Report prepared for the New Zealand Airports Association

Cross submission: Comment on Dr John Small's report and BARNZ's submission

Kieran Murray

18 December 2015

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Wellington	**Auckland**	
Level 9, 1 Willeston St PO Box 587 Wellington 6140 Ph: +64 4 915 7590 Fax: +64 4 915 7596	Level 8, 203 Queen St PO Box 2475 Auckland 1140 Ph: +64 9 909 5810 Fax: +64 9 909 5828	
Sydney	**Canberra**	**Melbourne**
Level 14, 68 Pitt St GPO Box 220 NSW 2001 Ph: +61 2 9234 0200 Fax: +61 2 9234 0201	Unit 3, 97 Northbourne Ave Turner ACT 2612 GPO Box 252 Canberra City, ACT 2601 Ph: +61 2 6267 2700 Fax: +61 2 6267 2710	Level 2, 65 Southbank Boulevard GPO Box 3179 Melbourne, VIC 3001 Ph: +61 3 9626 4333 Fax: +61 3 9626 4231

For information on this report please contact:

Name: Kieran Murray

Telephone: +64 4 915 7592

Mobile: +64 21 245 1061

Email: kmurray@srgexpert.com

Contents

Introduction

This report reviews the comments by Dr John Small provided in support of the BARNZ submission on the Commerce Commission's draft decision on input methodologies (IMs) for the application of airport land valuation methodology ("draft decision").[1] I also review those aspects of the BARNZ submission which rely on the conclusions reached by Dr Small.

The issue

In its draft decision, the Commission proposes to amend Schedule A to clarify that in undertaking a MVAU valuation the valuer should:

- ignore any costs of changing from an airport zoning to the zoning most likely to be in place if the airport did not exist
- factor in any costs of zoning changes required to support a highest and best alternative use (HBAU) which is different from the zoning most likely to be in place if the airport did not exist.

NZ Airports submitted that these amendments seek to clarify the existing approach to zoning costs under the MVAU method.[2]

Dr Small disagrees. He views the Commission's draft decision as:[3]

> *inconsistent with the opportunity cost concept because it allows and indeed encourages valuers to pretend that the current land zoning is a different zoning. This allows costs that the airport would incur if it sold land to be readily excluded from the valuation, which is consequently not an opportunity cost valuation*

Dr Small expresses concern that the Commission's proposal would lead to write-ups in the value of all aeronautical land at regulated airports.[4] Relying on this analysis, BARNZ submit that the valuations:[5]

> *will be inconsistent with the s52A objectives as it exceeds valuation outcomes produced in workably competitive markets and will enable regulated airport suppliers to target the extraction of excessive profits which is inconsistent with s52A(1)(d)*

In my earlier report, I reached the opposite conclusion. That is, a MVAU method which assumes the zoning most likely to be in place if the airport did not exist would result in a valuation outcome for land consistent with the outcomes of workably competitive markets.[6]

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1 Commerce Commission, *Draft decision on the Input methodologies review – Fast track review of input methodologies for the application of airport land valuation methodology*, 10 November 2015.

2 NZ Airports, *Submission on Draft Decision on Land Valuation Methodology*, 8 December 2015, at 6.

3 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 4.

4 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 7.

5 BARNZ, *Submission on Commerce Commission Draft Decision Relating to Fast Track Review of Input Methodologies for the application of airport land valuation methodology*, 8 December 2015, page 1.

6 Kieran Murray, *Zoning changes in MVAU valuation of airport land – comments on BARNZ presentation*, 14 October 2015.

The Commission arrives at the same conclusion in its draft decision. In this report, I identify and evaluate the differences in analysis by Dr Small and BARNZ.

The concept of opportunity cost and its application

One of the basic themes of economics is that resources available to decision-makers are always limited. With limited resources, a decision to have more of something is simultaneously a decision to have less of something else. Hence, the opportunity cost of any decision is the forgone value of the next best alternative that is not chosen. Dr Small refers to the work of Nobel Laureate James Buchanan, who expresses the concept as follows:[7]

> *Opportunity cost is the anticipated value of 'that which might be' if choice were made differently. Note that it is not the value of 'that which might have been' without the qualifying reference to choice.*

The different conclusions reached by Dr Small and myself do not arise from a difference in understanding of the concept of opportunity cost. The difference arises from the challenges in applying that term in practice.

