

ISBN 978-1-869455-49-1

Project no. 17.01/15481

18.01/15481

Public version

Input methodologies review decisions

Topic paper 5: Airports profitability assessment

Date of publication: 20 December 2016

Associated documents

Publication date	Reference	Title
20 December 2016	978-1-869455-43-9	Input methodologies review decisions: Summary paper
20 December 2016	978-1-869455-44-6	Input methodologies review decisions: Introduction and process paper
20 December 2016	978-1-869455-53-8	Input methodologies review decisions: Framework for the IM review
20 December 2016	978-1-869455-45-3	Input methodologies review decisions: Topic paper 1 – Form of control and RAB indexation for EDBs, GPBs and Transpower
20 December 2016	978-1-869455-46-0	Input methodologies review decisions: Topic paper 2 – CPP requirements
20 December 2016	978-1-869455-47-7	Input methodologies review decisions: Topic paper 3 – The future impact of emerging technologies in the energy sector
20 December 2016	978-1-869455-48-4	Input methodologies review decisions: Topic paper 4 – Cost of capital issues
20 December 2016	978-1-869455-50-7	Input methodologies review decisions: Topic paper 6 – WACC percentile for airports
20 December 2016	978-1-869455-51-4	Input methodologies review decisions: Report on the IM review
20 December 2016	1178-2560	<i>Electricity Distribution Services Input Methodologies Amendments Determination 2016 [2016] NZCC 24</i>
20 December 2016	1178-2560	<i>Gas Distribution Services Input Methodologies Amendments Determination 2016 [2016] NZCC 25</i>
20 December 2016	1178-2560	<i>Gas Transmission Services Input Methodologies Amendments Determination 2016 [2016] NZCC 26</i>
20 December 2016	1178-2560	<i>Transpower Input Methodologies Amendments Determination 2016 [2016] NZCC 27</i>
20 December 2016	1178-2560	<i>Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28</i>
20 December 2016	1178-2560	<i>Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29</i>

Commerce Commission
Wellington, New Zealand

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Executive summary

Purpose of this paper

- X1. The purpose of this paper is to explain in relation to the airports profitability topic:
- X1.1 the problems we have identified within this topic area;
 - X1.2 our solutions to these problems;
 - X1.3 the reasons for our solutions; and
 - X1.4 how we have taken stakeholders' submissions into account in considering the above.
- X2. This paper relates to regulated suppliers of specified airport services, and will also be of interest to airlines, industry representatives and other interested persons.

Overview of the airports profitability topic

Scope of topic

- X3. This topic focusses on the forward-looking profitability assessment for airports. We have identified several issues which have made it difficult to carry out this assessment. In considering solutions we took into account the views of interested persons through submissions on our problem definition paper and our input methodology (**IM**) review draft decision.^{1, 2} We also took into account the views expressed by interested persons at the two airports profitability assessment workshops.

Difficulties in conducting forward-looking profitability assessments

- X4. We have encountered a number of difficulties when conducting forward-looking profitability assessments. There was no requirement in the previous Airports Information Disclosure (**ID**) Determination for airports to disclose a forward-looking profitability indicator. This meant that when we conducted profitability assessments, we had to ourselves assess the profitability that each airport was targeting.
- X5. We have also found it difficult to determine the effective returns the airports were targeting because, when setting prices, airports do not have to follow the approaches assumed in our Airport IMs. Airports can use different approaches to those specified in the Airports IMs.

¹ Commerce Commission "Input methodologies review invitation to contribute to problem definition" (16 June 2015).

² Commerce Commission "Input methodologies review draft decisions: Topic paper 5 – Airports profitability assessment" (16 June 2016).

- X6. The different approaches mean that:
- X6.1 airports may target a different time profile of capital recovery to those implied by the Airport IMs;
 - X6.2 the scope of the asset base used by airports when setting prices can differ to that disclosed under the Airports ID Determination; and
 - X6.3 the profitability assessment may need to take into account multiple pricing periods.
- X7. This can make it difficult to compare forward-looking profitability to the backward-looking profitability indicator included in annual *ex-post* disclosures since airports have to apply the Airport IMs Determination to *ex-post* disclosures.
- X8. We also identified various problems with the transparency of the information disclosed by airports. This made it difficult for us and other interested persons to understand an airport's pricing intent.
- X9. This topic paper also discusses consequential amendments to the Airport IMs resulting from the High Court-ordered amendment to the Airport IMs that the initial regulated asset base (**RAB**) value for land has to be assessed as at 2010.³
- X10. A separate topic paper, on the weighted average cost of capital (**WACC**) percentile for airports, discusses the WACC percentile against which the forward-looking profitability indicator will be compared.⁴

We have identified a number of changes to improve our forward-looking profitability assessments

- X11. Table X1 summarises the areas in this topic where our analysis has led to changes in the Airport IMs Determination, the Airports ID Determination, or both. There are other issues that we have considered in relation to this topic which have not resulted in changes. These issues are discussed later in this paper.

³ We made the High Court-ordered amendment in 2014. See, *Wellington International Airport Ltd and others v Commerce Commission* [2013] NZHC 3289, para 892.

⁴ Commerce Commission "Input methodologies review decisions: Topic paper 6 – WACC percentile for airports" (20 December 2016).

Table X1: Summary of changes in relation to this topic

Change	Outcomes of the change	Chapter
<p>Require airports to disclose a forward-looking profitability indicator by using an internal rate of return (IRR) calculation that comprises:</p> <ul style="list-style-type: none"> • an opening investment value at the beginning of the pricing period; • a forecast closing investment value; and • forecast cash-flows over the duration of the pricing period. <p>Supplement the IRR with a carry forward mechanism that can be used to adjust the opening investment value and the closing investment value to better reflect an airport's pricing intent and that can take into account multiple pricing periods.</p>	<p>Greater transparency for interested parties to better understand an airport's approach to pricing and, in particular, whether the airport is limited in its ability to extract excessive profits.</p>	<p>Chapter 4</p>

Change	Outcomes of the change	Chapter
<p>Make the following changes with respect to asset revaluations for disclosure purposes:</p> <ul style="list-style-type: none"> • require airports to disclose forward and backward-looking costs in a way that is most consistent to the approaches used when setting prices; • limit airports in their approaches to revaluing assets to the use of either consumer price index (CPI)-indexation or an un-indexed approach (except when revaluing land using market value alternative use (MVAU)); • allow airports to make their choice of either CPI-indexation or an un-indexed approach for parts of the asset base separately; • allow airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. (Alternative methodologies can only be applied if they do not detract from the purpose of Part 4); • allow airports to elect an approach to revaluing assets only at the beginning of the next pricing period, and require airports to use the same approach in the <i>ex-post</i> disclosures; and • require airports to provide details on the expected treatment of any revaluation gains in the next pricing period arising from a potential change in the approach to revaluing assets. 	<p>Greater accuracy in the disclosures to better reflect an airport’s pricing intent.</p> <p>Greater clarity about the requirements in the Airport IMs and ID determinations.</p> <p>Greater transparency for interested parties to better understand an airport’s approach to pricing.</p> <p>Reduce complexity and compliance costs.</p>	Chapter 5

Change	Outcomes of the change	Chapter
<p>Make the following changes with respect to depreciation:</p> <ul style="list-style-type: none"> • require airports to apply specified principles when using alternative depreciation approaches; and • allow airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. (Alternative methodologies can only be applied if they do not detract from the purpose of Part 4.) 	<p>Greater clarity about the requirements in the Airport IMs and ID determinations.</p> <p>Reduce complexity and compliance costs.</p>	Chapter 5
<p>Make the following changes with respect to assets held for future use:</p> <ul style="list-style-type: none"> • inclusion of the value of assets held for future use and revenue from, or associated with, assets held for future use on a forecast basis in the ID determination (so that airports can offset any revenue from or associated with assets held for future use against the value of assets held for future use); and • amend the definition of "net revenue" to make it clearer that (as intended) revenues derived from, or associated with, assets held for future use are captured by that definition. 	<p>Greater accuracy in the disclosures to better reflect an airport's pricing intent.</p> <p>Greater clarity about the requirements in the Airport IMs and ID determinations.</p>	Chapter 8

Change	Outcomes of the change	Chapter
<p>Make the following changes with respect to pricing assets:</p> <ul style="list-style-type: none"> • addition of a new schedule to the Airports ID Determination reflecting airports' targeted profitability based on the pricing asset base only; and • require airports to explain any differences in profitability based on the pricing asset base and the profitability based on the total RAB. 	<p>Greater transparency for interested parties to better understand an airport's approach to pricing.</p>	<p>Chapter 9</p>
<p>Make the following changes with respect to the initial RAB value for land:</p> <ul style="list-style-type: none"> • set the initial RAB value for airport land using a pragmatic proxy of land as at 2010 by interpolating 2009 and 2011 MVAU land values (net of any capex or disposals of land that occurred during the years 2009/10 and 2010/11) based on existing MVAU land valuations; and • calculate the proxy by using the average of the 2009 MVAU valuation and 2011 MVAU valuation and add to the calculated proxy the value of any capex and disposals related to land that occurred up to the date of the interpolated value. 	<p>Greater clarity about the requirements in the Airport IMs and ID determinations.</p> <p>Reduce complexity and compliance costs.</p>	<p>Chapter 12</p>

Change	Outcomes of the change	Chapter
<p>Include in the carry forward mechanism to adjust the opening investment value un-forecast revaluation gains or losses (in real terms), unless an alternative treatment has been proposed by airports, and:</p> <ul style="list-style-type: none"> • to allow airports to calculate those, provided they have not been reflected in a prior price setting event, from the commencement of the ID regime as at 2010 for the first price setting event after 31 December 2016; and • to require airports to calculate those from the previous price setting event for the second and subsequent price setting events after 31 December 2016. <p>Include in the carry forward mechanism to adjust the opening investment value other risk sharing arrangements if these have been proposed in the airport's price setting event.</p> <p>Require airports to provide information in the annual <i>ex-post</i> disclosures about variances between forecasts and actuals for the risk allocation arrangements that were included in their price setting event (as these will inform the carry forward adjustment to the opening investment value for the next price setting event).⁵</p> <p>Require airports to summarise the views of substantial customers, as expressed during price setting consultation, regarding other risk sharing arrangements that have been included in the carry forward mechanism to adjust the opening investment value.</p>	<p>Greater transparency for interested parties to better understand an airport's approach to pricing.</p> <p>Greater clarity about the requirements in the Airport IMs and ID determinations.</p>	Chapter 6

⁵ We note that any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

Change	Outcomes of the change	Chapter
<p>Include in the carry forward mechanism to adjust the forecast closing investment value, forecast over and under-recoveries that are intended by airports to be offset in future pricing events.</p> <p>Require airports to summarise the views of substantial customers, as expressed during price setting consultation, regarding those forecast over and under-recoveries included in the carry forward mechanism.</p> <p>When an airport has included forecast over and under-recoveries in the carry forward mechanism to adjust the forecast closing investment value, require the airport to provide information on:</p> <ul style="list-style-type: none"> • why the resulting forecast closing investment value is a good indicator of the remaining capital to be recovered at the end of the current pricing period; • the purpose and appropriateness of including these amounts in the carry forward mechanism; • the intended duration until these forecast over and under-recoveries have been fully offset; and • why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport’s pricing intent than an alternative approach to accounting for these forecast over and under-recoveries already provided for under the Airport IMs and ID determinations. 	<p>Greater transparency for interested parties to better understand an airport’s approach to pricing.</p>	<p>Chapter 7</p>

Change	Outcomes of the change	Chapter
<p>Make the following changes with respect to other adjustments airports may make to the price path:</p> <ul style="list-style-type: none"> • require airports to provide a high level disclosure of the total value of pricing incentives in the price setting event disclosures. 	<p>Greater transparency for interested parties to better understand an airport's approach to pricing.</p>	<p>Chapter 11</p>
<p>Make the following changes with respect to the timing of cash-flows:</p> <ul style="list-style-type: none"> • specify, in the annual <i>ex-post</i> disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues;⁶ • specify, in the price setting event disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues; but • provide, in the price setting event disclosures, the flexibility for airports to deviate from the default cash-flow timing assumption if airports provide evidence that the actual cash-flow timing for specific cash-flow items is different from the default cash-flow timing assumption. 	<p>Greater transparency for interested parties to better understand an airport's approach to pricing.</p>	<p>Chapter 10</p>

⁶ We note that any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

X12. This topic paper forms part of our package of decision papers on the IM review. As part of the package of papers, we have also published:

X12.1 a summary paper of our decisions;

X12.2 an introduction and process paper, which provides an explanation of how the papers in our decision package fit together;

X12.3 a framework paper, which explains the framework we have applied in reaching our decisions on the IM review;

X12.4 a report on the IM review, which records our decisions on whether and how to change the IMs as a result of the IM review overall; and

X12.5 amendment determinations, which give effect to our decisions.

Chapter 1: Introduction

Purpose of this paper

1. The purpose of this paper is to:
 - 1.1 explain how we assess profitability for airports under Information Disclosure (**ID**) regulation;
 - 1.2 explain our solutions relating to the airport profitability assessment topic by discussing:
 - 1.2.1 the problems we identified within this topic area;
 - 1.2.2 our assessment of potential solutions to these problems; and
 - 1.2.3 the reasons for our chosen solutions.
 - 1.3 explain how we have taken stakeholders' submissions into account in considering the above and in deciding on our solutions to problems identified within this topic.

Where this paper fits in to our package of decision papers

2. This paper explains our solutions to problems identified within the airports profitability assessment topic.
3. We have identified solutions that could be accommodated through amendments to the Airport Input Methodologies Determination (**Airport IMs**), the Airports Information Disclosure Determination (**Airports ID**) or both. In responding to the problems identified in this topic area we considered that a holistic consideration of both the existing Airport IMs and ID was required.
4. This topic paper forms part of our package of decisions papers on the input methodologies (**IM**) review. For an overview of the package of papers and an explanation of how they fit together, see the Introduction and process paper published as part of our decisions package.⁷
5. To the extent our solutions to problems within this topic area involve changes to the Airport IMs, this paper explains how we have changed our existing Airport IMs decisions. A number of our solutions within this topic involve changes to the Airports ID requirements – this paper also explains how we have changed the Airports ID requirements.

⁷ Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016).

6. The Report on the IM review collates our changes to the input methodologies (**IMs**) and presents them as decisions to change the IMs.⁸ The drafting changes to the Airport IMs and ID determinations, including those resulting from this topic area, are shown in the amendment determinations (which we have published alongside this topic paper).
7. The framework we applied in reaching our decisions on the IM review is set out in a separate paper, published alongside this paper.⁹ The framework paper explains that we have only changed the Airport IMs where this is likely to:
 - 7.1 promote the Part 4 purpose in s 52A more effectively;
 - 7.2 promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
 - 7.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).
8. The framework paper also describes key economic principles that can provide guidance as to how we might best promote the Part 4 purpose.
9. Our changes to the Airports ID Determination are intended to achieve the following outcomes:
 - 9.1 greater accuracy in the disclosures by allowing airports to better reflect their pricing intent, meaning that the profitability indicator is likely to better reflect the airport's targeted profitability;
 - 9.2 greater clarity about the requirements in the Airport IMs and ID determinations;
 - 9.3 greater transparency for us and other interested persons to better understand an airport's approach to pricing; and
 - 9.4 ultimately, better ensuring that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met, consistent with s 53A.
10. We explain how we applied these frameworks in reaching our solutions on our review of the Airport IMs and ID determinations in Chapter 3.

⁸ Commerce Commission "Input methodologies review decisions: Report on the IM review" (20 December 2016).

⁹ Commerce Commission "Input methodologies review decisions: Framework for the IM review" (20 December 2016).

Structure of this paper

11. Chapters 2 and 3 provide an overview of the context for assessing airport profitability, including:
 - 11.1 how airports are regulated; and
 - 11.2 identifying and explaining, at a high level, the problems with the *ex-ante* assessment of airports' profitability under the previous Airport IMs and ID determinations.
12. Chapter 3 also provides a summary of all our solutions to problems identified within the airports profitability topic area.
13. The remainder of the paper is divided into chapters, each addressing a problem or problem area within the airport profitability assessment topic. Each of the chapters broadly follows the following structure:
 - 13.1 a description of the problem or problem area;
 - 13.2 an explanation of our solutions and our reasons for adopting them; and
 - 13.3 a summary of the main comments stakeholders made in submissions on our IM review draft decision and our response.
14. In defining the problems and assessing potential solutions, we considered stakeholders' submissions, as well as views expressed at two workshops. We have discussed how they helped to shape our problem definitions and our solutions.
15. Attachment A to this paper explains our transitional arrangements for information disclosures based on the amended Airport IMs and ID determinations.
16. Attachment B to this paper illustrates how an airport can, in its price setting event (**PSE**) disclosures, disclose asset revaluations that are based on approaches that are not specified by the Airport IMs. It also illustrates, if such approaches have been chosen, how an airport can determine un-forecast revaluation gains or losses for the purpose of establishing the opening investment value of the current pricing period.¹⁰

¹⁰ We note that Attachment B was not included in our draft topic paper. It has been added to this final topic paper to provide clarification regarding the mechanics of some of our solutions. It is a stylised example only and as such should only be looked at for illustrative purposes. This stylised example takes a similar form of the stylised examples provided during Workshop 2 and has the same base case assumptions.

Introduction to this topic

17. When we refer to 'an airport' or 'airports' in this paper we are only referring to the airports that are subject to information disclosure regulation, as specified in s 56 of the Act. These are Auckland, Christchurch and Wellington airports.
18. In our problem definition paper, we identified the assessment of airports profitability topic as one of the key topics for the IM review.¹¹
19. This topic is about our assessment of airports' profitability under information disclosure regulation. In particular, it is about how the changes we have made to the Airport IMs and ID determinations will support the assessment.
20. During the problem definition phase we identified several issues that made it difficult to assess the expected profitability of airports when they set their prices. In reaching our decisions on the problems and solutions discussed in this paper, we have been informed by our consultation with stakeholders, which included submissions and two workshops.¹²
21. This topic has focussed on the assessment of airports profitability on a forward-looking basis. We have only made amendments to the Airport IMs and ID determinations relating to the *ex-post* disclosures made by airports where they are required to support our forward-looking profitability assessment.
22. This paper does not cover the weighted average cost of capital (**WACC**) percentile for airports, which is instead discussed in Topic paper 6 – WACC percentile for airports.¹³ That topic paper explains the WACC percentile against which the forward-looking profitability indicator explained in this topic paper will be compared.
23. This paper also does not cover the cost of capital IM for airports more generally. Our approach to calculating the cost of capital, including as it applies to airports, is covered by Topic paper 4 – Cost of capital issues.¹⁴

¹¹ Commerce Commission "Input methodologies review – Invitation to contribute to problem definition" (16 June 2015).

¹² Summaries of the views expressed at the workshops are available at our website.

¹³ Commerce Commission "Input methodologies review decisions: Topic paper 6 – WACC percentile for airports" (20 December 2016).

¹⁴ Commerce Commission "Input methodologies review decisions: Topic paper 4 – Cost of capital issues" (20 December 2016).

Chapter 2: How airports are regulated

Purpose of this chapter

24. This chapter provides an overview of how airports are regulated, our responsibilities when regulating airports, and the interaction between the Airport IMs Determination and the Airports ID Determination.

How airports are regulated

25. This chapter focusses on those forms of regulation that we consider are most relevant to how airports set prices for regulated airport services. These are:¹⁵
- 25.1 the Airports Authorities Act (**AAA**); and
 - 25.2 Part 4 of the Commerce Act 1986 (the **Act**).
26. Unless otherwise indicated, all statutory references in this paper are to the Act.

The AAA

27. The AAA sets out statutory obligations on, and powers of, airports. It is administered by the Ministry of Transport. The AAA includes obligations in relation to setting charges for airport services. In particular:
- 27.1 s 4A(1) of the AAA provides that an airport may "set such charges as it from time to time thinks fit for the use of the airport operated or managed by it, or the services or facilities associated therewith"; and
 - 27.2 s 4B of the AAA determines that airports must consult with major consumers (ie, airlines) "in respect of any direct charge payable to the airport company by any passenger in respect of any or all identified airport activities".
28. In other words, airports are only required to consult (rather than negotiate) on charges, and airports are free to set prices as they see fit.
29. Section 4B of the AAA requires that airports must carry out consultation before fixing or altering charges and within at least five years after fixing or altering charges. This means that airports must consult on and set prices at least every five years. It also means that once prices have been set airports cannot change prices without carrying out another consultation.

¹⁵ The Ministry of Business, Innovation and Employment is reviewing the effectiveness of the current information disclosure regime for major international airports and its interaction with the regulatory regime for airport price setting under the Airport Authorities Act.

Part 4 of the Commerce Act

30. Part 4 provides for the regulation of the price and quality of goods or services supplied in markets where there is little or no competition, and little or no likelihood of a substantial increase in competition (s 52).
31. The purpose of Part 4 is:¹⁶
- ... to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—
- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
- (c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.
32. As explained in the IM review framework paper, the central purpose of Part 4 of the Act is thus to promote the long-term benefit of consumers in markets where there is little or no competition and little or no likelihood of a substantial increase in competition. We promote the interests of consumers of the regulated service by promoting the s 52A(1)(a)-(d) outcomes consistent with what would be produced in workably competitive markets.¹⁷
33. Auckland Airport, Wellington Airport and Christchurch Airport are subject to information disclosure regulation under subpart 11 of Part 4. Subpart 11 came into force on 14 October 2008 and, among other things, prescribes the scope of regulated services and the definition of 'specified airport services' (s 56A). These are defined as:
- 33.1 aircraft and freight activities;
- 33.2 airfield activities;
- 33.3 specified passenger terminal activities; and
- 33.4 any other services that are determined by the Governor-General, by Order in Council made on the recommendation of the Minister, to be specified airport services.

¹⁶ Commerce Act 1986, s 52A.

¹⁷ Commerce Commission "Input methodologies review decisions: Framework for the IM review" (20 December 2016).

34. Each of the 'specified airport services' set out above is defined in detail in s 2 of the AAA. These definitions are quite broad and include non-exhaustive lists of the types of activity that are considered to fall within each of these categories.
35. Specified airport services are subject to information disclosure regulation under subpart 11 of the Act (s 56C), the purpose of which is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met (s 53A).
36. As further explained in Chapter 3, information disclosure regulation, while being light-handed, is still intended to promote the overall Part 4 purpose as set out in s 52A. As we explained in our s 56G reports, Parliament's intention behind this regime was to introduce regulation that would (among other functions) have an impact on airports' prices.
37. This intention is clear from the structure of Part 4 – all forms of Part 4 regulation including information disclosure regulation, are intended to promote the Part 4 purpose. This includes promoting outcomes such that suppliers are limited in their ability to extract excessive profits.

The relationship between Section 4A of the AAA and Part 4

38. While airports can set prices as they see fit, information disclosure is intended to have an impact on those prices. We do not consider that s 4A of the AAA is incompatible with the information disclosure regime as the two operate for distinct purposes. We also do not consider that Part 4 is subordinate to s 4A of the AAA.
39. The AAA establishes that the right of an airport to price as it sees fit needs to co-exist with the Part 4 regime. This is evidenced by s 4A(4) of the AAA which provides that "This section does not limit the application of regulation under Part 4 of the Commerce Act 1986".

Part 4 regulatory framework for airports

40. For airports, under Part 4 we are required to (among other requirements):
 - 40.1 set the IMs that apply to airports;
 - 40.2 set the information disclosure requirements for airports; and
 - 40.3 conduct summary and analysis of disclosed information to promote a greater understanding of airport performance.

The input methodologies that apply to airports

41. The IMs that apply to airports (**Airport IMs**) are the rules, processes and requirements applying to the regulation of the specified airport services under Part 4. The purpose of the Airport IMs is to promote certainty for suppliers and consumers in relation to the rules, requirements and processes applying to regulation applicable to airports. This purpose is set out in s 52R.
42. IMs must include certain matters, to the extent applicable to the type of regulation (s 52T). Airports are not price-quality regulated and are only subject to information disclosure regulation. In light of the purpose of the information disclosure regulation, and the purpose of Part 4, we have determined IMs for:¹⁸
 - 42.1 allocation of costs to regulated services supplied by the airports;
 - 42.2 valuation of assets that are used to supply airport services;
 - 42.3 treatment of tax costs for regulatory purposes; and
 - 42.4 the cost of capital (which is applied only by us in order to monitor and analyse information disclosed by the airports).
43. Because airports can set prices as they see fit, the Airport IMs only apply to Airports ID for the purposes of assessing whether s 52A is being met and do not apply to the way airports set prices.
44. A brief description of the Airport IMs is set out below. The 2010 Airports IM reason paper provides a more fulsome discussion.¹⁹

Allocation of costs

45. The IMs relating to specified airport services must include methodologies for determining the "allocation of common costs, including between activities" (s 52T(1)(a)(iii)). The Airport cost allocation IM applies to the way in which costs incurred in the supply of regulated airport services, or incurred in supplying both unregulated and regulated services together, are reported as part of information disclosure.
46. The Airport cost allocation IM provides the rules that airports must adhere to when disclosing their shared cost data (and other financial information that relies on cost data). These rules are important since the allocation of shared costs, whether operating cost- or asset-related, can have a significant effect on financial results as represented in the regulatory accounts provided under the information disclosure regime.

¹⁸ *Airport Services Input Methodologies Amendments Determination 2016* [2016] NZCC 28.

¹⁹ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010).

Valuation of assets

47. The IMs relating to specified airport services must include methodologies for determining the "valuation of assets, including depreciation and treatment of revaluations" (s 52T(1)(a)(ii)). Matters covered in the Airport IM for the valuation of assets include:
- 47.1 establishment of the initial value of each airport's regulatory asset base (**RAB**);
 - 47.2 revaluation of assets;
 - 47.3 calculation of depreciation; and
 - 47.4 treatment of asset acquisitions and disposals.
48. The valuation of assets will help determine an appropriate baseline against which profitability can be assessed.

Treatment of tax

49. The Airport IMs relating to specified airport services must include, to the extent applicable to information disclosure regulation, the "treatment of taxation" (s 52T(1)(a)(iv)). The Airport IM for the treatment of taxation sets out the methodology used to calculate the regulatory tax allowance for each airport. This is primarily affected by the depreciation deduction that is used for regulatory tax purposes.
50. As airports are only subject to information disclosure regulation, the Airport IM for the treatment of taxation only applies to the way in which profitability is reported. This affects the way in which interested persons can assess airports profitability.

Cost of capital

51. The cost of capital is the financial return that investors require from an investment given its risk. It reflects the estimate of the rate of return that an investor would expect to get from a different investment of similar risk.
52. Section 52T(1)(a)(i) requires the IMs relating to a particular good or service to include an IM for the cost of capital. Airports do not have to apply the cost of capital established under the cost of capital IM for Airports (s 53F(1)). However, we can use the cost of capital IM to "monitor and analyse" information made available by regulated suppliers (s 53F(2)(a)).²⁰ Airports are also required to disclose our annual published WACC in *ex-post* disclosures of financial information.

²⁰ This has been confirmed by the High Court in *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289, para 1132-1149.

53. The cost of capital IM is discussed in more detail in Topic paper 4 – Cost of capital.²¹

Information disclosure requirements

54. We are required to make a determination under s 52P that specifies how information disclosure regulation will be applied and what a determination made under s 52P must include. For airports, this determination is underpinned by the Airport IMs.
55. In setting the Airports ID Determination, we focussed on the information needed to allow an interested person to assess whether the long-term benefits of consumers are being promoted, through promotion of outcomes consistent with those produced in competitive markets.
56. The Airports ID Determination provides for the disclosure of:
- 56.1 historical financial information;
 - 56.2 quality performance measures and other key statistics;
 - 56.3 forecasts of total revenue requirements; and
 - 56.4 price and pricing methodologies.
57. In addition, the Airports ID Determination sets out publication, certification and audit requirements.
58. A brief description of the Airports ID Determination is set out below. The 2010 Airports ID reasons paper provides a more fulsome discussion.²²

Historical financial information

59. For the disclosure of historical financial information, airports are required to apply the Airport IMs for the valuation of assets (including depreciation and treatment of revaluations), the allocation of common costs, and the treatment of taxation.
60. As noted at paragraphs 51-53, we have also set an IM for airports in relation to deriving the cost of capital. We may apply this when conducting summary and analysis, however, airports cannot be required to apply it.

Quality performance measures and other key statistics

61. The disclosures of quality and other key statistics include a comprehensive set of measures of passenger satisfaction, reliability, capacity and utilisation, operational improvement, and other statistics.

²¹ Commerce Commission "Input methodologies review decisions: Topic paper 4 – Cost of capital issues" (20 December 2016).

²² Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010).

Forecasts of total revenue requirements

62. The disclosures relating to forecast total revenue requirements are intended to align with airports' price setting processes. These disclosures provide key planning assumptions behind the setting of airports' revenue requirements, and include supporting information about proposed capital expenditure, operational expenditure and demand information. The historical financial disclosures also reconcile forecasts with actual annual outcomes.
63. The Airports ID Determination requires that airports publicly disclose, for a five-year forecast period, the core elements used by the airports for determining the forecast total revenue requirement. There are several components of the forecast revenue requirement.
- 63.1 **Revenue methodology** – this provides an overview of the methodology used to determine the forecast total revenue requirement.
- 63.2 **Forecast asset base and forecast value of assets employed** – this provides information on the forecast asset base that is rolled forward and the forecast value of assets employed. It includes information on how it is determined, and the extent to which it is used to determine the forecast total revenue requirement.
- 63.3 **Required return on capital** – this provides information on the forecast cost of capital, a description of the method used to determine it (including assumptions and justifications), and the extent to which it is used to determine the forecast total revenue requirement.
- 63.4 **Operating costs** – this provides information on the forecast operating costs by cost category, and a description of the extent to which they are used to determine the forecast total revenue requirement.
- 63.5 **Depreciation on assets** – this provides information on the total forecast depreciation and weighted average depreciation rates for each asset class. It includes a description of the extent to which they are used to determine the forecast total revenue requirement.
- 63.6 **Taxation** – this provides information on the forecast tax payable, including permanent and temporary differences, tax book value roll forward and reconciliation of tax losses. It includes a description of the extent to which they are used to determine the forecast total revenue requirement.
- 63.7 **Revaluation gains/losses** – this includes forecast land revaluations, indexed revaluations and any assumptions that have been used. It also includes a description of the extent to which forecast revaluations are used to determine the forecast total revenue requirement.

- 63.8 **Other operating revenue** – this includes information on forecast capital contributions, gains or losses on asset sales, and any other regulated income. It also includes a description of the extent to which they are used to determine the forecast total revenue requirement.

Price and pricing methodologies

64. Disclosure of pricing statistics provides interested persons with information that can assist them to assess the overall financial performance of the regulated business. When used in an appropriate context, pricing statistics are able to provide insight into the overall profitability and efficiency of the regulated business compared to suppliers of comparable services.²³
65. Pricing methodology disclosures provide information on the process for setting standard prices. They also provide information on how airports relate prices to demand and reflect the cost incurred in providing the services for which prices are set.
66. The pricing methodology allocates the forecast total revenue requirement to each service for which a price is set. Pricing methodology disclosures assist interested persons in understanding the degree to which prices reflect underlying cost and customer demand.

