

**Expert Report of
Graeme J. Horsley
On Commerce Commission
Preliminary Views on Asset Valuation**

**On behalf of
Wellington International Airport Limited
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1. INTRODUCTION

- 1.1 My full name is Graeme John Horsley. I am the National Director of the Ernst & Young New Zealand Real Estate Group. I am a Life Fellow (1998) and Past President (1985-87) of the New Zealand Institute of Valuers (NZIV) and was for a period of twelve years the NZIV representative on the International Valuation Standards Committee where I was chairman between 1989 and 1993.

I was on an advisory panel of the Institute of Chartered Accountants of New Zealand and assisted in the drafting of FRS-3 *Accounting for Property, Plant and Equipment*. I co-authored the recent version of *Infrastructure Asset Valuation Guidelines* for the Association of Local Government Engineers New Zealand and I have recently re-written the NZIV's valuation standard, *Valuations for Financial Statements* to incorporate changes introduced by FRS-3.

My experience as it relates to airports over the last twelve years includes the undertaking of asset valuations of Auckland, Wellington and Christchurch International Airports originally for the Ministry of Transport and the Treasury and more recently airport companies; the preparation of airport specific valuation handbooks for Wellington, Sydney and Perth airports; and the undertaking of noise impact studies and other corporate real estate functions associated with airport planning and development. In December 1996, I presented a paper entitled *Airport Corporatisation* to a World Bank seminar on privatisation.

- 1.2 Wellington International Airport Limited (WIAL) has asked me to offer my opinion on two issues arising from the Commerce Commission's draft report *Price Control Study of Airfield Activities at Auckland, Wellington, and Christchurch International Airports*:

- (a) Issue 1: Comment on the validity of the Telfer Young Peer Review Report dated 27 June 2001 commissioned by the Commerce Commission.
- (i) Comment on the divergences in the principles and methodology suggested in the Commerce Commission Draft decision viz. a viz. the conclusions stated in the Telfer Young Report.
- (ii) Comment on the principles and methodology used in the Telfer Young Report including the greater emphasis on a zonal approach, the outcome of a DCF check of WIAL's existing valuation and Telfer Young's views on holding costs under a DCF approach.

- (b) Issue 2: Valuation of non-land specialised assets.
 - (i) Comment on the Commission's treatment of valuing non-land specialised airfield assets at historic cost.

I respond to the identified issues in the following sections.

2. Divergences Between Commerce Commission and Peer Review

2.1 The Commission's Conclusion

The conclusion reached by the Peer Review was that *market value – existing use* is the appropriate approach to the valuation of airport land. This is not adopted by the Commission who conclude that the airport land should be valued;

- at opportunity cost (7.33 & 7.71);
- that opportunity cost should not exceed the highest and best alternative use value (7.34); and
- that the cost of getting the land to a stage where it could be used as an airport should be excluded (7.33).

This approach would in effect give *market value – alternative use* where the opportunity cost is restricted to a less intensive sub-optimal use and differs materially from that concluded by the Peer Review.

The Commission's approach also differs from directives contained in valuation and financial reporting standards. This would see airports reporting asset values on a basis different from other entities in the transport sector e.g. Port Companies and in the utility/infrastructure sector.

The Commission's approach would see the airport land at WIAL valued as residential land or what economists call 'scrap value'. This is clearly inconsistent with accepted valuation principles and practice and ignores the need to obtain an economic return on the market value of assets.

Furthermore, it is clearly at odds with the direction given in the Court of Appeal decision of McKay J (CA 23/92) referring to the value of WIAL where he said "value must mean its value as it is, enjoying its position as sole provider of airport services to the capital", i.e. value is as an operational airport in situ.

The airport companies' valuations are consistent with this direction. In assessing the opportunity cost of investing in airport land for the purposes of providing airport services, the valuations assume the existing sites to be optimally developed and the highest and best use of the land.

3. The Telfer Young Peer Review Report

3.1 Overview

In general terms, the Peer Review confirmed the valuation principles and practice followed by the local valuers for each of the airport companies. The Peer Review rightfully concluded that the “value levels in each (airport) location will be significantly different no matter what valuation technique is applied to the underlying methodology”. The Peer Review signed off on the fact that *market value – existing use* of airfield land will reflect a premium over and above the cost of non-airfield land.

