

# Final Report

# Part IV Inquiry into 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 on whether control should be imposed over charges for airfield activities at any or all of Auckland, Wellington, and Christchurch International Airports. On 25 July 2001, the Minister withdrew the request made in 1998 and issued a new request under the new sections 54 and 56 of the Commerce Act (as amended by the Commerce Amendment Act 2001). This is the Commission's report to the Minister of Commerce.

**The Commission:** M Belgrave

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Date of Report: 1 August 2002

# **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 IV and V 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. Part IV of the Commerce Act provides for the imposition of control. Section 53 of the Commerce Act provides for the Governor-General to impose control over the supply of goods or services on the recommendation of the Minister of Commerce (the Minister). 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.
- 3. The administration of control is covered in Part V of the Commerce Act. Controlled goods or services can only be supplied in compliance with an authorisation made by (or undertaking accepted by) the Commission under Part V.

#### NOTICE FROM THE MINISTER

- 4. Pursuant to section 56 of the Commerce Act, the Minister has required the Commission to report as to whether it considers any of the airfield activities supplied by the three major international airports—Auckland, Wellington and Christchurch—should be controlled. These airports are the three biggest airports in New Zealand by total revenue and volume (aircraft movements, passenger numbers and freight volumes).
- 5. The Minister has asked the Commission to report on whether there is evidence that the requirements under section 52 of the Commerce Act are met for the airfield activities supplied by any, or all, of the three airport companies, i.e., whether:
  - (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.
- 6. The Minister has also asked the Commission to advise on conditions, tests or thresholds it considers useful in making that assessment.
- 7. If the requirements of section 52 are met, the Minister still has 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 the Minister should recommend control of any of the airfield activities supplied by the three airport companies.

- 8. Airfield activities are one of a number of activities undertaken by airport companies. The Airport Authorities Act 1996 (the Airport Authorities Act) 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.
- 9. Under section 4A of the Airport Authorities Act, airport companies have the right, after consultation with substantial customers, to set whatever charges they think fit.
- 10. In conducting this Inquiry, the Commission considers that the Minister's request is confined to the airfield activities supplied only by the three airport companies—Auckland International Airport Limited (AIAL), Wellington International Airport Limited (WIAL) or Christchurch International Airport Limited (CIAL)—and it does not extend to any airfield activities that are supplied by other parties at any of the three airports (such as the airlines, Airways Corporation of New Zealand Limited or the Aviation Security Service). The Commission also focuses on those airfield activities supplied to aircraft operators—these being the bulk of the airfield activities supplied by the three airport companies—for which aircraft operators pay per tonne landing charges.
- 11. Chapter 1 outlines the full details of the Minister's Notice.

#### LEGAL FRAMEWORK

- 12. Sections 52 to 57 of the Commerce Act, read in conjunction with the Minister's request of 25 July 2001, require that the Commission address three key issues.
- 13. The first is to assess whether competition is limited or is likely to be lessened in markets in which airfield activities are supplied, as required by 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.
- 14. The second issue is whether control is necessary or desirable in the interests of acquirers of airfield activities, as required by section 52(b) and paragraph 'a' of the Minister's letter. The focus here is on the benefits of control for the acquirers of airfield activities (both direct and indirect acquirers). This has involved an analysis of what would happen if the status quo were to continue (the counterfactual), contrasted with the potential benefits and detriments to acquirers if control were to be imposed.

- 15. In order to consider whether control is necessary or desirable, the Commission has examined the pricing behaviour of the airport companies, and compared this to what it considers to be appropriate pricing principles. An examination of the pricing of airfield activities requires 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 airfield activities are considered in the analysis where appropriate.
- 16. The third issue is to make a recommendation on whether market conditions are such that the Minister should recommend control. In this assessment, the Commission addresses such discretionary considerations as may be relevant. It is for the Minister to consider whether to recommend to the Governor-General to declare control. The Minister has a broad discretion and can take into account a range of factors.
- 17. The framework for control of goods and services under Part IV of the Commerce Act is discussed in detail in Chapter 2.

#### LIMITED COMPETITION

18. If airfield activities were supplied in a market in which competition is limited or likely to be lessened, then section 52(a) would be satisfied. In considering this question, the Commission asked whether competition is currently limited. Finding that competition is limited for the airfield activities at each airport, the Commission did not need to consider whether competition is likely to be lessened. The Commission's analysis of competition in the supply of airfield activities is introduced generally in Chapter 3, and conducted separately for each airport in Chapters 8-10.

## **Relevant Markets**

- 19. To provide a framework within which to analyse whether competition might be limited, the Commission defined the market(s) related to the supply of airfield activities. In defining the relevant market(s), the Commission took account of the relationships between airfield activities, which are the specific focus of the Inquiry, and the other activities conducted at the airports in question.
- 20. The Commission's conclusion is that, for the purposes of this Inquiry, the relevant product market is the airfield services market. Airfield services are services that fall within the definition of airfield activities, as defined in the Airport Authorities Amendment Act 1997.

