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COMMERCE COMMISSION

Draft Report

Price Control Study of Airfield Activities at Auckland, Wellington, and Christchurch International Airports

On the 26 May 1998, the Minister of Commerce requested, pursuant to the then section 54(1) of the Commerce Act 1986, that the Commerce Commission report to him on whether price control should be imposed over charges for airfield activities at any or all of Auckland, Wellington, and Christchurch International Airports. In light of the Minister's request, the Commission has conducted a Price Control Study of Airfield Activities. This is a draft of the Commission's report to the Minister of Commerce. Interested parties are invited to make submissions to the Commission on this report.

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EXECUTIVE SUMMARY

INTRODUCTION

1. The Commerce Act 1986 (the Commerce Act) is an Act to promote competition in markets for the long-term benefit of consumers within New Zealand. Where markets fail to deliver competitive outcomes and fail to operate efficiently, Parts 4 and 5 of the Commerce Act contain provisions providing for the control of the prices, revenues and quality standards of goods and services. The Commerce Act is enforced by the Commerce Commission (the Commission).

2. Section 53 of the Commerce Act provides that the Governor-General may impose control over the supply of goods or services on the recommendation of the Minister. The effect of goods or services being controlled is that they have to be supplied in compliance with an authorisation made by (or undertaking accepted by) the Commission.

3. In considering whether to make a recommendation that goods or services be controlled, the Minister can seek advice from the Commission under sections 54 and 56 of the Commerce Act.

NOTICE FROM THE MINISTER

4. Pursuant to the former section 54 of the Commerce Act, the Minister has required the Commission report to him as to whether it considers any of the airfield activities supplied by Auckland International Airport Limited (AIAL), Wellington International Airport Limited (WIAL) or Christchurch International Airport Limited (CIAL) should be controlled. Chapter 1 outlines the full details of the Minister's Notice.

5. Airfield activities are one of a number of activities undertaken by airport companies. The Airport Authorities Act 1996 defines airfield activities as the activities undertaken (including the facilities and services provided) to enable the take-off and landing of aircraft. Airfield activities are specifically defined to include the following:

- Airfields, runways, taxiways, and parking aprons for aircraft.
- Facilities and services for air traffic and parking apron control.
- Airfield and associated lighting.
- Services to maintain and repair airfields, runways, taxiways, and parking aprons.
- Rescue, fire, safety and environmental hazard control services.
- Airfield supervisory and security services.

6. Auckland, Wellington and Christchurch International Airports are the three biggest airports in New Zealand by total revenue and volume (aircraft movements, passenger numbers and freight volumes).

7. AIAL, WIAL and CIAL are under a mix of public and private ownership. The shares of AIAL are listed on the New Zealand Stock Exchange, with minority local government shareholders. WIAL is majority owned by Infrastructure and Utilities NZ Limited, with the balance being owned by local government. CIAL remains entirely publicly owned, with local government as the majority shareholder and the Crown having a minority interest. Regardless of ownership, the airport companies are run as commercial undertakings (as required by the Airport Authorities Act).

8. Under section 4 of the Airport Authorities Act, airport companies have the right to set such charges as they think fit, after consultation with substantial customers.

9. Since receiving the section 54 Notice dated 26 May 1998, the Commerce Act has been amended by the Commerce Amendment Act 2001 (the Amendment Act). The Amendment Act repealed Parts IV and sections 70-74 to Part V of the Commerce Act.

10. Although the Notice was issued under the old provisions of Part IV of the Commerce Act, the Commission, in making its recommendations to the Minister, intends to consider the new Part 4 and new sections 70-74, as amended on the basis that the Minister has to consider, and make a decision based on, the Commission's report under the amended provisions of the Act. The limiting of Part 4 to control of prices is removed and the Commission can now control prices, revenues and quality standards. As a result, while the Notice refers only to price control, the Commission intends to make recommendations in respect of the control of prices, revenues and quality standards for the airfield activities at Auckland, Wellington and Christchurch International Airports. This draft report is written in the context of the new provisions of the Commerce Act.

WHEN CONTROL CAN BE IMPOSED

11. Before making a recommendation that airfield activities be controlled, the Minister must be satisfied that the requirements of section 52 of the Commerce Act are met. These requirements are as follows:

(a) The goods or services (in this case, airfield activities) are, or will be, supplied or acquired, in a market in which competition is limited or is likely to be lessened.

(b) It is necessary or desirable to impose control in the interests of the persons acquiring (directly or indirectly) the goods or services.

12. The Minister has asked the Commission to report on whether there is evidence that these requirements are met for the airfield activities supplied by any of AIAL, WIAL or CIAL. He has also asked the Commission to advise on thresholds it considers useful in making that assessment.

13. If the requirements of section 52 are met, the Minister still has a discretion as to whether to recommend control. In this regard, the Minister has asked the Commission

whether market conditions are such that it considers that he should recommend control of any of the airfield activities supplied by AIAL, WIAL or CIAL.

LEGAL FRAMEWORK

14. Sections 52 to 54 of the Commerce Act, read in conjunction with the Minister's request of 26 May 1998, require that the Commission address three key issues.

15. The first is to assess whether competition is limited or is likely to be lessened: see section 52(a) and paragraph A of the Minister's letter. This requires an assessment of both structural and behavioural considerations within the context of the relevant markets.

16. The second issue is whether control is necessary or desirable in the interests of acquirers or suppliers: see section 52(b) and paragraph A of the Minister's letter. The focus here is on the economic welfare of the acquirers of airfield activities (both direct and indirect acquirers). This has involved an analysis of the current market situation (the counterfactual), relative to the potential benefits and detriments to acquirers arising from control. In order to undertake such an analysis, the Commission has considered what form of control might possibly be imposed.

17. So as to consider whether control is necessary or desirable the Commission has examined the pricing behaviour of the airport companies, relative to what it considers to be appropriate pricing principles. An examination of the pricing of airfield activities has required the Commission to consider issues such as asset valuation, weighted average cost of capital (WACC) and cost allocation. Any effects that other airport activities may have on the pricing of airport activities are considered in the analysis where appropriate.

18. The third issue is to make a recommendation on whether control should be imposed. In this assessment, the Commission addresses such discretionary considerations as may be relevant: the discretionary nature of the Minister's power to impose control is reflected in the Minister's instruction in paragraph B (whether he should recommend control). This brings into consideration the wider net benefits test. The focus here is on the interests of the economy as a whole. The aim is to maximise economic efficiency regardless of which particular individuals receive the benefits.

LIMITED COMPETITION

19. If airfield activities are supplied in a market in which competition is "limited", then section 52(a) is satisfied. In considering this question, the Commission has firstly asked whether competition is currently limited. Failing a finding that competition is limited, the Commission would then ask whether competition is likely to be lessened. In this draft report, the Commission has found it unnecessary to go beyond the first step, having reached the preliminary view that competition is limited. The Commission's analysis of competition in the supply of airfield activities is contained in chapter 5 of this draft report.

Relevant Markets

20. To provide a framework within which to analyse whether competition might be "limited", the Commission has defined the market(s) related to the supply of airfield activities. In defining the relevant market(s), the Commission has taken account of the relationships between "airfield activities", which are the specific focus of the inquiry, and other activities undertaken by the airport companies. It has defined markets for areas outside of airfield activities in order to facilitate its analysis of whether airfield activities are supplied in market(s) in which competition is limited.

21. Goods and services are grouped together in markets where they have similar demand characteristics (are substitutes) or are connected in terms of supply.

22. In this draft report, the Commission has identified the following markets as being relevant to its analysis:

- *The aircraft movement market*, which encompasses the services and facilities for the movement of aircraft (landing and take-off; aerodrome control; aircraft maintenance; and aircraft ancillary services).

- *The passenger aircraft access market*, which encompasses the services and facilities provided to process arriving and departing passengers.