Market value – existing use reflects the opportunity cost of airfield land which is both the highest and best use and the optimal use of the land.

These conclusions read against the directives given the Peer Review as to:

- robustness of valuation principles
- appropriateness of methodologies
- consistency across airports; and

would suggest the Peer Review found little to be critical of in the airport valuation techniques and methodologies used.

3.2 Valuation Methodologies

The Peer Review recommends four distinct approaches to determining *market value – existing use*. They are:

1. Comparable sales or market comparison;
2. A zonal approach (Peer Review preferred approach);
3. A DCF approach or hypothetical subdivision model of the land in alternative highest and best use;
4. Civil works approach (can be compared to an ORC approach).

3.2.1 Comparable Sales Approach

At both AIAL and CIAL the market value of the airport’s land can be estimated through reference to the sale price of unimproved land in localities around the airport. This approach has the advantage that these parcels of land closely match the characteristics of the airport’s land. At WIAL this method would yield a distorted valuation in that land values are clearly negatively affected by the existence of the airport in the same area and sales are generally for parcels of land of a significantly different size to the airport land. Size does not

of itself call for a discount as most New Zealand airports were established as a result of multiple title amalgamations and there is every reason to argue that a plottage or premium factor exists within overall airport land values.

3.2.2 Zonal Approach

The Peer Review promotes the zonal approach as an “appropriate means of establishing the land value and the methodology utilised is robust” in that it is based on market values relative to intensity of use. The Peer Review went further and stated that the land value adopted at WIAL was realistic.

This approach uses information from the sale prices of blocks of land used to a comparable intensity, in similar (but not necessarily close) locations with similar characteristics and where sale prices are not negatively impacted by the proximity of the airport.

The approach has relevance and best interprets the Court of Appeal comment that Wellington Airport will have a higher value than other airports “because of its single runway and limited runway length, while at the same time offering advantages to its users in its proximity to the city”.

I believe that in the case of WIAL this is the preferred methodology and should take precedent over other hypothetical or more subjective approaches.

3.2.3 DCF/Hypothetical Subdivision Approach

While this approach can be consistently applied across all airports and as an approach is theoretically sound it has weaknesses in that involves a degree of speculation and discretion in the application of multiple assumptions. The approach, which on a practical basis is hypothetical, aims to assess how much a developer could afford to pay for the land, given its other potential uses (alternative highest and best use) and the costs associated with development.

At WIAL Ernst & Young completed a simple point in time hypothetical subdivision assessment of block value, which was criticised by the Peer Review as being simplistic. I believe this was an unfair criticism, as a DCF approach based upon similar assumptions would deliver a value, which would closely correspond to our original valuation figure of \$69 million.

I also refer you to comments made by the Court in *Neil Construction Ltd v City of Manukau* (1977) where McMullin J. said that the DCF as a valuation technique was "...no more than a more sophisticated way of setting out the hypothetical subdivisional calculation".

3.2.4 Civil Works Approach

The civil works approach has genuine applicability for AIAL and WIAL and will clearly provide a valuation at the higher end of the scale in comparison with the other approaches noted.

The Peer Review undertakes a civil works approach for AIAL using a reduced value for the land of \$210,000 per hectare (viz. a viz. \$305,000 ha assessed by AIAL valuer) and derives a value for the airport land of \$153 million as compared to the AIAL valuation of \$134 million.

As was identified in WIAL's initial submission to the Commission (7.184 – 7.187) a similar civil works approach if undertaken for WIAL would result in a valuation of the airport 'land' substantially greater than the current WIAL valuation of \$69 million. As was noted by the Peer Review the civil works approach should not be disregarded as a valuation approach for pricing purposes.

Acknowledging, as the Peer Review does, that both AIAL and WIAL are optimally sited and that it is unnecessary to further address Greenfield alternatives (the Peer Review mistakenly refers to Brownfield alternatives), it is suggested that this civil works approach has more relevance in the context of an optimised replacement cost methodology.

