th month	OOL-SYD
	ADL-MEL
2001 - 10th and 11th months	BNE-CBR
	LST-MEL
	BNE-CNS
2002 - 1st month	ADL-PER
	BNE-DRW
	CBR-MEL
	MEL-OOL
	MEL-PER

13. Morrison and Winston also used the same data set to explore the likelihood of entry by Virgin Blue. They used a logit regression to test which variables explained more or less the probability of its entry on a route. They included route distance, the presence of Ansett and Qantas, and a population variable. The Commission ran a similar regression using a binary logit model, but adding additional variables such as year dummies. The results are reported in Table 5.

[202] Note this assumes that overall capacity growth, due to the response of incumbents, is due to Virgin Blue on the basis that had Virgin Blue not entered, the incumbents would not have expanded capacity.

TABLE 5
Factors Influencing the Probability of Virgin Blue's Entry on Australian Domestic Routes

Dependent Variable: DJ
Method: ML - Binary Logit
Sample: 1 1272
Included observations: 1272
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.107906	0.532633	0.202590	0.8395
DIST	0.000423	0.000173	2.445538	0.0145
AN	-0.382287	0.215349	-1.775199	0.0759
TOTOTH	-0.004020	0.188401	-0.021337	0.9830
RFARE	-0.005421	0.001786	-3.035597	0.0024
PRODODGDP	-1.40E-09	4.32E-10	-3.235052	0.0012
D1999	0.046653	0.229091	0.203645	0.8386
D2000	0.156205	0.229628	0.680254	0.4963
D2001	0.660393	0.221399	2.982815	0.0029
D2002	1.951917	0.282697	6.904624	0.0000

Mean dependent var	0.127358	S.D. dependent var	0.333505
S.E. of regression	0.280608	Akaike info criterion	0.560409
Sum squared resid	99.37073	Schwarz criterion	0.600883
Log likelihood	-346.4200	Hannan-Quinn criter.	0.575611
Restr. log likelihood	-485.0572	Avg. log likelihood	-0.272343
LR statistic (9 df)	277.2744	McFadden R-squared	0.285816
Probability(LR stat)	0.000000		
Obs with Dep=0	1110	Total obs	1272
Obs with Dep=1	162		

14. The dependent variable was the presence (or not) of Virgin Blue in markets over the 1998 to 2002 period. The distance parameter is positive, indicating that Virgin Blue was more likely to enter longer markets. This is consistent both with observed behaviour of LCCs in other jurisdictions, and with the geography of Australia. The signs on the Ansett (AN) and other airlines (TOTOTH) parameters are negative, indicating a lower likelihood of Virgin Blue entering when other carriers were present. The presence of an FSA (AN) clearly had a much more important impact than other Australian domestic carriers. A Qantas presence variable was not included since Qantas was present on every route in the data set.[203]

15. The parameter on fare is also negative, indicating a lower entry probability by Virgin Blue on routes where fares were low. This variable probably captures the impact of capacity expansion and the lowering of fares by incumbents. It might be taken to imply that as Air NZ and Qantas introduce lower fares on the Tasman with their Express and JetConnect services respectively, the likelihood of Virgin Blue's entry would be reduced. The year dummy variables show the dramatic increase in the likelihood of entry over time of Virgin Blue, indicating the development of its network of routes over time.

[203] This was also the case with the Morrison and Winston data set. The parameter estimate on their Qantas dummy was not statistically significant.

16. In conclusion, this statistical analysis suggests the following:

- The entry by Virgin Blue on Australian domestic routes appears to have had a relatively small dampening impact on fares over the period from its entry until June 2002, and much less than the Applicants claim using US evidence of LCC entry. Although it is conceivable that the exit of Ansett's capacity could have mitigated to some degree against fare reductions, evidence on fare trends from the BTRE indicates that Virgin Blue's entry caused discount fares to decline, and economy and business fares to increase.

- Contrary to the Applicants' argument, based on US data, that only a small amount of LCC capacity on a route (as low as 5%) is sufficient to provide a dampening affect on fares, the statistical study above suggests that the amount of capacity is likely to be important. Virgin Blue's impact on fares increased year-by-year over the period of the study, suggesting that its capacity (and the implied strategic response of the incumbents) did matter. The extent to which Qantas and Air NZ have been increasing capacity in markets in anticipation of Virgin Blue's entry means that it will have less an impact on fares.

- The study suggests that the likelihood of Virgin Blue entry increases over time as the carrier grows, and that it is not averse to entering longer distance routes. However, the probability of entry is reduced when capacity is expanded and fares reduced in the market.

- A clear degree of product differentiation between Virgin Blue and Ansett emerges from the study, as indicated by the differential impact of the two in restraining Qantas's fares. The differentiation appears substantial, although this could have narrowed since entry as Virgin Blue has added more FSA-like quality of service, in terms of frequency, capacity, and other services (e.g., lounges).