
Attachment 1

AIAL critique of Attachments 1 and 2 of the BARNZ Submission (10 August 2001)

31 August 2001

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- 1 BARNZ, through their adviser Mr Roger Taylor, has been suggesting a somewhat unusual method to calculate land value today. Despite the views of numerous valuation experts, BARNZ favour an approach that suggests that the land is acquired 7.5 years ago (representing the holding period) and compounded at holding costs, to generate an alternative value today.
- 2 Through this calculation they have arrived at a downward valuation adjustment in the case of AIAL of **\$49.6 million**. The spreadsheet that calculates this analysis is included in Appendix 1 of the BARNZ submission (August 2001).
- 3 AIAL is concerned the Commission may rely on the value of this spreadsheet which is, in AIAL's view, totally misleading. AIAL makes the following comments in relation to certain inputs into the model.

Discounting levelling costs:

- 4 The BARNZ model recognises \$32,000 as the cost to convert rolling contoured land into flat land. It discounts, however, the value of this back to 1985, representing a reduction in value per hectare from \$32,000 to \$17,500.
- 5 It is recognised that flat land, particularly flat land in a long strip, is of more value than rolling contoured land. This transformation of land from general rolling land to flat land adds an enduring benefit to the land and therefore must be treated as part of the land value, as BARNZ has done with its modelling, but has suggested an alternative view in their commentary.
- 6 AIAL would, however, not embark on a levelling programme unless it already had the necessary resource consents and therefore it would be inappropriate to use the same discount period as used for land purchases. It is inappropriate, in AIAL's view, to discount the \$32,000 per hectare, as it would be the last thing to happen to the land before it was put into airport use. This would result in an upward valuation adjustment to the BARNZ model of \$5.1 million.

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Land value index:

- 7 The BARNZ model calculates the value of land in 1982 (presumably being 7.5 years prior to vesting) by considering the present LV index for residential properties in the Auckland region and then considers the same index in 1982. The residential index is clearly not the appropriate index and the period is incorrect.
- 8 The objective of the exercise is to calculate the value of airfield land today, ie opportunity cost. Under this backward calculation from Mr Taylor, AIAL is to consider the value of land 7.5 years ago and then factor holding costs, not the value in 1982. The residential land factor index in 1993 was 2207 and therefore, based on Mr Taylor's model, the value of land before holding costs are added, is \$65.6 k per hectare not \$18.5 k as modelled.
- 9 The next calculation is interest costs. Mr Taylor has used an interest rate of 4%. This is also clearly inappropriate for two reasons:
 - ? The absolute rate is far too low; and
 - ? The holding costs consist of not just interest but also equity. To calculate holding costs, a weighted average cost of capital needs to be used, not just interest.
- 10 The weighted average cost of capital for comparison in this model needs to be commensurate with the risk profile attached. It is clear that there would be substantially higher risks associated with developing an airport (without the resource consents) to operating an airport. The uncertainties faced by the airport developer would be, the time to get the resource consents, the costs associated with the consents and, indeed, the possibility that the consents would not be provided.
- 11 AIAL is not a WACC expert and therefore has not tried to estimate a WACC but rather uses a WACC calculated from the Commission's own mid-point,

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that adds a developers premium of +72% of the airport operator's WACC. The question is whether a WACC in the range of 14-16% is appropriate for the risks associated with purchasing, holding, applying for consents and taking the land to a point where construction could commence. AIAL's view is that this WACC is still too low to recompense a developer for the risks they face.

- 12 AIAL, and its expert advisers, have always been critical of this backwards calculation because it introduces a large element of 'with the benefit of hindsight' into the analysis. A much better approach, in AIAL's view, is forward looking mental comparison which has been endorsed by the Commission's valuers.

Attachment 1: AIAL critique of Attachments 1 and 2 of the BARNZ Submission (August 2001) – BARNZ Attachment 1 Altered

AIAL Zone 1 Airfield land valuation adjustment

*** Objective to calculate the value of level airfield land with resource consents ***

Land area		351.7205	
ORC @	140,000		<u>49,240,870</u>

Levelling costs		32,000	
CPI 1999	1,000		
CPI 1985	548		
		32,000	11,255,056

would not level until had consents

Finance costs			
LV index1999	4,710	140,000	Correct index could not be 1982 sb 1993
LV index1993	2,207	65,601	

Net holding Costs	4%		
# of years	7.5	133,000	46,778,827

1993	115.38%	15.38%
1994	131.20%	13.71%
1995	152.30%	16.08%
1996	176.43%	15.85%
1997	203.82%	15.53%
1998	233.52%	14.57%
1999	264.55%	13.29%
2000	302.74%	14.44%

BARNZ used cost of funds at 4%. Should be WACC and sb a developers WACC **not an operational airport**

Total land + development costs		305,000 ha	107,274,753
Airfield land per AIAL @ \$305,000 /ha			107,274,753

Adjustment -

	CC WACC MID Point	Developers WACC factor
		72%
Mar-89	13.46%	23.12%
Mar-90	12.22%	20.99%
Mar-91	11.94%	20.51%
Mar-92	10.28%	17.65%
Jun-93	8.95%	15.38%
Jun-94	7.98%	13.71%
Jun-95	9.36%	16.08%
Jun-96	9.22%	15.85%
Jun-97	9.04%	15.53%
Jun-98	8.48%	14.57%
Jun-99	7.73%	13.29%
Jun-00	8.40%	14.44%