3.3 Holding Costs

While concern is expressed at the terminology of 'holding cost' and criticism of the mathematical approach is noted, the Peer Review concludes that "sound reasoning is incorporated in the approach to *market value – existing use*". This adjustment is consistent with the opportunity cost concept. The Peer Review accepts that 'current market buying price' requires adjustment for the time and difficulties in accumulating a large parcel of land suitable for airport purposes, obtaining the necessary consents and planning in anticipation of the civil works necessary to create an airport.

In addition to the value assessment derived under all approaches other than the zonal approach (which recognises market value in a similar intensity of use) the *market value – existing use* must take holding costs into account. As the airport owner will not be able to realise the

economic value from the assets intended use (i.e. airport operations) immediately upon acquisition the net holding cost should measure the costs and benefits associated with the period between acquisition and commencement of airport operations. This is essentially the period that is required to accumulate the airport land and to effect the development of the airport infrastructure and represents economic income foregone over this period.

The net holding cost will comprise the economic income foregone from not being able to realise the economic value of the airport immediately, less any economic returns (such as revaluation gains) received during the period. In order to measure the current day value of the net holding costs, these will need to be discounted back to present day terms over the period operational usage of the asset is denied.

The addition of holding costs to the valuation of land where the market evidence relates to sub-optimal uses of the land is an acceptable and recognised valuation practice in assessing market value of land in existing use where the value of land in that use is unable to be determined from market evidence. Put simply there are no comparable sales of airport land. It is necessary to follow a building block approach to assess the value of land in airport use. The exercise is simply the reverse of the hypothetical subdivision model where the valuer starts with the gross realisations i.e. the more intensive land use deducts for holding and development costs and makes an allowance for profit and risk to derive a block value of land in its existing (less intensive use) state.

At WIAL holding costs were added to all but the zonal approach in order to assess the proxy market value of airfield land in use, as sales of land with a similar intensity of use would intrinsically reflect this adjustment.

4. Valuation of Specialised Assets

4.1 Overview

The Commission's preliminary view as to the valuation of specialised airfield assets is that they should be valued at historic cost, optimised to reflect airfield assets that are not 'used or useful', depreciated to reflect remaining useful life where useful life is seen as a reduction in utility and where the utility is not reduced because of proper asset maintenance the asset is not depreciated.

The Commission's view is at odds with generally accepted practice as set forth in valuation and financial reporting standards. It also diverts from past practice as to the valuation of specialised assets in the utility area, ports, most areas of the public sector and the recent ACCC decision addressing the valuation of Sydney Airport.

At a time when local standard setting bodies are seeking harmonisation with global standards this decision by the Commission is at odds with directions being followed elsewhere in the reporting of asset values.

4.1.1 Valuation Standards

As the Commission identifies specialised assets and depreciated replacement cost methodology are defined in the NZ Institute of Valuers Valuation Standard 2 as:

Specialised, special purpose, or specially designed property. Property which, due to its specialised nature, has a utility restricted to particular uses or users, and is rarely, if ever, sold on the open market, except as a sale of the business in occupation...these descriptions are intended to apply to property which have restricted or no markets...the Depreciated Replacement Cost method is normally used in their valuation

Depreciated Replacement Cost (DRC). Is a method of valuation which is based on an estimate of the current market value of the land for its existing use plus the current gross replacement costs of all improvements less allowances for physical deterioration, and all relevant forms of obsolescence and optimisation...This estimate is sometimes referred to as Optimised Depreciated Replacement Cost (ODRC).

The Peer Review established (correctly) that in terms of specialised assets the focus is on ODRC to arrive at *market value- existing use*.

The application of ODRC has been consistently applied across New Zealand and Australia in the valuation of specialised assets.

The process by which valuation standards are arrived at involves rigorous international debate by practitioners and academia to ensure the standards are both practical and capable of implementation across a broad range of industries. I can find no supporting information underpinning the draft decision of the Commission to justify discarding the work of the professional standard setting bodies in favour of a unique regime solely applicable to three airports.

In my opinion the decision to abandon a national standard which is in turn based upon an international standard for an approach applicable to a single sector is poor valuation and commercial practice.