#### **Constraints on Market Power**

21. The Commission investigated whether any of the three airport companies are able to exercise market power in the airfield services market, such that competition is limited (in terms of section 52 of the Commerce Act). In doing this, it 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 following:

- The potential competition between airports or from other modes of transport.
- The potential for new entry.
- The potential countervailing power of airlines.
- The existing regulatory environment (which includes a requirement to consult on charges and a threat of further regulation).
- Competition from off-airport sources of supply.
- 22. 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 conclusion is that the nature of the investment in a major airport facility, such as those at Auckland, Wellington and Christchurch, is such that barriers to entry are high, and hence that competition from potential entrants is very low. The extent of existing competition for airfield activities depends largely on the degree to which existing airports are substitutes for one another. The Commission's 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. Alternative modes of transport are also unlikely to provide a constraint on the behaviour of airport companies.
- 23. The airfield services 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. The pricing of airfield activities appears to have little impact on demand. The Commission's estimate of the weighted average elasticity of demand for airfield activities at Auckland and Christchurch is [ ] and for Wellington [ ].
- 24. 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 airport an airline flies to, rather than the costs of doing so, and that airlines' countervailing power is generally limited. Airport charges, while a significant cost for 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. However, there is some evidence that acquirers' behaviour constrains the airport companies at the margins, but it does not, by itself, prevent exercise or even abuses of market power.
- 25. The Commission's conclusion 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 compared to what would be found in a market where competition was workable or effective. Each operates largely within its own geographically distinct regional airfield services market, which are the greater population areas around the three airports (namely the greater Auckland, Wellington and Christchurch areas).

Acquirers of airfield activities at each airport do not see other airports as offering viable substitute services.

#### PRICING PRINCIPLES

- 26. The Commission is of the view that the outcomes achieved by competitive markets (where there is workable or effective competition) are a general benchmark against which to compare the outcomes in other types of markets, although additional issues have to be considered. In this regard, the Commission has developed pricing principles that provide a framework within which it can evaluate whether efficient outcomes and normal returns are being achieved.
- 27. The Commission considers that the following general pricing principles are appropriate for determining efficient prices and evaluating performance:
  - a) Prices should be as close as possible to their allocatively efficient level over the medium term. This requires that:
    - Prices are commensurate with the level of service quality demanded (subject to minimum legal safety standards).
    - Prices are based on appropriate costs (productively, and dynamically, efficient costs).
    - Prices encourage efficient use of a supplier's facilities and avoid crosssubsidisation.
  - b) Prices should allow for a normal return to be earned by suppliers over the medium term. This requires that:
    - Normal returns are calculated on an appropriately determined asset base and rate of return, and cover efficient operating costs, and no more.
    - Returns that are greater, or lesser, than the normal rate should reflect superior, or inferior, performance respectively.
  - c) Prices should be dynamically efficient over the medium term. This requires that over- or under-investment be avoided, and that appropriate price signals be sent for investment (or divestment).
- 28. A full discussion of pricing principles can be found in Chapter 4.

#### ASSET BASE

29. Asset valuation is relevant for the purposes of both determining the price for, and assessing the performance of, airfield activities at the three airports. 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 control is recommended. The higher the asset valuation, the higher the revenue needed to generate the required return on assets, and the higher that prices need to be.

- 30. In order to examine airfield activities, the Commission determined what it considers to be the appropriate principles to be used in arriving at an airport's asset base. In economic terms, the relevant costs on which to determine an asset base are generally opportunity costs. The opportunity cost of employing an asset in one use is what the owners forego in not receiving the returns that could be earned from the asset in its next best alternative use. However, applying the opportunity cost principle may not always be appropriate, because of dynamic efficiency considerations. In deciding its approach to determining the asset base, the Commission examined:
  - An appropriate methodology for valuing land and non-land airfield assets.
  - Optimisation of surplus assets.
  - Timing issues regarding new investment.
- 31. A full discussion of issues regarding the asset base is contained in Chapter 5.

#### Valuation of Airfield Land

- 32. 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.
- 33. Valuing airfield land at opportunity cost provides appropriate signals either to continue operating the land in its existing use (as an airfield), or put the land to alternative use and relocate the airport. It also provides the appropriate incentives for new investment. Opportunity cost should be determined based on the highest alternative use value of airfield land, with that being the higher of the value with or without the sealed surfaces (the latter being after the costs of removing the sealed surfaces).
- 34. Land value should not include the cost of getting the land to a stage where it could be used as an airport. Any land holding, levelling, seawall construction and reclamation costs should be valued as specialised sunk assets at historic cost. In order to avoid double counting, these values should not include any portion that is already included in the opportunity costs of the land.
- 35. The relevant alternative use for land may differ from airport to airport, and may depend on the underlying zoning (or future rezoning) 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.
- 36. In determining appropriate land values for inclusion in the asset base, the Commission made adjustments to the airports' values to optimise land as relevant, and to include land at its opportunity cost. In the case of AIAL, this results in downward adjustments to land values and, in the case of WIAL and CIAL, in upward adjustments to land value.