Summary and analysis of disclosed information

67. Section 53B(2)(b) of the Act provides that we:
- ...must, as soon as practicable after any information is publically disclosed, publish a summary and analysis of that information for the purpose of promoting greater understanding of the performance of individual regulated suppliers, their relative performance, and the changes in performance over time.
68. The requirement to publish a summary and analysis confers an ongoing, active role on us in respect of the information disclosure regime after the information disclosure requirements have been set.
69. We consider that our summary and analysis obligations contribute to ensuring that sufficient information is made available to interested persons to assess whether the Part 4 purpose is being met. It also provides the opportunity for us to consider the wider airport context.
70. We were also required by s 56G to carry out a one-off review of the effectiveness of information disclosure in promoting the Part 4 purpose for airports (the **s 56G reviews**). As part of the s 56G reviews we conducted profitability assessments on the airports. The difficulties and challenges that we faced in doing so helped us to identify many of the problems discussed in this topic paper.

²³ When using pricing statistics for comparative purposes, however, consideration should be given to other factors such as the regional variations in the cost of inputs.

71. Following the review of each airport we provided a report to the Ministers of Commerce and Transport. We refer to these as 's 56G reports'.

How the input methodologies interact with the information disclosure requirements

Airports must apply IMs when making annual ex-post disclosures

72. The Airports ID Determination requires airports to publically disclose each year (on an *ex-post* basis) information relating to their financial position and information relating to the quality of the specified services. This includes providing certain statistics, as outlined in Schedules 16 and 17 of the Airports ID Determination.²⁴
73. This *ex-post* information must be IM-compliant. The parts of the Airport IMs Determination which are applicable to the Airports ID Determination (and so must be applied by airports when disclosing information) are:
- 73.1 valuation of assets;
 - 73.2 allocation of common costs; and
 - 73.3 treatment of taxation.
74. As explained earlier in this chapter, airports are not required to apply IMs relating to cost of capital.²⁵ We can, however, apply any IM relating to those matters when we monitor and analyse the information disclosed by airports as per our obligations under s 53B. Airports are also required to disclose, but not apply, our annual published WACC in *ex-post* disclosures of financial information.

Airports do not have to apply IMs when making price setting event disclosures

75. The Airports ID Determination requires an airport to publically disclose, on an *ex-ante* basis, information relating to its forecast revenue requirement.²⁶ It must disclose this information following a price setting event, or within five consecutive years of the previous disclosure of this type.²⁷ This means that airports must disclose price setting information at least every five years.

²⁴ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clauses 2.3 and 2.4.

²⁵ Commerce Act 1986, s 53F(1).

²⁶ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 2.5.

²⁷ Price setting event means "a fixing or altering of price for a specified airport service by an airport under s 4A and s 4B of the Airport Authorities Act 1966, which- (a) is deemed to occur on the date that the new price comes into effect; and (b) excludes instances where the price is-(i) subject to adjustment as a result of a wash-up; (ii) reset or adjusted annually, including without further consultation; (iii) subject to separate negotiation for inclusion in the terms of a lease or licence; or (iv) not required to be consulted on by virtue of s 4B(3) of the Airport Authorities Act 1966." *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 1.4.

76. The forward-looking information disclosed under Airports ID Determination does not all have to be IM-compliant. However, airports must publically disclose a description of how the components of the forecast total revenue requirements have been determined.²⁸ These include:
- 76.1 forecast asset base;
 - 76.2 forecast cost of capital;
 - 76.3 forecast operational expenditure;
 - 76.4 forecast depreciation;
 - 76.5 forecast tax;
 - 76.6 forecast revaluations; and
 - 76.7 any other component of the total revenue requirement.
77. These disclosures must include (where appropriate) an explanation of any differences between how these components have been prepared and the most recent historical financial information (disclosed in accordance with clause 2.3 of the Airports ID Determination).
78. Since the *ex-post* information disclosed must be IM-compliant, this effectively requires an airport to explain any differences between the approach it has taken during price setting and an IM-compliant approach. This is aimed at assisting interested persons to make meaningful assessments of the appropriateness of prices in light of airports' revenue forecasts.²⁹
79. We also require airports to provide the following in their price setting event disclosures:
- 79.1 a summary of its pricing methodology;
 - 79.2 a summary of its proposed prices for charged services; and
 - 79.3 a report on the demand forecasts used when setting prices.

²⁸ We propose some changes to these disclosure requirements in this topic paper.

²⁹ We have amended the Airports ID Determination to introduce transitional requirements in the Airports ID Determination to require Auckland and Christchurch airports to restate some key information provided in their November 2016 historical financial disclosure, in a manner consistent with the amended Airport IMs and ID determinations, and to explain the difference between the preparation of each component for pricing purposes in Auckland and Christchurch airports' next price setting event disclosure to be provided considering this transitional schedule.

80. This information helps us and other interested persons understand and assess an airport's pricing decision.

Chapter 3: Summary of problem definition and solutions

Purpose of this chapter

81. The purpose of this chapter is to provide an overview of the problems we have identified with the *ex-ante* assessment of airports profitability and to outline our solutions. Further details on these problems and solutions are provided in Chapters 4-12.
82. We also identify whether our solutions have required amendments to the Airport IMs, Airports ID, or both.

Problem definition

83. This section explains, at a high level, the problems we identified with respect to the airports profitability topic.
84. The purpose of information disclosure is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met.³⁰
85. As explained in Chapter 2, the purpose of Part 4 is stated in s 52A of the Act. Most relevant to the topic of airports profitability are s 52A(1)(a) and (d) of the Act. In particular, airports:
 - 85.1 have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
 - 85.2 are limited in their ability to extract excessive profits.
86. There was no requirement in the previous Airports ID Determination for airports to disclose a forward-looking profitability indicator. As a consequence, when we undertook the analysis required by s 56G of the Act to report on how effectively information disclosure regulation was promoting the Part 4 purpose, we had to assess the profitability that each airport was targeting in the 2012 price setting events ourselves.
87. In assessing targeted returns for each airport as part of the s 56G process:
 - 87.1 we found it difficult to determine the effective returns the airports were targeting, because airports can price as they see fit and as such did not have to follow the approaches assumed in our information disclosure requirements; and

³⁰ Commerce Act 1986, s 53A.

- 87.2 the Airport IMs and ID determinations did not provide for sufficient flexibility such that airports could disclose their price setting approaches in a transparent way. This made it difficult for us and other interested persons to understand an airport's pricing intent.
88. In the remainder of this section, we explain, at a high level:
- 88.1 the problems created by the lack of a forward-looking profitability indicator in the Airports ID Determination; and
- 88.2 where the Airport IMs and ID determinations lacked transparency which is discussed in light of the four matters listed below:
- 88.2.1 airports may target a time profile of capital recovery that is different to that assumed as the default position under the Airport IMs;
- 88.2.2 the scope of the asset base used by airports when setting prices can be different to that disclosed under the Airports ID Determination;
- 88.2.3 a profitability assessment should take into account multiple pricing periods,³¹ and
- 88.2.4 other transparency problems existed.
89. We have also made consequential amendments to the Airport IMs resulting from the High Court-ordered amendment to the Airport IMs that the initial RAB value for land has to be assessed as at 2010.³²

³¹ By this we mean that the profitability assessment of the current pricing period must be able to reflect decisions made in previous price setting periods that have an impact on charges for the current pricing period. A profitability assessment must also be able to reflect decisions made by airports impacting charges of the current and future price setting events that are not already reflected in the forecast closing asset base of the current pricing period.

³² We made the High Court-ordered amendment in 2014. *Wellington International Airport Ltd and others v Commerce Commission* [2013] NZHC 3289, para 892.

No forward-looking profitability indicator in Airports ID Determination

90. To assess whether airports are limited in their ability to extract excessive profits, we compare the effective rate of return targeted by an airport against our mid-point estimate of the cost of capital.
91. When an airport targets a return that is different from our mid-point estimate of the cost of capital, we want to understand the extent of, and rationale for any variance. Information provided by airports on the extent to which the targeted return is different from our mid-point estimate of the cost of capital will be factored into our assessment. We note that we remain committed to undertaking a contextual assessment of airport performance. A numerical comparison of an airport's targeted return and our mid-point estimate of the cost of capital will only be one aspect of this assessment.³³
92. To facilitate this analysis, we need transparent disclosures of targeted returns and underlying assumptions. In the past, transparency was limited by the fact that:
- 92.1 airports can set prices as they see fit;
 - 92.2 airports are not required to apply the Airport IMs Determination in setting prices and making their forward-looking pricing disclosures;
 - 92.3 airports do not have to apply our forecast of cost of capital when setting prices;
 - 92.4 airports may target a return that is different from an airport's estimate of cost of capital; and
 - 92.5 most importantly, we previously did not require airports to disclose a forward-looking profitability indicator that reflected the airport's decision on targeted returns.
93. When assessing targeted returns for the s 56G review, we found that determining targeted returns under current disclosure requirements can be onerous and inefficient for all parties involved. The lack of disclosure meant we had to seek additional information from airports to allow us to understand an airport's approach to pricing well enough to calculate targeted returns.
94. The lack of a forward-looking profitability indicator was even more problematic as the effective targeted return inherent in an airport's price setting can be different from the airport's estimate of its cost of capital.³⁴

³³ For more information on our decision for the published benchmark against which we assess airport profitability, see Commerce Commission "Input methodologies review decisions: Topic paper 6 – WACC percentile for airports" (20 December 2016).

³⁴ For example, if an airport has made a commercial decision to under-recover revenue in a pricing period.

95. The inclusion of a requirement on airports to disclose their targeted returns in the Airports ID Determination better promotes s 53A, because it allows interested persons to better understand what returns airports were targeting during the price setting events; it ensures the more timely release of such information; and reduces our costs in undertaking summary and analysis.³⁵

Insufficient transparency in previous Airports ID Determination

96. There was insufficient transparency in the previous Airports ID Determination because it did not:
- 96.1 require an airport to accurately and appropriately disclose its approach taken in the price setting event; and
 - 96.2 allow us and other interested persons to understand the approach taken by an airport when it sets prices or to assess the targeted returns inherent in the pricing decision.
97. In the following sections, we discuss, in the light of the matters listed below, why it was difficult to accurately assess an airport's targeted profitability:
- 97.1 airports may target a time profile of capital recovery that is different to that assumed as the default position under the Airport IMs;
 - 97.2 the scope of the asset base used by airports when setting prices can be different to that disclosed under the Airports ID Determination;
 - 97.3 a profitability assessment should take into account multiple pricing periods;³⁶ and
 - 97.4 under the previous Airport IMs and ID determinations, other transparency problems existed.

Airports may target a time profile of capital recovery that is different to that assumed as the default position under the Airport IMs

98. Given that airports can set prices as they see fit, an airport can target a time profile of capital recovery that is different to the default assumption in the Airport IMs Determination.³⁷

³⁵ Later in this chapter we discuss how meeting the s 53A purpose promotes the overall purpose of Part 4 of the Act.

³⁶ By this we mean that the profitability assessment of the current pricing period must be able to reflect decisions made in previous price setting periods that have an impact on charges for the current pricing period. A profitability assessment must also be able to reflect decisions made by airports impacting charges of the current and future price setting events that are not already reflected in the forecast closing asset base of the current pricing period.

99. There are two main ways an airport may target a different time profile of capital recovery compared to the default position under the Airport IMs Determination. These are:
- 99.1 through its approach to revaluations; and
 - 99.2 by explicitly (or implicitly) using non-standard depreciation (ie, an approach different to the default approach of straight line depreciation).
100. When airports use an alternative time profile of capital recovery, we need sufficient information to assess the appropriateness of the choices that the airport has made when setting prices.
101. Approach to revaluations: Following a price setting event, airports make price setting event disclosures reflecting the assumptions and outcomes of the price setting event.³⁸ The approach to revaluing assets used for disclosure purposes must be the one chosen by the airport in the price setting event.³⁹ This means that the *ex-ante* information we receive on asset revaluations may not be consistent with the Airport IMs.
102. In contrast, when making *ex-post* disclosures, the revenues and costs disclosed during the relevant regulatory period must be disclosed in accordance with the Airport IMs.
103. Therefore, in the past, if airports did not use an IM-consistent approach to asset revaluation when setting prices, we were not able to compare returns assessed on a forward-looking basis with returns assessed on a backward-looking basis. This was because the underlying RAB would have diverged between *ex-ante* and *ex-post* disclosure purely because the Airport IMs were not flexible enough to reflect the approaches to revaluing assets chosen by airports for price setting purposes.
104. Use of non-standard depreciation: Airports can apply non-standard depreciation in rolling forward the RAB for *ex-post* disclosures. Previously, there were no constraints on how airports apply non-standard depreciation, and airports were not required to make the approach consistent with the approach taken in pricing decisions. In the price setting event disclosures, airports were allowed to apply non-standard depreciation as they saw fit, as long as it reflected the pricing decision and they provided an explanation in their disclosures of what they had done.

³⁷ The default position under the pre-review Airport IMs involved straight line depreciation and CPI-indexation for non-land assets of the RAB (*Airport Services Input Methodologies Amendments Determination 2016* [2016] NZCC 28, clauses 3.4 (depreciation) and 3.7 (revaluation)). We have changed the Airport IMs Determination such that airports can now also use an un-indexed approach when rolling forward its RAB.

³⁸ *Airport Services Information Disclosure Amendments Determination 2016* [2016] NZCC 29, clause 2.5 and Schedule 18.

³⁹ See definition of "forecast revaluations". *Airport Services Information Disclosure Amendments Determination 2016* [2016] NZCC 29, clause 1.4.

105. Christchurch Airport was the first airport to disclose a non-standard depreciation methodology when setting prices. Our experience with Christchurch Airport's levelised pricing approach raised a number of issues which suggested that the previous non-standard depreciation requirements were too flexible.⁴⁰ These issues related to the *ex-post* and price setting event disclosure requirements and included:
- 105.1 **price setting event disclosure** – Christchurch Airport did not initially identify that it was appropriate to use non-standard depreciation rather than straight line depreciation when disclosing price setting information for PSE2;
 - 105.2 **price setting event disclosure** – we and other interested persons (in particular, BARNZ) found it difficult to understand Christchurch Airport's approach to non-standard depreciation; and
 - 105.3 **ex-post disclosure** – it was not clear how Christchurch Airport allocated its total non-standard depreciation to its individual asset classes for information disclosure.

The scope of the asset base used by airports when setting prices can be different to the scope of the asset base disclosed under the Airports ID Determination

106. Given that airports can set prices as they see fit, airports may use a different asset base when setting prices compared to the one disclosed for information disclosure purposes.
107. A different asset base for pricing purposes and information disclosure in itself may not be a concern, but reconciling the differences has been problematic. This has impacted on our and other interested persons' ability to accurately assess an airport's targeted return.
108. We have identified the following two instances that may result in different asset bases when setting prices compared to the asset base disclosed for information disclosure purposes:
- 108.1 Airports may explicitly or implicitly include a portion of assets held for future use in their asset base used for pricing purposes to collect charges for this portion before it is used in the supply of specified airport services.

⁴⁰ Commerce Commission "Summary and analysis of Christchurch Airport's revised information disclosure for its second price setting event" (9 July 2015), para 48.

- 108.2 In the past, airports have excluded certain assets (mainly comprising leased assets) from their pricing asset base.⁴¹ In contrast, as explained in Chapter 9, we included these assets in our analysis of targeted profitability because they are used in the supply of 'specified airport services'.⁴²
109. Assets held for future use: Under the Airport IMs, assets held for future use are excluded from the RAB value (and from associated disclosed profitability measures) until they are used in the supply of specified airport services.^{43, 44}
110. The previous Airport IMs and ID determinations might not have provided adequate transparency for interested persons to assess *ex-ante* profitability if airports were to include revenues associated with assets held for future use at future price setting events.
111. Pricing assets: Airports have excluded certain asset values and associated revenues from their pricing disclosures. These activities are however included in the definition of 'specified airports services' and have therefore been included in our s 56G analysis.⁴⁵
112. Understanding these differences in the underlying asset bases has been difficult in the past and, under the previous Airports ID Determination, could have made the airports profitability assessment of future pricing periods challenging for us and other interested persons.

Profitability assessment must take into account multiple pricing periods

113. Consistent with our approach to assessing *ex-ante* profitability for the s 56G review, in future, as is discussed in Chapter 4, we will use an internal rate of return (**IRR**) calculation to assess targeted returns over the pricing period.

⁴¹ More information on these assets is provided in Chapter 9.

⁴² This problem has previously been referred to as the problem associated with leased assets. Following discussions at the workshop held in April 2016 we have clarified that the problem definition is more accurately described as the treatment of pricing assets in the Airports ID Determination.

⁴³ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.1 and definition of "excluded assets".

⁴⁴ Airports can expect to be able to earn a full return on and of the costs of holding and developing this land without profits appearing excessive, provided it is eventually commissioned for use to supply airport services (Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010), para 4.3.74).

⁴⁵ See, for example, Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act 1986" (8 February 2014), p. 105, para F68.3.

114. In order to accurately reflect an airport's pricing intent, an IRR calculation must reflect commitments that an airport makes when setting prices, including the ability to reflect *ex-post* whether these commitments have been met. By reflecting these commitments, the profitability assessment for the current pricing period effectively links multiple pricing periods together.⁴⁶ For the purpose of this topic paper, we describe these commitments as:
- 114.1 *ex-post* effects of risk allocation (as defined below); and
 - 114.2 forecast over and under-recoveries that an airport intends to offset in future price setting events.
115. *Ex-post* effects of risk allocation: The previous Airports ID Determination did not provide sufficient transparency to identify *ex-post* effects of decisions on risk allocation between airports and airlines made during previous price setting events that had an impact on the current pricing period.
116. In the absence of this transparency, we and other interested persons could have found it difficult to appropriately and accurately reflect those effects in the *ex-ante* assessment of profitability.
117. We provide clarification of what we mean by *ex-post* effects of risk allocation below:
- 117.1 In this context, given that airports set prices in advance, airports and airlines use the term **risk** as a way to describe that actual out-turns can be different from forecasts. For example, when determining prices of the current pricing event, an airport forecasts demand of the next five years. The risk is that the actual demand disclosed *ex-post* can be higher (lower) from forecast demand resulting in higher (lower) *ex-post* returns than forecast.
 - 117.2 When we use the term '***ex-post* effects of risk allocation**' in this topic paper, we refer to decisions that were made in previous pricing periods by airports on how those risks should be allocated between airports and airlines. This is important in the context of the *ex-ante* profitability assessment, as the allocation of those risks can affect charges of the current pricing event.
118. Forecast over and under-recoveries: The previous Airports ID Determination did not provide sufficient transparency to identify forecast over and under-recoveries by airports that were intended to be offset in future pricing events. In the absence of this transparency, we and other interested persons could have found it difficult to appropriately and accurately reflect those effects in the *ex-ante* assessment of profitability.

⁴⁶ For clarification, in the context of this topic paper, we define the current pricing period (also referred to as price setting event) as the upcoming pricing period airports have just consulted on and set prices for in accordance with AAA.

Other transparency problems existed

119. We have identified additional transparency concerns. Given that airports can set prices as they see fit, airports may adjust their price paths in a manner that is not NPV-neutral relative to their targeted return. In the past, we identified the following instances where this was the case:
- 119.1 commercial concessions; and
- 119.2 route incentives.
120. In addition, we have identified the assumptions regarding timing of cash-flows as an area where insufficient transparency was provided under the previous Airports ID Determination. In order to calculate an *ex-ante* IRR that more accurately reflects targeted returns by airports, we established forecast cash-flow timing assumptions that were reflective of actual cash-flows occurring at the airports.
121. Commercial concessions: Commercial concessions are a commitment by an airport to under-recover revenue in a pricing period.^{47, 48}
122. The Airports ID Determination does not require airports to report on commercial concessions, or to disclose whether it plans for the under-recovery to be permanent or to be offset in future pricing periods.
123. In the absence of such a requirement, we and other interested persons may find it difficult to appropriately reflect commercial concessions in the *ex-ante* profitability assessment.
124. Route incentives: Route incentives are decisions by an airport to charge an airline less than the standard charge in order to secure new routes or additional passengers from that airline.
125. Previously, the Airports ID Determination only required airlines to disclose route incentive information (called ‘pricing incentives’ as part of the ‘financial incentives’ in Schedule 2 of the Airports ID Determination) in *ex-post* disclosures. There was no specific requirement for airports to report in the price setting event disclosures on route incentives.
126. In the absence of such a requirement, we and other interested persons could have found it difficult to accurately assess the impact of route incentives on the *ex-ante* profitability assessment of airports.

⁴⁷ ‘Commercial concessions’ is a term used by airports and is not in our Airport IMs and ID determinations.

⁴⁸ Commercial concessions can be done for a number of reasons. An example we have seen is Christchurch Airport’s commercial concession of a phased implementation of its long-term pricing model in order to support the economic recovery of Canterbury following the 2010 and 2011 earthquakes (Christchurch International Airport Limited, Price Setting Disclosure, 19 December 2012).

127. Timing of cash-flows: In order to calculate an IRR that more accurately reflects returns targeted by airports, we had to establish forecast cash-flow timing assumptions that reflected actual cash-flows occurring at the airports.
128. We consider the previous year-end cash-flow timing assumptions implied by the use of a return on investment (**ROI**) in the *ex-post* disclosure requirements inappropriate, as they consistently and materially underestimated airport returns. This is because the ROI does not reflect actual cash-flows occurring throughout the year.
129. In addition, year-end cash-flow timing assumptions do not reflect our latest cross-sector thinking on this matter since we have applied intra-period cash-flow timing assumptions in the regulation of electricity distributors, gas pipeline businesses and Transpower.

Our solutions and the framework we applied in respect of these problems

130. This section describes, at a high level, our solutions in respect of the five problems identified above. Further details on our solutions are provided in the Chapters 4-12.
131. As explained in Chapter 2 and earlier in this chapter, information disclosure regulation under Part 4 of the Act is, in the first instance, intended to focus on ensuring that interested persons are able to assess whether the Part 4 purpose is being met; in particular, by helping to reflect the extent to which the objectives in s 52A(a) to (d) are being achieved.
132. Given the Part 4 purpose, it is clear that the supply of regulated services is likely to be, and is intended to be, influenced by the relevant type of regulation. In this respect, information disclosure regulation not only contributes to the specific purpose set out in s 53A, but it can also promote the s 52A purpose by improving the sharing of existing information between regulated suppliers and interested persons, as well as in some cases expanding the information available to regulated suppliers themselves.⁴⁹
133. The more effective the disclosure requirements are in meeting the s 53A purpose of information disclosure regulation and making airports' performance transparent, the more likely it is that information disclosure is promoting the overall Part 4 purpose.⁵⁰

⁴⁹ Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010), para 2.7.3.

⁵⁰ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (13 February 2014), para 2.15.

134. For instance, if the indicators disclosed in accordance with the information disclosure requirements are not providing a good measure of a particular area of performance, there might be relatively weak incentives for suppliers to change their conduct so that their performance becomes more consistent with the Part 4 purpose.⁵¹
135. Therefore, we consider that it is important to have a forward-looking profitability indicator in the Airports ID Determination that provides an accurate reflection of an airport's targeted profitability. This indicator is expected to provide better information to interested persons on airports' expected profits, consistent with s 53A, and consequently influence the airports' pricing behaviour to be more consistent with not extracting excessive profits, consistent with s 52A(1)(d).
136. We have also supplemented the new profitability indicator with a number of 'carry forward' mechanisms. To the extent such mechanisms provide greater transparency around an airport's investment intentions, disclosing that supplementary information may also provide greater incentives for airports to invest efficiently, consistent with promoting s 52A(1)(a) and (b) as well.
137. In this regard, our changes to the Airports ID Determination reflected in the inputs to the forward-looking profitability indicator, and the price setting event disclosures more widely, are intended to achieve the following outcomes:
- 137.1 greater accuracy in the disclosures by allowing airports to better reflect their pricing intent, meaning that the profitability indicator is likely to better reflect the airport's targeted profitability;
 - 137.2 greater clarity about the requirements in the Airport IMs and ID determinations;
 - 137.3 greater transparency for us and other interested persons to better understand an airport's approach to pricing; and
 - 137.4 ultimately, better ensuring that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met, consistent with s 53A.
138. Table 3.1 outlines the problems as they are summarised in the problem definition section of this chapter, and provides our solutions. We also indicate in Table 3.1 where we:
- 138.1 have amended the Airport IMs, Airport ID, or both; and
 - 138.2 considered that no amendments were required to solve the relevant problem.

⁵¹ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (13 February 2014), para 2.16.

Table 3.1: Summary of solutions

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
There was no forward-looking profitability indicator	-	Greater transparency for interested parties to better understand an airport's approach to pricing and, in particular, whether the airport is limited in its ability to extract excessive profits	<p>Require airports to disclose a forward-looking profitability indicator, by using an IRR calculation that comprises: an opening investment value at the beginning of the pricing period, a forecast closing investment value and forecast cash-flows over the duration of the pricing period.</p> <p>Supplement the IRR with a carry forward mechanism that can be used to adjust the opening investment value and the closing investment value to better reflect an airport's pricing intent and that can take into account multiple pricing periods.</p>	ID	4
Airports may target a different time profile of capital recovery to those implied by the Airport IMs	Asset revaluations	Greater accuracy in the disclosures to better reflect an airport's pricing intent	<p>Require airports to disclose forward and backward-looking costs in a way that is most consistent to the approaches used when setting prices.</p> <p>Limit airports in their approaches to revaluing assets to the use of either CPI-indexation or an un-indexed approach (except when revaluing land using MVAU).</p> <p>Allow airports to make their choice of either CPI-indexation or an un-indexed approach for parts of the asset base separately.</p> <p>Allow airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. Alternative methodologies can only be applied if they do not detract from the purpose of Part 4.</p>	IM	5
Airports may target a different time profile of capital recovery to those implied by the Airport IMs (cont)	Asset revaluations (cont)	Greater clarity about the requirements in the Airport IMs and ID determinations	Allow airports to elect an approach to revaluing assets only at the beginning of the next pricing period, and require airports to use the same approach in the <i>ex-post</i> disclosures.	IM	5

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
		Greater clarity about the requirements in the Airport IMs and ID determinations	Require airports to provide details on the expected treatment of any revaluation gains in the next pricing period arising from a potential change in the approach to revaluing assets.	IM	5
	Non-standard depreciation	Greater clarity about the requirements in the Airport IMs and ID determinations	Require airports to apply specified principles when using alternative depreciation approaches. Allow airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. Alternative methodologies can only be applied if they do not detract from the purpose of Part 4.	IM	5
The scope of the asset base used by airports when setting prices can be different to that disclosed under the Airports ID Determination	Assets held for future use	No change	Assets held for future use remain outside the RAB until it is used to provide specified airport services (IMs are not amended).	N/A	8
		Greater clarity about the requirements in the Airport IMs and ID determinations	Amend the definition of "net revenue" to make it clearer that (as intended) revenues derived from, or associated with, assets held for future use are captured by that definition.	IM	8
		Greater accuracy in the disclosures to better reflect an airport's pricing intent	Inclusion of the value of assets held for future use and revenue from or associated with assets held for future use on a forecast basis in the ID determination (so that airports can offset any revenue from or associated with assets held for future use against the value of assets held for future use).	ID	8

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
	Pricing assets	Greater transparency for interested parties to better understand an airport's approach to pricing	<p>Addition of a new schedule to the ID determination reflecting airports' targeted profitability based on the pricing asset base only.</p> <p>Require airports to explain any differences in profitability based on the pricing asset base and the profitability based on the total RAB.</p>	ID	9
The scope of the asset base used by airports when setting prices can be different to that disclosed under the Airports ID Determination (cont)	Initial RAB value for land	Greater clarity about the requirements in the Airport IMs and ID determinations	<p>Set the initial RAB value for airport land using a pragmatic proxy of land as at 2010 by interpolating 2009 and 2011 MVAU land values (net of any capex or disposals of land that occurred during the years 2009/10 and 2010/11) based on existing MVAU land valuations.</p> <p>Calculate the proxy by using the average of the 2009 MVAU valuation and 2011 MVAU valuation and add to the calculated proxy the value of any capex and disposals related to land that occurred up to the date of the interpolated value.</p>	IM	12

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
A profitability assessment should take into account multiple pricing periods	<i>Ex-post</i> allocation of risk	Greater transparency for interested parties to better understand an airport's approach to pricing	<p>Include in the carry forward mechanism to adjust the opening investment value un-forecast revaluation gains or losses (in real terms), unless an alternative treatment has been proposed by airports, and:</p> <p>to allow airports to calculate those, provided they have not been reflected in a prior price setting event, from the commencement of the ID regime as at 2010 for the first price setting event after 31 December 2016; and</p> <p>to require airports to calculate those from the previous price setting event for the second and subsequent price setting events after 31 December 2016.</p> <p>Include in the carry forward mechanism to adjust the opening investment value other risk sharing arrangements if these have been proposed in the airport's price setting event.</p> <p>Require airports to provide information in the annual <i>ex-post</i> disclosures about variances between forecasts and actuals for the risk allocation arrangements that were included in their price setting event (as these will inform the carry forward adjustment to the opening investment value for the next price setting event).⁵²</p> <p>Require airports to summarise the views of substantial customers, as expressed during price setting consultation, regarding other risk sharing arrangements that have been included in the carry forward mechanism to adjust the opening investment value.</p>	ID	6

⁵² We note that any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
A profitability assessment should take into account multiple pricing periods (cont)	Forecast under or over-recoveries	Greater transparency for interested parties to better understand an airport's approach to pricing	<p>Include in the carry forward mechanism to adjust the forecast closing investment value, forecast over and under-recoveries that are intended by airports to be offset in future pricing events.</p> <p>Require airports to summarise the views of substantial customers, as expressed during price setting consultation, regarding those forecast over and under-recoveries included in the carry forward mechanism.</p> <p>When an airport has included forecast over and under-recoveries in the carry forward mechanism to adjust the forecast closing investment value, require the airport to provide information on:</p> <ul style="list-style-type: none"> • why the resulting forecast closing investment value is a good indicator of the remaining capital to be recovered at the end of the current pricing period; • the purpose and appropriateness of including these amounts in the carry forward mechanism; • the intended duration until these forecast over and under-recoveries have been fully offset; and • why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than an alternative approach to accounting for these forecast over and under-recoveries already provided for under the Airport IMs and ID determinations. 	ID	7

Problem	Sub-problem	Outcome	Solution	IMs or ID	Chapter
Other transparency problems	Other adjustments to the price path	Greater transparency for interested parties to better understand an airport's approach to pricing	<p>Require airports to provide a high level disclosure of the total value of pricing incentives in the price setting event disclosures.</p> <p>Not to make any changes to the information disclosure requirements with regards to commercial concessions because we consider that the introduction of a forecast carry forward mechanism could be used to make the expectations regarding commercial concessions sufficiently transparent.</p>	ID	11
Other transparency problems (cont)	Timing of cash-flows	Greater transparency for interested parties to better understand an airport's approach to pricing	<p>Specify, in the annual <i>ex-post</i> disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues.⁵³</p> <p>Specify, in the price setting event disclosures, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues.</p> <p>Provide, in the price setting event disclosures, the flexibility for airports to deviate from the default cash-flow timing assumption if airports provide evidence that the actual cash-flow timing for specific cash-flow items is different from the default cash-flow timing assumption.</p>	ID	10

⁵³ We note that any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

Chapter 4: Forward-looking profitability indicator

Purpose of this chapter

139. The purpose of this chapter is to explain our solution to the problem associated with the lack of a forward-looking profitability indicator in the previous Airports ID Determination.

