MVAU and Zoning

John Small
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Introduction

1. This note responds to a memorandum from Kieran Murray to Craig Shrive dated 1 October 2015 regarding MVAU, opportunity cost and zoning. The memo discusses the concept of opportunity cost, applies it to the treatment of rezoning costs of former airport land to the regulatory valuation of airport land and concludes that "*any deduction* [from the MVAU]… *for costs of rezoning land from airport use would not approximate the social opportunity cost of using land as an airport*".

2. Regulatory practice in this sector has proceeded in a manner quite contrary to Mr Murray's view of how the regime should operate. In particular, the airports have been making allowances for the time required for zoning changes in the valuations they report for information disclosure.[1]

3. In effect, Mr Murray's memo argues that the airports and the Commission and all of their advisors have been wrong on this point for the last five years because no allowances should be made. If he were correct, airport asset valuations would now increase materially.

4. I disagree with Mr Murray on how competitive markets would value the relevant assets. The seller would effectively pay for any rezoning costs for reasons explained below. Moreover, though Mr Murray is correct to note that remediation costs receive a different treatment to rezoning costs in the regulatory regime, competitive markets would be far less generous to the airports than the Commission has been in respect of remediation costs. So if inconsistency is Mr Murray's main concern, the most economically efficient response may be to write down airport assets for remediation costs.

5. My analysis tries to clarify the issues covered by Mr Murray's memo. It examines

    a. opportunity cost;

    b. regulation's effect on airports' divestment & investment decisions;

    c. inconsistency issues; and

    d. concluding thoughts.

Opportunity Costs arise from Decisions

6. All decisions have opportunity costs because they involve choosing one action over another. To use the opportunity cost concept properly, we need to know what decision

[1] I recognise that the allowances vary considerably and are a matter of some debate. Nevertheless, all airports are making some allowance.

is being contemplated and by whom. For example, the opportunity cost of buying a particular asset may well differ from the opportunity cost of selling it.

7. The opportunity cost of a decision is the value to the decision-maker of the next best alternative choice, which will vary across decisions as summarised below.

Action	Alternative Choice
Buy X	Not buy X or buy something else
Hold X	Sell X
Sell X	Not sell X

8. In what follows I start by discussing who the decision maker is and then consider buy and sell decisions separately. All of these factors affect the opportunity cost.

Whose Opportunity Cost?

9. Mr Murray's memo contains seven citations to the Commerce Commission's reasons paper concerning airport services input methodologies[2] but it nevertheless uses a different concept of opportunity cost. The Commission's asset valuation methodology for airport services is based on "standing in the shoes" of airport investors and thinking about their incentives. Accordingly, all of the references to opportunity cost in the reasons paper are to the *private* opportunity cost of airport investors.

10. This is exactly as it should be. The regulator, being highly attuned to the risk of interfering with efficient incentives to divest or invest, sought to examine all such questions from the perspective of investors. Its valuation methodology was therefore determined on the basis of the *private* opportunity cost of airport investors.

11. By contrast, Mr Murray's memo assumes that opportunity cost should be evaluated from the perspective of "the economy"[3] which is a "social opportunity cost"[4] concept.

12. The difference between these concepts will be substantial in any situation where the private interests of airport investors diverge from broader public interests. It is not clear whether Mr Murray is advocating the use of social opportunity cost for this question alone, for all airport regulation, or for economic regulation more generally: his memo is silent on how far he would extend his concept.

Whether to Sell?

13. In setting up this regime, the Commission separately considered potential decisions by airport companies to sell and buy land. The issue here is primarily about selling land or retaining it, rather than buying it (but see below for analysis of buying decisions). An airport company should retain land unless it expects higher profits from selling it. The

[2] Commerce Commission, Input Methodologies (Airport Services) Reasons Paper, 22 December 2010.

[3] Kieran Murray memo page 1: "opportunity cost is the true sacrifice the economy must incur".