## Valuation of Non-Land (Specialised) Airfield Assets

- Non-land airfield assets are, on the whole, specialised assets as, for the most part, they have no alternative use. The most significant non-land assets are the sealed surfaces or civil works that have been developed on the land. Economically, these assets are sunk as the investment in them cannot be recovered by resale.
- 38. In the case of sunk assets, opportunity costs are zero. Such assets are being used in their best use, and there is no alternative use. However, valuing the assets at zero may affect the willingness of investors to invest in such assets. Airports need to be able to recover the costs of, and earn a return on, specialised airfield assets in order to preserve continuity of supply. Alternative approaches to deal with this issue are valuations at replacement or historic costs.
- 39. The Commission's view is that specialised airfield assets should be included in the asset base at historic cost, and depreciated as appropriate. Historic cost 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.
- 40. In determining appropriate values of specialised assets for inclusion in the asset base, the Commission has adjusted the airports' values of specialised assets to exclude revaluations from historic cost to Optimised Depreciated Replacement Cost (ODRC). It should be noted that no airport optimised any of the Depreciated Replacement Cost (DRC) for these specialised assets.

## **Optimisation**

- 41. A condition for efficient pricing is that the costs that should be recovered through pricing are those that reflect the least cost of production. Airports should be able to recover through prices the efficient costs of assets needed to provide airfield services. The Commission's 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.
- 42. Land and non-land assets that are surplus should not be included in the asset base—they should be optimised out. The Commission has optimised out a number of parcels of what it considers to be surplus land at the airports. Detailed discussion on this is found in the airport-specific chapters.

## **New Investment and Pre-Financing**

43. Growth in aircraft movements will require investment in additional runway capacity at airports from time to time. 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. Investment planning, therefore, should aim to ensure that there is an appropriate level of investment to support production, with no excess, or under, capacity.

- 44. Any new investment should be based on reasonably anticipated future demands. Excess capacity may be dynamically and allocatively inefficient.
- 45. The Commission considers that it is a matter of judgment as to when land should be acquired for future runway developments, given the inevitable uncertainties as to when relevant parcels will become available on the market, and to when development may actually occur. A judgement is required in each particular case. The Commission believes that it is important that incentives to invest in expansions to capacity in a timely fashion are preserved.
- However, there is a danger that land could be acquired too far in advance of need if the airport were assured of being able to recoup the cost of holding it from users. Hence, the Commission considers that holding costs—based on the historic cost of the land, net of income generated and of revaluations—should be capitalised (and depreciated), and incorporated in the asset base as a specialised asset at historic cost for charging purposes only from the point at which construction commences. This means that although the airport has some discretion as to when land is purchased and net holding costs start to accumulate, it must bear the risk that the land may never be developed as planned prior to the development actually being initiated. From the point at which construction commences, the land would be valued in the asset base at opportunity cost.
- 47. The Commission excluded the land AIAL holds for its second runway from AIAL's asset base for determining allocatively efficient price and computing returns. It also considers a proportion of the second runway land to be dynamically inefficient, as this proportion of land is unlikely to be used by the airport for airfield activities even over the medium term, perhaps not even in the long-run. The rest of the second runway land is expected to be used at some time within the medium term, and is, therefore, not seen as leading to dynamic inefficiencies.

## **Appropriate Asset Base**

48. The tables below show, for each airport, the current asset base for the pricing of airfield activities considered appropriate by the Commission, compared to the figures adopted by that airport.

AIAL Airfield Asset Base as at 30/6/01

	<b>Amount (\$000s)</b>
Asset Base used by AIAL for Pricing Purposes	\$ 311,042
Exclusion of Ground Handling Area Land	-2,070
Asset Base (Revised)	308,972
Optimisation of Seabed	-9,800
Optimisation of Seawall	0
Optimisation of Second Runway Land	-36,757
Optimisation of Wiroa Island	-2,825
Optimisation of Eastern Approaches Land	-11,957
Adjustment to Operational Airfield Land Value (ORC to OC)	-36,931
Addition of Seawall Construction Costs (DHC)	1,575
Adjustment to Non-Land Asset Values (ODRC to DHC)	-24,127
Associated Adjustment to Depreciation (ODRC to DHC)	1,849
Commission Airfield Asset Base	\$ 189,999

#### WIAL Airfield Asset Base as at 31/3/01

	<b>Amount (\$000s)</b>
Asset Base Adopted by WIAL for Pricing	\$ 94,936
Optimisation of Leased Airfield Land	-2,619
Adjustment to Operational Airfield Land Value (ORC to OC)	7,684
Exclusion of Seawall from Civil Works	-20,500
Adjustment to Non-Land Asset Values (ODRC to DHC)	-34,615
Associated Adjustment to Depreciation (ODRC to DHC)	10,037
Commission Airfield Asset Base	\$ 54,923

#### CIAL Airfield Asset Base as at 30/6/01

	Amount (\$000s)
Asset Base used by CIAL for Pricing Purposes	\$ 40,067
Optimisation of Development Land	0
Adjustment to Operational Airfield Land Value (ORC to OC)	16,483
Add back of Reseal Reserve	0
Adjustment to Non-Land Asset Values (ODRC to DHC)	-20,031
Associated Adjustment to Depreciation (ODRC to DHC)	1,568
Commission Airfield Asset Base	\$ 38,087

## TARGET RETURN (WACC)

- 49. 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 the 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.
- 50. The Commission has determined what it considers to be an appropriate WACC (target return) for the airfield activities of each airport. In formulating the views expressed on WACC in this Report, the Commission obtained independent advice from Dr Martin Lally on the appropriateness of the WACC estimates most recently adopted by the airports, and on the robustness of the airports' justification for those estimates. A copy of his report to the Commission is included in Appendix 18 to this Report. Full discussion of generic issues regarding WACC are contained in Chapter 6, and for each airport in Chapters 8-10.
- 51. Key determinants of WACC are the risk-free rate, debt premium, market risk premium, asset beta and leverage.