Structure of this chapter

140. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. It finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

141. This section explains the problem definition, including how it evolved through consultations, which included submissions and workshops.

Summary of problem definition

142. There previously was no forward-looking profitability indicator in the Airports ID Determination to assist us and other interested persons in assessing whether airports were targeting excessive profits when they set prices.
143. There might be relatively weak incentives for suppliers to change their conduct so that their performance becomes more consistent with the Part 4 purpose if the information disclosure requirements:
- 143.1 do not provide for indicators that are a good measure of a particular area of performance; or
- 143.2 more importantly, do not provide for any indicators at all (as was the case with targeted profitability).
144. In this case, the key concern was whether the information disclosed following a price setting event sufficiently influenced airports' conduct such that they were limited in their ability to extract excessive profits.
145. In this chapter, we discuss how we have amended the Airports ID Determination in order to provide for a headline profitability indicator that can be used as a starting point for any subsequent summary and analysis undertaken by us and other interested persons concerning the profits targeted by airports.

Understanding targeted returns by airports is important

146. Understanding the returns targeted by airports is important in assessing whether airports are limited in their ability to extract excessive profits.

147. For this assessment we consider it appropriate to compare these targeted returns against our mid-point estimate of cost of capital. When an airport targets a return that is different from our mid-point estimate of the cost of capital, we want to understand the extent of the difference and the rationale underpinning this variance in targeted return.
148. Our analysis of airports' profitability relies on transparent and reasonably accurate disclosures of targeted returns, including the assumptions underpinning the disclosures. In the past, transparency was limited by the fact that:
- 148.1 airports can set prices as they see fit;
 - 148.2 airports are not required to apply the Airport IMs Determination in making their forward-looking pricing disclosures;
 - 148.3 airports do not have to apply our forecast of cost of capital when setting prices;
 - 148.4 airports may target a return that is different from an airport's estimate of cost of capital; and
 - 148.5 most importantly, airports were not required to disclose a forward-looking profitability indicator at all.
149. In particular, if a forward-looking profitability indicator can provide a good reflection of an airport's targeted returns, consistent with s 53A, then airports are less likely to target profits that are excessive, consistent with s 52A(1)(d).

Undertaking an ex-ante profitability assessment for each airport can be challenging

150. As there was no forward-looking profitability indicator in the Airports ID Determination when we undertook the s 56G review of the effectiveness of airport information disclosure, we performed an *ex-ante* profitability assessment for each airport relating to the price setting events which occurred in 2012.⁵⁴
151. When assessing the returns targeted during the price setting event for the s 56G review, we calculated an IRR forecast, which required information on:⁵⁵
- 151.1 the opening investment value;
 - 151.2 the forecast cash-flows over the duration of the pricing period; and

⁵⁴ For more information on the approach that we took, see, for example: Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986" (31 July 2013), para F3-F12.

⁵⁵ We used the IRR, rather than estimating returns on investment (which would have been consistent with information disclosure), as the concept of an IRR avoids problems with the short-term variability in returns. This is discussed in more detail under the section on our solution in this chapter.

- 151.3 the forecast closing investment value.
152. In a forward-looking IRR calculation, the **opening investment value** reflects the initial capital to be recovered. It comprises:
- 152.1 the IM-compliant closing RAB value from the *ex-post* disclosure of the year preceding the start of the current price setting event;⁵⁶ and
- 152.2 any adjustments reflecting decisions made in previous price setting periods that have an impact on charges for the current pricing period.⁵⁷ This is important in order to achieve consistency between the opening investment value and the forecast cash-flows that are used in a forward-looking IRR calculation.⁵⁸
153. The **forecast cash-flows** over the duration of the pricing period comprise:⁵⁹
- 153.1 revenues;
- 153.2 opex;
- 153.3 capex; and
- 153.4 tax.
154. We consider it is appropriate to assume that the airport's forecast cash-flows are the starting point for the cash-flows used in our IRR calculation. However, during the s 56G reviews we made adjustments to the forecast cash-flows provided by airports but we found it difficult to accurately and appropriately determine those adjustments in advance.⁶⁰

⁵⁶ Given that the closing RAB value of the year preceding the start of the current price setting event will not be available until after the price setting event disclosure, we have amended the Airports ID Determination such that airports use the closing RAB value from the most recent *ex-post* disclosure rolled forward to the first day of the current price setting period. This is similar to what NZAA suggests in its submission on our IM review technical consultation paper. NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 49.

⁵⁷ For the purpose of this topic paper, we refer to these decisions as the '*ex-post* effects of risk allocation'.

⁵⁸ For more information on the concept of matching the cash-flows to the opening investment value, see Chapter 6.

⁵⁹ We note that the cash-flows are those required to determine an IRR comparable with the vanilla WACC. To determine an IRR comparable with a post-tax WACC the cash-flows would also include the value of the notional interest tax shield.

⁶⁰ For more information on the adjustments that we made, see Chapter 6.

155. In a forward-looking IRR calculation, the **forecast closing investment value** reflects the remaining capital to be recovered. It comprises:
- 155.1 the forecast closing asset base used by airports when setting prices, reflecting an airport's assumed time profile of capital recovery;⁶¹ and
 - 155.2 any adjustments reflecting decisions made by airports that affect charges for the current and future price setting events that are not already reflected in the forecast closing asset base. This is important in order to derive a forecast closing investment value that is a good reflection of the remaining capital to be recovered.⁶²
156. Provided that the opening and forecast closing investment values are determined in a manner as discussed above, the forward-looking IRR of the current pricing event effectively links past and future pricing periods together. This allows for a profitability assessment that is a good reflection of an airport's pricing intent.
157. In undertaking our profitability analysis for the s 56G review, we used our judgement to determine the appropriate value of the inputs to the IRR calculation. We had to determine the investment values and cash-flows that best reflected the airport's pricing intent and risk allocation arrangements. We also ensured that the forecast cash-flows used in our profitability assessment were consistent with the assumptions implicit in the opening and forecast closing investment values.
158. In our view, and based on the experience from the s 56G review, the process under the current Airports ID Determination to establish those input values can be onerous and inefficient for all parties involved.
159. For example, when undertaking the s 56G reviews, additional consultations with airports were necessary to establish those input values such that they reflected the airports' pricing intent. In the case of Christchurch Airport, this resulted in Christchurch Airport choosing to re-disclose information relating to its second price setting event using a non-standard depreciation approach in order to provide additional transparency with regards to its forecast closing investment value.

⁶¹ In most cases, and following the amendments we have made in particular to asset revaluations as part of this IM review, we expect the forecast closing asset base to be identical with the forecast RAB rolled forward. However, there may be occasions in the future where the forecast closing asset base is different from the forecast RAB rolled forward (when an airport uses an approach to revaluing assets that is not consistent with the IMs, eg, MVEU for land, or $CPI \pm Y$, as discussed in Chapter 5).

⁶² For more information on the forecast closing investment value and the adjustments that we consider appropriate, see Chapter 7.

Stakeholders were open to exploring the introduction of a forward-looking profitability indicator

160. BARNZ supported our view that the lack of a forward-looking profitability indicator under ID can be problematic. In particular, BARNZ submitted that:⁶³

The level of returns being targeted is a key element in assessing the degree to which the purpose of s52A is being achieved or successfully promoted, and in comparing the performance of regulated suppliers, and most members of the general public will not be able to undertake such assessments themselves. The experience during the s56G review process demonstrated not only how important an assessment of the level of profitability being targeted is to reaching any judgment on the degree to which the purpose of Part 4 is being achieved, but also how complex the assessment is as a result of the different approaches taken by each of the airports.

161. NZAA was open to exploring the introduction of a forward-looking profitability indicator in the Airports ID Determination. However, NZAA was not convinced that "a new *ex-ante* mechanism can remove the inevitable degree of complexity involved in profitability assessment" and considered that the "summary and analysis process plays an important role in providing sufficient information to ensure that the purpose of information disclosure is met". NZAA was of the view that:⁶⁴

Summary and analysis by the Commission provides an opportunity for:

- (a) the Commission to contextualise the *ex-ante* price setting disclosures, and consider price setting against outcomes over time; and
- (b) the airports to explain in further detail the reasons for any complexities, if and when they arise.

Our solution in respect of this problem

162. This section explains our solution in respect of this problem.

Our solution

163. We have made amendments to the Airports ID Determination under s 52Q to increase the transparency relating to targeted returns. In particular, our solution in respect of this problem is:

- 163.1 to include a requirement on airports to disclose an *ex-ante* IRR for the current pricing period in the price setting event disclosure requirements. This includes an opening investment value, a forecast closing investment value and forecast cash-flows over the duration of the pricing period; and

⁶³ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 6.

⁶⁴ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 10 and 13.

- 163.2 to supplement the requirement to disclose an *ex-ante* IRR with a carry forward mechanism in the ID requirements that can be used to adjust the opening investment value and the forecast closing investment value used in an IRR calculation.
164. Our solution overcomes the problem caused by no requirement to disclose a forward-looking profitability indicator under information disclosure. In particular, requiring airports to disclose an IRR that measures expected profitability during the current pricing period, and supplementing it with a carry forward mechanism can:
- 164.1 provide for a headline indicator that can be used as a starting point for any subsequent summary and analysis undertaken by us and other interested persons, and (in doing so);
- 164.2 assist in determining if airports are targeting excessive profits; and
- 164.3 to the extent that the indicator provides a good reflection of an airport's targeted returns, influence price setting such that the returns targeted are not excessive.
165. In assessing the expected profitability of the current pricing period, the benefits of using an IRR as opposed to using a ROI (as it is currently implied by the *ex-post* disclosure requirements) are that an IRR:
- 165.1 avoids the problems associated with the short-term variability in returns that are inherent in a ROI calculation;
- 165.2 allows us to better take into account the time value of money by reflecting that cash-flows during a pricing period occur at different points in time; and
- 165.3 allows us to reflect specific cash-flow timing assumptions as discussed in Chapter 10.
166. Supplementing the forward-looking IRR with a carry forward mechanism is important as it enables us and other interested persons to assess airports' profitability across pricing periods. It also allows us and other interested persons to assess whether prices are being set consistent with the financial capital maintenance (**FCM**) principle over the longer term.⁶⁵ Where prices are set consistent with the FCM principle, airports should expect to receive at least a normal return on their investments, consistent with both s 52A(1)(a) and (d).⁶⁶

⁶⁵ For more information on the FCM principle, see Commerce Commission "Input methodologies review decisions: Framework for the IM review" (20 December 2016).

⁶⁶ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 2.6.28.

167. Our solution allows the reflection of historic and future pricing periods in the profitability assessment of the current pricing period and to assess if the FCM principle is being followed in the longer term. This can be achieved because:
- 167.1 first, the carry forward mechanism can be used to adjust the opening investment value in the IRR calculation to reflect decisions made in previous price setting periods that have an effect on charges for the current pricing period. This is important in order to achieve consistency between the opening investment value and the forecast cash-flows that are used in a forward-looking IRR calculation;⁶⁷ and
 - 167.2 second, the carry forward mechanism can also be used to adjust the forecast closing investment value in an IRR calculation to reflect decisions made by airports impacting charges of the current and future price setting events that are not already reflected in the forecast closing asset base. This is important in order to derive a forecast closing investment value that is a good reflection of the remaining capital to be recovered.
168. For more information on what can be captured in the carry forward adjustment to the opening investment value see Chapter 6 on the *ex-post* effects of risk allocation. For more information on what can be captured in the carry forward adjustment to the forecast closing investment value, see Chapter 7 on the treatment of forecast over and under-recoveries.
169. We have not put many constraints around the use of the carry forward mechanism, because the mechanism is designed to improve transparency in the price setting event disclosures. We consider it important that the mechanism remains flexible enough to be applicable to as yet unforeseen circumstances in the future. We therefore have not limited the use of the mechanism to specific, pre-defined situations, as this may create a situation where an airport cannot disclose its pricing intent transparently.
170. In the remainder of this section, we provide more detail on:
- 170.1 why our solution can provide for a headline indicator that can be used as a starting point for any subsequent summary and analysis;
 - 170.2 why an IRR avoids the problems associated with the short-term variability in returns; and
 - 170.3 the views expressed by stakeholders on this problem in submissions and at workshops.

⁶⁷ See Chapter 6 for more information on the concept of matching the cash-flows to the opening investment value.

Solution can provide for a headline indicator

171. Our solution can provide for a headline indicator that can be used as a starting point for any subsequent summary and analysis undertaken by us and other interested persons.
172. We consider the *ex-ante* IRR that will be disclosed under information disclosure is likely to be a good reflection of an airport's pricing intent. However, because airports can set prices as they see fit, there may be circumstances where the price setting event disclosures do not fully capture the approaches taken by an airport in respect of its pricing decision.
173. We therefore consider that the *ex-ante* IRR disclosed under information disclosure can only be a starting point in the profitability analysis of airports. We would expect an airport to comment in its disclosures on the extent to which the IRR disclosed is a good reflection of its pricing intent.
174. In any subsequent summary and analysis, we may then ourselves calculate an IRR in a way that is more consistent with targeted returns inherent in an airport's pricing decision than the one provided under information disclosure. However, it is our intent to try and make the new indicator provided under information disclosure as good as possible in the first instance.

IRR avoids the problems associated with the short-term variability in returns

175. As we discussed in the s 56G review for Wellington Airport, an IRR avoids the problems associated with the short-term variability in returns that are inherent in an ROI calculation. In particular, we noted:⁶⁸

(F4) Our analysis of Wellington Airport's returns is based on its internal rate of return (IRR). We have used the IRR, rather than estimating its return on investment (ROI) which would be consistent with information disclosure, as it avoids problems associated with the short-term variability in returns.

(F5) Information Disclosure regulation under Part 4 requires airports to disclose an ROI. The ROI is an annual, single period profitability indicator which measures the airport's net income against its regulatory asset values at the end of each prior disclosure year. The ROI is intended to be comparable to the Commission's estimated weighted average cost of capital (WACC).

(F6) Analysis of returns using the ROI for Wellington Airport could be distorted by the revaluation of assets at Wellington Airport. The ROI reflects any revaluation gain (or loss) that occurs in the year prior to the change in the asset value. This can result in a 'spike' in the ROI,

⁶⁸ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is Promoting the purpose of Part 4 for Wellington Airport – Section 56G of the Commerce Act 1986" (8 February 2013), para F4-F7.

which signals an expectation of higher (or lower) profits in the future.⁶⁹ However, whether the reported returns actually eventuate depends on the extent to which the change in the asset value flows through into prices and revenues.⁷⁰

(F7) Unlike an ROI calculation, an IRR calculation does not rely on asset values in each year. Instead, it is based on the initial capital outlay, and the net cash-flows associated with that investment. It therefore avoids the 'spikes' that can occur in the ROI.

There was general support for our solution

176. At the first airports profitability workshop in December 2015, there was general support for using an *ex-ante* IRR for the five-year pricing period with a carry forward mechanism between pricing periods.⁷¹

177. In their submissions on this workshop, the New Zealand Airport's Association (**NZAA**) and the Board of Airport Representative New Zealand (**BARNZ**) confirmed their support for our solution. In particular:

177.1 NZAA stated that it "could support the inclusion of an *ex-ante* forecast IRR (using both pricing and IM inputs), disclosed at the start of a pricing period, indicating returns targeted for the five-year pricing period". NZAA was also of the view that "transparency would need to be enabled within the information disclosure regime to reflect the carry forward or wash-up outcome";⁷² and

⁶⁹ A 'spike' in the ROI above the cost of capital as a result of a revaluation of assets indicates an expectation of higher profits in the future—but those higher profits have not yet occurred. Such a spike would also indicate that consumers have not yet received any compensation, through lower prices, to offset those expected higher profits. However, that expected level of profits will only fully eventuate if prices rise to the level implied by receiving a normal return on the revalued asset base (eg, Commerce Commission "Authorisation for the Control of Supply of Natural Gas Distribution Services by Powerco Ltd and Vector Ltd Decisions Paper" 30 October 2008, paragraph F.9). For example, during consultation on the asset valuation input methodology, Professor George Yarrow observed that a revaluation corresponds to a capitalisation of *future* cash-flows (G. Yarrow, M. Cave, M. Pollitt and J. Small, *Review of Submissions on Asset Valuation in Workably Competitive Markets, a Report to the New Zealand Commission, Annex 2: George Yarrow – Response to Submissions on Individual Expert Reviews*, November 2010, paragraph 2.11).

⁷⁰ If prices following the revaluation do not rise to the level implied by the revalued assets, the ROI measured at the point of revaluation may give a misleading view of returns. See Commerce Commission "Authorisation for the Control of Supply of Natural Gas Distribution Services by Powerco Ltd and Vector Ltd, Decisions Paper" 30 October 2008, Appendix F.

⁷¹ Commerce Commission "Input methodologies review – Airports profitability assessment – Workshop 1 – Summary of views expressed" (18 December 2015), para 12.

⁷² NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 13 and 45.

177.2 BARNZ reiterated its support for "using a five-year IRR, with a limited set of items carried forward to the next period, and considers that this methodology would best promote the purpose of 52A, and represents the most appropriate balance between the various competing objectives contained in the purpose statement".⁷³

178. Both parties elaborated further in their respective submissions on items that should be carried forward between pricing periods. More information on what these are and our respective solutions are in Chapters 6 and 7.

Summary of submissions on our IM review draft decision and our response

179. Our final solution remains unchanged from our proposed solution outlined in our IM review draft decision. Both NZAA and BARNZ express their support for the proposed solution in submissions on our IM review draft decision. In particular:

179.1 NZAA is of the view that:⁷⁴

The IRR mechanism proposed by the Commission seems workable. In particular, NZ Airports is supportive of an IRR indicator that matches the length of a pricing period, with the inclusion of a limited carry forward mechanism to allow assessment across pricing periods where appropriate.

179.2 NZAA accepts that:⁷⁵

in principle, that this mechanism (ie, the carry forward mechanism) is likely to offer an effective way for the Commission to be able to assess the impacts of relevant adjustment (eg risk allocation) on an airport's forecast profitability.

179.3 BARNZ supports:⁷⁶

(..) the introduction of a forward looking profitability indicator to provide greater transparency around the level of profitability being targeted by airports. We endorse the Commission's observation at para 162 that the process under the current Airports ID Determination to establish those input values can be onerous and inefficient for all parties involved.

⁷³ BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 1.

⁷⁴ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 192.

⁷⁵ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 192.

⁷⁶ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 3.

180. In its submission, BARNZ expresses concerns relating to the 'lack of constraints' around the application of the carry forward mechanism.⁷⁷ We have addressed those concerns in Chapter 7, as these particularly relate to our decision on the treatment of forecast over and under-recoveries.
181. Airports' major concern with the introduction of a forward-looking profitability indicator under ID relates to how interested persons are going to judge airport performance in future. In particular, NZAA "remain concerned that a key risk arising under the Commission's proposals is that interested parties' starting point and end point for assessing airport performance will be to compare the disclosed internal rate of return ("IRR") to the mid-point WACC estimate".⁷⁸
182. We acknowledge the concern, but we cannot comment on how other interested persons are going to judge airport performance in future. However, we remain committed to undertaking a contextual assessment of airport profitability when we perform summary and analysis of the relevant price setting event. As such, we would want to understand the difference and rationale underpinning the variances between targeted returns and our mid-point WACC estimate.⁷⁹ Information provided by airports on the extent to which the IRR provided under ID is a good reflection of targeted returns will be factored into our assessment.
183. In our IM review draft decision we explained that "we may need to adjust the IRR provided under information disclosure in a way that is more consistent with targeted returns inherent in an airport's pricing decision". NZAA is of the view that this would have been contrary to the purpose of ID regulation and that these adjustments would not have been merited as the carry forward mechanism is meant to ensure that we do not need to make any adjustments.⁸⁰

⁷⁷ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 3.

⁷⁸ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 12.

⁷⁹ In our topic paper on the WACC percentile applicable to airports we explain our decision to require airports to publish evidence that provides an explanation for differences between their WACC and our estimate of the WACC; and their targeted return and their WACC. See, Commerce Commission "Input methodologies review decisions: Topic paper 6 – WACC percentile for airports" (20 December 2016).

⁸⁰ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 200-201.

184. We accept that our previous wording may have been ambiguous as it may have suggested we might 'adjust' the disclosed IRR provided by airports under ID. This is not our intention. As NZAA have rightly pointed out, our changes to the Airports IMs and ID Determinations, including but not limited to the carry forward mechanism, are meant to make the IRR as reflective of an airport's pricing decision as possible. Nevertheless, as we explained in paragraph 172, there may be occasions where the IRR provided by airports in their price setting event disclosures is not fully able to reflect the approaches taken in an airport's pricing decision. In any event, we would only ourselves calculate an IRR of an airport's price setting event when we perform summary and analysis.

Chapter 5: Time profile of capital recovery

Purpose of this chapter

185. This chapter discusses the problems and solutions we have identified in relation to an airport's time profile of capital recovery due to its treatment of revaluations and depreciation.

Structure of this chapter

186. This chapter begins with an introduction to the two main mechanisms through which an airport may end up with a different time profile of capital recovery than that implied by the Airport IMs Determination. These are through its approach to asset revaluations and depreciation.
187. We conclude the chapter with a discussion of an additional problem, and our solution to that problem, that is unique to Auckland Airport (but which could arise for any other airport in future). This problem arises from our solution with respect to asset revaluation.
188. Each discussion on asset revaluations, depreciation and the resulting problem to Auckland Airport covers:
- 188.1 the problem definition and the context in which we considered the problem, including an explanation of how the problem definition evolved through consultation, which included submissions and workshops;
 - 188.2 our solution and the respective reasons associated with the solution; and
 - 188.3 the main comments stakeholders made in submissions on our IM review draft decision and our response.

Introduction to the mechanisms which can adjust time profile of capital recovery

189. An airport can target a time profile of capital recovery that is different to the default position assumed under the Airport IMs Determination through two main mechanisms. These are:
- 189.1 through its approach to the revaluation of its asset base; and
 - 189.2 by explicitly (or implicitly) using non-standard depreciation.

190. The default positions under the previous Airport IMs Determination assumed that.⁸¹
- 190.1 revaluations of land assets had to be calculated by applying the consumers price index (**CPI**), although airports have the option of undertaking valuations at periodic intervals based on a market value alternative use (**MVAU**) methodology;
 - 190.2 revaluations of non-land assets had to be calculated by applying CPI-indexation; and
 - 190.3 depreciation of non-land assets had to be calculated by applying straight line depreciation.
191. When airports use an alternative time profile of capital recovery, our profitability assessments must be able to take into account and assess the appropriateness of the choices that an airport has made when setting prices. This is important to ensure that airport pricing decisions are transparent enough for us and other interested persons to be able to assess whether the airport has been limited in its ability to earn excessive profits (consistent with s 52A(1)(d)).
192. We have previously said that non-standard approaches might be appropriate. In our s 56G report for Auckland Airport we indicated that while the Airport IMs Determination provides an appropriate benchmark for assessing performance it was not the only legitimate benchmark for assessing performance in terms of the Part 4 purpose.⁸²
193. The remainder of this chapter focusses on the problems and our solutions associated with these mechanisms for adjusting the time profile of capital recovery.

⁸¹ *Commerce Act (Specified Airport Services Input Methodologies) Determination 2010* (Commerce Commission Decision 709, 22 December 2010), clauses 3.4 (depreciation) and 3.7 (revaluation).

⁸² Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" (31 July 2013), Chapter 2, p. 20, para 2.41.

Asset revaluations – problem definition

Targeted profitability could be assessed on a different basis from actual profitability

194. When they set prices, airports can apply different asset revaluation approaches to those specified in the Airport IMs Determination, which previously meant that targeted profitability may have been assessed on a different basis from *ex-post* profitability. This was because:
- 194.1 the information disclosed by an airport about its price setting event must be consistent with the approaches the airport applied to forecast costs when determining prices;⁸³ whereas
 - 194.2 the information disclosed by an airport on an annual basis about its actual costs must be consistent with the revaluation approaches set out in the Airport IMs Determination.
195. The previous Airport IMs Determination on asset revaluation did not allow the pricing decisions that differed from the Airport IMs to be reflected in the RAB value that was disclosed. This meant the value of the asset base could have differed between *ex-ante* and *ex-post* disclosure purely due to the different treatment of the revaluations in each situation.
196. These differences meant that, all else being equal, the returns that we assessed under *ex-post* information disclosure may not have been consistent with the airports expected returns when setting prices. This was because the airports may have treated revaluations differently than assumed under the IMs.

How stakeholders see the problem

197. During the IM review consultation process stakeholders expressed views on the subject of asset revaluations. BARNZ acknowledged that airports can use different asset revaluation approaches relative to the Airport IMs Determination but considered.⁸⁴

That it is vitally important that the IMs provide a clear lode-stone against which the reasonableness of the airport's approach can be compared in order to judge its reasonableness.

198. We agree with BARNZ that it is important to be able to assess whether or not the airport's approach is reasonable. This is important in our and other interested persons' assessment of profitability.

⁸³ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 2.5 and Schedule 18. See also definition of "forecast revaluations". *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 1.4.

⁸⁴ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 10-11.

199. NZAA is of the view that there is sufficient information already provided under information disclosure regulation for interested persons to understand airport profitability.⁸⁵ We disagree with this view and consider the requirements could be more transparent to help us and other interested persons understand the implication when an airport has used an alternative approach to asset revaluations.

The problem was first identified in the s 56G review of Auckland Airport

200. The problem associated with asset revaluations was first identified in our s 56G review of the effectiveness of the information disclosure regime for Auckland Airport. Auckland Airport introduced a moratorium on asset valuations which meant revaluations were not included in the value of the asset base used to set prices.⁸⁶ This moratorium was first applied during PSE1 (2007-2012) and will continue in effect until at least the end of PSE2 (2012-2017).
201. An airport's choice of an indexed or un-indexed approach to revaluations changes the implied time profile of capital recovery. All other things being equal, the use of an un-indexed approach justifies higher revenues in the short- to medium-term as opposed to revenues if CPI-indexation is applied. However, either approach can be NPV-neutral over time.

Under s 56G profitability assessed consistent with Auckland Airport's pricing approach

202. In our assessment of Auckland Airport's targeted profitability under s 56G, we reached our conclusions on the effectiveness of information disclosure on the basis of an assessment that was consistent with the approach to revaluations applied by Auckland Airport in pricing.
203. As discussed in the s 56G report, Auckland Airport indicated if a revalued asset base were to be used in pricing in the future, the cumulative revaluation impact will be treated as an offset to the future revenue target.⁸⁷
204. If prices were to be set in future on the basis of the asset value rolled forward using CPI-indexation (without treating the revaluation as an offset to income), then Auckland Airport would be expected to earn excessive profits. This is because prices would reflect CPI-indexed revaluations that have not yet been appropriately treated as income in pricing.

⁸⁵ NZ Airports "Submission on IM review problem definition" (21 August 2015), para 216.

⁸⁶ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" (31 July 2013), Attachment F, p. 91, para F31.

⁸⁷ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" (31 July 2013), Attachment F, p. 85, para F13.

205. Therefore, unless Auckland Airport restates the disclosed asset value consistent with the revaluation moratorium, then future profitability assessments will be more complex. This is because the asset value that has been disclosed on an annual basis is higher than the asset value that would be consistent with Auckland Airport's past pricing approaches and previously indicated intentions.
206. Consequently, a related but separate problem has been created because in the past Auckland Airport has applied an alternative approach to revaluations. This separate problem is discussed later in this chapter.
207. The remainder of this section focusses on the extent to which input methodologies have been amended to reflect alternative revaluation approaches that may be applied by airports at future price setting events. The solution to this problem is intended to avoid the need to restate past asset values if airports change their approach in future.

Asset revaluations – our solution in respect to the problem

Changes to the Airport IMs Determination

208. Our solution is to amend the Airport IMs Determination such that airports are required to apply either CPI-indexation or an un-indexed approach when rolling forward the value of individual assets, depending on the approach applied in pricing. This change applies to both land and non-land assets.
209. We note that, if an airport uses an approach to revaluing assets in pricing that is not consistent with the approaches provided for in the Airport IMs, the airport must roll forward the value of individual assets by electing the approach provided for in the Airport IMs that is most consistent with its pricing decision.⁸⁸
210. We consider that this solution will allow us and other interested persons to better assess if airports are targeting excessive profits.
211. We have made this change because:
- 211.1 although the two approaches imply different time profiles of capital recovery, both are consistent with allowing interested persons to assess whether airports are limited in their ability to earn excessive profits (consistent with s 52A(1)(d));
- 211.2 the benefit of ensuring that the approach when disclosing the roll forward of the value of individual assets reflects the pricing approach is that it improves the transparency of returns and reduces the risk that airports will have to restate asset values in future; and

⁸⁸ We note that, as at the publication date of this topic paper, we are unaware of an airport using another approach to revaluing assets as those we have now specified in the Airport IMs.

- 211.3 it provides additional flexibility to airports to disclose costs on a consistent basis to the approaches used by airports when setting prices.
212. When an indexed approach is applied in pricing, it can be shown that *ex-post* returns will comprise:
- 212.1 a performance-related real return, through cash-flows during the period; and
- 212.2 compensation for inflation, through inflation-indexed asset revaluations.
213. The practical effect of indexing asset values to actual inflation is therefore to ensure that the real return achieved in practice is consistent with the real return embedded in the cost of capital.
214. The primary impact of applying an un-indexed approach is to increase justifiable revenue in the short-term. However, a consequence of this approach is that an airport may also increase the extent to which its real return is exposed to inflation risk. The real return is the return the airport earns over and above compensation for actual inflation.⁸⁹

Changes to information disclosure requirements

215. We have changed the Airports ID Determination such that an airport is required to provide information on the approach used by it to revalue assets (ie, indexation or non-indexation) and the forecast value of revaluations as well as the forecast revaluation rate that the airport has applied to an asset. This information will make the airport's approach to revaluations transparent and provide supporting information for summary and analysis.

Specific implications for Auckland Airport's existing valuations

216. One implication of our changes to the Airport IMs and ID determinations is that Auckland Airport will be required to adjust its historic disclosed asset values such that they are most consistent with the approaches it adopted in pricing. This is required in order to:
- 216.1 ensure that our forward-looking and backward-looking profitability assessments are consistent; and
- 216.2 provide enough transparency for us and interested persons to assess whether Auckland Airport is limited in its ability to earn excessive profits.

⁸⁹ Dr Lally's expert advice on the cost of debt, asset beta adjustments for GPBs, RAB indexation and inflation risk, and TAMRP "Review of further WACC issues" (report to the Commerce Commission, 22 May 2016), p. 41.

217. At our April 2016 workshop, Auckland Airport indicated that restating asset values would be complicated and create significant additional compliance costs.⁹⁰ This is because the airport would have to reconcile its un-indexed approach to each of its individual assets in order to be compliant with the asset valuation IM.
218. We consider that Auckland Airport's concern can be addressed through the use of an alternative approach with an equivalent effect. In paragraphs 339 to 344 we discuss how we have accommodated such an alternative approach under the Airport IMs Determination.
219. We also note that the approach discussed in paragraphs 339 to 344 might provide a mechanism for addressing similar issues if they arise in future. For example, it can be used if airports adopt a non-standard depreciation methodology that is determined at the aggregate asset base level rather than by individual assets.