- *The freight aircraft access market*, which includes the services and facilities for the handling of air-transported freight.

- *The airport access and utilities market*, which encompasses the services and facilities for the accessing and functioning of the airport and its facilities.

- *The commercial activities market*, which includes the services and facilities for the conduct of retail and commercial activities, either in the terminal buildings or elsewhere on the airport site

23. Airfield activities make up part of the aircraft movement market, as defined above.

Constraints on Market Power

24. Having defined the relevant markets, the Commission has gone on to consider whether any of the three airport companies are able to exercise market power in the aircraft movement market, such that competition could be seen to be "limited" (in terms of section 52 of the Commerce Act). In doing this, it has considered whether or not sufficient constraints (including both structural and behavioural aspects) exist. The possible constraints on an airport's exercise of market power may include the potential competition between airports or from other modes of transport; the possibility of new entry; the potential countervailing power of airlines; the regulatory control of airports; and competition from off-airport sources of supply.

25. The competition faced by the airfield activities at airports from those at other airports may be of two kinds: the *existing* competition from other airports already operating, and the *potential* competition from prospective new entrants. The Commission's

preliminary view is that the nature of the investment in a major airport facility, such as those at Auckland, Wellington and Christchurch, is likely to be such that barriers to entry are high, and hence that competition from potential entrants is low. The extent of existing competition for airfield activities depends largely on the degree to which airports are substitutes for one another. The Commission's preliminary view is that there is some scope for supply-side substitution for general aviation aircraft given the presence of small airfields in the vicinity, but not for larger (commercial) aircraft. There are not substantial near entrants to compete effectively with the three large airports for domestic and international traffic.

26. The pricing of airfield activities appears to have little impact on demand. The airfield activities supplied by one airport are not seen on the demand-side as substitutable for another airport—demand is driven by the destination to which passengers want to go. Alternative modes of transport are also unlikely to provide a constraint on the behaviour of airport companies. The Commission's preliminary estimate of the elasticity of demand for airfield activities at each of the three airports is -0.105.

27. The current regulation of airports relies largely upon the countervailing power of airlines, the requirements on airport operators to consult with them before setting charges, and the threat of further regulation. However, analysis suggests that meeting demand for flights is the overriding factor determining which airports an airline flies to, rather than the costs of doing so, and that airlines' countervailing power is limited. Airport charges, although not insignificant to airlines, are unlikely to make the difference between an airline flying or not flying to a particular city, although there is some elasticity at the margin. Each of the airports is, therefore, unlikely to find itself constrained by the behaviour of its users. In fact, on occasions, it seems likely that airlines may stand to lose greater amounts than airports from withdrawing custom, losses that may not be recovered through any concessions won from the airport.

28. The Commission's preliminary view is that there are insufficient constraints on AIAL's, WIAL's and CIAL's ability to exercise market power in the supply of airfield activities. Each operates largely within its own geographically distinct regional aircraft movement market, which are the greater population areas around the three airports (namely the greater Auckland, Wellington and Christchurch areas). Each airport faces demand from acquirers who do not see the other airports as offering viable substitute services.

Competition "Limited"

29. In respect of section 52(a), the Commission's preliminary view is that the airfield activities supplied by AIAL, WIAL and CIAL are supplied in markets in which competition is limited. The goods or services (falling within the definition of airfield activities) provided by the three major international airports that the Commission considers are subject to limited competition are shown in the following table:

	Goods and Services Supplied		
Airfield Activities	**by AIAL**	**by WIAL**	**by CIAL**
Airfields, runways, taxiways, and parking aprons for aircraft	Airfields, runways, taxiways, and aprons.	Airfields, runways, taxiways, and aprons.	Airfields, runways, taxiways, and aprons.
Facilities and services for air traffic control	Land beneath Airways Control Tower	None.	Provision of Control Tower on top of terminal.
Facilities and services for parking apron control	Apron control service at the international terminal apron.	Apron supervision vehicles.	None.
Airfield associated lighting	Cable ducts and light pots for the entire airfield; cabling for light fittings for aprons and first taxiways; and apron lights.	Stand lighting and noise in guidance units.	Apron flood lighting.
Services to maintain and repair airfields, runways, taxiways, and parking aprons for aircraft	Services to maintain and repair airfields, runways, taxiways, and parking aprons for aircraft.	Supervision of maintenance by independent contractors.	Day-to-day maintenance (grass moving, pavement sweeping, and patching). Major maintenance contracted out.
Rescue, fire, safety, and environmental hazard control services	Rescue, fire, safety, and environmental hazard control services.	Provision of rescue fire service and airside services team. The airside services team monitor the safety of the apron, conduct runway checks, co-ordinate airside works, look after bird and hazard control, and monitor airside rules.	Rescue, fire, safety, and environmental hazard control services.
Airfield supervisory and security services	Provides and maintains security fencing and leases space to AVSEC.	Provision and maintenance of security fencing, perimeter patrols, and management of systems.	Provision and maintenance of security fencing and perimeter patrols.
Facilities/assets held for future airfield activities	Holding of land.	Residential properties bordering airfield.	Holding of Land.

PRICING PRINCIPLES

30. The Commission is of the view that the positive characteristics of a competitive market are appropriate considerations when inquiring into the appropriateness of current prices. The outcomes achieved by competitive markets are a benchmark against which to compare the outcomes in other types of markets. In this regard, the Commission has developed pricing principles that provide a framework within which it can evaluate whether the airports are achieving efficient outcomes at normal returns.

31. The Commission's preliminary view is that the following general pricing principles are appropriate:

- Prices should be as close as possible to their allocatively efficient level over the medium-term. Prices should be commensurate with the desired level of service quality and based on appropriate costs (productively, and dynamically, efficient costs). Prices should encourage efficient use of a supplier's facilities and avoid cross subsidisation. Today's consumers should only bear today's costs.

- Prices should allow for a "normal" rate of return to be earned by suppliers on average over the medium term. Normal returns should be based on an appropriately determined asset base and rate of return. Returns which are greater, or lesser, than this normal rate should reflect superior, or inferior, performance respectively.

- Prices should on average, over the medium term, cover efficient operating costs (including any temporary deviations resulting from unexpected changes in external factors), and no more.

- Prices should send appropriate signals for determining whether new investment (or divestment) would be efficient.

ASSET BASE

32. In competitive markets, prices are set independently of asset values, and the current value of a business or an asset is able to be determined from the total present value of the cash flows it can generate—prices *determine* the value of assets. However, where markets are not competitive (as with airfield activities), prices may be *dependent on* the value of assets.

33. Asset valuation is relevant both for the purposes of determining price for, and of assessing performance of, airfield activities. The value of the asset base is, therefore, an input into the consideration of whether control of airfield activities is necessary or desirable in the interests of acquirers, and whether it is recommended. The higher the asset valuation, the higher the revenue needed to generate the required return on assets, and the higher the prices need to be.

34. In order to examine airfield activities, the Commission has determined what it considers to be the appropriate principles to be used in arriving at an airport's asset base. In formulating its views expressed on land valuation in this draft report, the Commission has obtained independent advice from valuers Telfer Young on the appropriateness of the methodologies adopted by the airports and/or their valuers, the consistency of methodology across airports and the robustness of the application of the valuation principles. A copy of their initial report to the Commission is included in appendix 11 to this report. Full discussion of issues regarding asset base are contained in chapter 7.

35. In economic terms, the relevant costs on which to determine an asset base are opportunity costs. The cost of employing an asset in one use is what the owners' forego in not receiving the returns that it could earn in the next best alternative use. The draft report distinguishes between land and specialised airfield assets.

Valuation of Airfield Land

36. In most cases, land does not depreciate and is not subject to technological obsolescence. Furthermore, unlike some other airport assets, it has an alternative use and, consequently, has an opportunity cost greater than zero.