#### Risk-free Rate

- 52. 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.
- 53. In determining the appropriate risk-free rate, the Commission first considered what term (maturity) of the rate to use. Alternatives are to use the maturity corresponding

to the period for which prices are set, or the period of the life of airfield assets. The Commission's view is that the risk-free rate should match the revision frequency of pricing. Prices are set by the airports for upwards of five-year periods due to the requirement to consult with substantial customers every five years on charges. However, CIAL has recently set prices for a period of three years, and AIAL seven years.

- Having determined the appropriate maturity date to use, the Commission then considered how to set the rate. Options include 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 elected to use an average on Government stock relating to 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).
- In analysing the efficiency implications of current prices for the airfield activities of AIAL, the Commission used a risk-free rate of 6.33%, being the five-year Government stock rate averaged for the six months April to September 2001. For CIAL, the Commission used a risk-free rate of 7.04%, representing the yields on three-year Government stock averaged over the six month period February to August 2000. For WIAL, the rate used is 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 7.62%.
- For assessing historical performance on an annual basis (and on average over time), the Commission adopted the risk-free rate for the appropriate financial period, based on the last price reset. For example, the risk-free rate for the six months preceding 1 July 1997 (date on which WIAL set prices in the past) is used in assessing returns for the five years from 1 July 1997 to 30 June 2002 (the five-year period for which prices were set).

#### **Debt Premium**

- 57. 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.
- 58. The Commission's view is that a debt premium of 1% above the risk-free rate is appropriate for all three airports.

## **Market Risk Premium**

- 59. The Market Risk Premium (MRP) represents the additional premium that investors require in order 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.
- 60. A number of approaches can be used to estimate the MRP. The common approach is to observe the 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.

61. The Commission's approach was to adopt a tax-adjusted MRP of 8%, within a range of 7-9%.

#### **Asset Beta**

- 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.
- 63. 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.
- 64. Beta may or may not be capable of being 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.
- 65. 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 (e.g., as reflected in the price elasticity of demand), the nature of options for expansion, operating leverage, market weight, and capital structure.
- 66. The regulatory environment could significantly effect the performance of the airports and is, therefore, a key consideration in choosing appropriate comparators. The Commission adopted benchmarks for asset beta based on United States firms engaged in electricity generation and/or distribution that are subject to rate-of-return regulation (which 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.
- 67. The Commission considers that an appropriate asset beta for the airfield activities at all three airports is 0.5 (the mid-point), within a range of 0.4 to 0.6.

# Leverage

68. If a company has no debt—it 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.

- 69. A leverage rate is used to determine the cost of equity, and also to weight the costs of debt and equity to derive WACC. The leverage (or debt) ratio reflects the proportion of total assets that are funded by debt (as opposed to equity).
- 70. 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).
- 71. 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 also used a 25% debt ratio for WIAL and CIAL.

## **Appropriate WACC**

- 72. For the purposes of this Report, the Commission chose to use a nominal post-tax WACC in order to be consistent with its approach to asset base, and its analysis of historical returns.
- 73. 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
Risk-free rate	6.33%	7.62%	7.04%
Corporate tax rate	33%	33%	33%
Tax rate on interest	33%	33%	33%
Post tax MRP	7 to 9%, point est. 8%	7 to 9%, point est. 8%	7 to 9%, point est. 8%
Debt premium	1%	1%	1%
Cost of Debt	7.33%	8.62%	8.04%
Weight for debt	25%	25%	25%
Weight for equity	75%	75%	75%
Asset Beta	0.4 to 0.6, point est. 0.5	0.4 to 0.6, point est. 0.5	0.4 to 0.6, point est. 0.5
Equity Beta	0.53 to 0.8,	0.53 to 0.8,	0.53 to 0.8,
	point est. 0.67	point est. 0.67	point est. 0.67
Cost of Equity	7.97 to 11.44%,	8.84 to 12.31%,	8.45 to 11.92%,
	point est. 9.57%	point est. 10.44%	point est. 10.05%
Nominal Tax-	7.21 to 9.81%,	8.07 to 10.67%,	7.68 to 10.28%,
Adjusted WACC	point est. 8.41%	point est. 9.27%	point est. 8.88%

#### ALLOCATIVE EFFICIENCY AND CROSS-SUBSIDISATION IN PRICING

- 74. 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 allocative efficiency. The Commission has assessed to what extent the structure of prices for airfield activities are allocatively efficient, and whether there is any cross-subsidisation. It notes that, in the airfield activities context, setting prices to maximise allocative efficiency potentially encounters a number of difficulties, as follows:
  - 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. 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. This may not necessarily generate efficient prices, as there appears to be no attempt to integrate information about demand elasticities into price-setting. The Commission notes that international agreements limit the extent to which airports can apply efficient pricing.
  - 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. A review by the Commission of the airports' pricing models and cost allocations has not identified any areas of cross-subsidisation
- 75. A full discussion of issues regarding airfield pricing and cost allocation is provided in Chapter 7, and then these matters are discussed further in the airport-specific chapters.