Past stakeholder views

220. In reaching our solution on the treatment of asset revaluations, we have taken into account past stakeholder views on the matter. This includes submissions on our IM review draft decision which we discuss later in this chapter. For example, in its submission on the IM review problem definition paper, BARNZ indicated that it would support an approach like our solution to this problem.⁹¹
221. BARNZ supported the addition of specified options in the IMs for airports on the degree of revaluations to apply (ie, none, CPI indexing only or Schedule A land revaluations) when rolling forward the RAB (but did not support the introduction of complete or unconstrained flexibility).
222. BARNZ also requested clarity on:
- 222.1 when an airport can make an election of the approach to revaluing assets;
 - 222.2 whether the election can be subsequently changed; and
 - 222.3 how an election by the airport is to be disclosed.
223. Theoretically, in the context of an airport's profitability assessment, an airport can make these elections any time provided revaluations are treated in a NPV-neutral manner (ie, ensuring the real FCM principle is being followed). However, our solution provides clarity which addresses the points raised by BARNZ because the Airport IMs and ID determinations have been amended such that:

⁹⁰ Commerce Commission "Input methodologies review – airports profitability assessment – Workshop 2 – Summary of views expressed" (16 June 2016), Attachment C, para 8.

⁹¹ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review", (21 August 2015), p. 2.

- 223.1 under information disclosure, an airport can only elect its approach to revaluing assets when setting prices, and, if possible, it must use the same approach in its price setting event and *ex-post* disclosures (this will address the points in paragraphs 222.1 and 222.2); and
- 223.2 an airport will be required to provide details on the treatment of any revaluation gains in the next pricing period arising from a change in the approach to revaluing assets (this will address the point in paragraph 222.3).
224. NZAA indicated that it would support the inclusion of further flexibility in the Airport IMs Determination in order to allow pricing revaluation approaches to be aligned with the information disclosure requirements. However, NZAA also argued for any non CPI-based revaluation approaches to be included in the Airport IMs Determination, noting that:⁹²
- Providing this flexibility in the IM would not reduce the effectiveness of the information disclosure regime because the fundamental principle will remain that all revaluations included in the RAB must also be included in disclosed income. However, it would improve the ability of all parties to evaluate airport outcomes because RAB revaluation forecasts and actual outcomes will be presented on a more consistent basis.
225. We acknowledge that, when setting prices, an airport may use an approach to revaluing assets that may be different to those specified in the Airport IMs. In that regard, we note that the approach to revaluing assets can only be the same in price setting event and *ex-post* disclosures when an airport revalued its assets by using either CPI-indexation or an un-indexed approach. If, for price setting purposes, an airport revalued its asset base or parts of it using a non IM-consistent approach, the approaches to revaluing assets in price setting event and *ex-post* disclosures may diverge.
226. However, we consider the carry forward mechanism can be used such that the revaluation approaches in price setting event and *ex-post* disclosures are still the same even if an airport, for price setting purposes, revalued its asset base or parts of it by using a non IM-consistent approach. We discuss this in more detail in the following section.

⁹² NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 39.

Carry forward mechanism is available to address non IM-consistent revaluation approaches

227. We consider that, based on the approaches to revaluing assets airports have used since the introduction of the ID regime, our solution will in most cases provide sufficient flexibility for an airport to disclose how it revalued assets in its pricing decision. However, if an airport revalued its pricing asset base using a non IM-consistent methodology, the carry forward mechanism described in chapters 4 and 7 of this paper is available for airports to transparently disclose this approach. This means that in practice, an airport can use the carry forward adjustment to the forecast closing investment value to reflect the difference in asset values resulting from its pricing approach to revaluations and an IM-consistent approach.
228. By following this approach, the asset roll forward approaches in price setting event and *ex-post* disclosures will still be the same even if an airport, for price setting purposes, revalued its asset base or parts of it by using a non IM-consistent approach.⁹³ This allows us and other interested persons to more easily identify the impact on profitability of airports applying alternative approaches to revaluing assets. We can then comment on how appropriate the airports' approach was through summary and analysis. As we discuss it in more detail in Chapter 6, this approach also allows for a transparent disclosure of un-forecast revaluation gains or losses in the price setting event disclosures of the subsequent price setting period.
229. We consider that this approach addresses NZAA's comment that even further flexibility is required for an airport to be able to disclose any non CPI-based revaluation approaches. Christchurch Airport re-iterates this view in its submission on our IM review draft decision, where the airport suggests "to leave open the option of permitting an airport to apply a fixed increment to the revaluation gain to either all assets (or just to land assets)".⁹⁴
230. In Attachment B, we provide a stylised example that illustrates the mechanics of this approach. We consider it useful for the stylised example to be looked at alongside the narrative provided in this topic paper. This is because the matters relating to the disclosure of asset revaluations based on non IM-consistent approaches and the treatment of any resulting un-forecast revaluation gains or losses in the price setting event disclosures span across several chapters of this topic paper.
231. However, if an airport chooses not to use the carry forward adjustment to the forecast closing investment value to disclose the value of asset revaluations that are associated with non IM-consistent approaches, we want to know to what extent the disclosed forecast asset revaluations comprise such values. We have amended Schedule 18 in the Airports ID Determination accordingly.

⁹³ Further information about the calculation of carry forward amounts can be found in chapters 6 and 7.

⁹⁴ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 26.3.

Asset revaluations – summary of submissions on our IM review draft decision and our response

232. Our final solution is largely unchanged from the proposed solution outlined in our IM review draft decision. However, in response to submissions on our IM review draft decision:
- 232.1 we have removed our proposed change to the Airport IMs Determination to include an objective method of forecasting CPI based on the approach to forecasting CPI used in other regulated industries;
- 232.2 we have removed our proposed change to the Airports ID Determination that required an airport to:
- 232.2.1 disclose the IM-consistent forecast of CPI and the forecast value of revaluations that would have been projected had this methodology been applied at an asset category level; and
- 232.2.2 identify the impact of any differences on the value of forecast revaluations arising from the application of the IM-consistent forecast of CPI and the forecast CPI used to set prices on asset revaluations.
233. In this section, we summarise the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and provide our response.

Our solution to allow for either CPI-indexation or an un-indexed approach when rolling forward the value of individual assets

234. We have not changed our proposed solution outlined in our IM review draft decision that requires airports to apply either CPI-indexation or an un-indexed approach when rolling forward the value of individual assets, depending on the approach applied in pricing.
235. Both NZAA and BARNZ consider this additional flexibility created in the Airport IMs sensible.^{95, 96} Auckland Airport also supports our decision, however, notes that its "position is subject to the proposed ID requirements allowing us to reflect the revaluation approach that has been taken in pricing, which may differ within an asset category as defined by the Commission".⁹⁷ We respond to Auckland Airport's submission in the following section.

⁹⁵ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 214 a.

⁹⁶ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016). p. 8-9.

⁹⁷ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 11a.

Revaluations can be reflected at an individual asset level

236. We acknowledge that the drafting in our IM review draft decision suggested that asset revaluations under information disclosure could only be reflected at an asset category level. We have clarified in our IM review final decision that asset revaluations under information disclosure can be reflected at an individual asset level. This is because airports can have different revaluation approaches for assets within each asset category.
237. When disclosing asset revaluations at an asset category level, we expect an airport to explain when different indexing approaches are adopted within the same asset category.⁹⁸ In particular, we expect an airport to disclose the revaluation rates that have been used within the same asset category. We note that we have not included a requirement on airports to disclose a weighted average of the revaluation rates used across a single asset category as it was suggested by NZAA.⁹⁹ If considered relevant, we will be able to infer such an average rate from the disclosure of forecast revaluations for each asset category ourselves.
238. BARNZ is aware that airports can have different revaluation approaches for assets within each asset category and considers that information disclosure should reflect this to some extent. However, BARNZ considers it "unmanageable" to reflect asset revaluations at an individual asset level. In particular, BARNZ submitted that:¹⁰⁰

Auckland Airport's advice that its moratorium does not apply to all assets within a category has reminded us that the airport did not apply its moratorium to leased assets. BARNZ therefore proposes expanding the election categories it supports to include leased and unleased, which would provide 24 different categories for the decision of whether to revalue or not to be made. BARNZ considers this is ample. It would be unmanageable for interested parties to be faced with an election at any more granular level. In particular, reviewing Auckland Airport's 60 000 line items for decisions on whether to revalue or not would be unworkable.

⁹⁸ This was also suggested by Auckland Airport. See, Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 14 c.

⁹⁹ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 52.

¹⁰⁰ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 4.

239. We acknowledge BARNZ's concern that reconciling asset revaluations disclosed at an asset category level to individual assets can be an onerous task. However, in order to provide transparency, we consider it important that asset revaluations included in the price setting event disclosures track what has been done for pricing. As such we agree with Auckland Airport's comment that:¹⁰¹

it is key that the disclosure requirements allow airports to reflect the approach that has actually been taken in pricing. We support an approach where airports can roll forward individual assets in accordance with the indexing approach to those assets in pricing, with disclosure of aggregate revaluations at an asset category level. This will mean that individual assets within a category may have different indexing approaches applied for disclosure purposes, if that aligns with the pricing approach that has been taken.

Consistent approach to revaluations in price setting and ID disclosures

240. Stakeholders generally agree with the new requirement on airports to disclose forward and backward-looking asset values on a consistent basis to the approaches used when setting prices.¹⁰²
241. NZAA submitted that "the flexibility to align the approach to indexation used in pricing with that used for the purpose of annual ID disclosures has the benefit of improving transparency of returns for interested persons. Alignment between the *ex-ante* and *ex-post* disclosures also minimises the risk of having to restate asset values, which airports are plainly keen to avoid".¹⁰³ Auckland Airport commented in a very similar way.¹⁰⁴
242. However, in its submission on our IM review technical consultation update paper, NZAA requested clarification on how an airport can disclose forecast asset revaluations in its price setting event disclosures if it revalued its asset base for pricing purposes by using approaches that are different from those specified in the Airport IMs.¹⁰⁵
243. We agree with NZAA that information disclosure must ensure that airports have the ability to transparently disclose such a scenario, because, when setting prices, airports do not have to follow the approaches specified in the Airport IMs. We have responded to NZAA's request in this chapter by outlining our view that the impact on asset revaluations resulting from airports using approaches that are different from

¹⁰¹ Auckland Airport "Input methodologies review: Cross submission on draft decision and submission on draft IM and ID determinations" (18 August 2016), para 2d.

¹⁰² See, for example, BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016).

¹⁰³ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 215.

¹⁰⁴ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 13 b.

¹⁰⁵ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 20(a).

those specified in the Airport IMs should be captured in the carry forward adjustment to the forecast closing investment value.

244. As we explain in this chapter, by following this approach, the revaluation approaches reflected in the closing asset bases in price setting event and *ex-post* disclosures will still be the same even if an airport, for price setting purposes, revalued its asset base or parts of it by using a non IM-consistent approach. As we discuss in more detail in Chapter 6, this approach also allows for a transparent disclosure of un-forecast revaluation gains or losses in the price setting event disclosures of the subsequent price setting period.
245. Finally, we note that BARNZ also supports the new requirement on airports to elect an approach to revaluing assets only at the beginning of the next pricing period.¹⁰⁶ No other stakeholder submitted on this.

Our solution regarding disclosure requirements associated with asset revaluations

246. In response to submissions, we have removed from our final IM review decision some of the disclosure requirements that we proposed in our IM review draft decision that apply to asset revaluations.

No disclosure of asset revaluations using an IM-consistent CPI forecast

247. As part of our IM review draft decision we proposed to include in the Airport IMs Determination an objective method of forecasting CPI based on the approach to forecasting CPI used in other regulated sectors. We proposed to amend the Airports ID Determination in a way that airports would have been required to:
- 247.1 disclose the IM-consistent forecast of CPI and the forecast value of revaluations that would have been projected had this methodology been applied at an asset category level; and
- 247.2 identify the impact of any differences on the value of forecast revaluations arising from the application of the IM-consistent forecast of CPI and the forecast CPI used to set prices on asset revaluations.
248. This would have allowed us and other interested persons to understand the forecast value of the assets had the CPI calculated under the Airport IMs been applied. As we discussed in Chapter 6 of our IM review draft decision, an airport that does not revalue its asset base could have used the carry forward mechanism to adjust the opening investment value such that it would remove the difference between actual CPI-indexation and an IM-consistent forecast CPI.
249. However, in response to submissions on our IM review draft decision, we have removed the proposed objective method of forecasting CPI from the Airport IMs Determination as well as the respective disclosure requirements. This is because

¹⁰⁶ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 8.

airports and airlines unanimously agree that "there has not in practice been any material issue regarding the forecasting of CPI, due partly to the presence of readily available objective forecasts in the market and also to the fact that the Commission's approach to forecasting CPI used in other regulated sectors has been available to use as a reference point since 2010".^{107, 108}

250. In their cross submissions on our draft IM review decision, NZAA and Auckland Airport elaborate further on the removal of the respective disclosure requirements regarding asset revaluations and the consequential effects. NZAA considers that the "proposal to require disclosure of "IM compliant" CPI forecasts serves no useful purpose and cannot be justified under the Commission's decision-making framework, namely its requirement that the benefits of any changes outweigh the costs of change".¹⁰⁹
251. Auckland Airport similarly submitted that "if an airport has not forecast to index asset values at CPI in their pricing approach, and is not required to index those asset values at CPI for annual disclosure purposes, we struggle to see the benefit in requiring them to disclose what would hypothetically happen to their asset values if the Commission's estimate of forecast CPI was applied".¹¹⁰
252. As also noted in Chapter 6, consequently, if an airport wanted to remove the effect of inflation risk from its price setting event disclosures, the airport would have to use its own forecast of CPI and provide information on how it has been determined.

Asset revaluations remain permitted

253. The International Air Transport Association ('IATA') submitted that asset revaluations should not be permitted as they are a "tactic to inflate cost base (and thus higher prices)" and it "results in windfall gains at the expense of user – airlines and passengers". With regards to airport land used to provide specified airport services IATA is of the view that "airlines should not pay for the investment value of land and infrastructure used by airports". IATA considers "charges paid by airlines should reflect the operational cost of using the land to provide aeronautical services and not its market value".¹¹¹

¹⁰⁷ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 9.

¹⁰⁸ Airports endorse BARNZ's submission in cross submissions on the draft IM review decision. See, for example, Auckland Airport "Input methodologies review: Cross submission on draft decision and submission on draft IM and ID determinations" (18 August 2016), para 2c and NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 70.

¹⁰⁹ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 71.

¹¹⁰ Auckland Airport "Input methodologies review: Cross submission on draft decision and submission on draft IM and ID determinations" (18 August 2016), para 2c.

¹¹¹ IATA "Submission on draft decision papers and report on the IM review" (4 August 2016).

254. We continue to consider that allowing for asset revaluations (including land to be included in the RAB and revalued using an MVAU approach), as long as any resulting gains are treated as income, is appropriate.¹¹² We have not seen any evidence that suggests otherwise. We note that, during the problem definition stage of the IM review as well as at the various workshops that we held with airports stakeholders, the other stakeholders did not raise concerns with asset revaluations being permitted to airports under information disclosure.

Depreciation – problem definition

255. The Airport IMs and ID determinations allow airports to use non-standard depreciation (also known as alternative, implied or economic depreciation) when disclosing information under information disclosure regulation.^{113, 114} Airports are allowed to apply non-standard depreciation and, under the previous Airport IMs and ID determinations, they had to provide an explanation in their disclosures of what they had done when non-standard depreciation was applied. This was required so that interested persons could assess how it met the Part 4 purpose.¹¹⁵
256. During its second price setting event (**PSE2**) Christchurch Airport set prices based on a 20-year levelised price path but did not disclose a depreciation profile consistent with this pricing decision (ie, it disclosed straight line depreciation). Our s 56G report identified that it would have been more transparent to disclose a non-standard depreciation methodology.
257. Christchurch Airport subsequently made a voluntary re-disclosure of its pricing disclosure using a non-standard depreciation methodology, intended to be consistent with its levelised pricing approach.¹¹⁶ This made Christchurch Airport the first airport to disclose a non-standard depreciation methodology.

¹¹² Our respective reasons are outlined in our 2010 IM Reasons Paper. Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010).

¹¹³ Non-standard depreciation is any methodology other than straight line depreciation as set out in the Airport IMs Determination. *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*.

¹¹⁴ Depreciation is not applied to land and easements (other than fixed life easements) and therefore non-standard depreciation can only be applied to an airport's non-land assets. *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*.

¹¹⁵ Commerce Act (Specified Airport Services Input Methodologies) Determination 2010 (Commerce Commission Decision 709, 22 December 2010), clause 3.4; *Airports Information Disclosure Determination 2010* (Commerce Commission Decision 715, 22 December 2010), clauses 2.5 and 2.3, Schedules 18 and 4.

¹¹⁶ Our s 56G report on Christchurch Airport found that, among other things, the use of a 20-year levelised price path and straight line depreciation made it difficult for us and other interested parties to assess profitability as it broke the link between target returns and the RAB. Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (13 February 2014).

258. Having reviewed the approach applied by Christchurch Airport, we considered that it was an improvement on the previously disclosed information because it:
- 258.1 provided a relatively straightforward way to calculate depreciation that was intended to better reflect the assumptions inherent in Christchurch Airport's pricing approach; and
 - 258.2 was consistent with us and interested persons being able to more readily assess whether Christchurch Airport is limited in its ability to earn excessive profits over time (consistent with s 52A(1)(d)).
259. Nevertheless, our experience with Christchurch Airport's use of a non-standard depreciation methodology has raised a number of problems:
- 259.1 Christchurch Airport did not initially identify that it was appropriate to use non-standard depreciation rather than straight line depreciation when disclosing price setting information for PSE2; and
 - 259.2 in addition, airlines found it difficult to engage with Christchurch Airport's approach to non-standard depreciation. In part, this may have been due to the fact that the non-standard approach adopted by Christchurch was intended to better reflect the lower current utilisation of assets, but (counter-intuitively) was associated with an increase in disclosed depreciation.
260. This suggested that there was scope to improve the previous requirements for non-standard depreciation to ensure that:
- 260.1 an airport discloses a depreciation methodology that is consistent with its pricing decisions; and
 - 260.2 there is sufficient information disclosed to allow us and interested persons to assess the depreciation methodology an airport has disclosed.
261. In addition, we note that different approaches to depreciation may imply changes to the incentives facing airports. For example, a consequence of the approach applied by Christchurch Airport was that the business is exposed to a lower proportion of any overspend in capital expenditure (and, conversely, retains a lower proportion of any benefits associated with an underspend in capital expenditure).
262. Our consideration of each of these matters is explored in greater detail below.

Identification and application of non-standard depreciation approach

263. As part of our review under s 56G for Christchurch Airport, we expressed concerns about the transparency of returns, because (amongst other reasons) Christchurch Airport did not identify that given its pricing methodology it would be appropriate to apply a non-standard approach to depreciation. In our view, such an approach would have better reflected the assumptions inherent in Christchurch Airport's 20-year levelised price path.¹¹⁷
264. As a result of the s 56G report, Christchurch Airport voluntarily restated its price setting event disclosure to incorporate a non-standard depreciation methodology that better reflected Christchurch Airport's pricing intent.¹¹⁸ As noted earlier, our view is that these changes have resulted in improvements in the transparency of Christchurch Airport's pricing approach.

Stakeholders found it difficult to engage with the approach to non-standard depreciation

265. Stakeholders found it difficult to engage with the approach to non-standard depreciation in Christchurch Airport's revised disclosure.¹¹⁹ For various reasons, the disclosed value of non-standard depreciation was higher than the disclosed value of standard depreciation. This was counter-intuitive given the justification for using a non-standard depreciation approach. We consider that the provision of additional information about the approach may have assisted stakeholder understanding.

Impact of non-standard approach to depreciation on incentives

266. By disclosing information about the non-standard approach to depreciation, interested persons have been able to assess the extent to which Christchurch Airport has had incentives to improve efficiency (consistent with s 52A(1)(b)).
267. As noted previously, the impact of the approach applied by Christchurch Airport is that the business is exposed to a lower proportion of any overspend in capital expenditure (and, conversely, retains a lower proportion of any benefits associated with an underspend in capital expenditure).
268. This is because the depreciation applied to the RAB *ex-post* was fixed in advance (set equal to forecast depreciation), and there was consequently no impact on *ex-post* depreciation as a result of the capital expenditure undertaken during the period.

¹¹⁷ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (13 February 2014).

¹¹⁸ Christchurch Airport "Supplementary voluntary disclosures" (28 November 2014).

¹¹⁹ Letter from Aaron Schiff (Schiff Consulting, on behalf of BARNZ) to John McLaren (Manager, Commerce Commission) summarising views on Christchurch Airport's revised information disclosure for PSE2, (9 July 2010).

269. In his paper on updating the regulatory asset base, Biggar discusses the impact using forecast or actual depreciation has on the incentives faced by regulated suppliers. Biggar also provides a number of examples to demonstrate these incentives.¹²⁰

270. The following example (from Biggar) demonstrates the impact of an airport rolling forward the RAB using actual capital expenditure and forecast depreciation:¹²¹

suppose that a firm initially has a RAB equal to zero. Suppose that the capex target for the next five-year regulatory period is \$100 million for a project which lasts 20 years. The forecast depreciation for the next five-year regulatory period is therefore \$25 million. Suppose that the capex out-turn is \$80 million. The closing RAB is then set equal to the opening asset base plus the actual capex less the forecast depreciation, which is \$55 million. Note that the present value of the revenue stream in this example is just \$80 million – the firm neither gains nor loses financially from under-spending in this example. The firm also does not benefit from inflating the capex target.

271. The next example demonstrates the impact of an airport rolling forward the RAB using actual capital expenditure and actual depreciation:¹²²

suppose that the opening RAB is zero. The capex target for the next regulatory period is \$100 million for a project which lasts 20 years. The straight line depreciation allowance on this project for the next five-year regulatory period is $X/4$ where X is the level of spending on the project, so the forecast depreciation is \$25 million. If the capex out-turn is, say, \$80 million, the "actual" depreciation is therefore \$20 million, so the rolled forward asset base is equal to \$60 million. Under this approach the firm is allowed to keep the \$25 million depreciation it earned during the regulatory period, instead of the \$20 million depreciation associated with the lower actual capex. The extra \$5 million is the benefit to the firm from this strategy. This benefit to the firm can be increased by both inflating the capex target (which increases the forecast depreciation allowance) and reducing the actual capital spending of the firm.

272. The examples above highlight that, in applying a non-standard approach to depreciation, it is important to consider the impact that such an approach might have on an airport's incentives to improve efficiency. The specific impact will also depend on other approaches adopted by the airport; for example, whether or not there is a capex wash-up.

273. Airports can set prices as they see fit, and the approaches they apply to depreciation may create different incentives to improve efficiency. However, once prices have been set, they cannot be changed unless there is another price setting consultation (which must occur at least every five years), so the incentives are locked in.

¹²⁰ Darryl Biggar "Updating the regulatory asset base: revaluation roll forward and incentive regulation" (1 April 2004).

¹²¹ Darryl Biggar "Updating the regulatory asset base: revaluation roll forward and incentive regulation" (1 April 2004), para 13.

¹²² Darryl Biggar "Updating the regulatory asset base: revaluation roll forward and incentive regulation" (1 April 2004), para 17.

Depreciation – our solution in respect of this problem

274. To help improve interested persons' understanding about non-standard approaches to depreciation, we have amended the Airport IMs Determination and the Airports ID Determination to include a set of high level principles that airports must apply when disclosing non-standard depreciation profiles.
275. Table 5.1 outlines the principles that now apply and identifies whether the principles have resulted in a change to the Airport IMs Determination or Airports ID Determination.

Table 5.1: Principles and whether these are IM or ID Determination changes

	Principle	Airport IM or ID
1	An airport must disclose the expected time profile of capital recovery implied by its price setting methodology and demonstrate how this is NPV-neutral given its targeted return.	ID
2	The depreciation profile applied and disclosed by an airport must be consistent with the time profile of capital recovery implied by the airport's price setting methodology and its choice of RAB indexation.	IM
3	Despite principle 2, an airport can only apply or disclose a non-standard depreciation profile if it is able to explain why the time profile of capital recovery implied in its price setting is consistent with the purpose of s 52A of the Act.	IM
4	The decision to use non-standard depreciation can only be made <i>ex-ante</i> , at the time when prices are set and the same methodology must be applied <i>ex-post</i> over the period the price setting event is in effect.	IM/ID
5	It should be clearly explained and evidenced how the expected time profile of capital recovery reflects the airport's expected value or utilisation of the RAB or parts of the RAB.	ID
6	When an airport first introduces a non-standard depreciation methodology, the standard straight line depreciation profile must be disclosed alongside the non-standard profile on an <i>ex-ante</i> basis for the lesser of the duration of the asset life or 10 years.	ID
7	If using a non-standard depreciation methodology that is determined using an aggregated asset base, the airport must provide supporting documentation to demonstrate how the non-standard depreciation has been allocated to asset classes.	ID
8	Where an airport has disclosed straight line depreciation but has materially changed the expected asset lives in order to reflect a different time profile of capital recovery, this must be transparently disclosed and include appropriate explanations or justifications for the change.	ID

Reasons for preferring this solution

276. We consider that this solution will improve interested persons' understanding about non-standard approaches to depreciation. In doing so, it will more clearly allow interested persons to assess whether airports are targeting or extracting excessive profits (consistent with s 52A(1)(d)).
277. Our solution seeks to balance flexibility with prescription. By providing principles we can provide clarity on what we expect and the evidence we need to support transparency when an airport chooses to apply non-standard depreciation. By keeping these principles high level we can do so without risking unintended consequences that can come from being overly prescriptive.
278. We consider that this level of flexibility is important because airports are not required to use Airport IMs when they set prices. If the principles were too prescriptive it could discourage airports from taking them into account when setting prices. This would create transparency issues between pricing (when airports do not have to apply the Airport IMs) and information disclosure requirements (when airports do have to apply the Airport IMs).
279. We note that the introduction of principles that need to be followed when airports disclose a non-standard depreciation approach does not imply we have an inherent preference for standard depreciation over alternative approaches.¹²³ Rather, we consider the use of non-standard depreciation requires further explanation as the application of non-standard depreciation is not defined under the Airport IMs and can be more complex than standard depreciation which is generally well understood.
280. We discuss the reason for each of the principles below.

Principle one: an airport must disclose the expected time profile of capital recovery implied by its price setting methodology and demonstrate how this is NPV-neutral given its targeted return

281. This principle seeks to ensure that an airport's decisions about its time profile of capital recovery are transparent to interested persons. It also seeks to ensure that, where an airport has targeted a different time profile of capital recovery, the impact is NPV-neutral at the airport's targeted return.
282. In the absence of this principle, it would have been possible that airports could disclose price setting information in a manner that did not explicitly address the airport's expected time profile of capital recovery or allow interested parties to understand the airport's pricing intent.

¹²³ Christchurch Airport expresses this concern in its submission on our IM review technical consultation paper. Christchurch Airport submission on IM review technical consultation "IM review submission" (3 November 2016), para 8.1.

283. We would have also been concerned that without this principle, an airport could use a time profile of capital recovery that was not NPV-neutral at its targeted return. That is, that an airport could expect a higher expected return using its adjusted time profile of capital recovery than would be expected using the time profile of capital expected using straight line depreciation (given its stated targeted return).

Principle two: the depreciation profile applied and disclosed by an airport must be consistent with the time profile of capital recovery implied by the airport's price setting methodology and its choice of RAB indexation

284. This principle seeks to ensure that the depreciation profile applied and disclosed by an airport is consistent with the time profile of capital recovery inherent in an airport's price setting event. When an airport uses non-standard depreciation in its price setting event disclosures, it is intended to improve the transparency of the airport's time profile of capital recovery rather than further obscuring the airport's pricing decisions. It is important as the purpose of allowing non-standard depreciation is to improve the transparency of pricing decisions. It also seeks to ensure that the airport's depreciation profile is consistent with its decision about the indexation of the RAB.
285. Without this principle an airport could have used a depreciation profile (ie, standard as well as non-standard) that is inconsistent with the time profile of capital recovery that would be implied by its pricing methodology. This would have meant that the forecast closing asset base in our IRR calculation would not provide a good indicator of the remaining capital to be recovered. This would have had the effect of making the disclosure less transparent, making it more difficult for us and other interested parties to assess profitability over time.
286. We consider it important that this principle also applies to standard depreciation. As we have seen in the past (ie, when Christchurch Airport applied standard depreciation alongside its levelised price path in PSE2), the choice of standard depreciation is not always appropriate as it can result in a forecast closing investment value that does not reflect an airport's expectation of the remaining capital to be recovered at the end of a pricing period. We therefore disagree with NZAA's point of view, that "if an airport discloses a standard depreciation approach, further explanation of that approach should not be required".¹²⁴

¹²⁴ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 54.

Principle three: despite principle 2, an airport can only apply or disclose a non-standard depreciation profile if it is able to explain why the time profile of capital recovery implied in its price setting is consistent with the purpose of s 52A of the Act

287. This principle seeks to prevent an airport from using non-standard depreciation in its disclosure where an airport cannot adequately explain the time profile of capital recovery used to set prices. That is, we are seeking to ensure that non-standard depreciation is only used where it is consistent with the purpose of s 52A of the Act.
288. In the absence of this principle, we would have been concerned that an airport could use non-standard depreciation to explain any time profile of capital recovery, even one that would not necessarily be consistent with s 52A given the airport's particular circumstances. For example, when an airport uses non-standard depreciation to account for a levelised price path which is intended to reflect that current demand is low and expected to grow over time, an airport will have to explain why this is consistent with s 52A. Amongst other things, this explanation may comprise supporting information (eg, passenger number forecasts used by the airport when determining its levelised price path).

Principle four: the decision to use non-standard depreciation can only be made ex-ante, at the time when prices are set and the same methodology must be applied ex-post over the period the price setting event is in effect

289. Airports can price as they see fit. This includes being able to choose to explicitly (or implicitly) switch between using straight line and non-standard depreciation from one price setting event to the next. This principle seeks to prevent airports from being able to switch between depreciation approaches for disclosure purposes during a pricing period.
290. Without this principle, airports could have set prices using straight line depreciation then partway through the pricing period begin to disclose using non-standard depreciation (or vice versa). This would have made it difficult for us and other interested persons to assess profitability.

Principle five: it should be clearly explained and evidenced how the expected time profile of capital recovery reflects the airport's expected value or utilisation of the RAB or parts of the RAB

291. This principle seeks to ensure that an expected time profile of capital recovery is being used that reflects the expected value or utilisation of the RAB. We would expect airports to disclose sufficient evidence to support this position.
292. This is important as the explanation and evidence will help us to assess the reasonableness of the airport's approach. It will also allow us to identify whether we need to conduct any further summary and analysis on the impact of the expected time profile of capital recovery on expected returns. Without this information it would have been difficult to reach a view on the approach taken.