[4] ibid page 2: two instances of "the social opportunity cost".

input methodology seeks to stand in the shoes of the airport company and ask: what are we giving up by holding this land?

14. The answer will vary depending on whether the land is part of the runway complex or being held as a buffer, as revenue-earning commercial land, or because it is earmarked for future commercial or aeronautical development. The regulatory regime differs across such asset types and airport companies also know that their opportunity cost differs across these land categories, not least because different things are foregone for each case. This point can be seen by discussing two different asset types.

15. If an airport company was considering selling non-essential land, such as ancillary commercial land, it would not consider a scenario in which "*the airport did not exist*"[5] because in this situation it would still exist. In this case the airport company may need to rezone the land to realise the most profit from disposal. If so, the current value is the maximum value in an alternative use (MVAU) after any rezoning costs. Note that this type of land does not fall within the RAB. The fact that the airport company would need to pay for any rezoning is a competitive market outcome rather than an artefact of regulation.

16. Let us now follow Mr Murray by considering the more extreme scenario in which the airport is being liquidated. In this situation the cost of putting the assets to their highest and best alternative use will usually include rezoning and remediation works. The net value received by the airport company will therefore again be the maximum value in an alternative use (MVAU) less any costs of transitioning to that use. This decision would affect assets in the RAB and, if it were actually to occur, the regulatory regime would treat both the rezoning and remediation costs identically.

Whether to Buy?

17. Now consider the acquisition of land for aeronautical purposes and assume there are transition costs in the form of re-zoning and infrastructure development. A regulated airport would not proceed with such acquisition unless it expected future net revenues to at least cover its costs. However it does not follow that the regulated valuation of *the land* needs to include rezoning and infrastructure costs. On the contrary, as discussed above, land should be carried in the books at its MVAU which is reduced rather than enhanced by specialised investment that is costly to undo.

18. Mr Murray argues (page 3) that excluding rezoning costs from the MVAU would deter efficient investment in aeronautical land because the "*newly acquired parcel of land would be taken into the RAB at a lower value than it cost the investor*". However the obvious solution is to enter the specialised rezoning costs into the RAB as a distinct asset, which is exactly how the regime would treat specialised infrastructure expenditure on newly acquired land.

19. This approach recognises the expenditure if and when it is incurred which is consistent with the broader aims of the part 4 regime.

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[5] ibid page 2.

Inconsistency

20. I agree with Mr Murray that the input methodologies treat remediation costs somewhat differently to rezoning costs. Rezoning costs are deducted from MVAU on an ongoing basis whereas remediation costs are only deducted if and when they are incurred.[6]

21. The Commission argues (paragraph 4.3.72) that if one takes a long view, through to when the airport is decommissioned, then there is no NPV difference between these approaches. However it clearly recognises (paragraph 4.3.71) that this treatment of remediation cost means that

> *"…the RAB value used to calculate the ROI will be higher. This implies that Airports could set higher prices during that period without profits appearing excessive (compared to the option of requiring remediation costs to be estimated and deducted from the land value at the time an MVAU valuation is undertaken)"*

22. This is a major concession to airports because it assumes that they will eventually be decommissioned which may not be the case. The advantage cited for this approach cites "*investments that would be costly to reverse*" such as runways (paragraph 4.3.72). However there appears to be no impediment to booking such investments as specialised assets if and when they are made, as currently happens in practice and as I have suggested at paragraphs 18 - 19 for rezoning costs.

Conclusion

23. The input methodologies have been in existence for five years. They have been debated and litigated extensively and asset valuation was one of the most contentious topics.

24. Mr Murray's memo seeks to re-open valuation matters that were previously considered settled. His only credible argument is about consistency between rezoning and remediation costs. If this were re-opened there would be a strong economic argument that remediation costs are the outlier, not rezoning costs.

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[6] Commerce Commission, Input Methodologies (Airport Services) Reasons Paper, 22 December 2010, paragraphs 4.3.69.