# NECESSARY OR DESIRABLE IN THE INTERESTS OF ACQUIRERS

76. After examining the asset valuations, WACCs and cost allocations of the airports, the Commission then assessed the consequences of any state of 'limited' competition in the airfield services market in the counterfactual to determine whether control is necessary or desirable in the interests of acquirers. The issue is whether control

would lead to an improvement in acquirers' economic welfare. Consequences of a lack of competition can manifest themselves in various ways, including excessive returns, inefficiencies (allocative, productive and dynamic), and inferior product quality. These may be reduced by control. A full discussion on these consequences is presented in Chapter 7, and these are detailed for each airport in Chapters 8-10.

#### **Inefficiencies**

- 77. The Commission evaluated the overall economic efficiency of the airfield services supplied by AIAL, WIAL and CIAL. This was done on the basis of 2001 year prices, as well as on expected future prices. It also fed into the net benefits analysis that was conducted in order to determine whether control is recommended. The analysis of inefficiencies in the supply of airfield activities is presented in Chapter 7, and detailed for each airport in the airport-specific chapters.
- 78. The Commission considered allocative, productive and dynamic efficiencies.

Allocative Inefficiency

- 79. Allocative efficiency concerns the overall level of prices, and whether they are too high, resulting in output below the optimal level (and also returns being excessive).
- 80. Based on its views on asset base and WACC, the Commission estimated the competitive price and level of output, which it then compared with the actual price and output. Allocative inefficiencies were estimated both for 2001 year prices and into the future. The allocative inefficiencies were measured by deadweight losses of consumer and producer surplus resulting from prices being above the competitive level. Negative values in the table indicate situations where price was below the assessed competitive level.

# **Estimated Allocative Inefficiencies (\$000s)**

	Over WACC Range	At Point Estimate
<b>AIAL</b> (2001-2007 Average)		
Consumer Surplus	1 to 24	9
Producer Surplus	-45 to 335	210
<b>WIAL</b> (2001-2003 Average)		
Consumer Surplus	0.4 to 6	2
Producer Surplus	-7 to 96	50
<b>CIAL</b> (2001-2003 Average)		
Consumer Surplus	-4 to 0.3	-2
Producer Surplus	-43 to 10	-13

## Productive Inefficiency

- 81. Productive efficiency requires that the cost of any given output be minimised, so that resources are not wasted.
- 82. The Commission considered that there is likely to be some room for improvement in the productive efficiency of the airfield activities provided at all three airports. The Commission adopted a range of 1-3% of airfield operating expenses (excluding

depreciation) as a measure of productive inefficiency for AIAL, 0-1% for WIAL, and 1-2% for CIAL.

# Dynamic Inefficiency

- 83. Dynamic efficiency occurs where firms adopt new products and processes in a timely fashion, and invest to ensure that capacity matches demand.
- 84. The Commission estimated the approximate extent of any dynamic inefficiencies in the airfield activities at each of the three airports. It only found evidence of dynamic inefficiencies in the case of AIAL.

#### **Excess Returns**

- 85. 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 (e.g., superior productive efficiency improvements). Findings regarding productive efficiency were presented separately above.
- 86. The Commission estimated the distributional impact of any excess returns on airfield activities that AIAL, WIAL and CIAL may have earned historically, may be earning currently, or may potentially earn in the future. The analysis of excess returns is presented generically in Chapter 7, and detailed for each airport in Chapters 8-10.

#### Historical Excess Returns

- 87. The Commission conducted an analysis of the historical returns on the airfield activities of the three airport companies over the period since vesting. This involved adjusting the asset base, and comparing actual returns on that base with Commission-determined target (WACC) returns. The Commission's views on the relevant asset bases of the airports, and on their respective WACCs, were used in the analysis.
- 88. The Commission's estimate of the average historical returns earned by AIAL, WIAL and CIAL in respect of their airfield activities (relative to target) is shown in the following tables:

# Returns on Airfield Activities Supplied by AIAL Since Vesting (\$000s)

	Over WACC Range	At Point Estimate
Average 1989-2001	-1,926 to 1,208	-239
Average 1997-2001	2,707 to 6,101	4,534
Present Value 1989-2001	-74,365 to -8,887	-39,107

# Returns on Airfield Activities Supplied by WIAL Since Vesting (\$000s)

	Over WACC Range	At Point Estimate
Average 1991-2001	-2,123 to -941	-1,486
Average 1997-2001	632 to 1,891	1,310

	Over WACC Range	At Point Estimate
Present Value 1991-2001	-42,895 to -24,641	-33,066

# Returns on Airfield Activities Supplied by CIAL Since Vesting (\$000s)

	Over WACC Range	At Point Estimate
Average 1989-2001	-843 to 76	-348
Average 1997-2001	-1,525 to -479	-962
Present Value 1989-2001	-17,116 to 1,509	-7,087

- 89. After analysing possible reasons for the positive returns identified for each airport, the Commission concluded that both AIAL and WIAL earned excess returns historically. No excess returns historically were identified for CIAL.
- 90. In AIAL's case, there is a trend of increasing returns, moving from negative returns just after vesting (1998) to large positive returns per annum currently. This finding led the Commission to conclude that AIAL has used its market power in airfield activities by raising prices above the efficient level. This reinforced the Commission's finding that there are insufficient constraints on the exercise of market power by AIAL.
- 91. A trend of increasing returns is also apparent in the case of WIAL, but the level of excess returns is not as significant.