37. Valuing airfield land at opportunity cost provides appropriate signals to either continue operating the land in its existing use (as an airfield) or to put the land to alternative use and relocate the airport. It also provides the appropriate incentives for new investment.

38. Opportunity cost should be determined based on the highest alternative use value of airfield land. Hence, land value should not include the cost of getting the land to a stage where it could be used as an airport. Such costs are more appropriately included within the costs of any land improvements, such as runways, taxiways and aprons.

39. The relevant alternative use may differ from airport to airport, and may depend on the underlying zoning of the land. Potential alternative uses are residential, commercial, industrial and rural. The airports have made various assumptions regarding the alternative uses of their land. The alternative use will to some extent depend on the underlying zoning of the airfield land.

40. While the Commission's valuers were critical of the airports' approaches to land valuation in a number of respects, the methodologies were found to be in line with valuation standards. In determining appropriate land values for inclusion in the asset base, the only adjustment that the Commission has made to the airports' values is to optimise out some land. It would also be appropriate to make adjustments for any costs of getting the land to a stage where it could be used as an airport, to the extent that they have been included in the airports' land values. However, no such adjustment has been made to the values used in this draft report, due to a lack of information.

Valuation of Specialised Airfield Assets (Runways, Taxiways and Aprons)

41. Airfield sealed surfaces are specialised assets as they have "a utility which is restricted to particular uses" and "rarely, if ever, traded" other than as part of the sale of an entire airport (or the shares thereof). For the bulk of such assets, there is no established market and, therefore, no comparable sales or market evidence by which the individual assets can be valued. Economically, the assets are sunk as they have, for the most part, no alternative use.

42. In the case of sunk assets, opportunity costs are non-existent. Such assets are being used in their best use, and there is no alternative use. The cost of specialised airfield assets are sunk and cannot be recovered if the service is discontinued. For such assets, opportunity costs are zero. However, valuing the assets at zero may affect the long-term viability of the owner of the assets. Airports need to be able to recover the costs of, and earn a return on, specialised airfield assets in order to preserve the incentives to continue to invest in them. Alternative approaches to deal with this issue are valuations at replacement or historic costs.

43. The Commission's preliminary view is that specialised airfield assets should be included in the asset base at historic cost. The assets should also be depreciated and optimised as appropriate. The use of replacement cost would run contrary to the Commission's view that today's acquirers of airfield activities should only bear today's costs. Historic cost is consistent with the fundamental principles adopted by the Commission. It provides investors with a return on the amounts invested, and preserves incentives to invest in the future. Investors are compensated for inflation through the use of a nominal WACC.

44. In determining appropriate values of specialised assets for inclusion in the asset base, the Commission has optimised out any assets that are not "used and useful". The major adjustment to the value of specialised assets has been to include them in the asset base at historic cost rather than at the Optimised Depreciated Replacment Cost values adopted by the airports. The costs of getting land to a stage where it could be used as an airport are assumed to be included within the historic costs of any land improvements, such as runways, taxiways and aprons.

Optimisation

45. A condition for efficient pricing is that the costs that should be recovered through pricing are those that reflect the least cost of production or "efficient production". The Commission's preliminary view is that only those assets that are currently "used and useful" should be included in the asset base on which a rate of return is calculated. All other assets should be optimised out.

46. In this draft report, the Commission has optimised out any land held for future development of an airfield, the seabeds at Auckland International Airport, and has excluded the separate value determined and included by AIAL regarding its seawall.

47. The seabed approaches at Auckland International Airport are flown over by aircraft when landing and/or taking off from the airport. In this regard, they are no different to the approaches across the sea at Wellington International Airport. The only difference is that AIAL happens to own part of the seabed, even though it does not need to do so for operational purposes. Statutory planning documents provide adequate protection, without the need for AIAL to own the land. For this reason, the seabed has been optimised out. In its recent decision on prices in August 2000, AIAL optimised out part of its seabed. The Commission has optimised out the remaining seabed.

48. Given that the runways at Auckland and Wellington International Airports are bounded in part by water, and lie partially on reclaimed land, seawalls are in place to protect the runway land from erosion. The seawalls are essential to the existence of the land and form part of the value of the runway land. Seawalls do not have a separate value, but are included in the value of land. The Commission's preliminary view is that the separate seawall value should be excluded from the asset base of AIAL.

49. While land acquired or held to provide airfield activities in the future is included within the statutory definition of airfield activities, it does not follow that it is required to be included in the asset base for determining today's prices of airfield activities.

The Commission considers that a return should generally not be sought from airfield users on any land held for the development of airfield activities—that is, until it is "used or useful". For this reason, land held for the development of airfield activities has been optimised out.

New Investment and Pre-Financing

50. Growth in aircraft movements will require investment in additional runway capacity at airports from time to time. However, future demand by users is uncertain. Airport companies must make decisions to invest in additional capacity despite these future uncertainties. It may not be desirable for airport companies to delay investment until demand exceeds capacity. Equally, it is not desirable from an efficiency perspective for airport companies to over-invest in facilities.

51. Expansions in airport capacity can be 'lumpy'. Hence, assets can initially be greater than necessary relative to initial demand, but as demand grows, the assets will be used more fully. Eventually, full capacity will be reached, and new capacity will be required.

52. Decisions on future investment are important for dynamic efficiency. Ideally investment planning should aim to make sure there is an appropriate level of investment to support production, i.e., no excess, or under, capacity. Any new investment should be based on reasonably anticipated future demands.

53. The Commission's preliminary view is that pre-financing of new investment is generally inappropriate—only "used and useful" assets should be included in the asset base. This should encourage airports only to undertake new investments that will be "used and useful".

54. The cost of new investment in land that is eventually included in the asset base should include the capitalised costs of financing construction and any holding costs of land (less any revenue that may have been derived from former use of the land), up to a cap of opportunity cost.

Approach to Determining Asset Base

55. The Commission's preliminary view is that the determination of the asset base for airfield assets should be based on the following principles:

- Specialised airfield assets should be valued at historic cost.
- Airfield land should be valued at opportunity cost.
- Historic costs should be depreciated to reflect any remaining useful life of the assets. Assets that have infinite lives such as land are not depreciated. Other properly maintained assets may not reduce in their usefulness, and may not need to be depreciated.
- Airfield assets that are not "used or useful" should be optimised out.

- The costs of investments in new capacity should be included in the asset base when the airfield assets become "used or useful". The cost of new investment in land that is eventually included in the asset base should include the capitalised costs of financing construction and any holding costs of land (less any revenue that may have been derived from former use of the land), up to a cap of opportunity cost.

Appropriate Asset Base

56. Having formulated the principles by which an asset base should be determined, the Commission has gone on to derive estimates of what it considers to be appropriate values for the airfield assets of AIAL, WIAL and CIAL. Sealed surfaces have been included in the asset base at depreciated historic cost (where historic cost is the vesting value), and land at opportunity cost. Assets have been optimised as appropriate. Land values are based on advice that the Commission received from Telfer Young. The difference in per hectare land values across the airports is largely attributable to location.

57. The current asset base for the pricing of airfield activities considered appropriate by the Commission, compared to the figures adopted by the airports, are shown in the tables below.