Dr Small emphasises that opportunity costs exist in the context of the decision or choice being analysed.[8] I agree, opportunity cost is set by the context of the decision being evaluated.

The hypothetical context for assessing opportunity cost

Dr Small's construct

Dr Small postulates that the decision, which should form the context for assessing the opportunity cost value of land used for an airport, is a choice by the airports of retaining land in airport use or converting it to an alternative use.[9] To comply with Schedule A, the valuer would also be required to assume the land was vacant and unencumbered by any airport related improvements. In Dr Small's construct, the land would be assumed to be vacant and unencumbered by airport related improvements as Schedule A requires, but should still be assumed to be zoned so it can only be used for an airport.[10]

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7 James M. Buchanan, *Opportunity Cost*, The New Palgrave Dictionary of Economics, Second Edition, 2008 Edited by Steven N. Durlauf and Lawrence E. Blume.

8 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 20.

9 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 28.

10 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 31.

This is, of course, a hypothetical construct as none of the airports are vacant and unencumbered by airport related improvements and there is no contemplation of closing Auckland, Christchurch, or Wellington Airports and converting the land to alternative use.

The consequence of the combination of assumptions proposed by Dr Small is that a MVAU valuation would be reduced by the cost of rezoning the land from an airport to allow the land to be used for an alternative use. If the reduced value is carried through into pricing, the land would earn a lower return on its use as an airport than it would earn in its best alternative use. BARNZ says such an outcome would be consistent with outcomes of workably competitive markets.[11]

Land as an economically mobile asset construct

As there is no contemplation of closing the airports and converting the land to an alternative use, due to the demand for airport services, it is inconceivable that the land would have a lower economic value as an airport than in an alternative use. The outcome of the valuation assumptions proposed by Dr Small is not therefore an outcome consistent with outcomes of a workably competitive market. Workably competitive markets do not arrive at values for (non-specialised) assets in their best use lower than the value of the asset in an alternative use.

The mistake Dr Small makes is apparent by assessing his assumptions against the conceptual logic followed by the Commission in adopting the MVAU approach. The Commission elected not to value the land used for an airport as 'airport land' because of the circular nature of such approaches – as regulatory asset values help determine the base line against which profitability can be assessed, there is no objective way of estimating the value of land as an asset dedicated to airport use. Regulatory asset values must instead be based on alternative approaches to valuation.[12]

The Commission observed that land is potentially economically mobile between markets, or put more simply, land can be redeployed to different uses.[13] It concluded that in workably competitive markets investors earn a return on an economically mobile asset which reflects its value in an alternative use. Returns equate in this way as owners can boost potential returns by employing their non-specialised assets elsewhere if this is more profitable.[14]

As changes in the value of land in an alternative use can be observed, the Commission concluded that "changes in the MVAU of land would provide a reasonable approximation

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[11] BARNZ, *Submission on Commerce Commission Draft Decision Relating to Fast Track Review of Input Methodologies for the application of airport land valuation methodology*, 8 December 2015, page 1.

[12] Commerce Commission, *Input Methodologies (Airport Services) Reasons Paper*, 22 December 2010, footnote 202.

[13] Commerce Commission, *Input Methodologies (Airport Services) Reasons Paper*, 22 December 2010, paragraph 4.2.3.

[14] Commerce Commission, *Input Methodologies (Airport Services) Reasons Paper*, 22 December 2010, paragraph 2.4.18.

for an appropriate measure of economic depreciation/appreciation."[15] That is, the valuation would result in an outcome consistent with outcomes of workably competitive markets.

The critical assumption in this methodology is that the land is economically mobile. Consistent with that assumption, the Commission requires MVAU valuations to assume that the land is "vacant and unencumbered by any airport related improvements".[16] Land that is occupied or encumbered with any airport related improvement would be less economically mobile and its value might be more or less than its value in an alternative use.