Excess Returns 2001 Year and Beyond

- 92. 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. The Commission examined the results of each airport's most recent financial year (2001) in more detail. It endeavoured to quantify the potential excess returns and inefficiencies implied by prices for airfield activities at each airport's 2001 financial year.
- 93. The analysis of the 2001 year only provides a snapshot of the pricing of airfield activities by the three airports at one point in time. During this Inquiry, all three airports increased their prices for airfield activities (AIAL and CIAL in 2000, and WIAL at 1 July 2002). Incorporating the airports' forecasts of growth in aircraft movements, operating costs and the asset base, the Commission extended its 2001 year analysis for the airports to forecast future returns. Forecasts are produced to 2003 for WIAL and CIAL, and to 2007 for AIAL (matching the period of AIAL's agreements with airlines).
- 94. The following returns are projected:

# **Estimated Future Excess Returns (\$000s)**

	Over WACC Range	At Point Estimate
<b>AIAL</b> (2001-2007 Average)	816 to 6,494	3,873
<b>WIAL</b> (2001-2003 Average)	-88 to 1,346	684
<b>CIAL</b> (2001-2003 Average)	-758 to 246	-217

Excess returns of varying magnitudes are forecast for all three airports at the upper end of the estimated range. Only AIAL and WIAL display excess returns at the point estimate. The analysis does not take into account WIAL's proposed price increase of [ ], but does take into account its recent 10% increase.

#### BENEFITS AND COSTS OF CONTROL

- 96. In establishing that controlling airfield activities is in the interests of the acquirers of the goods or services, it is necessary to consider the net benefit to acquirers by assessing the benefits and costs of control.
- 97. In this Inquiry, the Commission considered that the relevant interests to be examined are those of acquirers of airfield activities. The Commission approached this question by assessing whether the imposition of control would benefit the interests of the acquirers of airfield activities—both the aircraft operators (as direct acquirers), as well as the ultimate consumers, namely aircraft passengers and those using air freight services (as indirect acquirers).
- 98. The Commission 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 the likely benefits of control is conducted in Chapter 7, and detailed for each airport in Chapters 8-10.

# **Benefits of Control for Acquirers**

- 99. Acquirers could only be said to benefit from 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 control being introduced. Transfers of wealth between suppliers and acquirers are relevant to assessing benefits for acquirers, even though from an efficiency perspective such transfers are treated as mutually off-setting.
- 100. The sources of potential benefits of control for acquirers are:
  - Excess returns (if present) would be reduced or eliminated by 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 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 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.

101. The Commission considers that all inefficiencies and excess returns identified in the counterfactual, if removed, would accrue to acquirers, other than those inefficiencies associated with producer surplus. The total potential benefits to acquirers of control are relatively large in the case of AIAL, and are much smaller at WIAL and CIAL.

Estimates of the Potential Benefits to Acquirers of Control on Airfield Activities Supplied by AIAL, 2001-2007 Average (\$000s)

	Over WACC Range	At Point Estimate
Benefits		
Reduced excess returns	816 to 6,494	3,873
Reduced consumer surplus	1 to 24	9
Reduced productive inefficiency	141 to 425	212
Reduced dynamic inefficiency	0 to 350	0 to 256

# Estimates of the Potential Benefits to Acquirers of Control on Airfield Activities Supplied by WIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Benefits		
Reduced excess returns	-88 to 1,346	684
Reduced consumer surplus	0.4 to 6	2
Reduced productive inefficiency	0 to 54	27
Reduced dynamic inefficiency	0	0

# Estimates of the Potential Benefits to Acquirers of Control on Airfield Activities Supplied by CIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Benefits		
Reduced excess returns	-758 to 246	-217
Reduced consumer surplus	-4 to 0.3	-2
Reduced productive inefficiency	79 to 159	119
Reduced dynamic inefficiency	0	0

102. However, control provides an imperfect substitute for competition for dealing with the inefficiencies and excessive returns in markets caused by a lack of competition. The imperfect nature of control is reflected in the costs of control.

## **Costs of Control for Acquirers**

In assessing the potential benefit to those who acquire airfield activities, the costs of control that fall upon those acquirers must be netted off from the benefits assessed above. It is the net benefits of 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 with those that are additional to the present situation (the counterfactual), which includes the costs of consultation and litigation. The extent of the costs borne by acquirers also depends upon whether they bear the cost of the control regime (or whether these are borne by suppliers), and on the design and nature of the regime itself. The Commission is of the view that, while acquirers are likely to receive most of the benefits of control, they could indirectly pay most of the costs.

- 104. 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. 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.
- 105. The total costs of control (direct and indirect) to acquirers are estimated in the following table. In formulating its estimates of the costs of control, the Commission has assumed price cap regulation under Part V and has not considered other forms of control under Part V or regulatory intervention.