AIAL Airfield Asset Base

	Amount ($000s)
AIAL Valuation 30 June 1999	**$ 312,751**
Adjustments by AIAL for Pricing Purposes 2000	-27,504
Optimisation of Seabed	-9,800
Optimisation of Seawall	-2,101
Optimisation of Second Runway Land	-36,757
Adjustment to Sealed Surfaces Value (ODRC to HC)	-49,773
Commission Asset Base	**186,816**

WIAL Airfield Asset Base

	Amount ($000s)
WIAL Valuation 31 March 2000	**$ 96,387**
Adjustment to Exclude Work in Progress	-1,177
Adjustment to Sealed Surfaces Value (ODRC to HC)	-26,407
Commission Asset Base	**68,803**

CIAL Airfield Asset Base

	Amount ($000s)
CIAL Valuation 30 June 1999	**$ 41,930**
Adjustments by CIAL for Pricing Purposes 2000	-381
Adjustment to Sealed Surfaces Value (ODRC to HC)	-13,491
Add back of Reseal Reserve	6,633
Commission Asset Base	**34,691**

TARGET RETURN (WACC)

58. Weighted average cost of capital (WACC) is the weighted average cost of each new dollar of capital raised at the margin. In the simplest terms, it is the cost of debt and the cost of equity weighted by the proportion of debt and equity. Like asset base, it is relevant both for the purpose of determining prices and for the purpose of assessing performance. It is the element of the pricing models that allows for a required rate of return to be earned by debt and equity security providers.

59. The Commission has determined what it considers to be an appropriate WACC (target return) for the airfield activities of each airport. In formulating its views expressed on WACC in this draft report, the Commission has obtained independent advice from Dr Martin Lally on the appropriateness of the WACC estimates most recently adopted by the airports and the robustness of the airports' justification for those estimates. A copy of his initial report to the Commission is included in appendix 12 to this report. Full discussion of issues regarding WACC are contained in chapter 8.

60. Key determinants of WACC are the risk-free rate, debt premium, market risk premium, asset beta and leverage.

Risk-free Rate

61. The risk-free rate is the interest rate that an investor would earn, or an entity would pay to borrow, on a riskless investment. Rates for Government stock are usually used to approximate the risk-free rate.

62. In determining the appropriate risk-free rate, the Commission has firstly considered what term (maturity) of the rate to use. Alternatives considered were to use the maturity corresponding to the period for which prices are set, or the life of airfield assets. The Commission's preliminary view is that the risk-free rate should match the revision frequency of pricing. Prices are set by the airports for upwards of 5 year periods due to the requirement to consult with substantial customers every 5 years on charges. However, both AIAL and CIAL have recently set prices for a period of three years.

63. Having determined the appropriate maturity date to use, the Commission then turned to the question of how to set the rate. Options identified involved using the range over the relevant period, the midpoint, the endpoint, an average of the beginning and ending rates for the period, or the average over the period. The selection of the rate is important, as risk-free rates vary daily. The Commission's preliminary approach is to use an average on Government stock over the period in which an airport consults with its substantial customers (ending with the point at which any new prices come into effect) and with a maturity matching the point at which prices will again be reviewed (at maximum five years).

64. In analysing the efficiency implications of the recent price increases for the airfield activities of AIAL and CIAL, the Commission has used a risk-free rate of 6.92%. This represents the yields on three year Government stock averaged over the six month period prior to the point at which AIAL's new prices came into effect (1 September 2000)—namely, the period March to September 2000. To be consistent,

the same rate of 6.92% is used for the purposes of analysing CIAL's current prices. For WIAL, the rate should be the average yield on five year Government stock in the six months preceding 1 July 1997, when the current price formula was settled for the next five years. This figure is 7.47%.

65. For assessing historical performance on an annual basis (and on average over time), the Commission's preliminary approach is to adopt the range of the risk-free rate for the appropriate financial period.

Debt Premium

66. The debt premium determines the premium over and above the risk free rate that is required by investors for holding the debt. It reflects marketability and exposure to the possibility of default.

67. The Commission's preliminary view is that a debt premium of 1% above the risk-free rate is appropriate for all three airports.

Market Risk Premium

68. The Market Risk Premium (MRP) represents the additional premium that investors require to hold the market portfolio—a diversified basket of 'risky' assets—over and above the returns that can be obtained from investing in risk-free assets.

69. A number of approaches can be used to estimate MRP. The common approach is to observe difference between the ex-post risk-free rates and market returns and calculate an arithmetic average over a number of years. Other methods involve examining market volatility changes over time (looking at variances and standard deviations), estimating growth in market dividends, and considering estimates of market risk premium for foreign markets.

70. The Commission's preliminary view is to adopt a post–tax MRP of 8%. The various approaches to estimating market risk premium all suggest a figure of 8% rather than 9%.

Asset Beta

71. Risk relates to the possibility that expected returns may not actually materialise. The total risk of an asset or business is made up of both diversifiable risk and undiversifiable risk. Beta measures the sensitivity of an asset to the market—its undiversifiable (or systematic) risk.

72. Looking at an entity as an asset in a portfolio, the beta of an entity measures the sensitivity of an entity's cash flows to changes in the economy that impact on asset values and returns (not the specific risk associated with investing in a particular company). It is a relative concept and specifically measures the sensitivity of returns to changes in the returns of the market. The higher the beta, the more volatile and risky the asset.

73. Beta may or may not be able to be estimated directly. Betas can only be directly estimated for listed companies, and only with any degree of accuracy where there is data for a significant period and for a significant number of entities. Where a beta cannot be estimated directly, a proxy or surrogate beta can be estimated by making adjustments for differences in gearing to the betas of entities or assets with similar activities and risks.

74. Characteristics important in assessing the suitability of comparators include the nature of the firm's output, the nature of the customer, the duration of any contracts with customers, the extent of any regulation, degree of monopoly (i.e. the price elasticity of demand), the nature of options for expansion, operating leverage, market weight, and capital structure.

75. In the case at hand, the regulatory environment is fundamental to the performance of the airports and is, therefore, the dominant factor considered in choosing comparators. The Commission has adopted benchmarks for asset beta based on United States firms engaged in electricity generation and/or distribution which are subject to rate of return regulation (that almost guarantees them a certain rate of return), and firms in the United Kingdom subject to RPI-X price caps. Other airports are not used as comparators because there is not sufficient data to arrive at reasonable estimates.

76. The average asset betas of regulated US and UK entities are 0.36 and 0.56, respectively (adjusting for New Zealand market leverage). The risk of the airfield activities of AIAL and CIAL is considered to fall between the bounds of regulated US and UK entities (0.36 to 0.56 Australian converted), implying an asset beta of 0.46 (the mid-point), rounded to 0.45 within a range of 0.4 to 0.5.

77. The Commission notes that CIAL's beta may in fact be higher than AIAL's, but it has been unable to estimate accurately the difference. CIAL's beta may be higher as its high proportion of domestic traffic (relative to Auckland) means that it is likely to experience greater shocks from changes in the domestic economy. However, the Commission is limited to using a domestic CAPM and, therefore, this factor has not been able to be taken into account.

78. The Commission notes that AIAL's and CIAL's betas may be higher than that for the electricity comparators used, as airports are likely to experience greater demand shocks. However, no adjustment has been made for this due to difficulties in estimating accurately by how much to adjust beta.

79. In the case of WIAL, its deed with airline customers allows for charges to be adjusted annually if the actual movements and/or operating costs from the previous year differ from forecasts, or if inflation exceeds certain levels. The provisions of its current deed suggests that WIAL's risk is closer to that of US rate of return regulated entities than UK price-capped entities. This implies a beta in a range of 0.3 to 0.35.

Leverage

80. If a company has no debt—is entirely financed by equity—its asset and equity beta are identical. By adding debt to a company's capital structure, the shareholding becomes more risky, reflected in its equity beta becoming greater than its asset beta.

The level of systematic risk associated with equity (the equity beta) is magnified according to the proportion of debt in the funding mix. The greater the proportion of debt, the greater the systematic risk associated with the residual profits available for distribution to shareholders, and the greater difference between its asset and equity betas. For otherwise identical investments, a company with more debt in its capital structure will have a higher equity beta and a higher required rate of return on equity than one with less debt.

81. A leverage rate is used to determine the cost of equity, and also to weight the costs of debt and equity into the derive WACC. The leverage (or debt) ratio reflects the proportion of total assets that are funded by debt (as opposed to equity).