Dr Small would have the valuer partially reverse this key assumption underpinning the MVAU methodology by assuming the land could only be used for an airport (that is, zoned as an airport), unless significant additional costs were incurred to make the land economically mobile through rezoning. Such an assumption would distort the MVAU valuation as the zoning is a specialised asset, and specialised assets will always have a lower value in an alternative use (and a potentially higher value in its current use). This is why specialised assets are dealt with separately from land.

In contrast, the Commission's draft decision in relation to zoning assumptions is internally consistent with the other special assumptions of the MVAU method and adheres to its Reasons Paper. The valuer would begin from the proposition that the airport, and therefore airport zoning, does not exist, as land that is assumed to be vacant and unencumbered by any airport related improvements cannot reasonably be assumed to exist as an airport. This approach values the land as if it were economically mobile, and hence changes in the MVAU of land provide a reasonable approximation of the economic depreciation/appreciation of land used for an airport, as intended.

Premium paid for new land a separate issue

It is possible that Dr Small did not understand fully how his proposed hypothetical construct would impact on the MVAU valuations. He suggests that any lack of incentive for efficient investment in new land, which would result from having to deduct the cost of rezoning from the MVAU valuation, would be "limited to situations where airports want to pay a premium in excess of the normal market value of the land."[17] He comments that this could occur where an airport pays "a premium price above the opportunity cost (HBAU) value of the land and then be unable to earn a return on (or of) that premium".[18]

It may be the case that an airport needs to pay, in certain circumstances, a premium above the 'normal market value of the land' (Dr Small suggests some of those circumstances[19]). However, the draft decision is not aimed at clarifying the treatment of any such premium – this is a separate issue.

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15 Commerce Commission, *Input Methodologies (Airport Services) Reasons Paper*, 22 December 2010, paragraph C.2.4.

16 Commerce Commission, *Input Methodologies (Airport Services) Reasons Paper*, 22 December 2010, paragraph 4.3.73.

17 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 6.

18 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 44.

19 Covec, *Airport Land Valuation*, 8 December 2015, paragraph 48.

Instead, Dr Small's proposed assumption would result in all land being valued below its "normal market value" as can be shown from the following simplified example:

Table 1: Illustrative example of MVAU valuation

	Application of Commission's draft decision	Application of Dr Small's proposal
market value	$100 million	$100 million
estimated cost to rezone land from use as an airport to a hypothetical alternative use		($20 million)
value of land in Information Disclosure	**$100 million**	**$80 million**

Hence, under Dr Small's proposal as written, where an airport paid a premium above the normal market value, the premium would be booked as a specialised asset and earn a return. Where the airport paid the normal market value without a premium, the asset would be discounted at the next valuation (for the hypothetical cost of rezoning from airport use). This would seem a peculiar incentive structure for a regulatory valuation.

BARNZ submission

In its submission to the Commission's draft decision, BARNZ say that the proposed zoning assumption will "produce a valuation exceeding the value necessary to retain the land in use as an airport."[20] A value necessary to retain the land in use as an airport is not the relevant test, as that approach would reduce the value of all specialised investments.

BARNZ also submit that the draft decision "exceeds valuation outcomes produced in workably competitive markets, and will enable regulated airport suppliers to target the extraction of excessive profits which is inconsistent with s52A(1)(d)".[21]

This conclusion is misconceived. The special assumptions – land is vacant, unencumbered by airport specific investments, and not zoned as an airport – means that the land is assumed to be economically mobile. In workably competitive markets investors earn a return on an economically mobile asset which reflects its value in an alternative use. Hence, the Commission's draft decision clarifies the assumptions necessary for land to be valued

[20] BARNZ, *Submission on Commerce Commission Draft Decision Relating to Fast Track Review of Input Methodologies for the application of airport land valuation methodology*, 8 December 2015, page 1

[21] BARNZ, *Submission on Commerce Commission Draft Decision Relating to Fast Track Review of Input Methodologies for the application of airport land valuation methodology*, 8 December 2015, page 1

consistent with outcomes of workably competitive markets and will not enable airport suppliers to target excessive profits.