Principle six: when an airport first introduces a non-standard depreciation methodology, the standard straight line depreciation profile must be disclosed alongside the non-standard profile on an ex-ante basis for the lesser of the duration of the asset life or 10 years

293. This principle seeks to ensure that we are able to understand the consequence, and test the longer term impact of using non-standard depreciation through our summary and analysis. We do not collect the information required to set the non-standard depreciation profile ourselves. Limiting the disclosure requirement to the lesser of the duration of the asset life or 10 years (ie, two pricing periods) is aimed at ensuring the right balance between increased transparency and additional compliance cost.
294. Without this principle we would not have had enough information to conduct a thorough profitability assessment as we would not have been able to compare what the airport has done to what would have occurred had straight line depreciation been applied. In the absence of a disclosure of the roll-forward of the RAB under straight line depreciation, we would not have had sufficient information to accurately approximate this roll-forward ourselves.
295. Airports will have to disclose both standard and non-standard depreciation forecasts for both the price setting event in which non-standard depreciation is introduced and the subsequent price setting event.
296. We note that the requirement to disclose both standard and non-standard depreciation for the lesser of the duration of the asset life or 10 years does not involve forecasting capital expenditure post the current pricing period. The disclosed depreciation profiles will be purely based on the opening pricing asset base for the current pricing period and the capital expenditure forecast to occur in that period.¹²⁵

Principle seven: if using a non-standard depreciation methodology that is determined using an aggregated asset base, the airport must provide supporting documentation to demonstrate how the non-standard depreciation has been allocated to asset classes

297. Under the ID requirements airports must disclose depreciation information *ex-post* by individual asset class. Airports may use a non-standard depreciation methodology that is determined at the total RAB level rather than by individual asset classes. If this occurs we want to be able to understand how total non-standard depreciation has been allocated across the three non-land asset classes.
298. Without this principle, airports could have allocated total depreciation to the individual assets classes in any manner they choose. Requiring airports to explain any allocation methodology allows us to consider whether the airports' approach seems reasonable by considering the asset class's proportion of the total RAB or its proportion of total depreciation under a straight line depreciation approach.

¹²⁵ This is in response to a concern Christchurch Airport expresses in its submission on our IM review technical consultation paper. Christchurch Airport submission on IM review technical consultation "IM review submission" (3 November 2016), para 8.2.

Principle eight: where an airport has disclosed straight line depreciation but has materially changed the expected asset lives in order to reflect a different time profile of capital recovery, this must be transparently disclosed and include appropriate explanations or justifications for the change

299. The purpose of this principle is to ensure that an airport's decisions about changing its time profile of capital recovery are made transparent through information disclosure.
300. An airport may be able to alter its expected time profile of capital recovery by changing the asset lives used to determine the value of depreciation using the straight line methodology. The previous information disclosure requirements did not collect sufficient information about the asset lives used to determine the disclosed depreciation using straight line depreciation or how these have changed over time.
301. Without this principle, it may have been possible for an airport to alter its time profile of capital recovery, even when using the default straight line depreciation methodology, without making this transparent to ourselves or interested persons.
302. We have amended the Airports ID Determination such that an airport is only required to disclose the respective information if the change in asset lives has a material impact on the average asset life across the relevant asset category.¹²⁶ We have defined this impact on the average asset life of the asset category as being 10% or greater.
303. We note that an airport may request from us an exemption to any requirement of the Airports ID Determination under clause 2.9 of the Airports ID Determination. With regards to principle eight, an airport may make such a request if it considers the materiality threshold of 10% seems inappropriate given its particular circumstances.

We have not made any amendments to specify how airports disclose information about the value of non-standard depreciation ex-post

304. We have not amended the Airport IMs and ID determinations to specify how airports disclose information about the value of non-standard depreciation *ex-post* (ie, whether an airport should use forecast or actual depreciation). This is because, while the approach an airport takes to non-standard depreciation will have an impact on the incentives for airports to be efficient in their capital expenditure, it is not the only factor that will have an impact.

¹²⁶ We did this in response to NZAA's submission on our IM review technical consultation update paper where NZAA suggests that a requirement on airports to disclose the information every time an airport makes a change to the expected life of one of its assets can be very onerous. NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 54.

305. In practice, incentives to be efficient will be affected by a range of decisions made by airports including:
- 305.1 the approach to the disclosure of depreciation;
 - 305.2 the WACC businesses expect to earn;
 - 305.3 the choice of whether or not to index the RAB;
 - 305.4 the use of the carry forward mechanism; and
 - 305.5 proposed wash-ups and other adjustments for forecasts versus actuals.
306. Under information disclosure regulation (ie, where airports can set prices as they see fit), we do not determine the incentives for airports to be efficient in their capital expenditure. However, it is possible for us to assess the strength of incentives faced by airports and whether they are consistent with s 52A(1)(b).
307. To assess the efficiency incentives airports face, we need to consider the decisions an airport makes in aggregate rather than individually. Therefore, changes to the way in which we require depreciation to be disclosed would not necessarily affect the strength of a specific efficiency incentive. This is because the strength of the incentive could be adjusted by other decisions made by an airport.
308. It is also not clear that there is an appropriate strength of incentive that should be targeted in all situations. It could be that judgement needs to be applied to assess what incentive strength should be in place for any airport at a particular point in time.

Depreciation – summary of submissions on our IM review draft decision and our response

309. Our final solution, the inclusion of a set of high level principles that airports must apply when disclosing non-standard depreciation profiles, is largely unchanged from our proposed solution outlined in our IM review draft decision. However, in response to submissions on our IM review draft decision, we have revised the following principles:
- 309.1 Principle 3: We have revised this principle such that it requires an airport that uses non-standard depreciation to explain why the time profile of capital recovery, implied in its price setting, promotes the purpose of s 52A of the Act. In our IM review draft decision we proposed to require an airport to justify or explain why the time profile of capital recovery implied in its price setting is appropriate.

- 309.2 Principle 5: We have revised this principle such that it requires an airport that uses non-standard depreciation to clearly explain and evidence how the expected **time profile of capital recovery** (ie, which comprises an airport's approach to non-standard depreciation and asset revaluations) reflects the airport's expected value or utilisation of the existing RAB. In our IM review draft decision we proposed to require an airport to clearly explain and evidence how the **non-standard depreciation profile** reflects the airport's expected value or utilisation of the existing RAB.
- 309.3 Principle 6: We have revised this principle such that it requires an airport following the introduction of a non-standard depreciation methodology to disclose the standard straight line depreciation profile alongside the non-standard profile on an *ex-ante* basis for the lesser of the duration of the asset life or 10 years. In our IM review draft decision we proposed to require an airport to disclose this information for the duration of the current pricing period only.
310. All airports and airlines who submitted on our proposed solution unanimously supported the inclusion of a set of high level principles that airports must apply when disclosing non-standard depreciation profiles.
311. NZAA considers that any "concerns surrounding disclosures involving the use of non-standard depreciation are, in our view, now significantly diminished".¹²⁷ Christchurch Airport also supports the inclusion of principles in the Airport IMs and ID determinations and considers that the "approach strikes an appropriate balance, informing all stakeholders about the Commission's expectations and a principled approach to non-standard depreciation, without being so prescriptive as to mandate particular approaches to disclosure that might depart from commercial pricing".¹²⁸
312. Christchurch Airport, who used non-standard depreciation for its PSE2, considers that our proposed set of principles provides for a useful framework that can be used during consultations with airlines for its upcoming price setting event. In particular, Christchurch Airport submitted the following:¹²⁹

As the Commission is aware this topic is of particular relevance to CIAL. Our approach to depreciation in PSE2 was restated to a non-standard depreciation method (implied depreciation) in order to make transparent the return of capital during PSE2. Looking forward to PSE3 we have committed to consulting with our customers on an approach to non-standard depreciation that is transparent and economically correct. The principles proposed by the Commission assist us in selecting and explaining our depreciation method, and should provide a useful framework for consultation with our customers.

¹²⁷ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 224 (d).

¹²⁸ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 21.

¹²⁹ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 23.

313. BARNZ also appreciates the inclusion of principles in the Airport IMs and ID determinations. In particular, BARNZ submitted that:¹³⁰

BARNZ does not consider that requiring airports to justify and explain their rationale for using non-standard depreciation according to the principles or specific topics set out in Table 5.1 creates an unreasonable deterrent against applying non-standard depreciation. While the additional information required will undoubtedly create an additional obligation on the airports to explain and justify the approach being used, BARNZ does not consider that this is inappropriate. Non-standard depreciation should be reserved for situations which are outside of the norm, and where there is something different justifying amending the profile of the recovery of capital. A substantial investment, which will have a low level of use initially, with use increasing over time, is an obvious example – a new terminal, or perhaps a second runway. For large investments such as these, the cost or time of complying with additional disclosure requirements to establish the justification and rationale for adopting a non-standard profile for the recovery of capital, will be minimal in relation to the size of the investment.

314. Both BARNZ and Christchurch Airport, however, suggested a few revisions to the principles as we proposed them in our draft decision of the IM review. In the following, we discuss these proposed revisions and outline to what extent we have addressed them in our final solution.

Principle 3

315. In our IM review draft decision we proposed to require an airport to justify or explain why the time profile of capital recovery implied in its price setting is appropriate.
316. BARNZ submitted that our proposed drafting would "benefit from the concept of 'appropriate' being grounded in some way". Ideally, BARNZ would want a new principle requiring airports to disclose how the non-standard depreciation profile contributes to the long-term benefit of consumers and the outcomes produced in competitive markets as set out in s 52A(1).¹³¹
317. We accept that our previous drafting was potentially too vague and that it could have allowed for different interpretations against which standard the 'appropriateness' of non-standard depreciation should have been assessed. We agree with BARNZ that it is the extent to which it promotes s 52A of the Act that interested persons want to understand. We have updated principle 3 in order to address BARNZ's concern accordingly.

¹³⁰ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 11-12.

¹³¹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 11.

318. Given that airports will need to explain why the time profile of capital recovery implied in its price setting is consistent with the purpose of s 52A of the Act, we also consider principle 3 addresses IATA's comment made in its submission on our IM review draft decision (ie, "any deviation from straight line methodology should only be in benefits of consumers").¹³²

Principle 5

319. In our IM review draft decision we proposed to require an airport to clearly explain and evidence how the non-standard depreciation profile reflects the airport's expected value or utilisation of the existing RAB.
320. Christchurch Airport submitted that our proposed drafting should be refined "to clarify that this principle would authorise a firm to choose a depreciation method that resulted in the combination of the return on capital and return of capital bearing a relationship to the expected value or utilisation of the existing asset base (and thus generating a smoother price path over time)".¹³³
321. We agree with Christchurch Airport that it is the combination of the return of capital and return on capital that bears the relationship to the existing RAB. Accordingly, we have refined this principle in order to reflect that the focus should be on the time profile of capital recovery and how this reflects the airport's expected value or utilisation of the existing RAB.

Principle 6

322. In our IM review draft decision we proposed that the standard straight line depreciation profile must be disclosed alongside the non-standard profile on an *ex-ante* basis for the pricing period when an airport first introduces a non-standard depreciation methodology.
323. At the workshop that we held in April 2016, our staff discussed this principle with the participants and suggested the information disclosed should even reflect the entire remaining life cycle of an asset. Workshop participants were concerned that continually disclosing both straight line and non-standard depreciation beyond the current pricing period could create confusion and complexity.¹³⁴ We agreed with the participants and, in our IM review draft decision, we therefore required airports to provide the information only for the current pricing period.

¹³² IATA "Submission on draft decision papers and report on the IM review" (4 August 2016).

¹³³ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 22.

¹³⁴ Commerce Commission "Summary of views – Airports profitability assessment – Workshop 2" (16 June 2016), para 13.

324. BARNZ submitted that the disclosure of this information for the duration of the current pricing period is too short. BARNZ considers that a "comparison of the two profiles for a longer period is needed – ideally the length of the comparison would equate to the predicted term the non-standard depreciation will apply for". However, BARNZ is of the view that "with some long life assets this might be too onerous, on balance, a ten year comparison is appropriate, and balances the requirement for requiring interested parties have sufficient information and transparency, against the cost involved in preparing longer comparisons".¹³⁵
325. In its cross submission on our IM review draft decision, NZAA disagrees with BARNZ's proposal to provide a ten year comparison of depreciation profiles. NZAA considers BARNZ's proposal was "put forward without any objective justification" and that the "costs associated with compiling this information are underestimated by BARNZ". In addition, NZAA is of the view that "the transparency sought by the Commission is achieved through the application of the seven other non-standard depreciation principles".¹³⁶
326. In requiring airports to provide information, we consider it important that the information disclosure requirements strike the right balance between enhancing transparency of an airport's pricing intent and the additional complexity and compliance cost.
327. In that regard, we do not consider BARNZ's proposal to be unreasonable. By providing comparisons for ten years (ie, two price setting events), we and interested persons can identify the difference in methodology and understand how the airport is intending to update non-standard depreciation for new information at a subsequent price setting event. We note that these were the most significant concerns we and BARNZ had in understanding Christchurch Airports non-standard depreciation approach implemented at its PSE2.¹³⁷
328. We therefore have revised principle 6 such that airports have to disclose the standard straight line depreciation profile alongside the non-standard profile on an *ex-ante* basis for the lesser of the duration of the asset life or 10 years. We consider this enhances transparency under ID and addresses BARNZ's comment in ensuring the right balance between increased transparency and additional compliance cost.

¹³⁵ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 11.

¹³⁶ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 58.

¹³⁷ For more information, see Commerce Commission "Summary and analysis of Christchurch Airport's revised information disclosure for its second price setting event" (9 July 2015), para 66-75.

329. In providing this information in its price setting event disclosures, we note that an airport is likely to avoid having to respond to questions we or other interested persons may have in trying to understand the longer term impact if an airport selects to use non-standard depreciation. We consider that such a process, as it was the case when Christchurch Airport restated its PSE2 disclosures, is likely to be more onerous and costly for the airport than complying with the additional information disclosure requirements.

Suggested new principle

330. BARNZ submitted that the "principles do not expressly address whether the non-standard depreciation profile has to be applied to the RAB as a whole, or whether it can be focused on particular assets or related asset groups [...] BARNZ supports the airports having the ability to apply non-standard depreciation to particular assets or groups of assets where the circumstances in question satisfy the principles proposed by the Commission".¹³⁸
331. We have not included such a principle as part of our solution because we consider the alternative methodologies with equivalent effect mechanism introduced as part of this IM review creates sufficient flexibility in the Airport IMs for airports to apply depreciation (straight line as well as non-standard) to particular assets or related asset groups.
332. We explain the alternative methodologies with equivalent effect mechanism in more detail in the following section. There we introduce it as our solution to Auckland Airport's unique problem which requires the airport to adjust past disclosures in order to reflect its asset moratorium.
333. We note that, although we introduce the mechanism in the context of asset revaluations, we have amended the Airport IMs Determination such that the alternative methodologies with equivalent effect mechanism can be applied where the application of the asset valuation IMs in general would prove prohibitively complex or costly.¹³⁹ Amongst other things, this includes the IM that applies to the disclosure of an airport's approach to depreciation.
334. This means in practice, provided the application of the Airport IMs (ie, requiring airports to calculate depreciation at the asset level) would prove prohibitively complex or costly, an airport can apply depreciation to particular assets or related asset groups so long as it results in an outcome that provides for an effect which is likely to be equivalent to the application of the asset valuation IMs. We note that, when using the alternative methodologies with equivalent effect mechanism, additional disclosure requirements as explained in the following section will apply.

¹³⁸ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 11.

¹³⁹ In the following section, we use a particular problem to Auckland Airport as an example to illustrate what 'prohibitively complex or costly' can mean.

Restatement of asset values for Auckland Airport and other airports affected in future

335. This section outlines an issue for Auckland Airport (and other airports affected in future) resulting from our solution regarding asset revaluations, and discusses our solution to this issue.

Problem definition

336. Under our solution for asset revaluations airports will be required, when disclosing the roll forward of the value of individual assets, to reflect the approach to asset revaluations applied in its pricing decision. This is of particular importance for Auckland Airport, as the airport will have to adjust past disclosures to reflect its moratorium on asset revaluations (as identified in paragraph 216 to 219). Depending on how this is implemented by the airport, this can result in write-downs relative to the values that have been disclosed under information disclosure regulation.
337. Auckland Airport expressed some concern with the complexity and cost associated with re-disclosing historic RABs to reflect an un-indexed approach to revaluations. In particular, rather than a concern with our solution in principle, the concern appeared to be around the practical implications of implementing our solution given the requirement under the Airport IMs to roll forward each asset individually. This would require a significant amount of effort from Auckland Airport to reconcile and roll forward over 60,000 assets using the revised approach.¹⁴⁰
338. More generally, the issue arises because the Airport IMs Determination defines asset values as being rolled forward on an individual asset basis, rather than in aggregate.

Our solution

339. We consider that an adjustment to past disclosures to reflect Auckland Airport's moratorium on asset revaluations can be accommodated through either a restatement of the RAB, or an adjustment to the forecast closing investment value in the year preceding Auckland Airport's next price setting event. If Auckland Airport wanted to do the latter, it could use the carry forward mechanism that we have introduced and discussed in the context of the forward-looking profitability indicator (Chapter 4).
340. We are of the view that a restatement of the RAB is more appropriate, as it better reflects the permanent nature of the adjustment that is required to Auckland Airport's past disclosures (ie, to make them consistent with price setting event disclosures). We consider the carry forward mechanism to be more appropriate for an airport to reflect specific decisions that have a short to medium term impact on future pricing decisions. As such we would be concerned that an adjustment to the closing investment value using the carry forward mechanism may be perceived by the airport and interested persons as only a temporary adjustment that may be offset and revoked in future.

¹⁴⁰ Commerce Commission "Input methodologies review – Airports profitability assessment – Workshop 2 – Summary of views expressed" (16 June 2016), Attachment C, para 9.

341. However, we acknowledge that restating the RAB by rolling forward each asset individually (as it is required by the Airport IMs) can be too onerous. We, therefore, have amended the Airport IMs Determination such that airports can apply alternative methodologies with equivalent effect where the application of the IMs would prove prohibitively complex or costly. These alternative methodologies can only be applied in place of the requirements to roll forward the asset base under the Airport IMs.
342. The alternative methodology can be used when an airport makes a disclosure (either forward-looking or backward-looking) so long as it results in an outcome that provides for an effect which is likely to be equivalent to the application of the Airport IMs and it does not detract from the purpose of Part 4.
343. In applying an alternative methodology, an airport has to comply with additional information disclosure requirements that require an airport to:
- 343.1 identify any alternative methodology applied;
 - 343.2 identify where the alternative methodology has been applied in the disclosure;
 - 343.3 discuss the reasons for the alternative methodology;
 - 343.4 provide evidence the methodology is likely to have an equivalent effect (and does not detract from the Part 4 purpose); and
 - 343.5 provide appropriate certification (ie, senior management).
344. When applying an alternative methodology, airports are still required under the Airports ID Determination to break down the RAB into the four asset categories of land; sealed surfaces; infrastructure and buildings; and vehicles, plant and equipment.

Reasons for preferring this solution

345. Consistent with our decision-making framework, we consider that the inclusion of alternative methodologies with equivalent effect results in a reduction in complexity and compliance costs while still not detracting from the purpose of Part 4.
346. In addition, we do not require individual asset values when assessing airport profitability. When assessing airport profitability, on either a forward or backward-looking basis, we do not use any information beyond the RAB reported at an asset category level. We consider that the four asset categories provide sufficient transparency for the disaggregation of the RAB for interested persons.

347. We do not consider that this amendment causes future problems due to insufficient transparency regarding the value of individual assets. While it has been useful to have this level of information in other sectors in order to easily account for the sale and purchase of regulated assets, such sales have not been material in the airport's sector.

We consider a pseudo-asset can be an alternative methodology with equivalent effect

348. In our IM review draft decision, we discussed the concept of a pseudo-asset as an alternative solution to the application of the alternative methodologies with equivalent effect mechanism.¹⁴¹ Such a mechanism would have been more targeted towards the specific issue facing Auckland Airport, as opposed to the more general alternative methodologies with equivalent effect mechanism.¹⁴²
349. We did not amend the Airport IMs Determination in order to allow for the application of pseudo-assets. This is because the more general alternative methodologies with equivalent effect mechanism provides greater flexibility to airports. However, despite the fact that we discussed in our IM review draft decision the concept of a pseudo-asset as an alternative solution to the application of the alternative methodologies with equivalent effect mechanism, we consider Auckland Airport (or any other airport) could apply the concept of a pseudo-asset under the umbrella of the alternative methodologies with equivalent effect mechanism.¹⁴³
350. In complying with the information disclosure requirements that apply when an airport makes use of the alternative methodologies with equivalent effect mechanism, the airport will enable us to comment on its use and its implementation when we perform summary and analysis.

Transitional schedules allow for a restatement of the RAB

351. Auckland Airport's annual disclosures during PSE2 (2012-2017) have been unable to reflect the airport's moratorium on asset revaluations that was applied in its price setting methodology. This creates difficulties for both the assessment of the airport's actual performance during PSE2 by interested persons and the disclosure of Auckland Airport's third price setting event.

¹⁴¹ We have previously used pseudo-assets in the asset valuation input methodologies for Transpower. How pseudo-assets work in the Transpower context is discussed in Commerce Commission "Input methodologies (Transpower) reasons paper" (22 December 2010), para 4.4.25-4.4.30.

¹⁴² In its submission on our draft IM review decision, Auckland Airport notes that the application of a pseudo-asset should be possible under our final IM review decision as the inclusion of a pseudo-asset in the RAB can reflect the impact on the RAB of unwinding the moratorium at Auckland Airport. Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 17 c.

¹⁴³ Provided the application of a pseudo-asset would result in an outcome that is likely to be equivalent to the application of the IMs.

352. We have included a transitional schedule in the Airports ID Determination which an airport can submit at the time of the next price setting event disclosure. The purpose of this transitional schedule is for airports that have been unable to disclose historic asset values consistent with their price setting methodology to restate its asset value information.¹⁴⁴
353. The transitional schedule, which is discussed in greater detail in Attachment A, includes a restatement of the RAB, broken into asset categories for the most recent disclosure year and a restatement of the historic roll-forward of the RAB for the past five years at the aggregate level.¹⁴⁵
354. For Auckland Airport, we would expect the transitional schedule to include a disclosure of the value of the asset base at the asset category level in disclosure year 2016 reflective of the moratorium on asset revaluations that has been in effect since 2007. We would also expect a restatement of the asset value roll forward at the aggregate level consistent with the moratorium on asset revaluations since 2012. Finally, Auckland Airport would need to explain whether any alternative methodology with equivalent effect had been applied (eg, using a pseudo-asset) and provide suitable reasoning and evidence to support this.

Summary of submissions on our IM review draft decision regarding the restatement of asset values for Auckland Airport and our response

355. Our final solution, the inclusion of an alternative methodologies with equivalent effect mechanism, is largely unchanged from our proposed solution outlined in our IM review draft decision. However, in response to submissions on our IM review draft decision:
- 355.1 we have clarified that an adjustment to Auckland Airport's past disclosures to reflect its moratorium on asset revaluations should be accommodated through a restatement of the RAB;
- 355.2 we have confirmed that an alternative methodology with equivalent effect mechanism to restate Auckland Airport's RAB can be used;
- 355.3 we have clarified that it may be appropriate to create a pseudo-asset under the umbrella of the alternative methodologies with equivalent effect mechanism;

¹⁴⁴ The transitional schedule is only for use by an airport that is able to disclosure asset values in a manner consistent with the IMs or is able to meet the disclosure requirements for alternative methodologies with equivalent effect.

¹⁴⁵ The inclusion of the transitional schedule allows airports to simplify the explanations provided in the price setting event disclosures by updating historic disclosures for the IM changes resulting from the IM review. It also provides additional information to support the assessment of past performance by airports in a manner that is more consistent with the airport's price setting methodology, the method used for assessing performance in our s 56G reports and our approach to assessing performance in future.

- 355.4 we have amended our proposed drafting in the Airports IM and ID Determinations such that the alternative methodology applied is **likely** to have an equivalent effect; and
- 355.5 consequentially, we have refined our view on the senior manager's certification when applying an alternative methodology with equivalent effect such that:
- 355.5.1 all reasonable enquiry has been made to ensure that the alternative methodology is **likely** to have an equivalent effect; and
 - 355.5.2 airports have to provide information on the factual basis on which this certification has been made.
356. In the remainder of this section, we summarise and respond to submissions that relate to the introduction of the alternative methodologies with equivalent effect mechanism in the Airport IMs Determination first, followed by a summary and our response on submissions on potential alternative solutions that Auckland Airport could use to adjust past disclosures in order to reflect its moratorium on asset revaluations.

The introduction of an alternative methodologies with equivalent effect mechanism

357. NZAA supports our decision "to allow airports to apply alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. Under the Commission's proposal, alternative methodologies can (rightly in our view) only be applied if they do not detract from the purpose of Part 4".¹⁴⁶
358. Auckland Airport "appreciates the Commission's acknowledgment of our concerns with the complexity and cost associated with any restatement attempt at an individual asset level. We therefore support the draft decision to allow Auckland Airport to restate its current RAB using alternative methodologies with equivalent effect".¹⁴⁷

¹⁴⁶ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 216.

¹⁴⁷ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 17 a.

359. BARNZ does not oppose the use of alternative methodologies with equivalent effect where the application of the asset valuation IMs would prove prohibitively complex or costly. However, BARNZ:¹⁴⁸

359.1 suggests the mechanism should only be available with prior leave from us because airports could be incentivised "to develop accounting systems and asset registers in a manner which enables them to avoid IM requirements on the basis that they are complex or costly"; and

359.2 considers the alternative methodologies with equivalent effect mechanism to be unnecessary. BARNZ submitted that the next closest alternative methodology that was available for other regulated industries under the previous IMs determinations provided for an appropriate solution if asset valuation IMs are prohibitively costly and complex.

360. We note that as part of this IM review, we have made the decision to remove the next closest alternative methodology from all respective IM determinations.¹⁴⁹ Consequently, it is not available anymore to any of the industries regulated under Part 4 of the Act.

361. However, the next closest alternative methodology served a different purpose compared to the alternative methodologies with equivalent effect mechanism and would not have been appropriate if the application of the asset valuation IMs are prohibitively costly and complex.

362. In that regard we agree with NZAA's cross submission on our IM review draft decision.¹⁵⁰ NZAA notes that it was the purpose of the next closest alternative methodology to allow for an alternative approach to be applied when the prescriptive approach in the IMs became unworkable. It aimed to provide flexibility while maintaining certainty of the material effect of the IMs. As such, the next closest alternative methodology could have resulted in an equivalent or non-equivalent outcome to the prescriptive approach.

¹⁴⁸ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 12.

¹⁴⁹ Commerce Commission "Input methodologies review final decision: Report on the IM review" (20 December 2016).

¹⁵⁰ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 52.

363. We acknowledge BARNZ's concern that, without prior leave from us, airports could be incentivised "to develop accounting systems and asset registers in a manner which enables them to avoid IM requirements on the basis that they are complex or costly". However, we consider the risk that airports intentionally create such systems in order to use an alternative methodology with equivalent effect very low. This is because, when using an alternative methodology with equivalent effect, airports will have to comply with additional information disclosure requirements (as discussed in paragraph 343). These are aimed at ensuring that sufficient information is available for us and other interested persons to assess whether the application of an alternative methodology with equivalent effect was appropriate.¹⁵¹
364. Airports and airlines unanimously submitted on the circularity that was inherent in our IM review draft decision.¹⁵² This circularity resulted from a requirement on airports to provide evidence that an alternative methodology has an equivalent effect on the valuation outcome compared to applying the asset valuation IMs. We agree with Auckland Airport, who submitted that:¹⁵³
- In order for an airport to know that an alternative methodology has an equivalent effect, it would, logically, need to apply the IMs to ascertain what effect it has. Clearly, this would defeat the purpose of allowing the use of alternative methodologies with equivalent effect.
365. We accept that this would have been unduly onerous and have revised our IM review draft decision such that, when applying an alternative methodology, evidence has to be provided that suggests that it achieves an effect that is **likely** to be equivalent with the valuation outcomes had the IMs been applied.
366. Consequentially, we have also revised the senior manager's certification requirements in order to reflect our revised thinking. These now require a senior manager to certify that all reasonable enquiry has been made to ensure that the alternative methodology is **likely** to have an equivalent effect. The airport has to underpin the certification with the factual basis on which it has been made.

¹⁵¹ NZAA proposes very similar information disclosure requirements in order to address BARNZ's concern in its cross submission on the IM review draft decision. NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 49.

¹⁵² See, for example, NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 217, and BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 5.

¹⁵³ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 22.

Alternative solutions to adjust past disclosures in order to reflect Auckland Airport's moratorium on asset revaluations

367. Auckland Airport seeks flexibility in order to adjust past disclosures to reflect its moratorium on asset revaluations and submitted that:¹⁵⁴

the Commission should refrain from mandating one option for addressing the impact of Auckland Airport's "disclosure-only" revaluations on its current RAB. In short, we think it is too early to narrow down the disclosure options that are available. We think restatement (including through the use of alternative methodologies), the carry forward mechanism, and the pseudo-asset mechanism could all be workable and transparent, and that it is too early to prejudge which will be the most transparent in practice.

368. BARNZ is of the view that Auckland Airport's asset values should be restated but opposes more than one option being available in order to adjust past disclosures to reflect Auckland Airport's moratorium on asset revaluations. In its cross submission BARNZ noted:¹⁵⁵

BARNZ does not support there being a menu of alternative means of disclosure on a topic as fundamental (and historically very contentious) as asset valuations. Certainty is required by all parties. BARNZ considers that the Commerce Commission needs to specify one option for restating asset values, with airports having the ability to apply for leave to use an alternative methodology (should the specified methodology not prove able to be applied in practice) under the new IM proposed to be contained in new clause 1.5 of the IM Determination. BARNZ is fundamentally opposed to airports having the ability to adopt an alternative approach with equivalent effect, without any prior oversight by the Commission, as proposed in the draft determination.

Of the three options, BARNZ's preference is for the asset values to be restated. As noted in our main submission, a decision on whether or not to revalue assets should ideally be a stable long-term decision and, as such, is not particularly suited for inclusion within the carry forward mechanism, which, as noted by the Commission, is intended for short to medium term adjustments.

369. We understand Auckland Airport's proposal to preserve in our IM review decision a suite of potential solutions in order to adjust past disclosures to reflect its moratorium on asset revaluations. Under our solution, Auckland Airport will still be able to apply an alternative methodology with equivalent effect which can include a pseudo-asset approach (see paragraph 349).

¹⁵⁴ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 22.

¹⁵⁵ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 3-4.

370. However, as a mechanism to adjust Auckland Airport's past disclosures, we consider the use of the carry forward mechanism to adjust the forecast closing investment value less appropriate. This is because, as is discussed in paragraph 340, a permanent adjustment to Auckland Airport's past disclosures is better accommodated through a restatement of its RAB as opposed to an adjustment of the forecast closing investment value.
371. Consistent with BARNZ's view, we have clarified that an adjustment to Auckland Airport's past disclosures to reflect its moratorium on asset revaluations should be accommodated through a restatement of the RAB. However, we have not mandated the implementation approach to restating the asset base for Auckland Airport (or any other airport) as this may create a situation where information disclosure is not flexible enough to accommodate the specific situation of an airport in future. Under the umbrella of the alternative methodologies with equivalent effect mechanism, airports will be able to determine an implementation approach to restating the asset base that is best suited to their specific situation.¹⁵⁶

¹⁵⁶ Provided the application of the alternative methodology would result in an outcome that is likely to be equivalent to the application of the IMs.