Likely Costs of Controlling AIAL, 2001-2007 Average (\$000s)

	Over WACC Range	At Point Estimate
Costs		
Direct Costs	620 to 1,320	970
25% excess returns	287 to 1,623	968
43.75% consumer surplus	0.5 to 10	4
0-2% productive inefficiency	0 to 283	141
50-100% dynamic inefficiency	0 to 350	0 to 256

Likely Costs of Controlling WIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Costs		
Direct Costs	620 to 1,320	970
25% excess returns	47 to 336	176
43.75% consumer surplus	-0.1 to 2	1
0-2% productive inefficiency	0 to 108	54
50-100% dynamic inefficiency	0	0

Likely Costs of Controlling CIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Costs		
Direct Costs	620 to 1,320	970
25% excess returns	48 to 182	103
43.75% consumer surplus	-2 to 0.1	-0.9
0-2% productive inefficiency	-14 to -0.8	-7
50-100% dynamic inefficiency	0	0

106. In calculating the costs of control, the Commission has assumed price cap regulation, as this is one of the more common forms of regulatory control overseas. Use of this form of control, for the purpose of estimating the costs of control, should not be seen as predetermining the form of control that the Commission would employ if control were declared. The Commission notes that a wide range of regulatory controls are available under Part V, which are likely to be less intrusive or less costly than price cap regulation. It would also need to be determined, however, how effective different control mechanisms would be in achieving the benefits of control, i.e., the overall cost-effectiveness of control would need to be assessed for control mechanisms

besides price cap regulation. The Commission has not considered the efficacy of other forms of control.

107. In terms of other control mechanisms, section 70(2) enables the Commission to use formulas or other methods from which prices or revenues, or any part of a price or revenue, may be determined. One suggestion, from BARNZ, is that the parties could commercially negotiate, based either on the principles resulting from this report, or pricing principles established by the Commission as a form of control. In addition, the Commission notes there may be other policy options available to the Minister. Irrespective, the Commission is cognisant that any form of control utilised would need to be commensurate with the level of market power available to the controlled airport, the size of the anticipated excess return, and resulting net benefits to acquirers.

# **Net Benefits to Acquirers**

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 control, net of the likely costs of such control that would be borne by those same acquirers (where the costs of control are additional to those already being incurred under the present regulatory regime). Only if the net benefits were positive could it be determined that the interests of acquirers would be served by control. The total benefits and total costs are an average of the 2001 year and the forecast years.

# Estimates of the Potential Net Benefits to Acquirers of Control on Airfield Activities Supplied by AIAL, 2001-2007 Average (\$000s)

	Over WACC Range	At Point Estimate
Total Benefits	1,243 to 6,836	4,096 to 4,352
Total Costs	1,891 to 2,429	2,084 to 2,340
Net Benefits to Acquirers	-647 to 4,494	2,011 to 2,139

# Estimates of the Potential Net Benefits to Acquirers of Control on Airfield Activities Supplied by WIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Total Benefits	-34 to 1,352	713
Total Costs	959 to 1,475	1,201
Net Benefits to Acquirers	-1,512 to 393	-488

# Estimates of the Potential Net Benefits to Acquirers of Control on Airfield Activities Supplied by CIAL, 2001-2003 Average (\$000s)

	Over WACC Range	At Point Estimate
Total Benefits	-604 to 326	-100
Total Costs	802 to 1,525	1,152
Net Benefits to Acquirers	-2,130 to -476	-1,253

On the balance of probabilities the Commission is satisfied it is necessary or desirable for the airfield activities supplied by AIAL to aircraft operators to be controlled in the

interests of persons acquiring the goods or services (whether directly or indirectly). Acquirers of airfield activities supplied by AIAL would be likely to benefit from the removal of excess returns and inefficiencies, and that benefit would not be outweighed by the likely direct costs and inefficiencies that administering control could create. The prospective net benefits to acquirers from control based on the Commission's assumed cost of control are about 4% of the total landing charges they pay to AIAL and 10% of AIAL's net profit from airfield activities.

110. In the case of the airfield activities supplied by WIAL and CIAL, on the balance of probabilities the Commission does not consider it necessary or desirable for airfield activities to be controlled in the interests of acquirers. The potential benefits to acquirers of controlling WIAL or CIAL are not sufficiently large to warrant control, given the costs associated with control. The Commission has not taken into account WIAL's proposed price increase of [ ] and has only taken into account its recent 10% increase.

#### VIEWS OF PETER J M TAYLOR AND DONAL CURTIN

111. Peter J M Taylor and Donal Curtin agree with the Commission in respect of the use of the opportunity cost methodology used to value airfield land, and with the values thus obtained, but do not accept the methodology used to value specialised assets. Their preferred approach is to value specialised assets using optimised depreciated replacement cost (ODRC). Using this approach alters the calculations of returns for the airports, and leads them to conclude that the likely net benefits to acquirers of control on AIAL are not significant. Consequently, they are not satisfied that control of airfield activities supplied by AIAL is necessary or desirable in the interests of acquirers, and do not consider AIAL, WIAL or CIAL may be controlled. Consequently, they have not considered whether market conditions are such that the Minister should recommend control. They express no view on the airfield activities that need to be controlled. Otherwise, they agree with the report.