82. A number of alternatives exist to determine the appropriate debt ratio. However, the Commission considers that the current leverage ratio based on the market values of debt and equity is most appropriate (given the debt premium used).

83. The appropriate market value weights of debt and equity can easily be computed for AIAL. Taking the book value of debt as a proxy for market value of debt, and dividing the number of issued shares multiplied by the current share price, results in a debt ratio of 25% for AIAL. For the purposes of its analysis, the Commission has also used a 25% debt ratio for WIAL and CIAL.

Appropriate WACC

84. For the purposes of this draft report, the Commission's has chosen to use a nominal post-tax WACC in order to be consistent with its approach to asset base, and its analysis of historical returns.

85. Each airport can have its own unique characteristics which can result in a distinct risk profile and WACC. The Commission considers that the appropriate WACC for the airfield activities of each of the airports are as follows:

	Auckland	**Wellington**	**Christchurch**
R_f	6.92%	7.47%	6.92%
t_c	33%	33%	33%
t_{int}	33%	33%	33%
PTMRP	8%	8%	8%
Debt Premium	1%	1%	1%
R_d	7.92%	8.47%	7.92%
W_d	25%	25%	25%
W_e	75%	75%	75%
β_a	0.4 to 0.5	0.3 to 0.35	0.4 to 0.5
β_e	0.53 to 0.67	0.40 to 0.47	0.53 to 0.67
R_e	8.90 to 9.97%	8.20 to 8.74%	8.90 to 9.97%
Nominal Tax-Adjusted WACC	8.0 to 8.80%	7.57 to 7.97%	8.0 to 8.80%

86. In contrast, the values adopted by the airports recently were 8.5-9.4% for AIAL, 9.5-11.5% for WIAL and 10.15% for CIAL.

ALLOCATIVE EFFICIENCY AND CROSS-SUBSIDISATION IN PRICING

87. In general terms, the price for each good or service should be set where the marginal cost of supply equals demand, so that the ensuing quantity produced maximises economic welfare (or allocative efficiency). In the airfield activities context, setting prices in this way potentially encounters a number of difficulties:

- Efficiency requires that separate products are priced separately according to the marginal cost of supply. However, the administrative cost of having separate charges has to be taken into account, especially when the cost of each service is small. It might also be commercially impractical to measure each user's marginal cost and to charge accordingly. Consequently, an approach commonly adopted by airports is to set prices for a limited number of groups of users (although this may not necessarily generate efficient prices).

- A characteristic of the cost structure of an airport's airfield activities is the high proportion of fixed costs. As a consequence, average cost is likely to be greater than marginal cost. As a result, setting efficient prices at marginal cost would produce financial deficits. The Commission considers that airports should be able to recover the total costs of airfield activities (both fixed and common costs), and, as a result "first best " pricing would not be financially viable.

- Airports, because they offer a variety of services to a variety of users, have the potential through their charges to engage in cross-subsidisation. Cross-subsidisation can arise where individual users do not pay enough to cover the additional costs they impose on the provider, or where a service as a whole does not recoup its costs from users. Cross-subsidisation is economically inefficient because some users contribute towards the cost of the services enjoyed by others, implying that prices diverge from marginal cost.

88. The Commission has assessed to what extent the structure of prices for airfield activities are allocatively efficient, and whether there is any cross-subsidisation. Full discussion of issues regarding airfield pricing and cost allocation are contained in chapter 9.

Are Prices Allocatively Efficient?

89. The Commission's preliminary view is that the costs of airfield activities should be recovered as efficiently as possible by using pricing structures that adhere as closely as possible to Ramsey principles. Under Ramsey pricing, the price for each user (or group of users) would be set by adding a percentage mark-up on marginal cost, with the size of the mark-up being inversely proportional to the price elasticity of demand of that user or group of users. The mark-ups are scaled up until revenues in aggregate cover costs. By this means, airfield costs would be allocated more heavily to those with the greatest willingness to pay; that is to say, those users least sensitive to price increases pay the highest mark-ups, and vice versa. As a result, the size of the departures of output volumes from marginal cost pricing are minimised (allocative inefficiency is minimised), subject to satisfying the financial break-even constraint.

90. The airports typically determine charges on the basis of allocated costs, rather than according to Ramsey principles. This probably reflects the difficulties inherent in calculating Ramsey prices in practice, and the fact that it is easier to justify the charging structure to users if it can be related to costs. Moreover, cost-based pricing is supported by the International Civil Aviation Organisation. The Commission has examined whether the use of cost-based pricing mechanisms by the subject airports results in pricing structures for airfield activities that offer a practical approximation to Ramsey prices.

91. The airports work out their total costs of airfield activities, and then allocate the corresponding revenue requirements across users according to a series of cost drivers. The resulting landing charges are computed largely based on the weight (MCTOW) of each aircraft, with the cost per MCTOW increasing through weight classes. The structure of landing charges appear, in some respects, to roughly approximate Ramsey requirements. However, there appears to be no attempt to integrate information about demand elasticities into price-setting, and Ramsey prices are sensitive to variations in demand price elasticities. As a result, it is questionable whether the pricing schedules would come as close as would be desirable to that required by Ramsey pricing. However, given the difficulty of estimating the demand elasticities directly, it may be an option to take airport cost-based pricing approaches as a proxy for Ramsey prices.

92. The Commission notes that the process of trying to identify the "causes" of costs, and to allocate the costs accordingly is a somewhat meaningless exercise, as most of the costs of airfield activities do not vary with the number of landings, but are fixed and, in many cases, sunk. There are a large number of assumptions that have to be made in order to allocate costs. Economically, the focus has to be on recouping the costs in a way that does least damage to allocative efficiency. The cost allocation methodologies are only useful to the extent that they generate Ramsey-compliant pricing structures.

93. Potentially efficient price discrimination can be practiced by airports in terms of aircraft type and by time of day. However, international agreements prohibit an airport charging a foreign airline more than a New Zealand airline (to land the same aircraft at the same time), although the reverse is not true. This limits the extent of compliance with Ramsey prices.

Cross Subsidisation

94. As airports are multi-product businesses, and serve a variety of customers, there is potential for cross-subsidisation to occur. Broadly speaking, a cross-subsidy arises where one user or group of users or service subsidises another, so that the latter does not bear all of the cost of its supply. From an economic efficiency perspective, a cross-subsidy is paid if the incremental revenues associated with an activity are below the incremental costs or above the stand-alone costs of providing that activity.

95. As the airfield activities of the three airports have been found to be subject to lessened competition, there may be scope for any excessive profits earned in that activity to be used to subsidise other activities in which the airport faces more competition. Alternatively, as evidenced from overseas, airfield activities may be subsidised from an airport's earnings in non-airfield activities. The Commission considers it desirable

to ensure that the correct costs are attributed to airfield activities, and the revenues attributed to airfield activities cover the costs of airfield activities.

96. Cross-subsidisation between airport activities is often discussed in the context of "single", "dual" or "multiple tills". Debate over the number of tills raises considerations that go beyond the scope of the Commission's inquiry. However, the scope for cross-subsidisation is potentially minimised or eliminated by the use of a dual or multiple till approach, especially where that is reinforced by a ring-fencing framework (for example, segment financial reporting) as is the case in New Zealand currently. Generally, the Commission acknowledges the advantages of using a multi-till approach to determining landing charges.

97. A review by the Commission of the airports' pricing models and cost allocations has not identified any issues with cross-subsidisation at this time.

EXCESS RETURNS

98. The Commission has attempted to estimate the distributional effects of any excess returns on airfield activities that AIAL, WIAL and CIAL may have earned historically, are earning currently, or which they may potentially earn in the future. The results of the analysis are part of the evidence considered in reaching a view as to whether section 52(b) is met—whether control of airfield activities is necessary or desirable in the interests of acquirers. The analysis of excess returns is contained in chapter 10.