Chapter 6: *Ex-post* effects of risk allocation

Purpose of this chapter

372. The purpose of this chapter is to explain our solution to the problem associated with the *ex-post* effects of risk allocation in the context of the profitability assessment of airports.
373. In this chapter we explain to what extent the opening investment value should be adjusted in order to appropriately reflect the *ex-post* effects of risk allocation.¹⁵⁷
374. In the context of this chapter:
- 374.1 given that airports set prices in advance, airports and airlines use the term **risk** as a way to describe that actual out-turns can be different from forecasts. For example, when determining prices of the current pricing event, an airport forecasts demand of the next five years. The risk is that the actual demand disclosed *ex-post* can be higher (lower) from forecast demand resulting in higher (lower) *ex-post* returns than forecast; and
- 374.2 the term '***ex-post* effects of risk allocation**' refers to decisions that were made in previous pricing periods by airports on how those risks should be allocated between airports and airlines. This is important in the context of the *ex-ante* profitability assessment, as the allocation of those risks can affect charges of the current pricing event.

Structure of this chapter

375. This chapter begins with a section on the problem definition. We also use this section to explain the relevant context that we considered in determining our solution.
376. We then explain our solution and the reasons for it. This chapter finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

377. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops. In this section we also explain the relevant context for our solution.

Summary of problem definition

378. The Airports ID Determination did not provide sufficient transparency for us and other interested persons to identify *ex-post* effects of risk allocation between airports and airlines made during previous price setting events.

¹⁵⁷ As discussed in Chapter 4, the opening investment value comprises the opening RAB and a carry forward mechanism to adjust the opening investment value.

379. This was problematic as it impacted our and other interested persons' ability to accurately assess if an airport was targeting excessive profits.

A forward-looking profitability indicator requires assumptions on the opening investment value

380. As discussed in Chapter 4, we have included a forward-looking profitability indicator (**IRR**) in the Airports ID Determination for future price setting events which comprises:

380.1 forecast cash-flows over the duration of the pricing period;

380.2 the opening investment value; and

380.3 the forecast closing investment value.

381. We need to determine, in advance, the most appropriate assumptions regarding the opening investment value such that the IRR is the best reflection of an airport's pricing intent.

382. As explained in Chapter 4, in order to establish an **opening investment value** that is a good reflection of an airport's pricing intent and the initial capital to be recovered, it comprises:

382.1 the IM-compliant **closing RAB** from the *ex-post* disclosure of the year preceding the start of the current price setting event;¹⁵⁸ and

382.2 any **adjustments reflecting decisions made by airports** in previous price setting periods that have an impact on charges for the current pricing period. This is important in order to achieve consistency between the opening investment value and the forecast cash-flows that are used in a forward-looking IRR calculation.

¹⁵⁸ Given that the closing RAB value of the year preceding the start of the current price setting event will not be available until after the price setting event disclosure, we have amended the Airports ID Determination such that airports use the closing RAB value from the most recent *ex-post* disclosure rolled forward to the first day of the current price setting event. This is similar to what NZAA suggests in its submission on our IM review technical consultation paper. NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 49.

Ex-post effects of risk allocation are better addressed through adjustments to the opening investment value

383. When undertaking the s 56G review, our default assumption for the opening investment value for our IRR calculation was the RAB disclosed in the previous *ex-post* disclosures. We then considered whether there were any adjustments that needed to be made to the RAB to reflect a specific airport's pricing intent.¹⁵⁹
384. The starting point for the cash-flows in the IRR was the airport's estimate of future revenues and costs. In order to ensure that the cash-flows used in our IRR calculation were consistent with the implicit assumptions in the opening investment value we made adjustments to the airport's forecast cash-flows:
- 384.1 where we considered an airport had included within their revenue forecasts the return of over and under-recoveries that had occurred in previous price setting events; and
- 384.2 where over and under-recoveries that had occurred in previous price setting events were already reflected in the opening RAB.
385. In the s 56G report for Wellington Airport, we discussed the concept of matching the cash-flows (or revenues) to the opening investment value.¹⁶⁰ If we recognised an un-forecast land revaluation gain in the opening investment value (ie, we assumed that the revaluation gain occurred in the previous pricing period), then any repayments of the gain throughout the PSE would have been backed out of target revenue.¹⁶¹ However, if we used unadjusted target revenue to inform our cash-flows, we should back the revaluation gain out of the opening investment value.
386. We consider it is appropriate to assume that the airport's forecast cash-flows are the starting point for the cash-flows used in our IRR calculation. This is because we cannot predict the adjustments we may need to make to an airport's cash-flows in advance of prices being set.¹⁶²

¹⁵⁹ For example, we adjusted Auckland Airport's opening RAB in the IRR calculation to reflect the fact that it had not revalued its pricing assets since 2007.

¹⁶⁰ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport" (8 February 2013), para F55-F59.

¹⁶¹ If an airport repays the value of any un-forecast revaluation gains to airlines, this results in a reduction in the total forecast revenue requirement for the relevant price setting event. By backing out the repayments, we increased the forecast revenue requirement to reflect the expected revenues that would have been required in the absence of any repayment of past un-forecast revaluation gains.

¹⁶² For example, an airport's total forecast revenue can be made up of a number of adjustments for different reasons. We may not be able to identify what proportion of an un-forecast revaluation gain an airport intends to return over the current pricing period. Therefore we may not understand how an airport's cash-flows need to be adjusted in order to ensure that the cash-flows match the assumptions about the timing of revaluation gains implied by the opening investment value.

387. Consequently, for transparency reasons, we consider that *ex-post* effects of risk allocation are better addressed through adjustments to the opening investment value instead of changes to the forecast cash-flows.

Risk allocation determines the impact of ex-post effects on the ex-ante profitability assessment of the current pricing period

388. As discussed in the topic paper on the framework for the IM review, ideally, risks should be allocated to suppliers or consumers depending on who is best placed to manage the risk, unless doing so would be inconsistent with s 52A.¹⁶³ We refer to this approach as "default risk allocation" for the purposes of this chapter. NZAA and BARNZ agree with our approach regarding risk allocation.^{164, 165}
389. As also explained in the topic paper on the framework for the IM review, consideration of who is best placed to manage risks includes the ability to:¹⁶⁶
- 389.1 control the probability of the occurrence;
- 389.2 mitigate costs of occurrence; and
- 389.3 absorb costs where they cannot be mitigated.
390. Where an airport has not identified any alternative risk allocations, the risk that actual out-turns are different from forecasts is assumed wholly by the airport. That is, if actual out-turns are in favour of airports (eg, higher demand, lower costs) an airport's *ex-post* return will be higher than expected. Similarly, if actual out-turns disadvantage airports, an airport's *ex-post* return will be lower.
391. Accordingly, we consider that in those circumstances (ie, where the risk is wholly assumed by the airport), there is no reason to carry forward the impact of actual out-turns of the prior period being different to forecasts into the *ex-ante* profitability assessment of the current pricing period.¹⁶⁷
392. If airports assume all the risks and rewards associated with actuals being different from forecasts, the outcomes (with regards to airport profitability) may differ from those if markets were actually workably competitive (in particular, if actual revaluations are greater than forecast). However, sometimes outcomes different to those in a workably competitive market are the result of alternative risk allocations proposed by an airport as part of the price setting consultation process.

¹⁶³ Commerce Commission "Input methodologies review decisions: Framework for the IM review" (20 December 2016).

¹⁶⁴ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 21.

¹⁶⁵ BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 2.

¹⁶⁶ Commerce Commission "Input methodologies review decisions: Framework for the IM review" (20 December 2016).

¹⁶⁷ For clarification, no disclosure of any kind would be required where the airport assumes the risk.

393. At the airports profitability assessment workshop held on 1 December 2015, our staff discussed with stakeholders how the disclosure requirements could make the way risks have been allocated when airports set prices more transparent. They also discussed the possibility of including a carry forward mechanism between pricing periods within our IRR calculation in order to reflect decisions about risk allocation.^{168, 169}
394. NZAA submitted that there are sound reasons for expecting airports to be better placed than airlines and passengers to manage, mitigate or absorb the risk of unexpected variations in airport forecasts. For example, NZAA considered that airports are better placed to anticipate the extent of any variation in values and to take mitigating action as they are likely to have better information in relation to changes in resource costs.¹⁷⁰
395. NZAA also noted that in rare occasions, pricing may be set on a basis that reflects a risk allocation that differs from the default risk allocation. NZAA's view is that it is only in those circumstances a carry forward between pricing periods reflecting over and under-recoveries may be appropriate.¹⁷¹
396. BARNZ argued that differences between forecasts and actuals should be carried forward into the next pricing period to the extent they reflect:¹⁷²
- 396.1 un-forecast revaluation gains;
 - 396.2 timing differences of major capital expenditure;¹⁷³
 - 396.3 any undertaking by an airport to wash-up a risk as recorded in the price setting event disclosures; and
 - 396.4 any risk where there was a material disagreement by a substantial volume of the airport's customers over the airport's adopted approach, where we consider it is appropriate to carry forward the difference.

¹⁶⁸ Commerce Commission "Airport profitability assessment workshop 1 – workshop papers" (18 December 2015), slide 30.

¹⁶⁹ In Chapter 4, we explain our decision to include a carry forward mechanism in the Airports ID Determination. As we discuss in more detail in Chapter 4, the general purpose of this mechanism is to carry forward between pricing periods any over or under-recoveries that relate to past or future decision. In doing so, this mechanism will create further transparency in ID as it allows an airport to more accurately reflect its pricing decision.

¹⁷⁰ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 22.

¹⁷¹ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 24.

¹⁷² BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 2.

¹⁷³ BARNZ suggests major capex should be defined as projects costing \$30 m or more.

397. We agree with NZAA that carry forward adjustments to the opening investment value should only be made where an approach to allocating risk is different to the default risk allocation. We took this principle into account when we determined our solution regarding the elements that should be captured in a carry forward adjustment.
398. For clarification, we do not immediately assume that any carry forward adjustment to the opening investment value will be reflected in the carry forward adjustment to the forecast closing investment value. The carry forward adjustment to the closing investment value will be based on the airport's stated intentions as described in the current price setting event. This is discussed further in Chapter 7.

Our solution in respect of this problem

399. This section explains our solution in respect of this problem.

Our solution

400. We have not changed the Airport IMs Determination to address this problem.
401. Our solution in respect of the problem associated with the *ex-post* effects of risk allocation is to amend the Airports ID Determination in order to:
- 401.1 include un-forecast revaluation gains or losses (in real terms) in the carry forward adjustment to the opening investment value unless an alternative treatment has been proposed by airports and to:
 - 401.1.1 allow airports to calculate those, provided they have not been reflected in a prior price setting event, from the commencement of the ID regime as at 2010 for the first price setting event after 31 December 2016; and
 - 401.1.2 require airports to calculate those from the previous price setting event for the second and subsequent price setting events after 31 December 2016.
 - 401.2 include other risk sharing arrangements in the carry forward adjustment to the opening investment value if these have been proposed in the airport's price setting event disclosure;
 - 401.3 require airports to summarise the views of substantial customers as expressed during price setting consultation regarding other risk sharing arrangements that have been included in the carry forward mechanism to adjust the opening investment value; and

- 401.4 require airports to provide information in the annual *ex-post* disclosures about variances between forecasts and actuals for the risk allocation arrangements that were included in their price setting event (as these will inform the carry forward adjustment to the opening investment value for the next price setting event).¹⁷⁴
402. Our solution will allow us and other interested persons to better assess if an airport is targeting excessive profits by creating transparency in information disclosure with regards to the *ex-post* effects of risk allocation on the current pricing event.
403. We explain our reasons in more detail in the remainder of this section.

Our solution to include un-forecast revaluation gains or losses (in real terms) in the carry forward adjustment to the opening investment value

404. As explained in Chapter 5, our solution regarding asset revaluations requires airports to disclose forward and backward-looking costs in a way that is most consistent to the approaches used when setting prices.¹⁷⁵ However, when rolling forward the RAB in the annual *ex-post* disclosures, it limits airports to the use of either CPI-indexation or an un-indexed approach with the exception of land. Regarding land we continue to hold the view that airports can revalue it using an MVAU valuation methodology.¹⁷⁶
405. Our Airport IM reasons paper states that any gains or losses that arise as a result of asset revaluations are to be treated as income or losses when we monitor prices.¹⁷⁷ This is important because actual revaluations may differ from forecast asset values assumed in the price setting event disclosures. We have considered how these differences should be reflected in the carry forward adjustment to the opening investment value.
406. The risk is that actual revaluations may vary from forecast to the degree that actual values increase at a rate different to that assumed in the price setting event disclosures.
407. In determining whether un-forecast revaluation gains or losses (in real terms) should be included in the carry forward adjustment to the opening investment value of the current pricing period, we discuss the following four scenarios:

¹⁷⁴ We note any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

¹⁷⁵ When setting prices, an airport may use an approach to revaluing assets that may be different to those specified in the Airport IMs. In that regard, we note that the approach to revaluing assets can only be the same in forward-looking and *ex-post* disclosures when an airport revalues its assets for price setting purposes by using either CPI-indexation or an un-indexed approach.

¹⁷⁶ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.9.

¹⁷⁷ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para X21.

- 407.1 **Scenario 1:** An airport forecasts asset revaluations using CPI-indexation. During the previous pricing period, the airport did not revalue its land using a periodic MVAU valuation.
- 407.2 **Scenario 2(a):** As scenario 1, but the airport revalued its land in the previous pricing period using a periodic MVAU valuation.
- 407.3 **Scenario 2(b):** As scenario 2(a), but the airport adds an increment to the forecast CPI-indexation rate applicable to land revaluations (ie, CPI + Z) based on the expectation that land values will increase at a rate greater than CPI.¹⁷⁸
- 407.4 **Scenario 3:** An airport does not revalue its asset base at all.
408. In discussing these scenarios, we assumed that airports treat revaluation gains (or losses) as income for price setting purposes.¹⁷⁹

Our solution in terms of scenario 1

409. When an airport had forecast asset revaluations using CPI-indexation and did not revalue its land using a periodic MVAU valuation in the previous pricing period, no adjustment to the opening investment value of the current pricing period is required.
410. This is because when actual inflation is lower (higher) than forecast:
- 410.1 an airport's nominal revenues are unchanged, while its real revenues are higher (lower); but
- 410.2 this is offset by actual RAB revaluations being lower (higher) by an equal amount but in the opposite direction to the change in real revenues.

¹⁷⁸ We have used the term CPI + Z to describe the scenario where an airport has forecast revaluations based on using a rate greater than CPI, such that total rate can be split into the rate of inflation (CPI) and the incremental rate above inflation (Z).

¹⁷⁹ This is to ensure consistency with the the FCM principle (NPV=0), as outlined in the topic paper on the framework for the IM review, which means that suppliers have an opportunity to maintain financial capital maintenance in real terms. Christchurch Airport acknowledges the issue. Christchurch Airport argued that "un-forecast revaluation gains and losses should be booked as revenue, although we consider it is valid to apply this principle only to the real (ie, after CPI inflation) component of the revaluation gain or loss". Christchurch Airport, Untitled submission on the problem definition paper (21 August 2015), para 6.

Our solution in terms of scenario 2(a)

411. When an airport had forecast asset revaluations using CPI-indexation and revalued its land using a periodic MVAU valuation in the previous pricing period, the opening investment value of the current pricing period will be adjusted for the un-forecast revaluation gain or loss that occurred in the previous pricing period as a result of the MVAU valuation.
412. In particular, it will be adjusted for the amount calculated as the difference of actual land revaluations based on a periodic MVAU valuation and actual land revaluations based on actual CPI. For the same reasons as outlined under scenario 1, no adjustment for variances arising from actual CPI being different to forecast CPI is required.
413. In practice, provided the un-forecast revaluation (in real terms) is a gain, the un-forecast revaluation gain will be included as a negative amount in the carry forward adjustment to the opening investment value. This approach effectively reduces the opening investment value in order to offset the un-forecast revaluation gain that is already reflected in the opening RAB value of the current pricing event (comprising the closing RAB disclosed in the previous *ex-post* disclosures).

Our solution in terms of scenario 2(b)

414. This scenario is different to scenario 2(a), because it assumes that the airport adds an increment to the forecast CPI-indexation rate applicable to land revaluations based on the expectation that land values will increase at a rate greater than CPI. All forecast land revaluations are then superseded by an actual MVAU valuation.
415. In more general terms, this scenario addresses a situation where an airport forecasts asset revaluations when setting prices by using approaches that are different from those specified in the Airport IMs. Christchurch Airport refers to this scenario as a situation where an airport adds a "fixed increment to the revaluation gain to either all assets (or just to land assets)".¹⁸⁰ In Chapter 5, we discuss how an airport can transparently disclose those in its price setting event disclosures.

¹⁸⁰ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 26.3.

416. In this scenario, the opening investment value of the current pricing period will be adjusted for the un-forecast revaluation gain or loss calculated as the difference of the actual MVAU valuation and the land revaluation based on actual CPI (as in scenario 2(a)), less the forecast land revaluation associated with the increment on forecast CPI that was considered when setting prices at the previous price setting event.¹⁸¹
417. This approach ensures that, when determining the opening investment value of the current pricing period, un-forecast revaluation gains or losses that occurred in the previous pricing period are assessed against all forecast asset revaluations that an airport had included when setting prices at the previous price setting event.
418. In Attachment B, we provide a stylised example that illustrates the mechanics of this approach. We consider it useful for the stylised example to be looked at alongside the narrative provided in this topic paper. This is because the matters relating to the disclosure of asset revaluations based on non IM-consistent approaches and the treatment of any resulting un-forecast revaluation gains or losses in the price setting event disclosures span across several chapters of this topic paper. In particular, the stylised example illustrates how the carry forward adjustment to the forecast closing investment value of the previous pricing period and the carry forward adjustment to the opening investment value of the current pricing period can work together when establishing un-forecast revaluation gains or losses.

Our solution in terms of scenario 3

419. When an airport does not revalue its asset base at all, we consider that the opening investment value of the current pricing period must be adjusted for the un-forecast revaluation gain or loss that has occurred as a result of actual revaluations. However, this adjustment would only apply if an airport:
- 419.1 decides for the current pricing period to move from an un-indexed approach to asset revaluations to an approach based on CPI-indexation; or
- 419.2 revalues its land using a periodic MVAU valuation.

¹⁸¹ If the airport has disclosed the value associated with the increment on forecast CPI using the forecast closing carry forward adjustment as we suggest it in Chapter 5, this additional adjustment to the opening investment value will occur by default through the opening carry forward adjustment relating to closing carry forwards from the previous price setting event. We illustrate this in the stylised example provided in Attachment B of this topic paper.

420. Given that under this scenario the asset base has not been revalued based on forecast CPI-indexation and, accordingly, revaluations have not been treated as income, the amount included in the carry forward adjustment to the opening investment value is not limited to the real component of a revalued asset base for the simple reason that no such component exists. For clarification, and in response to a question BARNZ raised in its submission on the IM review draft decision, the amount included in the carry forward adjustment to the opening investment value would reflect the total difference between the revalued asset base and the rolled forward value of the equivalent asset base since it was last revalued.¹⁸²
421. In our IM review draft decision, under scenario 3, we discussed how an airport could use the carry forward mechanism to adjust the opening investment value to remove the effect of inflation risk from its price setting event disclosures.¹⁸³ This approach would have involved an airport disclosing forecast asset revaluations based on an IM-consistent forecast CPI as part of the price setting event disclosure. We proposed this additional disclosure requirement in our IM review draft decision.
422. As we explain in more detail in Chapter 5, we have decided not to include this disclosure requirement in our final IM review decision. This is because both airports and airlines are of the view that such a disclosure is not warranted as it serves no useful purpose and the associated compliance costs are unlikely to outweigh the additional benefits.

Reasons for including un-forecast revaluation gains or losses (in real terms) in the carry forward adjustment to the opening investment value

423. Un-forecast revaluation gains or losses will be reflected:
- 423.1 in our *ex-post* assessment of actual returns for the prior price setting event; and
 - 423.2 in our assessment of returns of the current price setting event if our assessment included prior price setting events or started from the initial RAB in 2010.
424. While an *ex-post* assessment of returns would always identify actual revaluation gains or losses at the time when they are reflected in the disclosed RAB, airport stakeholders are of the view that the focus should be on the *ex-ante* assessment of profitability of the current pricing period, because they want to understand how these targeted returns compare to our estimate of cost of capital.^{184, 185}

¹⁸² BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 6.

¹⁸³ By including asset revaluations based on the difference of actual CPI-indexation and an IM-consistent forecast CPI, an airport could have removed the effect of inflation risk from its price setting event disclosures consistently with an airport that does revalue its assets using CPI-indexation.

¹⁸⁴ Commerce Commission "Input methodologies review – Airports profitability assessment – Workshop 1 – Summary of views expressed" (18 December 2015), Attachment C, para 3-4.

425. The RAB at the start of the price setting period will already reflect any revaluation gains or losses that occurred during the previous pricing period. Including un-forecast revaluation gains or losses in the carry forward adjustment to the opening investment value in a way as explained above is aimed at ensuring that the impact of any un-forecast revaluation gains or losses that occurred during the previous pricing period.¹⁸⁶
- 425.1 is taken into account in the *ex-ante* profitability assessment of the current pricing period; and
- 425.2 is appropriately treated as income.
426. In addition, this approach enhances transparency in the *ex-ante* profitability assessment by ensuring consistency with the concept of matching the forecast cash-flows with the opening investment value. No further adjustments to the forecast cash-flows are required as the impact of any revaluation gains or losses has already been accounted for in the opening investment value.
427. For clarification, not including the un-forecast revaluation gains or losses in the carry forward adjustment to the opening investment value would:
- 427.1 allow airports to justify cash-flows in future that do not recognise the un-forecast revaluation gain as income when setting prices;
- 427.2 only recognise un-forecast revaluation gains or losses in the *ex-post* assessment of airport profitability; and
- 427.3 result in forecast cash-flows that may not be consistent with the opening investment value of the current pricing period.

Start date for the calculation of un-forecast revaluation gains or losses in real terms

428. In general, un-forecast revaluation gains or losses (in real terms) will have to be calculated from the previous pricing period. By including them in the carry forward adjustment to the opening investment value, provided they are adequately treated as income, the current and the previous pricing period are linked together consistent with the FCM principle in the longer term.

¹⁸⁵ We note that Wellington Airport submitted on our IM review draft decision, that "the information on actual performance is also materially relevant to the statutory purpose of ID regulation of fully informing interested persons about the performance of airports". However, we do not consider that this view impacts on our decision to include un-forecast revaluation gains or losses (in real terms) in the *ex-ante* profitability assessment of the current price setting event. See, Wellington Airport submission on IM review draft decisions papers "IM review" (4 August 2016), para 103.

¹⁸⁶ For clarification, and in response to a question NZAA raised in its submission on the IM review draft decision, the approach is consistent whether the out-turn results in a loss or a gain. See, NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 229.

429. However, we consider a different approach is required for the first price setting event following these amendments to the Airports ID Determination. This is because the carry forward mechanism (or any other mechanism) was not available to airports to disclose un-forecast revaluation gains and losses (in real terms) that had occurred from the beginning of the ID regime as at 2010 appropriately.
430. Consequently, for the first price setting event following these amendments to the Airports ID Determination, airports can calculate un-forecast revaluation gains or losses (in real terms) from the beginning of the ID regime as at 2010.¹⁸⁷

Alternative risk sharing arrangements proposed by the airports

431. In the past, airports have included alternative risk allocation arrangements when setting prices and have provided details of these arrangements in their price setting event disclosures.¹⁸⁸ BARNZ submitted that any undertaking by an airport to wash-up a risk as recorded in a previous price setting event disclosure should also be included in the carry forward adjustment to the opening investment value.¹⁸⁹ We agree with BARNZ.
432. However, airlines might not agree with an airport's approach to risk allocation and no agreement between the parties is required before airports set prices.¹⁹⁰
433. Also, as submitted by NZAA, airlines cannot enter into a contract, arrangement or arrive at an understanding with other airlines over the price at which they would acquire airport services.¹⁹¹
434. We consider that the risk allocation arrangements identified in an airport's previous price setting event disclosure are the appropriate starting point when identifying other adjustments to include in the carry forward adjustment to the opening investment value.
435. Given that airports are not obliged to reach agreement with airlines when setting prices, we also consider it appropriate to understand the airlines' view of any proposed risk allocation arrangements.

¹⁸⁷ Unless these un-forecast revaluation gains and losses (in real terms) have already been reflected in a prior price setting event.

¹⁸⁸ For example, Wellington Airport proposed a 'wash-up' when setting prices in PSE1 that would return any over-recoveries associated with a delay in any capital expenditure associated with their new international terminal 'the Rock'.

¹⁸⁹ BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 2.

¹⁹⁰ Airports are able to set prices as they see fit. Airports are required to consult with airlines when setting prices. The purpose of consultation is to ensure the views of interested persons are provided to airports so that those views can be taken into account as part of good decision making. For more information on how airports set prices see Chapter 2.

¹⁹¹ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 26-27.

436. We therefore want to collect additional information regarding the views expressed by substantial customers of the airport (for simplicity, we just refer to these as airlines) at the time of price setting.¹⁹²
437. During the s 56G review, the consultation material provided a clear indication of the views expressed by airlines on risk allocation issues. We do not currently require airports to disclose the consultation documents associated with price setting events. For the s 56G review, we requested these documents as additional information to support our analysis.
438. BARNZ submitted that the consultation documents provide a good record of the views expressed by airlines on an airport's approach regarding risk allocation.¹⁹³
439. As the information on the views expressed by airlines is only relevant in the context of proposed alternative risk allocations, we do not consider it appropriate to require airports to provide all consultation documents under ID.
440. However, we have amended the Airports ID Determination to require airports to provide a summary of views expressed by airlines on an airport's approach regarding risk allocation (but only in the event an airport has included a carry forward adjustment to the opening investment value reflecting alternate risk allocations under ID).
441. Interested persons can comment on these disclosures and provide their views to us at any time.¹⁹⁴ Understanding the airlines' views regarding any proposed risk sharing arrangements by airports is important. This information will allow us to consider through summary and analysis whether there was any objection by a substantial volume of the airport's customers over the airport's adopted approach that could impact on our assessment of an airport's profitability.

No requirement to adjust for timing differences of capex projects

442. We do not consider that we need to adjust the opening investment value for any timing differences of capex projects from what was forecast unless it is proposed by airports at the time of their previous price setting event disclosure.

¹⁹² Substantial customer has the meaning set out in section 2A of the Airport Authorities Act 1966.

¹⁹³ BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 3.

¹⁹⁴ This information to us can also include information on risk sharing arrangements sought by airlines that were declined by airports.

443. This is consistent with the default risk allocation approach because airports are best placed to manage the risk associated with capex projects. As NZAA rightly points out in its cross submission on the IM review draft decision, a compulsory carry forward to account for any timing differences of major capex projects "risks disincentivising efficient investment and constraining market development".¹⁹⁵
444. This is also consistent with our approach for price-quality regulated industries where we generally do not require adjustments for differences in actual capex compared to forecast capex. It seems disproportionate to prescribe an approach given the airports sector is subject to information disclosure only.
445. However, we would still be able to discuss the impact and implications of any timing differences relating to capex projects as part of our summary and analysis. In order to be able to undertake a more contextual analysis we welcome interested persons to provide their views on capex forecasts used by airports when setting prices as well as actual capex. This could also include information on an *ex-ante* basis whether any capex risk should be shared between airports and airlines or whether any gains realised *ex-post* as a result of deferred capex projects should be returned to airlines in future pricing periods.

Summary and analysis

446. The amount to be carried forward as an adjustment to the opening investment value is needed to inform the airport's next pricing decision.
447. Airports will determine the value of the carry forward at the time of price setting, but airlines might have a different view on whether the carry forward appropriately reflects the risk allocation arrangements set by the airports at the previous price setting event.
448. The determination of the appropriate carry forward is complicated by the need to calculate the amount before the pricing period ends, despite not having received all of the information required to inform this calculation. This is because airports are required to provide the annual *ex-post* disclosure for the last year of the previous pricing period five months after the new prices have come into effect.
449. We do not consider it appropriate for us to determine the value of the carry forward adjustment to the opening investment value to be used by airports in the next price setting event. Airports can set prices as they see fit and would not be obliged to use any carry forward calculated by us. However, we consider we should comment on the appropriateness of the airport's method for calculating the carry forward adjustment in our summary and analysis.

¹⁹⁵ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 47.

450. We have therefore amended the Airports ID Determination to require airports to disclose in their annual *ex-post* disclosures the variance between forecast and actuals to date for the risk allocation arrangements that were included in their price setting event (as these will inform the carry forward adjustment to the opening investment value for the next price setting event).
451. For example, if an airport had included a wash-up arrangement relating to a particular capex project when setting prices at the previous price setting event, the airport would be required:
- 451.1 to disclose the variances between forecast and actual expenditure for that project in its *ex-post* disclosures for each year of the pricing period; and
- 451.2 to identify the outstanding value of the over or under-recovery.
452. We can use these disclosed variances to consider whether an airport has determined the appropriate carry forward adjustment to the opening investment value when setting prices at the next price setting event. We can also take into account the disclosed variances when undertaking summary and analysis on the *ex-post* profitability assessment for airports.
453. With the relevant variances disclosed, we will be able to perform summary and analysis on these variances and consider whether the airport's disclosures appropriately reflect the risk allocation arrangements that were in place for the pricing period.
454. We will also be able to comment on the appropriateness of the disclosed variances being included in the carry forward adjustment to the opening investment value for the next price setting event. This will allow airports the opportunity to reflect our comments when determining the carry forward adjustment to the opening investment value used to set prices.

Summary of submissions on our IM review draft decision and our response

455. Our final solution is largely unchanged from the proposed solution outlined in our IM review draft decision. However, in response to submissions on our IM review draft decision, we have amended our proposed solution with regards to the disclosure requirements for airports:
- 455.1 by clarifying the start date for the calculation of un-forecast revaluation gains or losses (in real terms); and
- 455.2 by moving away from requiring airports to provide information on the 'degree of acceptance' by airlines when including amounts in the carry forward mechanism to only summarise the views expressed by substantial customers during consultations.

456. In this chapter, we summarise the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and provide our response.

Our solution regarding un-forecast revaluation gains or losses

457. We have not changed our proposed solution to include un-forecast revaluation gains and losses (in real terms) in the carry forward adjustment to the opening investment value. However, we have clarified the start date for the calculation of un-forecast revaluation gains or losses (in real terms) as this was left unclear in our IM review draft decision.
458. NZAA accepts our solution.¹⁹⁶ Wellington Airport submitted again its "long standing view that all the risks and rewards of property ownership should lie with the airport, including unforecast revaluation gains and losses".¹⁹⁷ However, Wellington Airport acknowledges that "if ID is to empower interested parties to determine whether FCM is being achieved under the Part 4 regime the carry forward would need to adjust the opening investment value for the net effect of the differences between previous revaluations (actual MVAU revaluations and revaluations on actual CPI)".¹⁹⁸
459. NZAA and Wellington Airport are both of the view that un-forecast revaluation gains and losses (in real terms) have to be calculated from the beginning of the ID regime as at 2010 in order to allow for the FCM principle to be met from that time.¹⁹⁹
460. BARNZ also supports including un-forecast revaluation gains and losses (in real terms) in the carry forward adjustment to the opening investment value. This is because "unlike other forecast elements such as opex or volumes, their effect on the asset base, and levels of returns targeted, will effect subsequent pricing periods" and it "should enable such revaluations to be appropriately included as income in the measurements of targeted profitability".²⁰⁰

¹⁹⁶ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 229.