## RECOMMENDATIONS

- 112. Acting pursuant to the sections 54 and 56 of the Commerce Act, the Minister has required the Commission to report on whether airfield activities at Auckland, Wellington and Christchurch International Airports should be controlled under the Commerce Act. The Commission's recommendations and response to the Minister's Notice are presented below.
- 113. The Commission recommends that the Minister:

## **Question 1 – Whether Controls Should Be Introduced For Airport Activities?**

Auckland International Airport Limited (AIAL)

- (a) **Recommend** to the Governor-General that an Order in Council be made declaring that the airfield activities supplied by AIAL are controlled.
- (b) **Note** that the Commission is satisfied that the airfield activities supplied by AIAL are supplied in a market in which competition is limited; and it is necessary or

- desirable for these services to be controlled in the interests acquirers and may, therefore, be controlled.
- (c) **Note** that the Commission considers that market conditions are such that the Minister should recommend to the Governor-General that control be declared in respect of airfield activities supplied by AIAL.
- (d) **Note** that the Commission has not considered the full range of control mechanisms available under Part V of the Commerce Act and that other less intrusive, and lower cost, forms of control than price cap regulation, which was used as a means of estimating the costs of control, are likely to be available. Irrespective, the Commission is cognisant that any form of control utilised needs to be commensurate with the level of market power available to AIAL, the size of the anticipated excess return, and resulting net benefits to acquirers.

## Wellington International Airport Limited (WIAL)

- (e) **Agree** to not recommend to the Governor-General that an Order in Council be made declaring that the airfield activities supplied by WIAL are controlled.
- (f) **Note** that the Commission is not satisfied that the airfield activities supplied by WIAL may be controlled as it is not necessary or desirable for those services to be controlled in the interests of persons acquiring those goods or services.
- (g) **Note** that if WIAL imposes a significant increase in charges as a result of its current consultation with the airlines, the Commission would likely be satisfied that it would be necessary or desirable for the airfield activities supplied by WIAL to be controlled in the interests of persons acquiring those goods or services.

#### Christchurch International Airport Limited (CIAL)

- (h) **Agree** to not recommend to the Governor-General that an Order in Council be made declaring that the airfield activities supplied by CIAL are controlled.
- (i) **Note** that the Commission is not satisfied that the airfield activities supplied by CIAL may be controlled as it is not necessary or desirable for those services to be controlled in the interests of persons acquiring those goods or services.

# **Question 2 – Specific Goods And Services To Control**

(j) **Recommend** to the Governor-General that control be declared for the airfield activities supplied by AIAL listed in the following table:

# Airfield Services Supplied by AIAL to be Controlled

	Goods and Services Supplied
Airfield Activities	by AIAL
Airfields, runways, taxiways, and parking aprons for aircraft	Airfields, runways, taxiways, and aprons.
Facilities and services for air traffic	None.
control	

	Goods and Services Supplied
Airfield Activities	by AIAL
Facilities and services for parking apron	Apron control service at the international terminal
control	apron.
Airfield associated lighting	Cable ducts and light pots for the entire airfield; cabling
	for light fittings for aprons and first taxiways; and apron
	lights.
Services to maintain and repair airfields,	Services to maintain and repair airfields, runways,
runways, taxiways, and parking aprons	taxiways, and parking aprons for aircraft.
for aircraft	
Rescue, fire, safety, and environmental	Rescue, fire, safety, and environmental hazard control
hazard control services	services.
Airfield supervisory and security services	Provides and maintains security fencing.
Facilities/assets held for future airfield	Holds land for second runway.
activities	·

## **Question 3 – Conditions, Tests Or Thresholds**

- (k) **Note** the following conditions, tests or thresholds that the Commission has used for determining whether section 52 is met:
  - (i) <u>Limited competition (52(a))</u> To satisfy this requirement, there needs to be more than a nominal or de minimis restriction or impairment of workable or effective competition. The following non-exhaustive list of factors are relevant:
    - The number and relative size of competitors in the market.
    - The potential for entry and the significance of any barriers to entry that might exist.
    - The nature of the good or service, and in particular the extent to which it is differentiated.
    - The behaviour of airports, and the competitive constraint that one may have upon another.
    - The extent of any countervailing power of acquirers.
    - The effectiveness of the regulatory environment within which airports operate.
    - Evidence of airports operating inefficiently or achieving excess returns.
  - (ii) Necessary or desirable in the interests of acquirers (52(b)) To satisfy this requirement, the Commission considers the likelihood, and magnitude, of net benefits accruing to acquirers. The following non-exhaustive list of factors is relevant:
    - Evidence of any excess returns earned historically.

- Any forecast excess returns in the medium-term.
- Evidence of any superior performance by airports justifying excess returns.
- Evidence of any inefficiencies (allocative, productive and dynamic).
- The impact of any market power exerted in other related markets.
- Any other evidence of the exercise of market power.
- The likely benefits of control that would accrue to acquirers through the reduction or removal of excess returns or inefficiencies.
- The likely costs of control that would be borne directly or indirectly by those same acquirers.

## **Question 4 – Form Of Control**

(l) **Note** that the question of what form of control should be imposed is a matter under Part V of the Commerce Act, and not a matter for Part IV and the determination of whether to recommend control, which is the focus for this Inquiry.