99. Airports should be able, on average over time, to earn a normal return on the optimised assets used in providing the services of airfield activities. An actual return in excess of the appropriate target WACC over time would suggest that the entity was earning an excessive or monopoly return, unless those returns reflect superior performance.

Historical Excess Returns

100. The Commission has conducted an analysis of the historical returns of the airfield activities of the three airport companies over the period since corporatisation, which involved adjusting the asset base and comparing actual with Commission determined target (WACC) returns. The Commission's preliminary views on the relevant asset bases of the airports (chapter 7) and on their respective WACCs (chapter 8) are used in the analysis.

101. The actual rates of return earned by the airports on airfield activities are measured by the accounting rate of profit (ARP). The ARP is specifically designed to produce a figure that is conceptually comparable to nominal, after-tax WACC.

102. The Commission's estimation of the average historical returns earned by AIAL, WIAL and CIAL in respect of their airfield activities (relative to target) are as shown in the following table:

	Actual Returns	Target Returns	Excess Returns
AIAL 1989-2000	13.47%	9.76%	3.71%

	Actual Returns	Target Returns	Excess Returns
WIAL 1991-2000	6.54%	8.15%	0
CIAL 1989-2000	11.65%	9.64%	2.01%

103. The Commission's preliminary view is that both AIAL and CIAL have earned annual returns that have exceeded target returns on average over the 12 year period since corporatisation. The excess returns for AIAL on average were 3.71%, and for CIAL were 2.01%. In contrast, over the 10 year period since corporatisation, WIAL has not, on average, achieved what the Commission considers would be the appropriate target return (WACC). On face value, these findings suggest the preliminary conclusion that both AIAL and CIAL have used their market power in airfield activities by raising prices above the competitive level in a sustained fashion.

2000 Year Excess Returns

104. Averaged annual historical data are useful for evaluating the pricing behaviour of airports in the past, but the returns fluctuate considerably from year-to-year over the period, and may be a poor indicator of present and future behaviour (although the presence of excess returns reveals an ability and willingness to set prices above the competitive level in the case of two of the airports). The Commission has examined the results of each airport's 2000 financial year in more detail. It has endeavoured to quantify the potential excess returns and inefficiencies implied by prices for airfield activities at each airport in their 2000 financial year.

105. The Commission has chosen the year 2000 as a base year for introducing the models which will be used for calculating the efficiency effects of pricing in that year. The year 2000 also provides a base year from which to project future excess returns and inefficiencies. These future projections are discussed in a separate section below.

106. Average prices for the airports' 2000 years were computed by dividing total landing charge revenue by tonnes landed. Using the asset base and WACC determined by the Commission, and making adjustments for any unrealised capital gains or losses and taxation, a benchmark competitive price was determined. The resulting competitive prices were as shown below:

	2000 Price (P_M)	Competitive Price (P_C)	Difference, P_M-P_C
AIAL	$9.80	$9.52	$0.28
WIAL	$10.19	$15.44	-$5.24
CIAL	$ 4.63	$5.17	-$0.53

107. Excess returns were found for AIAL. Their prices were found to be $0.28 above the relevant competitive price. Their resulting excess returns were $1.2 million. WIAL and CIAL had no excess returns for the 2000 year.

Potential Future Excess Returns (Given Recent Price Increases)

108. The analysis of the 2000 year only provides a snapshot of the pricing of airfield activities by the three airports at one point in time. Prices for airfield activities have been increased recently by both AIAL and CIAL, and according to the announcements of AIAL, prices will increase further over the next two years.

Assuming that costs, WACC and the asset base remain constant at 2000 year levels, the Commission extended its 2000 year analysis for AIAL and CIAL to predict the impact of the recent price increases. Because WIAL has announced no price rises and is currently pricing below a competitive level, there are no future excess returns or allocative inefficiencies anticipated. Note that the analysis of WIAL does not take into account any increases in prices that may result from WIAL's upcoming consultation. This could potentially influence the Commission's findings in the future.

109. Factoring the recent increases in prices by AIAL and CIAL, excess returns are projected for both airports over at least the next three years (the period for which prices have been set). Per annum figures are presented below.

	Excess Returns ($)
AIAL	
Year 1	3,797,395
Year 2	5,402,391
Year 3	7,087,637
WIAL	0
CIAL Years 1-	3,849,568

INEFFICIENCIES

110. The Commission has evaluated the overall economic efficiency of the airfield activities supplied by AIAL, WIAL and CIAL. This has been done on the basis of prices prior to recent increases (2000 year prices), as well as current and future prices. The results of the analysis are part of the evidence considered in reaching a view as to whether section 52(b) is met—whether control of airfield activities is necessary or desirable in the interests of acquirers. It also feeds into the net benefits analysis that is conducted in order to determine whether control is recommended. The analysis of inefficiencies in the supply of airfield activities are contained in chapter 10.

111. The Commission has considered allocative, productive and dynamic efficiencies.

Allocative Inefficiency

112. Allocative efficiency concerns the overall level of prices, and whether they are too high, resulting in excessive profits and output below the optimal level.

113. Based on its views on asset base and WACC, the Commission has been able to estimate the competitive price and level of output, which it has then used to arrive at estimates of allocative inefficiency. Allocative inefficiencies have been estimated both for 2000 year prices and for the recently increased prices of AIAL and CIAL, as shown in the following table:

	Allocative Inefficiencies ($)
AIAL	
2000	132,723
Year 1	382,925
Year 2	536,792
Year 3	694,273
WIAL	0

	Allocative Inefficiencies ($)
CIAL	
2000	0
Years 1-	359,891

114. In respect of its 2000 year, AIAL's price exceeded the relevant competitive price and resulted in allocative inefficiencies of $0.13 million. Repeating the analysis using the recently increased prices for AIAL and CIAL produced estimates of future allocative inefficiencies for both—in the first year of increases—of $0.3 million for AIAL and CIAL.

Productive Inefficiency

115. Productive efficiency requires that the cost of any given output be minimised, so that resources are not wasted.

116. The Commission considers that there is likely to be some room for improvement in the productive efficiency of the airfield activities at each of the three airports, although on present information that is impossible to quantify. For the purposes of this draft report, the Commission has adopted a figure of 1% of airfield expenses (excluding depreciation) as a measure of productive inefficiency.

	Productive Inefficiencies ($)
AIAL	131,910
WIAL	45,630
CIAL	60,660

Dynamic Inefficiency

117. Dynamic efficiency occurs where firms adopt new products and processes in a timely fashion, and continue to invest to ensure that capacity matches demand.

118. The Commission has attempted roughly to quantify the extent of any dynamic inefficiencies in the airfield activities at each of the three airports. Given that the optimised land is often used by the airport for farming purposes, it yields a return likely to be lower than in the next best alternative employment. The difference between these returns reflect the dynamic inefficiencies of investment decisions.

	Dynamic Inefficiencies ($)
AIAL	6,711,684
WIAL	0
CIAL	49,218

CONTROL NECESSARY OR DESIRABLE IN THE INTERESTS OF ACQUIRERS

119. The second requirement of section 52 (in section 52(b)) is that control must be necessary or desirable (whether directly or indirectly) or persons supplying the goods or services. In this inquiry, the Commission considers the relevant interests to be examined are those of acquirers of airfield activities. The Commission has approached this question by assessing whether the imposition of control would

improve the economic welfare of acquirers of airfield activities—both the interests of aircraft operators (as direct acquirers), as well as the interests of ultimate consumers, aircraft passengers and those using air freight services (as indirect acquirers). This has involved an analysis of the potential benefits and detriments to acquirers arising from control, relative to the current (and projected future) market situation (the counterfactual), which includes the current regulatory regime.

120. In assessing whether the economic welfare of acquirers would be improved by control, the Commission has assessed the consequences of any state of "limited" competition in the aircraft movement market in the counterfactual. Consequences of a lack of competition can manifest themselves in various ways, including allocative, productive and dynamic inefficiencies, and inferior product quality. Lack of competition can also lead to suppliers earning excessive returns. These may be reduced by control.