¹⁹⁷ Wellington Airport submission on IM review draft decisions papers "IM review" (4 August 2016), para 84.

¹⁹⁸ Wellington Airport submission on IM review draft decisions papers "IM review" (4 August 2016), para 91.

¹⁹⁹ Wellington Airport submission on IM review draft decisions papers "IM review" (4 August 2016), para 94-96.

²⁰⁰ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 5.

461. BARNZ agrees with NZAA and Wellington Airport that, in general, un-forecast revaluation gains and losses (in real terms) have to be calculated from the beginning of the ID regime as at 2010. However, BARNZ also considers that "any matters arising out of or relating to PSE1 before FY10, which were specifically committed to be carried forward by the airport" should be included in the carry forward adjustment to the opening investment value. This would not only apply to un-forecast revaluation gains and losses, but also to any other commitment from PSE1 aimed at adjusting risk allocation.²⁰¹
462. As we explain in this chapter, we consider un-forecast revaluation gains and losses (in real terms) can be calculated from the beginning of the ID regime as at 2010 (should an airport choose so). We disagree with BARNZ's suggestion to go even further back in time. Consistent with what we said in the s 56G reports, establishing the initial RAB under Part 4 effectively draws a 'line in the sand' under decisions made prior to Part 4. Therefore, taking into account decisions made prior to 2010 would not be consistent with establishing a 'line in the sand' RAB value at the beginning of the regime.²⁰²
463. In its submission on our IM review technical consultation update paper, NZAA requested clarification on how an airport can disclose un-forecast revaluation gains if it has revalued its asset base for pricing purposes by using approaches that are different from those provided for in the Airport IMs.²⁰³ We have responded to NZAA's request by adding scenario 2(b) to the section that discusses the treatment of un-forecast revaluation gains in this chapter. We agree with NZAA that information disclosure must ensure that airports have the ability to transparently disclose such a scenario, because when setting prices airports do not have to follow the approaches provided for in the Airport IMs.

²⁰¹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 6-7.

²⁰² See, for example, Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport – Section 56G of the Commerce Act 1986" (13 February 2014), para F92 and F97.

²⁰³ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 28-37.

464. NZAA also submitted that the term "un-forecast revaluation gains or losses" should be replaced by "default opening carry forward revaluation adjustment".²⁰⁴ NZAA considers that its suggested term more accurately describes what the intent of this adjustment is given that the "unforecast gains/losses disclosure is essentially the default IM position".²⁰⁵ NZAA also points out that under the label proposed in our IM review draft decision, "airports are required to place a value in a box labelled "unforecast revaluations", although that number is not technically an unforecast revaluation gain/loss".²⁰⁶
465. We agree that the "unforecast gains/losses disclosure is essentially the default IM position" as it is assessed against the (IM-compliant) RAB disclosed *ex-post* in the year preceding the current price setting event. We therefore have changed it from "un-forecast revaluation gains or losses" to "default revaluation gain/loss adjustment" in the Airports ID Determination.
466. We also acknowledge that the amount disclosed under "default revaluation gain/loss adjustment" may not always reflect an un-forecast revaluation gain or loss because there may be (rare) occasions when parts of it may have been forecast. This may be the case when an airport had forecast revaluations based on non IM-consistent approaches (CPI + Z) in the preceding price setting event, and the "default revaluation gain/loss adjustment" of the current price setting event is assessed against the closing (IM-compliant) RAB disclosed of that preceding price setting event.
467. However, based on the revaluation approaches we have seen used by airports in the recent past, this is the exception rather than the rule. We therefore continue to consider that the term "un-forecast revaluation gains or losses" in most cases accurately describes the respective amount disclosed in the price setting event disclosures. We therefore have left the term unchanged in this topic paper. In any event, we consider it less relevant that the label attached to the disclosed amount always and to the full extent reflects how it has been calculated as long as airports describe in their price setting event disclosures as accurately as possible how they have established the amount included under "default revaluation gain/loss adjustment".

²⁰⁴ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 39-39.

²⁰⁵ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 36.

²⁰⁶ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 38.

468. We note that this may also include information on how they have established revaluations for the year prior to the price setting event disclosure given that the actual value will not be available until after the price setting event disclosure (and can therefore only be an airport's best estimate).²⁰⁷

Our solution regarding other risk sharing arrangements

469. We have not changed our proposed solution to include other risk sharing arrangements in the carry forward adjustment to the opening investment value if these have been proposed in the airport's price setting event disclosure.
470. NZAA supports our solution. In particular, NZAA considers that "adjustments to the opening investment value should only be made where the allocation of risk is different to that of the default risk allocation (eg where a carry forward or wash up was signalled) and these have been explained in an airports' price setting event disclosures".²⁰⁸
471. BARNZ also supports our solution and notes two recent examples that could be reflected as other risk sharing arrangements in the carry forward adjustment to the opening investment value.²⁰⁹
- 471.1 The agreement with Auckland Airport over Pier B that half of the required return on capital during its first five year pricing period would be deferred to be recovered until the earlier of six contact gates or the third five year pricing period (which will commence in July 2017).
- 471.2 The wash-up arrangements over timing of major capital expenditure with Wellington Airport.

Our decision to require airports to summarise the views of airlines

472. We have amended our proposed solution that required airports to provide information on the 'degree of acceptance' by airlines such that it requires airports to only summarise the views expressed by airlines during consultation (regarding other risk sharing arrangements that have been included in the carry forward mechanism to adjust the opening investment value).

²⁰⁷ NZAA submitted this concern in its submission on our IM review technical consultation update paper. As we explain in the context of the opening RAB, we would expect this value to be the airport's best estimate as the time of populating the price setting event disclosures. NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 29.

²⁰⁸ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 232.

²⁰⁹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 6.

473. This is in response to submission comments from NZAA and BARNZ who both advocated for this change to our IM review draft decision. In particular, they submitted that providing information on the 'degree of acceptance' could be a 'subjective and debatable standard'.²¹⁰ NZAA notes that:²¹¹

Requiring airports to point to a level of acceptance creates uncertainty as for several reasons the outcome of the consultation process cannot be described as one point on a sliding scale of acceptance:

(i) There can be a very large number of airline customers that are consulted during price setting events;

(ii) Not all those airline customers may agree;

(iii) Those that do agree may not have the same reasons for agreeing;

(iv) Some will not engage or comment at all; and

(v) Some views are provided with a preference or commitment to confidentiality.

474. Consistent with views expressed by BARNZ, we continue to consider that the airlines' views on risk allocation arrangements are important to interested persons including ourselves. When we do summary and analysis of an airport's price setting event, this information will help us to come to a balanced view in assessing whether the long-term benefit of consumers has been promoted consistent with s 52A. We therefore disagree with NZAA's comment that, in order to assess if the long-term benefit of consumers has been promoted, it is not relevant whether an airline accepts an approach to pricing or not.²¹²

²¹⁰ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 3.

²¹¹ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 241.

²¹² NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 238.

475. We nevertheless disagree with BARNZ's comment that there should be a "specific avenue preserved for airlines to directly provide their views to the Commerce Commission".²¹³ We have reworded the requirement as it implied providing airlines with a mandated right of response in the Airports ID Determination (which never was our intention).²¹⁴ We do not consider that providing such a right is appropriate as we agree with NZAA that this may "create incentives for consultation participants to provide views with the aim of influencing subsequent ID analysis, instead of genuinely engaging for price setting purposes. It would be unfortunate if ID requirements provided incentives to not reach common ground in consultation".²¹⁵
476. In any event, airlines and other interested persons can provide their views on the *ex-post* effects of risk allocation at any time to us and we will consider those when we undertake summary and analysis of an airport's price setting event. When providing their views to us, this may of course comprise information on risk sharing arrangements sought by airlines that were declined by airports during consultation.²¹⁶ BARNZ considers this an important step in the process as "it is far more common for there to be differences regarding the absence of a wash-up arrangement, rather than users objecting to the presence of a wash-up arrangement".²¹⁷

²¹³ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 3.

²¹⁴ Our proposed solution required airports to provide information on the 'degree of acceptance' by airlines regarding other risk sharing arrangements and to give interested persons, following the airports disclosures under information disclosure but prior to our summary and analysis, the opportunity to comment on airports' disclosures on allocation of risks.

²¹⁵ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 40(b).

²¹⁶ It is not in our interest to limit interested persons in the information provided to us.

²¹⁷ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 6.

Chapter 7: Treatment of forecast over and under-recoveries

Purpose of this chapter

477. The purpose of this chapter is to explain our solution to the problem associated with the treatment of forecast over and under-recoveries in the context of the profitability assessment of airports.
478. In this chapter we explain to what extent the forecast closing investment value as discussed in Chapter 4 can be adjusted in order to appropriately reflect forecast over and under-recoveries.²¹⁸

Structure of this chapter

479. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. It finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

480. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops.

Summary of problem definition

481. There were insufficient transparency requirements in the Airports ID Determination for us and other interested persons to identify forecast over and under-recoveries resulting from an airport's pricing event that are intended to be offset in future pricing events.
482. This was problematic as it impacted our and other interested persons' ability to accurately assess if an airport was targeting excessive profits.

A forward-looking profitability indicator requires assumptions on the forecast closing investment value

483. As discussed in Chapter 4, we decided to include a forward-looking profitability indicator (IRR) in the Airports ID Determination for future price setting events which comprises:
- 483.1 forecast cash-flows over the duration of the pricing period;
 - 483.2 the opening investment value; and
 - 483.3 the forecast closing investment value.

²¹⁸ As discussed in Chapter 4, the forecast closing investment value comprises the forecast closing asset base and a carry forward mechanism to adjust the forecast closing investment value.

484. We need to determine, in advance, the most appropriate assumptions regarding the forecast closing investment value such that the IRR is the best reflection of an airport's pricing intent.
485. As explained in Chapter 4, a **forecast closing investment value** that is a good reflection of an airports' pricing intent and the remaining capital to be recovered comprises:
- 485.1 the **forecast closing asset base** used by airports when setting prices reflecting an airport's assumed time profile of capital recovery;²¹⁹ and
 - 485.2 any **adjustments reflecting decisions made by airports** that affect charges for the current and future price setting events that are not already reflected in the forecast closing asset base.

The forecast closing investment value should reflect the airport's expectation of the remaining capital to be recovered

486. The forecast closing investment value is an important input assumption to the calculation of a forward-looking profitability indicator for the current price setting event as it should reflect an airport's expectation of the remaining capital to be recovered at the end of the current pricing period.
487. We consider the forecast closing investment value should link the current pricing period to subsequent pricing periods enabling a profitability assessment across pricing periods.
488. When assessing airports' targeted profitability for the s 56G review, we used our judgement to determine the appropriate value of the inputs to the IRR calculation.²²⁰ We had to determine the forecast closing investment values in a way that best reflected the airports' pricing intent and the remaining capital to be recovered.

²¹⁹ In most cases, and following the amendments we have made in particular to asset revaluations as part of this IM review, we expect the forecast closing asset base to be identical with the forecast RAB rolled forward. However, there may be rare occasions in the future where the forecast closing asset base can be different from the forecast RAB rolled forward (eg, when an airport uses an approach to revaluing assets that is not consistent with the IMs, eg, MVEU for land, CPI + Z).

²²⁰ In our assessment of how effectively information disclosure is promoting the Part 4 purpose we examined the performance and conduct of airports. For example: Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport" (13 February 2014), para 2.52.

489. For example, in order to assess targeted returns for Auckland Airport, we used forecast closing asset values reflecting Auckland Airport's non IM-compliant moratorium on asset valuations used when setting prices. This approach better reflected Auckland Airport's future pricing behaviour (ie, the remaining capital to be recovered) as Auckland Airport had stated it had no intention of revaluing its asset base for the following pricing event.²²¹
490. However, Auckland Airport also indicated it may unwind the moratorium in a future pricing event and inquired about IM-consistent approaches to addressing this intention.²²²
491. If Auckland Airport expected to unwind the asset moratorium in a subsequent price setting event, the forecast closing investment value for the calculation of an IRR for the current price setting event should be based on asset values reflecting Auckland Airport's likely future pricing behaviour.
492. This approach would result in assessed targeted returns for the current price setting event being higher due to an increased forecast closing investment value reflecting higher asset values unless it is adjusted for Auckland Airport's intention to also pass on the revaluation gain to airlines.²²³
493. This is of importance as Auckland Airport has noted several times that if the moratorium is unwound in the future, and a revalued asset base is used in pricing, the cumulative impact will be treated as an offset to the future revenue requirements to make sure the FCM principle is being followed.²²⁴
494. The previous Airports ID Determination did not provide sufficient transparency for us and interested persons to identify such expected or intended over- (and under) recoveries by airports that they intend to offset in future pricing events.
495. We considered this problematic as it affected our and other interested persons' ability to accurately assess if an airport was targeting excessive profits.

²²¹ Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport" (31 July 2013), Attachment F, para F29-31.

²²² Commerce Commission "Input methodologies review – Airports profitability assessment – Workshop 2 – Summary of views expressed" (16 June 2016), Attachment C, para 10.

²²³ For clarification, if Auckland Airport indicated to unwind its asset moratorium in the next price setting event and that any resulting revaluation gain would be returned to customers through reduced prices in a NPV neutral manner, we do not consider that the forecast closing investment value of the current price setting event needed to be adjusted for the revaluation gain.

²²⁴ See, for example, Auckland Airport "Problem definition for input methodologies review: submission to Commerce Commission" (21 August 2015), para 72.

Our solution in respect of this problem

496. This section explains our solution to this problem.

Our solution

497. We have not amended the Airport IMs Determination. Instead, we consider that airports can use the carry forward mechanism proposed in Chapter 4 to adjust the forecast closing investment value in a way that reflects forecast over and under-recoveries that are intended by airports to be offset in future price setting events.

498. We have made the following amendments to the Airports ID Determination:²²⁵

498.1 When an airport has included forecast over and under-recoveries in the carry forward mechanism to adjust the forecast closing investment value, require the airport to provide information on:

498.1.1 why the resulting forecast closing investment value is a good indicator of the remaining capital to be recovered at the end of the current pricing period;

498.1.2 the purpose and appropriateness of including these amounts in the carry forward mechanism;²²⁶

498.1.3 the intended duration until these forecast over and under-recoveries have been fully offset; and

498.1.4 why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than an alternative approach to accounting for these forecast over and under-recoveries already provided for under the Airport IMs and ID determinations.²²⁷

498.2 Require airports to summarise the views of substantial customers as expressed during consultation regarding forecast over and under-recoveries that have been included in the carry forward mechanism to adjust the forecast closing investment value.²²⁸

²²⁵ Under s 52Q of the Act.

²²⁶ For clarification, by requiring to comment on the 'purpose' we mean an explanation of what these forecast over and under-recoveries actually represent; by requiring airports to comment on the 'appropriateness' we mean they should provide an explanation of why it is reasonable from an airport's perspective to carry these amounts forward into the next price setting event.

²²⁷ This may include, but is not limited to, non-standard depreciation, revaluations, offsetting revenues associated with assets held for future use against the forecast value of assets held for future use.

²²⁸ As per in the previous chapter, for simplicity, we just refer to these as airlines.

499. This is our solution because it creates transparency around targeted profitability of airports and improves our and other interested persons' ability to assess if airports are targeting excessive profits. This is achieved by:
- 499.1 better reflecting an airport's pricing intent in information disclosure;
 - 499.2 being able to take into account multiple pricing periods in the profitability assessment (ie, the carry forward mechanism that adjusts the forecast closing investment value links the current pricing period together with subsequent pricing periods);
 - 499.3 clearly identifying where airports have decided to under or over-recover in a price setting event (but with the intent to offset this over or under-recovery in future price setting events). This enables us to comment on the reasonableness of the proposed carry forward in our summary and analysis (eg, if the FCM principle is being met in the longer term); and
 - 499.4 not impacting on airports' ability to set prices as they see fit, as our solution only creates greater transparency around decisions made by airports when setting prices.
500. The additional disclosure requirements on airports accompanying any disclosed carry forward amounts allow us to consider in our summary and analysis if these carry forwards are in the long-term interest of consumers. In particular, we will be able to comment on an airport's preference for using the carry forward mechanism as opposed to using an alternative that may already exist under the Airport IMs and ID determinations.
501. In summary, our solution provides transparency in the price setting event disclosures without impacting on airports' ability to set prices as they see fit. It allows us and other interested persons to assess the appropriateness of the airport's use of the carry forward mechanism to adjust the forecast closing investment value.
502. We have identified a few circumstances where forecast over or under-recoveries that are intended to be offset by airports in future pricing events can be included in the carry forward mechanism. Further guidance on these circumstances is provided later in this chapter.
503. An additional benefit of the carry forward mechanism to adjust the forecast closing investment value is that it removes the requirement for us to determine up front how other yet un-identified issues are to be considered.

A carry forward to adjust the forecast closing investment value forms the basis of the carry forward adjustment to the opening investment value of the next pricing event

504. We would expect the carry forward adjustment to the opening investment value for the next pricing period (discussed in the previous chapter) to include adjustments made by an airport at the previous price setting event that affect the airport's expected recovery in future price setting events.
505. Our solution allows us and other interested persons to identify whether this has been done. This is because an adjustment to the forecast closing investment value of the previous pricing event would be the starting point when determining any adjustments to the opening investment value of the current pricing event.
506. For clarification, when the carry forward adjustment to the forecast closing investment value is used as an input to the opening carry forward of the next price setting event, our view is that it should not be adjusted for any differences between forecast assumptions and actuals that have occurred in previous pricing periods unless such adjustments were signalled at the time the forecast carry forward was set.
507. NZAA submitted that the "forecast closing carry forward adjustment can necessarily only be assessed as an indication of intent at that time [...] It follows that the price setting process should take into account the actual circumstances at the time, rather than the circumstances that were predicted to exist at the time. If decisions are made in the future that are different to those that were predicted, then the airports will provide reasons for this".²²⁹
508. We agree with NZAA that the carry forward adjustment to the forecast closing investment value only reflects an airport's estimate of a planned over or under-recovery at the time prices are set. We also understand that an airport may want to adjust the carry forward adjustment to the forecast closing investment value for actual out-turns when using it in determining the carry forward adjustment for the opening investment value of the subsequent price setting event. However, in order to provide clarity under the Airports ID Determination, we remain of the view that an airport can only do so in its price setting event disclosures if it had indicated its intention to adjust for actual out-turns at the time the carry forward adjustment to the forecast closing investment value was determined.

²²⁹ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 209-210.

Stakeholders considered a carry forward should only occur in limited and pre-defined circumstances

509. The purpose of the airports workshop in December 2015 was to seek key stakeholders' views on how airports profitability assessments could be performed. One of the objectives was to understand key stakeholders' views on the options for assessing airports profitability.²³⁰
510. At the workshop, there was general support to include some form of carry forward mechanism between the pricing periods and for the carry forward to include, at a minimum, those amounts that were agreed to be carried forward by parties during consultation of the price setting event.²³¹
511. In submissions to the workshop, NZAA and BARNZ were still supportive of the introduction of a carry forward mechanism and both parties similarly considered that carry forwards between pricing periods should only occur in limited and pre-defined circumstances.^{232, 233}

Circumstances where a carry forward mechanism to adjust the forecast closing investment value can be used

512. At the workshop held in April 2016, our staff discussed with stakeholders circumstances where the carry forward mechanism as an adjustment to the forecast closing investment value can be used. In particular, we consider that a carry forward can be used to address the issues listed below.²³⁴
513. **Auckland Airport unwinding its asset moratorium:** As discussed earlier in this chapter, a carry forward mechanism could be used to reflect a situation where Auckland Airport intends to unwind its asset moratorium over more than one pricing period.

²³⁰ Commerce Commission "Input methodologies review – airports profitability assessment – Workshop 1 – Summary of views expressed" (18 December 2015), para 2-3.

²³¹ Commerce Commission "Input methodologies review – airports profitability assessment – Workshop 1 – Summary of views expressed" (18 December 2015), Attachment C, para 11-13.

²³² BARNZ's post workshop submission on airports profitability assessment workshop 1 "Post profitability workshop comments" (21 December 2015), p. 1.

²³³ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 17.

²³⁴ However, there may be other circumstances we have not yet seen in practice that can be transparently disclosed in the carry forward mechanism by an airport. We therefore have not limited the use of it to the issues listed here.

514. **An airport using a non IM-consistent approach to revaluing assets:** In Chapter 5, we discuss our solution with regards to asset revaluations. We consider that, based on the approaches to revaluing assets airports have used since the introduction of the ID regime, our solution will in most cases provide sufficient flexibility for an airport to disclose how it revalued assets in its pricing decision. However, if an airport revalued its pricing asset base using a non IM-consistent methodology, the carry forward adjustment to the forecast closing investment value is available to transparently disclose this approach. This means in practice, an airport can use the carry forward adjustment to the forecast closing investment value to reflect the difference in asset values resulting from its pricing approach to revaluations and an IM-consistent approach.
515. **Commercial concessions:** As discussed in Chapter 11, commercial concessions are commercial decisions made by the airport to under-recover revenue. Airports could include a commercial concession in the carry forward mechanism to adjust the forecast closing investment value if airports specifically state in their price setting event disclosures that they intend to recover the concession in future pricing events.
516. **Assets held for future use:** As explained in Chapter 8, assets held for future use are excluded from the RAB value (and from associated disclosed profitability measures) until they are used in the supply of specified airport services as specified in the Airport IMs.²³⁵ Airports can expect to be able to earn a full return on and of the costs of holding and developing these assets, without profits appearing excessive, provided they are eventually commissioned for use to supply airport services.²³⁶
517. An airport may include revenues associated with assets held for future use at a future price setting event. If this happens, in order to create transparency around these early over-recoveries, an airport could use the carry forward mechanism to adjust the forecast closing investment value provided it intends to offset these over-recoveries in a later period.
518. In order to avoid double counting of revenues associated with assets held for future use in the profitability assessment, we would expect an airport not to include it in the carry forward mechanism if it has already been captured by our preferred solution discussed in Chapter 8 (ie, as an offset to the value of the assets held for future use balance).

²³⁵ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.1.

²³⁶ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 4.3.74.

519. This is of particular importance for Auckland Airport, as Auckland Airport might include additional revenues associated with the planned second runway in its third price setting event in 2017. This would result in the assessment of higher returns in the short-term unless Auckland Airport adjusts the forecast closing investment value by an amount reflecting these additional revenues (but taking into account the time value of money).²³⁷ This approach would signal Auckland Airport's intention to return the value of any identified over-recoveries in future pricing events.²³⁸

'Summary of views' of airlines on proposed carry forwards by airports

520. Consistent with our solution regarding the *ex-post* assessment of risk, we have included a requirement in the Airports ID Determination for airports to summarise the views of substantial customers expressed during consultation regarding forecast over and under-recoveries that are included in the carry forward mechanism to adjust the forecast closing investment value.
521. This disclosure requirement would apply in the event airports include carry forwards as adjustments to the forecast closing investment value in their price setting event disclosures.
522. This approach will allow us to consider through summary and analysis whether a substantial number of the airport's customers objected to the airport's adopted approach which might impact on our assessment of an airport's profitability.
523. Airlines can provide their views to us directly at any time (including information on carry forwards that were proposed by airlines but declined by airports during consultations) and we will consider those when we undertake our summary and analysis.
524. In our view, the benefits arising from enhanced transparency in the price setting event disclosures outweigh the cost of the increased disclosure requirements particularly in light of airports intent that carry forwards "will be the exception rather than the norm".²³⁹

Summary of submissions on our IM review draft decision and our response

525. Our final solution is largely unchanged from the proposed solution outlined in our IM review draft decision. However, in response to submissions on our IM review draft decision, we have amended our draft decision regarding the disclosure requirements when airports use the carry forward mechanism to adjust the forecast closing investment value.

²³⁷ For clarification, this would only result in the assessment of excessive profits if Auckland Airport chooses not to offset those additional revenues against its land held for future use balance.

²³⁸ We note that the forecast balance of the assets held for future use has been specifically designed to account for revenues associated with assets held for future use. We therefore consider, in general, the use of it to account for such circumstances more appropriate. We discuss this further in Chapter 8.

²³⁹ NZ Airports "Airport profitability assessment post-workshop submission" (22 December 2015), para 45.

526. In addition to providing information on the purpose and appropriateness of including forecast over and under-recoveries in the carry forward mechanism and on the resulting forecast closing investment value, our final solution also requires airports to disclose information on:
- 526.1 the intended duration until these forecast over and under-recoveries have been fully offset; and
- 526.2 why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than an alternative approach to accounting for these forecast over and under-recoveries already provided for under the Airport IMs and ID determinations.
527. Consistent with our decision made in the context of the *ex-post* effects of risk allocation, we have moved away from requiring airports to provide information on the 'degree of acceptance' by airlines when forecast over and under-recoveries are included in the carry forward mechanism. We now only require airports to summarise the views expressed by substantial customers during pricing consultations.
528. NZAA submitted that it is comfortable with the "proposed use of adjustments to the closing investment value".²⁴⁰
529. BARNZ appears to generally support our solution but considers that the carry forward mechanism could be used inappropriately. BARNZ criticises the lack of constraints on airports around the use of the mechanism and, in particular, that the "open-ended nature of this proposal creates an incentive for an airport as a matter of course to over-state its forecast costs and under-state likely demand, so as to portray a perceived 'under-recovery' for the airport to identify as a shortfall it intends to later recover".²⁴¹
530. BARNZ considers that we "need to place greater guidelines around when it is appropriate to target such under or over recoveries with the intention to later recoup them, and over what sort of time-frame". BARNZ also submitted that the use of the carry forward adjustment to the forecast closing investment value "should be limited to unusual situations where its use may result in more efficient pricing, such as where there would otherwise be a price shock from an event such as a material step change investment (perhaps a substantial terminal expansion or a second runway) or an unusual event has occurred causing a dramatic reduction in demand, as happened following the Christchurch earthquakes".²⁴²

²⁴⁰ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 243 a.

²⁴¹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 8.

²⁴² BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 8.

531. We have not put many constraints around the use of the carry forward to adjust the forecast closing investment value, because the mechanism is designed, as NZAA rightly points out in its cross submission on our IM review draft decision, "to ensure that an airport's disclosures best track what an airport is doing in pricing: it is a mechanism to improve transparency".²⁴³ We therefore have not limited the use of the mechanism to "unusual situations", as this might mean that an airport's disclosure does not align with the approach used when setting prices. Also, not limiting the use of the mechanism to "unusual situations" will allow for the application of the carry forward to as yet unforeseen circumstances in the future.
532. However, in order not to create an incentive for airports to earn excessive profits, the mechanism may only be used by an airport if the airport intends to offset any amounts included in it in future price setting events. In requiring airports to provide information under ID about the purpose and appropriateness for including amounts in the carry forward mechanism, we can better assess in our summary and analysis if the airport is targeting excessive profits.
533. We nevertheless have increased the disclosure requirements that were included in our IM review draft decision. Requiring airports to disclose information on the intended duration of a carry forward amount included in ID (ie, an airport's expectation of how long it will take for the carry forward to be fully offset) will allow us and other interested persons to better assess its appropriateness.
534. We acknowledge that the "open-ended nature" may create some uncertainty among airlines and that, even though the airport might not be targeting excessive profits, current airlines might pay now for other airlines receiving discounts in the future.²⁴⁴ However, we may comment on the duration and the consequential effects when we do summary and analysis of the airport's price setting event.
535. We have also added to our final IM review decision a requirement on airports to explain why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than an alternative approach to accounting for forecast over and under-recoveries provided for under the Airport IMs and ID determinations.

²⁴³ NZ Airports "Cross submission on Commerce Commission's input methodologies review draft decision" (18 August 2016), para 22.

²⁴⁴ BARNZ submitted on this matter in the context of the use of the carry forward to account for revenues that are associated with assets held for future use. BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 13.

536. In general, given that some of the features provided for under the Airport IMs and ID determinations have been specifically designed to account for certain circumstances (eg, revaluation approaches and non-standard depreciation to alter the time profile of capital recovery, offsetting revenues associated with assets held for future use against the forecast value of assets held for future use), we consider using one of these mechanisms to account for such circumstances more appropriate than the carry forward mechanism.²⁴⁵
537. We consider that this additional requirement addresses BARNZ's concern relating to the use of the carry forward to adjust the forecast closing investment value if revenues associated with assets held for future use are collected.²⁴⁶ We agree with BARNZ that including these revenues in the carry forward balance would create less transparency than disclosing them in the forecast assets held for future use balance and therefore consider the use of the carry forward mechanism under such circumstances less appropriate. However, we also agree with Auckland Airport that the "carry forward mechanism should remain an alternative if, for whatever reason, it is not possible to use the future use schedule".²⁴⁷
538. We have also changed our IM review draft decision regarding a disclosure requirement on airports to provide airlines' views on forecast over and under-recoveries that are included in the carry forward mechanism to adjust the forecast closing investment value. Consistent with our decision made in the context of the *ex-post* effects of risk allocation, we have moved away from requiring airports to provide information on the 'degree of acceptance' by airlines when forecast over and under-recoveries have been included in the carry forward mechanism, to only requiring them to summarise the views expressed by substantial customers during consultations.²⁴⁸

²⁴⁵ In particular, the special designs of these features are more likely to create transparency in ID as opposed to using the carry forward mechanism to adjust the forecast closing investment value.

²⁴⁶ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 13.

²⁴⁷ Auckland Airport "Input methodologies review: Cross submission on draft decision and submission on draft IM and ID determinations" (18 August 2016), para 2a.

²⁴⁸ For details and our reasoning, see Chapter 6.

Chapter 8: Assets held for future use

Purpose of this chapter

539. The purpose of this chapter is to explain our solution to the problem associated with the treatment of assets held for future use in the context of the profitability assessment of airports.

Structure of this chapter

540. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. It finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

541. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops.

Summary of problem definition

542. Our previous Airport IMs and ID determination requirements meant that it became difficult to assess the impact revenues associated with assets held for future use had on the expected profitability of regulated airport services. The previous Airport IMs and ID determinations did not provide adequate transparency if airports were to include revenues associated with assets held for future use at a future price setting event. This, in turn, could have made it difficult for interested persons to assess airports profitability.

Requirements for assets held for future use in information disclosure

543. Assets held for future use (also referred to as excluded assets, land held for future use, and future development land) are excluded from the RAB value (and from associated disclosed profitability measures) until they are used in the supply of specified airport services as specified in the Airport IMs.^{249, 250}

²⁴⁹ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.1 and definition of "excluded assets".

²⁵⁰ Airports can expect to be able to earn a full return on and of the costs of holding and developing this land without profits appearing excessive, provided it is eventually commissioned for use to supply airport services. Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 4.3.74.