4.1.2 Financial Reporting Standards

Financial reporting standards for the valuation of fixed assets including land and buildings were until earlier this year detailed in the Institute of Chartered Accountants of New Zealand (ICANZ) SSAP-28 *Accounting for Fixed Assets* and are now encompassed in FRS-3 *Accounting for Property, Plant and Equipment*.

The requirements of FRS-3 are similar to SSAP-28 however, in relation to revaluation's FRS-3 states that these should be to *fair value* rather than *market value - existing use* albeit the only time where these two amounts will differ is where assets are being used in a sub-optimal way.

FRS-3 defines *fair value* as:

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arms-length transaction. Fair value is deemed to be synonymous with market value, open market value and current market value.

The *fair value* of an asset is determined by reference to its highest and best use, that is, the most probable use of the asset that is physically possible, appropriately justified, legally permissible, financially feasible and which results in the highest value.

In essence airport assets are, for the most part, employed in their highest and best use thus in the case of airport assets (and specialised assets generally) *market value – existing use* and *fair value* will be synonymous.

The adoption by airport companies of a valuation methodology consistent with FRS-3 has the advantage of

ensuring compatibility between asset valuations used for pricing purposes, and disclosure purposes and the airport companies statutory financial accounts enabling performance monitoring and compliance practices to be adopted.

The Peer Review acknowledges that the valuations of each airport have been completed in accordance with valuation and financial reporting standards.

The Commission's use of historical cost does not conform to valuation and financial reporting standards and if adopted will result in a lack of transparency and robustness between valuations undertaken for pricing purposes and those disclosed for statutory purposes.

4.1.3 ACCC Decision on Sydney Airport

The Commission's view that specialised airfield assets should be included in the asset base at historic cost is clearly divergent from the recent decision by the ACCC on Sydney Airport.

SACL's proposals for asset valuation (of assets other than land) was based on an ODRC approach and accepted by the ACCC as a cap on the valuation of the asset base. The ACCC had in an earlier paper (Draft Statement of Principles for the Regulation of Transmission Revenues (DRP)) considered the two approaches to asset valuation, the ODRC and historic cost approaches. The ACCC conclusion was that they would "not consider historic cost as an asset valuation methodology". In comparing the two approaches the ACCC was always considering ODRC against an inflated historic cost.

On the question of sunk assets or assets that do not require replacement the ACCC's position was that such assets "should have depreciation allowances reduced to zero" but "such assets should be carried in the asset base at their optimised replacement cost". The ACCC's concluding assessment was that efficient prices would best result from application of the ODRC valuation approach.

4.1.4 Corporatisation Valuation

One cannot simply dismiss the alternatives of historical cost or flotation value. An indexed historical cost approach to the valuation of airport land was adopted by the ACCC in their review of SACL's pricing proposal, albeit, personally, I would argue against their use of CPI viz. a viz. a land sales-base index.

The original sale of the Crowns shareholding in the Airport has relevance. Court precedents would suggest that the vesting value can be considered as the equivalent of a market transaction and as such, it is capable of being indexed forward to equate current value with subsequent additions and deletions to the asset based being similarly treated.

The vesting prices of each airport were negotiated with purchaser representatives who were independently advised as to valuations and future projections.

Valuations completed for Ministry of Transport acting on behalf of the Crown as vendor included a DRC asset valuation which was completed by myself and a DCF valuation which was completed by Mr Roger Taylor who was at the time a partner in Ernst & Young (or its predecessor firm Arthur Young).

The DRC valuations were of the entire non-land asset base and became the basis for allocation of depreciation charges going forward. The valuations did not consider optimisation to any real extent.

Subsequent revaluations of WIAL and more recently AIAL with which I have been involved have been completed on an ODRC basis consistent with the vesting valuations albeit the technical analysis has improved over time. A similar ODRC approach was used in valuations completed for WIAL at the time of earlier pricing negotiations.

- 4..1 For the Commission to adopt historic cost at this point in time would mean a marked change in valuation methodology from earlier valuations adopted by the Airport Companies. Changes in the valuation would require amendment to the financial statements of the entity and notification of the divergence from accepted reporting standards.