121. The Commission has balanced the likely benefits of control to acquirers against the likely costs of control that would be borne by acquirers. Full discussion on the Commission's consideration of whether section 52(b) is satisfied is contained in chapter 13 of this report.

Benefits of Control for Acquirers

122. Acquirers could only be said to benefit from price control of airfield activities if they as a group were to be made better off, relative to their position in the counterfactual, after allowing for any off-setting costs that they would bear as a result of price control being introduced. Transfers of wealth between suppliers and acquirers are relevant, even though such transfers are treated as mutually off-setting and, therefore, are of no concern from an efficiency perspective.

123. The sources of potential benefit of control for acquirers are:

- Excess returns (if present) would be reduced or eliminated by price control, through lower prices being set, which would lead to a transfer of wealth to acquirers.

- Lower prices would reduce or eliminate allocative inefficiency, further enhancing the benefit to acquirers (in respect of the consumer surplus). There may also be indirect or spill-over benefits from lower prices.

- Productive inefficiency (if present) would be reduced or eliminated by price control, with the resulting cost savings likely to be passed on in still lower prices, to the benefit of acquirers.

- Dynamic inefficiency (if present) would be reduced or eliminated by price control, with the resulting lower required revenue from landing charges (to cover costs) likely to lead to still lower prices, to the benefit of acquirers.

124. As an initial starting point, the Commission assumed that all inefficiencies and excess returns identified in the counterfactual could be removed by control, and that acquirers would require all of the benefits other than those associated with producer

surplus. The total potential benefits to acquirers of price control are relatively large in the case of AIAL, and are much smaller at WIAL and CIAL.

	AIAL	WIAL	CIAL
Benefits			
Reduced excess returns and reduced allocative inefficiency (consumer surplus to acquirers)	$4,717,055	$0	$3,893,881
Reduced productive inefficiency	$131,910	$45,630	$60,660
Reduced dynamic inefficiency	$6,711,684	$0	$49,218
Total Benefits	**$11,260,649**	**$45,630**	**$4,003,759**

125. However, price control provides an imperfect substitute for competition for dealing with the inefficiencies and excessive returns in markets. The imperfect nature of price control is reflected in the costs of price control.

Costs of Control for Acquirers

126. In assessing the potential benefit to those who acquire airfield activities, the costs of price control that fall upon those acquirers must be netted off from the benefits assessed above. It is the net benefits of price control to acquirers that are relevant under section 52(b) of the Commerce Act. Hence, the concern is only with those costs of control that may be borne directly or indirectly by acquirers and those that are additional to the present situation. This in turn depends upon who pays the direct costs of the control regime, and on the nature of the regime itself.

127. The Commission is of the view that while acquirers are likely to receive most of the benefits of price control, they could indirectly pay most of the costs. The direct costs of control under the Commerce Act are likely to be greater than those of the current regulatory regime. In addition, there are indirect costs of control associated with the inefficiencies that control creates. Price control cannot be relied upon to eliminate the entirety of any inefficiencies and transfer effects found to be present in airfield activities at the three airports.

128. The total costs of control (direct and indirect) to acquirers are estimated in the following table:

	AIAL	WIAL	CIAL
Costs			
Direct costs	$1,200,000	$1,200,000	$1,200,000
Indirect costs (up to 50% of the benefits above)	$5,630,324	$22,815	$2,001,879
Total Costs	**$6,830,324**	**$1,222,815**	**$3,201,879**

129. The Commission considers the direct costs of control to be conservatively low estimates.

Is Control in the Interests of Acquirers

130. In considering whether control is "necessary or desirable...in the interests of" acquirers, the Commission attempted to measure, at each of the three airports, the benefits that acquirers would be likely to receive if airfield activities were to be subject to price control, net of the likely costs of such control that would be borne by those same acquirers (where the costs of control are those additional to those already being incurred by the present regulatory regime). Only if the benefits exceed the costs can it be determined that the interests of acquirers would be met by price control. The total benefits and total costs are an average of the 2000 year and three forecast years for AIAL. They are based on the first years' forecast figures for WIAL and CIAL.

	AIAL	WIAL	CIAL
Total Benefits	$11,260,649	$45,630	$4,003,759
Total Costs	$6,830,324	$1,222,815	$3,201,879
Net Benefits to Acquirers	**$4,430,325**	**$0**	**$801,880**

131. The Commission's preliminary view is that it is necessary or desirable in the interests of acquirers to price control the airfield activities supplied by AIAL and CIAL, but not the airfield activities supplied by WIAL. Annual net benefits for acquirers are $4.4 million for AIAL and $0.8 million for CIAL.

ARE MARKET CONDITIONS SUCH THAT CONTROL SHOULD BE IMPOSED

132. The requirements of section 52 are preconditions for a recommendation of control. In determining whether to recommend control, the Commission has had regard to the wider scheme of the Commerce Act and the objectives that the Commerce Act is intended to promote. The purpose of the Commerce Act is to "promote competition in markets for the long-term benefit of consumers within New Zealand". This purpose imports an efficiency based analysis which assesses allocative, productive and dynamic efficiencies and product quality. Although control "may" be imposed if section 52 is satisfied, the Commission has also been asked for a recommendation on whether it considers control should be imposed.

133. In the long-term, consumers benefit from the continuous improvements in the nature of products and production processes encouraged by the competitive process. Market supply is important. Measures that may benefit consumers in the short-term—such as price cuts—may ultimately be harmful if they unduly suppress dynamic efficiency, thereby reducing benefits in the future. All production ultimately benefits consumers, but consumers benefit most when production is efficient.

134. The Commission considers the object of the control provisions is to address circumstances where markets, due to a lack of competition, are not delivering efficient outcomes for consumers. The Commission considers that any recommendation as to whether control should be imposed should be based on efficiency grounds and an assessment of the likely benefit to consumers within New Zealand. This is done by conducting a "public benefit" (also referred to as a "net benefits") test. Such an approach is consistent with the Commission's approach to determining applications for an authorisation under sections 58 and 67 of the Act, where the Commission

measures the benefits and detriments of a proposed merger or acquisition against a counterfactual.

135. The focus is on the interests of the economy as a whole. The aim is to maximise economic efficiency regardless of which particular individuals receive the benefits. Wealth transfers between different groups within the economy (due to, for example, the elimination of excess returns) do not form part of this analysis.

136. Full discussion on whether the Commission considers that market conditions are such that the Minister should recommend that the airfield activities supplied by AIAL, WIAL and/or CIAL be controlled is contained in chapter 14 of this report.

Net Efficiency Benefits

137. The full efficiency benefits (including producer surplus) are included in the analysis of net benefits, but excess returns are excluded. The total benefits and total costs are an average of the 2000 year and three forecast years for AIAL. They are based on the first years' forecast figures for WIAL and CIAL. These, together with costs are shown below:

	AIAL	WIAL	CIAL
Benefits			
Reduced allocative inefficiency.	$436,678	$0	$359,891
Reduced productive inefficiency	$131,910	$45,630	$60,660
Reduced dynamic inefficiency	$6,711,684	$0	$49,218
Total Benefits	*$7,280,272*	*$45,630*	*$469,769*
Costs			
Direct costs	$1,200,000	$1,200,000	$1,200,000
Indirect costs (up to 50% of the benefits above)	$3,640,136	$22,815	$234,884
Total Costs	*$4,840,136*	*$1,222,815*	*$1,434,884*
Net Benefits	**$2,440,135**	**$0**	**$0**

138. There appear to be potential net benefits of $2.4 million per annum if the airfield activities supplied by AIAL were to be subject to price control. However, there appear to be no net efficiency gains resulting from the imposition of price control over the airfield activities supplied by CIAL or WIAL.