4.2 Impact of Different Valuation Approaches

The impact of different valuation approaches will be significant. Adoption of the Commission's approach would result in a very substantial reduction in value, which in turn would lead to a major distortion in asset values and economic returns.

5. The Commission's Questions in Relation to Chapter 7

5.1 Should the costs of land include the costs associated with getting the land into airport use?

Physical improvements are included in the airport valuation at cost because of the lack of appropriate market evidence and there is no obvious reason why land should be treated differently in the face of a similar lack of market evidence. Market evidence relating to airport land will not reflect land in airport use, it therefore lacks true comparability. The costs reflect the greater intensity of use that exists with airport land over and above other uses i.e. farmland or residential land. For airports and other regulated entities, value basically reflects cost and unless an outlay is initially included at cost it will never come to be reflected in value.

5.2 Is it correct to value airfield land at opportunity cost?

Yes. This is consistent with the recent decision of the ACCC reviewing the valuation of Sydney Airport and with a recent draft commentary from the International Valuation Standards Committee discussing the valuation of land associated with special purpose properties:

“An estimate of land value is typically based on opportunity cost, i.e. the cost forgone (or the value that might have been realised) by putting the land to a hypothetical alternative use or by buying a hypothetical replacement site on which to relocate the asset. To either opportunity cost are added the costs of getting the land/replacement site to a state whereby it is able to accommodate its intended use (excluding the costs of the improvements). Where reliable market sales or rental data are available, such information may be used as a cross-check on estimates based upon opportunity cost.”

5.3 How should the opportunity cost of airfield land be determined?

Opportunity cost equates to the valuers' *market value – existing use* and I concur with the Commission's Peer Review that there are four distinct methodologies that can be followed. They are:

1. Comparable sales or market comparison
2. A zonal approach
3. A DCF approach or subdivision model of the land in alternative highest and best use
4. A civil works approach

The opportunity cost is made up of two factors:

1. the market value of the land which can be determined via the above methods; **plus**
2. the holding costs associated with the time period between purchasing the land and being able to use it in the production of airport services. This reflects the economic income foregone in the period between acquisition of an assets and generation of economic returns from its usage.

5.4 Is it correct to value specialised airfield assets at depreciated historic cost?

Using an optimised depreciated historic cost approach does not reconcile with an opportunity cost approach. Note, the commitment of resources does not reflect current opportunity cost concepts.

The business needs to earn a market return on the market value of the assets. Using a historic cost basis as suggested does not fulfil this.

The historic cost approach intrinsically causes entry barriers and prevents competition, which is undesirable.

There is confusion about the treatment of depreciation. Accounting depreciation is not the same as economic depreciation. The latter can be more accurately considered to be the change in the present value of cashflows over a period and is such that the depletion in cashflows is the same as the economic value of the investment made. Thus, an economic depreciation ensures that the present value of any economic surplus represented by free cashflows less present value depreciation and the capital charges equates to the original cost of the investment (after making adjustment for any salvage value).

5.5 Is the extent of (and reasons for the) optimisation undertaken by the Commission in determining asset base appropriate?

The rationale provided for optimisation by the Commission in paragraphs 7.47 to 7.49 suffers from the need to balance a short-term view that only assets in use should be considered. Optimisation also needs to consider the requirement to acquire assets in an efficient manner to provide the required service potential. It is preferable to acquire land for future usage and require current users to pay an economic rent for these assets rather than to acquire these assets at a later point in time (assuming that such land would be available) and to pay a higher compensation to the developer for the period the second runway is under development. In many ways, this could be considered as the price of the option that the current users are required to pay.

5.6 Are the Commission's views on when new investment should be included in the asset base appropriate?

This is consistent with the comments above.

5.7 Are the asset values determined for the airfield activities of AIAL, WIAL and CIAL appropriate?

The valuations assessed by WIAL's valuers were appropriate, the Peer Review was of the opinion that proper methodology was adopted and the application was sound. The asset values as determined by the Commission are clearly wrong and diverge from the valuation advice received from the Commission's valuation expert.