139. The Commission notes that these outcomes are unlikely to change, either if a lower estimate of the indirect costs of control were to be used; or if the further efficiency gain from the reduced spill-over effect of monopoly pricing in the aircraft movement market to other markets were introduced. The outcome for CIAL is the most sensitive to these qualifications, although it seems unlikely that the outcome at CIAL would change.

Conclusion on Control

140. Based on its net benefits analysis, the Commission's preliminary view is to incline towards recommending control in the case of AIAL. There are likely net benefits in controlling the airfield activities supplied by AIAL. There appear to be no net

benefits in respect of the airfield activities supplied by WIAL and CIAL. However, as noted above, the analysis does not factor in any future increases in charges that may come out of WIAL's upcoming consultation.

DRAFT RECOMMENDATION

141. If the Commission were to report to the Minister today, its recommendation would be that:

- The requirement in section 52(a) of the Commerce Act is satisfied for all three airports. There is evidence that airfield activities (as defined in the Airport Authorities Amendment Act 1997) provided by AIAL, WIAL and CIAL are supplied or acquired in a market in which competition is limited or is likely to be lessened.

- The requirement in section 52(b) of the Commerce Act is satisfied for two airports. There is evidence that it is necessary or desirable for the prices of the airfield activities supplied by AIAL and CIAL to be controlled in accordance with the Commerce Act in the interests of the acquirers of airfield activities.

- Based on an assessment of the net efficiency benefits. the Commission's preliminary view is that market conditions are such that only the airfield activities supplied by AIAL should be controlled.

142. Airfield activities are not the only services supplied by AIAL, and potentially not the only services that it supplies in market(s) subject to limited competition. The Commission notes that in reaching its preliminary view to recommend control of the airfield activities supplied by AIAL, it has not considered how the control of airfield activities would impact on the other services supplied by AIAL. Other parts of AIAL's business fall outside the scope of the present inquiry.

143. The Commission's recommendation is based on an assessment of the potential benefits and costs of control under the Commerce Act. The Commission notes that the current inefficiencies may be able to be removed by a form of regulation other than price control, for example one that involves a requirement on the airports to negotiate on price and service (rather than merely to consult) subject to set pricing guidelines, a requirement to disclose information, and the existence of an external body to act as an arbitrator in disputes over the outcome of negotiations.

144. The Commission notes that, in making its draft recommendation, it has not taken account of distribution of wealth issues.

145. The impact of the outcome of this inquiry has not been included, nor has the possibility of changes to the current regulatory regime being considered by the Ministry of Transport.

COMMENT SOUGHT

146. Interested persons are invited to make submissions on this draft report and the Commission's draft recommendations. The dates on which parties are able to furnish submissions are as follows:

10 August 2001	Submissions on the draft report, and any supporting reports by independent experts interested parties may employ.
31 August 2001	Cross submissions by interested parties and their experts commenting on other submissions.
4-7, 10 & 12-14 September 2001	Conference

147. The Commission is particularly interested in responses to the questions listed below.

Section 52(a) – Competition Limited

- Is the Commission's approach to determining whether section 52(a) is met correct?
- Are the markets appropriately defined?
- Do any additional markets require consideration?
- Is the Commission's assessment of the nature and scale of current competition in the supply of airfield activities correct?
- Is the Commission's assessment of the likelihood, timing, nature and scale of potential new entry in the supply of airfield activities correct?
- Is the Commission's assessment of the degree of constraint imposed AIAL, WIAL and CIAL by the acquirers of airfield activities—in terms of the ability of acquirers to substitute for the airfield activities provided at another airport—correct?
- Is the Commission's assessment of the price elasticity of demand for airfield activities at Auckland, Wellington and Christchurch International Airports correct?
- Is the Commission's assessment of the extent to which any countervailing power of the acquirers of airfield activities constrains AIAL, WIAL and CIAL—the ability of acquirers to exercise countervailing power correct?
- Is the Commission's assessment of the ability of current or potential competition to constrain AIAL, WIAL and CIAL correct?
- Is the Commission's view that the airfield activities supplied by AIAL, WIAL and CIAL are supplied in markets in which competition is limited correct?

Pricing

Pricing Principles

- Are the pricing principles considered by the Commission appropriate?

Asset Base

- Is it correct to value airfield land at opportunity cost?
- How the opportunity cost of airfield land should be determined?
- Should the costs of land include the costs associated with getting the land into airport use?
- Is it correct to value specialised airfield assets at depreciated historic cost?
- Is the extent of (and reasons for the) optimisation undertaken by the Commission in determining asset base appropriate?
- Are the Commission's views on when new investment should be included in the asset base appropriate?
- Are the asset values determined for the airfield activities of AIAL, WIAL and CIAL appropriate?

WACC

- Is the appropriate debt premium adopted by Commission?
- Is the appropriate risk-free rate adopted by the Commission?
- Is the appropriate asset beta adopted by the Commission?
- Are the comparators for the airfield activities supplied by AIAL, WIAL and CIAL used by the Commission in order to estimate asset beta appropriate?
- Should CIAL's asset beta be greater than AIAL's, given the different exposure to domestic demand?
- Is the market risk premium adopted by the Commission appropriate?
- Is the leverage ratio adopted by the Commission appropriate?
- Are the WACC estimates developed by the Commission appropriate?

Airfield Pricing

- Is the Commission's assessment of the allocative efficiency of the structure of the landing charges of AIAL, WIAL and CIAL correct?

- Is the Commission's assessment of the airports' approaches to cost allocation correct?

- Is the Commission's assessment of the extent of compliance with Ramsey pricing correct?

- Is the Commission's assessment of whether there is any evidence of cross-subsidisation associated with the supply of airfield activities at Auckland, Wellington and Christchurch International Airports correct?

Performance Analysis

- Is the Commission's assessment of the existence of, or potential for, excess returns correct?

- Is the Commission's assessment of the extent of, or potential for, allocative efficiency or inefficiency correct?

- Is the Commission's assessment of the extent of, or potential for, productive efficiency or inefficiency correct?

- Is the Commission's assessment of the extent of, or potential for, dynamic efficiency or inefficiency correct?

- To what extent are there other sources of detriment (e.g. spillover effects, service quality)?

Section 52(b) – Control Necessary or Desirable in the Interests of Acquirers

- Is the Commission's approach to determining whether section 52(b) is met correct?

- Is the Commission's assessment of the extent to which excess returns, allocative, productive, and/or dynamic efficiency could be improved as a result of airfield activities being controlled correct?

- Is the Commission's formulation of the likely counterfactual should airfield activities not be controlled, and the various features of that counterfactual, appropriate?

- Is the Commission's assessment of the benefits to acquirers from airfield activities being controlled, relative to the likely counterfactual correct?

- Is the Commission's assessment of the additional costs of control under the Commerce Act, compared to the status quo correct?

- Is the Commission's assessment of the costs of control that acquirers are likely to bear correct?

- Is the Commission's preliminary view that the airfield activities supplied by AIAL and CIAL satisfy section 52(b)—that it is necessary or desirable in the interests of acquirers to control the airfield activities supplied by AIAL and CIAL—correct?

Discretion to Control

- Is the Commission's analysis of net efficiency benefits appropriate?

- Is the Commission's assessment of the public benefits to be gained from airfield activities being controlled, relative to the likely counterfactual correct?

- Is the Commission's assessment of the lessons that can be learned from the experiences of airport regulation internationally correct?

- Is the Commission's preliminary view that the airfield activities supplied by AIAL should be controlled correct?

- Is the Commission's preliminary view that the airfield activities supplied by WIAL and CIAL should not be controlled correct?

General Comments

- The Commission invites comments on any of the matters raised in the draft report, and any other relevant points.

- The Commission invites comments on any omissions, or material or factual inaccuracies in the draft report.