544. The treatment in the IMs of assets held for future use, in particular future development land, recognises the indirect incentives that the treatment might create under information disclosure regulation. Airports should not have an incentive to acquire land imprudently, nor to hold land indefinitely without developing it. Requiring that land is being used before it enters the RAB places the risk of ultimate non-development on the airports (ie, profits will appear excessive if airports attempt to earn a return on the value of the land before it is developed in order to supply specified airport services).²⁵¹
545. Given that airports are best placed to manage this risk, it is reasonable that they are the ones that are required to bear it. Under this treatment there is a possibility that airports might attempt to commission new capacity imprudently or in advance of the time that they otherwise would have.²⁵² Information disclosure is intended to limit the incentives to attempt this, because interested persons should have sufficient information to be able to assess whether or not such an attempt has been made.
546. The Airports ID Determination requires that the value of assets held for future use is tracked over time on an *ex-post* basis.²⁵³ The Airport IMs establish that the value of assets held for future use comprises the base value, accumulated holding costs and revaluations, but is net of net revenue generated from the assets not otherwise reported under ID.²⁵⁴ The relevant value will enter the RAB when the assets become used in the supply of specified airport services.
547. As we explain later in this section, however, the previous requirements and the information previously disclosed by airports to us may have been insufficient for interested persons to understand the impact on profitability if an airport included charges for assets held for future use in its price setting event and respective disclosures.

²⁵¹ That said, the risks are modest under an information disclosure regime, not least because land could potentially be sold, given that it has a value in an alternative use, and any residual risk relates to holding and development cost.

²⁵² Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 4.3.77.

²⁵³ This information is disclosed to us under section 2.3 (Annual Disclosure Relating to Financial Information) and Schedule 4 (Report on Regulatory Asset Base Roll Forward) of the ID determination.

²⁵⁴ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.11.

Charging for assets held for future use before they are used to supply regulated services

548. The treatment of assets held for future use is of particular concern for Auckland Airport as the airport currently holds a significant amount of land for its planned second runway.²⁵⁵ Auckland Airport has indicated a concern that there are likely to be price shocks at the time when the second runway is completed and is included in the RAB.²⁵⁶
549. When setting prices for the price setting event in 2007, which came into effect prior to the Part 4 regime, Auckland Airport included charges associated with assets held for its second runway. However, for its second price setting event (2012), Auckland Airport set prices in a manner consistent with the Airport IMs by excluding its assets held for future use from the asset base used to set prices and from airport charges.
550. When setting prices for its third price setting event in 2017, Auckland Airport is considering including additional revenues associated with the planned second runway. This would result in higher revenues in the short-term with the expectation of lower revenues at the time the assets held for future use are included in the RAB.²⁵⁷ In particular, Auckland Airport submitted that:²⁵⁸

Although the current IM and ID regimes provide transparency regarding the costs of land for future use, the problem is there is no clarity today on how transparency should be enabled and profitability assessed in the event that an airport were to smooth prices in advance of commissioning an asset held for future use. One potential price-smoothing alternative has been considered by Auckland Airport and is summarised briefly as follows: (a) Auckland Airport believes that the value of land held for future use could be monitored through ID showing the holding costs and net income attributed to that land. (b) An interim levy could be introduced and the net income attributable to the land held for future use would be deducted from the original value of, and the holding costs associated with, that land.

551. Airports can set prices as they see fit, and therefore future prices might include revenues related to assets held for future use. We consider that there are two likely scenarios that an airport might consider when including charges associated with assets held for future use in future airport price settings, which affects the understanding of interested persons:

²⁵⁵ Auckland submitted that the "northern runway capex has not yet been costed, but could conceivably be in the order of \$600m". Auckland Airport "Problem definition for input methodologies review: submission to Commerce Commission" (21 August 2015), para 44(b).

²⁵⁶ Auckland Airport "Problem definition for input methodologies review: submission to Commerce Commission" (21 August 2015), para 44-45.

²⁵⁷ In this instance, higher or lower revenues refers to revenues being different from those revenues that are required by an airport to support its target revenue excluding charges for land held for future use.

²⁵⁸ Auckland Airport "Problem definition for input methodologies review: submission to Commerce Commission" (21 August 2015), para 50-51.

551.1 **Scenario 1:** An airport sets prices so that the additional revenues associated with assets held for future use can be identified and offset against the value of assets held for future use (eg, through a special levy).

551.2 **Scenario 2:** An airport increases prices in a way that does not distinguish between revenues associated with the RAB and revenues relating to assets held for future use.

Our solution in respect of this problem

552. This section explains our solution in respect of this problem.

Our solution

553. Our solution involves both IM and ID amendments.

IM amendments

554. We have not made any change regarding the treatment of assets held for future use. We consider that assets held for future use should remain outside of the RAB until they are used to provide specified airport services.²⁵⁹

555. However, consistent with our framework for the IM review, we have made an amendment to the definition of "net revenue" in the IMs, to make it clearer that (as intended) revenues derived from, or associated with, assets held for future use are captured by that definition.

ID amendments

556. We have made amendments to the Airports ID Determination to increase the transparency relating to revenues associated with assets held for future use. In this regard, our solution to the problem associated with assets held for future use addresses the two scenarios discussed earlier.

557. **To address scenario 1** (ie, where an airport chooses to price in a way that revenues associated with assets held for future use **can be separated** from revenues associated with the RAB), we have amended the ID requirements to include the revenue from, or associated with, assets held for future use on a forecast basis (eg, the special levy) and the value of assets held for future use on a forecast basis in the disclosure requirements under clause 2.5 of the Airports ID Determination.

558. Under this scenario:

558.1 we would expect that airports offset these forecast revenues against the forecast value of the assets held for future use according to the formula described in clause 3.11(2) of the Airport IMs;²⁶⁰ and

²⁵⁹ *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.1.

- 558.2 airports would be required to provide information on the rationale for including revenues associated with assets held for future use for the price setting event.
559. **To address scenario 2** (ie, where an airport chooses to set prices in a way that revenues associated with assets held for future use **cannot be separated** from revenues associated with the RAB), we consider:
- 559.1 that airports should use the carry forward mechanism as described in Chapter 7 to identify the value of upfront recoveries associated with assets held for future use that an airport intends to return to airlines in future; and
- 559.2 consistent with the information disclosure requirements under scenario 1, airports would be required to provide information on the rationale for including revenues associated with assets held for future use for the price setting event.
560. When including revenues associated with assets held for future use in the carry forward mechanism to adjust the forecast closing investment value, the disclosure requirements that are applicable to the use of this mechanism, and which are outlined in Chapter 7, would apply. In particular, an airport would be required to explain why using the carry forward mechanism is more appropriate in reflecting an airport's pricing intent than offsetting revenue associated with assets held for future use against the forecast balance of the assets held for future use.
561. Given that the forecast balance of the assets held for future use has been specifically designed to account for revenues associated with assets held for future use, in general, we consider the use of it to account for such circumstances more appropriate.
562. In order to ensure consistency between the price setting event and *ex-post* disclosures, we would expect an airport to use in its *ex-post* disclosures the approach to treating revenues associated with assets held for future use selected in its price setting event disclosures.²⁶¹ However, any consequential changes affecting the *ex-post* disclosure of airport profitability information under the Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review and will be subject to a separate consultation process.

²⁶⁰ In order to minimise complexity and compliance costs for airports, we would expect an airport to only provide the value of assets held for future use on a forecast basis in ID in the event it has included revenues associated with assets held for future use in the price setting event and wants to make use of the formula described in clause 3.11(2) of the Airport IMs.

²⁶¹ For example, if an airport cannot separate revenues associated with land held for future use in its price setting event disclosures, *ex-post* profitability assessment would have to take into account all revenues (eg, including revenues associated with land held for future use).

Summary

563. In summary, our solution will allow us and other interested persons to better assess if airports are targeting excessive profits.
564. We explain the reasons for our solutions in more detail in the remainder of this section.

Revenues derived from assets held for future use

565. As explained in the Airport IMs reasons paper:²⁶²

Even though holding future development land forms part of the regulated services, it does not follow that the Commission must set an IM for the valuation of assets that treats future development land in the same manner as land currently in use.

566. The reasoning above has been endorsed by the High Court.²⁶³
567. The value of assets held for future use must be disclosed to us in Schedule 4 of the ID Determination. The value of assets held for future use is determined under clause 3.11 of the Airport IMs as follows:²⁶⁴

base value + holding costs – net revenue²⁶⁵ – tracking revaluations

568. As it can be seen, the net revenues derived from assets held for future use must be deducted from the value of those assets for disclosure purposes. Given the definition of net revenues (ie, they are net of tax and opex), we have changed Schedule 18 such that airports do not have to disclose opex and tax associated with assets held for future use separately anymore.²⁶⁶

²⁶² Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 4.3.79.

²⁶³ *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289, para 905-908.

²⁶⁴ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, definition of "assets held for future use".

²⁶⁵ (c) 'net revenue' means the sum of amounts, other than those included in total regulatory income under an **ID determination** or preceding regulatory information disclosure requirements, for all **disclosure years** derived from holding, or associated with, the **excluded asset**, where the amount derived from holding the **excluded asset** in the **disclosure year** in question is determined in accordance with the formula- (revenue derived from the **excluded asset** (other than tracking revaluations) – **operating costs** incurred in relation to the **excluded asset**)*(1 – **corporate tax rate**) (*Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.11).

²⁶⁶ NZAA pointed to this inconsistency in its submission on our IM review technical consultation update paper. NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 43.

569. As explained in the Airport IMs Reasons paper:²⁶⁷

To provide transparency around the value of the future development land, and thus allow interested parties to make assessments as to whether the Part 4 purpose is being met, it is necessary to identify holding costs, and other factors such as net revenue and revaluations, separately from the initial land value. This is provided for in the formula set out in clause 3.11 of the IM Determination. This treatment is supported by submissions received on this topic. (Emphasis added)

570. As explained in the ID reasons paper:²⁶⁸

The ID Determination requires that in disclosure periods prior to the earlier of the land's commissioning or the commencement of the associated works under construction, Airports must separately disclose the following information concerning the cost of holding the land:

- the 'initial value' of the land;
- the accumulated value of holding costs;
- any accumulated income generated from the land, net of associated operating costs; and
- accumulated gains or losses from revaluations. (Emphasis added)

571. We continue to hold the view that the net revenues derived from assets held for future use must be deducted from the value of those assets, and we have not received any evidence to suggest otherwise. We have amended the definition of "net revenue" in clause 3.11(6)(c) of the Airport IMs to make our policy intent clearer.

Reasons for including forecast value and revenues of assets held for future use in the Airports ID Determination

572. As discussed earlier in this chapter, Auckland Airport has indicated that it may consider using a special levy in future price setting events to increase revenue in the short-term and reduce possible price shocks in future.

573. Auckland Airport (and other airports) can make use of the existing clause 3.11 of the Airport IMs to offset net revenues associated with a special levy from the value of the assets held for future use.

574. This is our solution because, where an airport chooses to price in a way that revenues associated with assets held for future use can be separated:

574.1 it creates transparency as it allows us and other interested persons to assess an airport's profitability taking into account revenues associated with its RAB only;

574.2 there would be no immediate expectation of excessive profits resulting from a special levy (assuming an appropriate return is targeted on the assets included in the RAB); and

²⁶⁷ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para C3.9.

²⁶⁸ Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010), para 3.139.

- 574.3 it provides for a mechanism that can minimise the price shock when the asset enters the RAB upon commissioning (as at that time the carrying value of the assets held for future use would be net of any associated net revenues).
575. However, as discussed earlier in this chapter, information related to assets held for future use was previously only disclosed on an *ex-post* basis. This information did not allow interested persons to understand the impact on *ex-ante* profitability if an airport includes charges for assets held for future use in its price setting events.
576. Therefore, we have amended the Airports ID Determination such that airports disclose the value of, and revenue from or associated with, assets held for future use on a forecast basis.

Reasons for allowing airports to use the carry forward mechanism

577. Given that airports have the ability to price as they see fit, future prices might be set in a way that does not allow us and other interested persons to identify what portion of revenue relates to the underlying RAB and what portion relates to assets held for future use.
578. If an airport increased revenues but included no other adjustments for assets held for future use, the higher revenues suggests that there may be excessive profits. This is because all revenues would be included within regulatory income if the airport did not separately identify revenues associated with assets held for future use.
579. However, we would expect that if an airport were to increase forecast revenues, it would do so in a way that does not immediately suggest that there may be excessive profits.
580. An airport could use the carry forward mechanism as described in Chapter 7 as an adjustment to reflect the upfront recoveries related to revenues from its assets held for future use. This would signal its intention to return the value of any upfront recoveries related to revenues from its assets held for future use identified at the end of the pricing period to airlines in future pricing periods.²⁶⁹
581. If an airport chooses to price in a way that revenues associated with assets held for future use cannot be separated from revenues associated with the RAB, allowing airports to use the carry forward mechanisms is our preferred solution because:
- 581.1 it creates transparency as it allows us and other interested persons to assess an airport's profitability taking into account revenues associated with its RAB only (as the carry forward adjusts for the impact of the revenues associated with assets held for future use from the profitability assessment);

²⁶⁹ The airports would have to do this in a way that the value included in the carry forward would equate to the present value of future reductions in revenues that would be expected to occur once the land held for future use is commissioned.

- 581.2 there would be no immediate expectation of excessive profits resulting from upfront recoveries related to revenues from its assets held for future use (assuming an appropriate return is targeted on the assets included in the RAB); and
- 581.3 it provides for a mechanism that can minimise the price shock when the asset enters the RAB upon commissioning (as the value captured in the carry forward would offset the increase in the opening RAB).
582. We note that, when accounting for revenues associated with assets held for future use in the carry forward adjustment to the forecast closing investment value, the disclosure requirements associated with this mechanism would apply (see Chapter 7). In particular, an airport would be required to explain why using the carry forward mechanism to adjust the forecast closing investment value seems more appropriate in reflecting the airport's pricing intent than offsetting revenues associated with assets held for future use against the forecast value of the assets held for future use balance.

Summary and analysis

583. Although we consider that revenues associated with assets held for future use are not part of regulatory income, in our summary and analysis of the price setting event disclosures, we would test the impact of those revenues on the airports' profitability based on the RAB.
584. Our solution under scenario 1 and 2 ensures that sufficient information is provided for us and other interested persons to undertake such a sensitivity analysis. This is because of the following reasons:
- 584.1 **Scenario 1:** Where an airport chooses to price in a way that revenues associated with assets held for future use **can be separated** from revenues associated with the RAB, us and other interested persons would be able to identify the forecast revenue collected on assets held for future use.
- 584.2 **Scenario 2:** Where an airport chooses to price in a way that revenues associated with assets held for future use **cannot be separated** from revenues associated with the RAB, us and other interested persons would also be able to identify the change in the carry forward balance that is a result of forecast revenue collected on assets held for future use.
585. Given that our solution provides sufficient transparency to test the impact of revenues collected on assets held for future use on the airports' profitability based on the RAB, we have not amended the Airports ID Determination to include a separate IRR for the RAB that would also take into account revenues collected on assets held for future use.²⁷⁰

²⁷⁰ 'Separate' means in addition to the IRR as discussed in Chapter 4 (ie, based on the RAB and taking into account all revenues associated with the RAB).

586. We would also be able to comment, through summary and analysis, on the concept of earning revenues on assets excluded from the RAB. In particular, we will be able:
- 586.1 to keep track of these early revenues and to assess the extent to which an airport has returned them to airlines; and
 - 586.2 in the long-term, to assess if an airport's approach to charging for assets held for future use is NPV-neutral.
587. We will also collect information on the rationale underpinning why an airport has included revenues associated with assets held for future use for the price setting event. Requiring airports to provide this additional information in the price setting event disclosure requirements will allow us to comment on the appropriateness of the approach in our summary and analysis.

Summary of submissions on our IM review draft decision and our response

588. Our final solution remains unchanged from our proposed solution outlined in our IM review draft decision. NZAA and Auckland Airport are both supportive of our decision.²⁷¹ In particular, Auckland Airport submitted that:²⁷²

it is positive that airports will be able to separately disclose revenue associated with assets held for future use to reflect their pricing intent without this distorting the assessment of target returns when compared to the RAB. We also agree with the Commission's proposal to provide for two alternative solutions, with an airport retaining the flexibility to adopt the solution that best mirrors their pricing scenario. This enhanced transparency is consistent with the Commission's objectives for the IM review and, in turn, better enables airports to explore efficient pricing options with airline customers.

589. BARNZ supports amending the Airports ID Determinations so that airports can offset forecast revenues associated with assets held for future use against their forecast value. BARNZ also agrees with our decision to leave assets held for future use outside the RAB and that it would not be appropriate for airports to make use of non-standard depreciation to account for such revenues. However, BARNZ strongly questions:²⁷³

the appropriateness of the Commission's proposal that airports could use the carry forward mechanism with respect to revenue associated with assets held for future use. If an element of unbundled charges is intended to relate to providing a return associated with assets held for future use, and is able to have the value of that 'upfront recovery' be identified so that it can be recorded in the carry forward mechanism (which is what the Commission is proposing), then BARNZ does not understand why this level of certainty is not sufficient to

²⁷¹ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 245.

²⁷² Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 29-30.

²⁷³ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 13.

enable it to be recorded in the schedule 4 table recording the value of assets held for future use.

590. In particular, BARNZ is concerned that:²⁷⁴

In broad terms, the Commission's carry-forward option would result in consumers in the short-term paying the holding costs of assets held for future use, consumers in the medium term receiving the benefit of what was paid by those earlier consumers, and consumers in the long-term receiving no benefit at all and having to pay a return on the fully capitalised holding costs.

591. We agree with BARNZ that disclosing revenues associated with assets held for future use should preferably be done in the assets held for future use schedule. This is our preferred solution as it provides the greatest level of transparency among the solutions we considered. However, given that airports can price as they see fit, we do not want to limit the options that are available under information disclosure that an airport can use to reflect its approach to pricing.

592. For clarification, eliminating the carry forward as an option to disclose revenues associated with assets held for future use could potentially result in a situation where information disclosure cannot provide transparency with regards to an airports pricing approach. This would be contrary to what we are trying to achieve through our amendments to the Airports IMs and ID Determinations.

593. We acknowledge that airports can price in a way that current airlines pay a premium (or receive a discount) and future airlines receive the benefit (or make up for the earlier discount), but this would not be limited to instances where an airport charges for assets held for future use. In fact, a similar situation would occur any time an airport makes a decision to under or over-recover in its current pricing period with the intention to offset this in future pricing periods. Again, the carry forward mechanism is only a means to making this pricing behaviour transparent in information disclosure.

594. However, if an airport uses the carry forward mechanism to capture revenues associated with assets held for future use, the disclosure requirements explained in Chapter 7 will apply. They are intended to shed light on an airport's use of the mechanism and to enable us, when we perform summary and analysis of an airport's price setting event, to comment on its appropriateness.

²⁷⁴ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 13.

595. When commenting on an airport's use of the carry forward mechanism to capture revenues associated with assets held for future use, in our summary and analysis, we would have a particular focus on the airport's explanation why using it seemed more appropriate in reflecting an airport's pricing intent than the assets held for future use schedule. Given that the forecast value of the assets held for future use balance has been specifically designed to account for revenues associated with assets held for future use, in general, we consider using this mechanism to account for such circumstances more appropriate. However, we agree with Auckland Airport that the "carry forward mechanism should remain an alternative if, for whatever reason, it is not possible to use the future use schedule".²⁷⁵

²⁷⁵ Auckland Airport "Input methodologies review: Cross submission on draft decision and submission on draft IM and ID determinations" (18 August 2016), para 2a.

Chapter 9: Pricing assets

Purpose of this chapter

596. The purpose of this chapter is to explain our solution to the problem associated with the treatment of pricing assets in the Airports ID Determination.
597. This problem has previously been referred to by us and submitters in this consultation process as relating to the treatment of leased assets.²⁷⁶ Following discussions at the workshop held in April 2016, we have clarified that the problem definition is more accurately described as the treatment of pricing assets in the Airports ID Determination.²⁷⁷
598. For the purpose of this chapter, we define pricing assets as the asset base airports use to set prices and explain how transparency can be created in information disclosure with regard to targeted returns based on these assets.

Structure of this chapter

599. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. It finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

600. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops.

Summary of problem definition

601. Airports have been excluding certain asset values from the pricing assets that are, however, activities that are included in the definition of "specified airport services" in s 56A of the Act. Those activities have therefore been disclosed by airports for ID purposes and were included in our s 56G analysis.²⁷⁸

²⁷⁶ Therefore, we use the term 'leased assets' when referring to submissions, as this was the expression used by submitters.

²⁷⁷ Commerce Commission "Input methodologies review – Airports profitability assessment – Workshop 2 – Summary of views expressed" (16 June 2016), Attachment C, para 43.

²⁷⁸ See, for example, Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act 1986" (8 February 2014), para F68.3.

602. A different asset base for pricing and information disclosure purposes in itself may not be a concern, but reconciling the differences has been problematic.²⁷⁹ We consider that this has impacted on our and other interested persons' ability to accurately determine an airport's targeted return.
603. For example, in case of Auckland Airport, the asset base used to set prices comprised airfield and terminal activities but excluded:²⁸⁰
- 603.1 aircraft and freight activities;²⁸¹ and
- 603.2 certain specified passenger terminal activities, namely leased identified tenancies and collection facilities for duty free.

How the problem evolved

604. We first identified the problem associated with pricing assets during the s 56G review of airports.
605. All airports have been excluding certain asset values and cash-flows from their pricing decisions which were included in our analysis of airports targeted returns (as these activities are included in the definition of 'specified airport services' in s 56A of the Act).
606. Our s 56G analysis showed that airports were targeting higher returns on pricing assets compared to targeted returns on the RAB. This implies that airports have been targeting lower returns on those assets that are excluded from the pricing asset base but are included for ID purposes.
607. In particular, we estimated that for PSE2, the exclusion of those assets from the pricing asset base increased targeted returns based on pricing assets of:
- 607.1 ~0.5% for Auckland Airport;²⁸²

²⁷⁹ See, for example, Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2013), para F158-165.

²⁸⁰ We do not have visibility on the assets that Wellington Airport and Christchurch Airport exclude from their pricing assets in relation to the activities that are included in the definition of "specified airport services" in s 56A of the Act. However, we understand that they largely comprise 'leased assets'.

²⁸¹ In case of Auckland Airport, for aircraft and freight activities, revenues are driven by contracted rental rates and renegotiated at the end of the term of the lease. Prices are struck through benchmarking to comparative market rentals. For the most part, these revenues relate to leases within the terminal, or hangars (including those for aircraft maintenance), freight facilities within a security area and the joint user fuel hydrant line.

²⁸² Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986" (31 July 2013), para E49.

607.2 ~0.6% for Christchurch Airport,²⁸³ and

607.3 ~0.2% for Wellington Airport.²⁸⁴

608. This analysis indicates that the impact of different asset bases for pricing and ID purposes on the profitability assessment can be material. We therefore disagree with NZAA's comment made in its submission on our IM review draft decision that the contribution of non-pricing activities is not a material proportion of the total regulated assets or revenues.²⁸⁵ However, we recognise that we only have a limited historic series to rely on and that airport behaviour can change over time.²⁸⁶
609. We discussed the problem associated with different asset bases for pricing and ID purposes in our invitation to contribute to the problem definition for the IM review.²⁸⁷
610. NZAA submitted that leased assets are appropriately recorded in annual and price setting event disclosures, and considered further analysis as unwarranted.²⁸⁸
611. BARNZ submitted that leased assets form part of the definition of "regulated airport services", and therefore need to be disclosed under the Airports ID Determination. In particular, BARNZ stated the following:²⁸⁹

The difficulty we have experienced over the past five years (and indeed under the old AAA disclosures too) is that there is a disconnection between the pricing asset base, on which prices are calculated and set under the AAA and disclosed soon after the price setting event, and the regulatory asset base as a whole. The former is only a subset of the latter, therefore it is impossible to determine the return being achieved on the pricing asset base when the revenues and costs are not subsequently separately disclosed. This means one cannot (from the disclosed information) accurately compare the revenues targeted from the pricing asset base with the returns actually earned on that base.

²⁸³ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2013), para E73.

²⁸⁴ Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act 1986" (8 February 2014), para E42.

²⁸⁵ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 250.

²⁸⁶ In its PSE3, Wellington Airport targeted the same return on leased as for pricing assets. Commerce Commission "Summary and analysis of Wellington Airport's third price setting event" (30 June 2015), para 53.

²⁸⁷ As explained earlier in this chapter, at that stage of our consultation process we referred to this problem as "leased assets". Commerce Commission "Input methodologies review – Invitation to contribute to problem definition" (16 June 2015), para 318-320.

²⁸⁸ NZ Airports "Cross submission on Commerce Commission's input methodologies review: invitation to contribute to problem definition" (4 September 2015), para 48.

²⁸⁹ BARNZ "Cross submission on problem definition submissions" (5 September 2015), p. 3-4.

612. BARNZ reiterated this view at our workshop held in April 2016.²⁹⁰

Our solution in respect of this problem

613. This section explains our solution in respect of this problem.

Our solution

614. We have not made any amendment to the Airport IMs Determination at this stage. Instead, we have amended the Airports ID Determination under s 52Q of the Act to increase the transparency relating to targeted returns on pricing assets. In particular, our solution in respect of this problem is:

614.1 to add a new schedule to the Airports ID Determination reflecting airports targeted returns based on pricing assets; and

614.2 to require airports to explain any differences in profitability based on the pricing asset base and the profitability based on the RAB.

615. Following this approach, we and other interested persons will be able to determine the impact of assets that are excluded from pricing assets but included in the RAB on airports' profitability. This can be achieved by simply deducting targeted profitability based on the pricing asset base from targeted profitability based on RAB values.

616. In addition, we and other interested persons will be in a position to:

616.1 separately identify targeted returns inherent in the airports' pricing decision; and

616.2 understand why those targeted returns might differ from the disclosed IRR associated with the total RAB.

617. Our solution creates transparency in ID by requiring airports to disclose targeted returns based on pricing assets. Our solution only requires airports to provide information based on an aggregated asset level that airports already have determined in their pricing decision.

618. For clarification:

618.1 we have not specified the pricing asset base that airports would have to provide information on in ID; and

618.2 we do not require airports to determine opening and closing asset values for leased or other assets that are not part of the pricing asset base and tracking those over time. This was a concern raised by Auckland Airport at the workshop held in April 2016.

²⁹⁰ Commerce Commission "Input methodologies review – airports profitability assessment – Workshop 2 – Summary of views expressed" (16 June 2016), Attachment C, para 44.

619. We explain our reasons in more detail in the remainder of this section.

Our solution ensures that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 of the Commerce Act is being met

620. In the Airports ID Determination reasons paper we stated:

3.55 The ID Determination requires Airports to report operating revenue such that revenue from leases, rentals and concessions is separately disclosed and other operating revenue earned in relation to airport activities is reported using categories that correspond to the Airport's specific charges.

3.56 Regulatory income comes from a range of sources. To enable an effective assessment of movements in profitability either between years, or between forecast and actual revenue some level of disaggregated disclosure is required. In determining the appropriate level of disclosure the Commission considered the characteristics of revenue and other income streams that Airports receive.

3.61 Revenue from leases, rentals and concessions has a generally understood meaning in financial reporting and is relevant to all Airport businesses. Having this revenue disclosed in its own pre-defined category will aid comparability.

621. We continue to consider that an adequate disclosure of information related to the pricing assets enables interested persons to understand airports' approach to pricing.

622. This is because the additional information provided enables interested persons to determine the impact of different asset bases for pricing and disclosure purposes on airports profitability; assess the profitability of pricing assets separately in the price setting event disclosures; and consequently assess if airports are targeting excessive profits in particular.

623. This ultimately ensures that sufficient information is readily available to interested persons to assess whether airports are being limited in their ability to extract excessive profits, consistent with s 53A.

624. In our view, the benefits arising from enhanced transparency in the price setting event disclosures outweigh the cost of the increased disclosure requirements, particularly in the light of airports having to populate the new schedule with information they are likely to already have available from meeting their consultation obligations under the AAA in respect of pricing. In response to a submission made by Auckland Airport on our IM review draft decision, we confirm that, when populating the new schedule, airports will be required to use the identical asset base that has been established when setting prices and the associated revenue that has been included in the pricing model.²⁹¹
625. In this regard, pursuant to the AAA, airports are required to consult with "substantial customers" as part of their process of amending prices for airport activities. These airport activities align with the 'specified airport services' identified in the Act. Further, these consultation obligations require airports to prepare and make available to their substantial customers information relevant to the calculation of prices for airport activities and costs of major investments.²⁹²
626. We also note that our solution contributes to future-proofing the Airports ID Determination by continuing to provide transparency on airports' targeted returns based on pricing assets even if airports decide to remove (or add) further items from (or to) their pricing asset base that are included in the definition of 'specified airport services'.

Our solution addresses BARNZ's transparency concern

627. Our solution addresses BARNZ's transparency concern that "one cannot (from the disclosed information) accurately compare the revenues targeted from the pricing asset base with the returns actually earned on that base".
628. We did not follow BARNZ's suggestion to separate out leased assets and associated costs and revenues into a separate schedule (or table).²⁹³ We understand that different asset bases for pricing purposes and ID purposes are largely a result of the exclusion of leased assets from the pricing asset base. However, our solution also provides transparency in the event that airports decide to change the items included in the pricing assets, but which remain included in the RAB (for ID purposes).
629. Therefore, separating out particular asset bases in the Airports ID Determination seems counter-intuitive and, in our view, the cost associated with populating those schedules in information disclosure outweighs the additional benefit of increased transparency.

²⁹¹ Auckland Airport submitted that "the important point of principle is that a consistent approach is taken to all building blocks for the same scope of services when forecasting the pricing asset base". Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 42.

²⁹² "Substantial customers" are defined in section 2A of the AAA.

²⁹³ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 11.

We disagree with NZAA that leased assets are appropriately recorded under the ID disclosures

630. We agree with NZAA's view that "there is no basis for seeking the Commission to separately identify assets based on the way prices are set for particular customer classes".²⁹⁴
631. However, we disagree with NZAA's position that leased assets are appropriately recorded under the ID disclosures and that further analysis is unwarranted. As discussed in the problem definition section of this chapter, both us and BARNZ have encountered significant difficulty in assessing airports targeted returns based on pricing assets and would continue to do so if no further transparency were created under the Airports ID Determination.

Summary of submissions on our IM review draft decision and our response

632. Our final solution remains unchanged from our proposed solution outlined in our IM review draft decision. BARNZ and Air New Zealand are both supportive of our decision. In particular, Air New Zealand submitted that:²⁹⁵

the proposed new Schedule 19 pricing asset base disclosure to be a significant enhancement to the information disclosure regime. As was evident during the s 56G reviews of airport pricing decisions, there is a great degree of confusion as to the linkage between airport price setting pursuant to the AAA and the regulatory asset base subject to the Commerce Act. Establishing a clear link between how airports actually set prices and the returns those prices are intended to deliver on the actual assets employed will deliver a great deal more transparency for all interested parties.

633. BARNZ "sees the proposed new schedule 19 as a significant improvement in the transparency provided by the information disclosure requirements and as particularly important in allowing interested parties to assess the degree to which airports are limited (or not) in their ability to target extracting excessive returns".²⁹⁶
634. BARNZ also supports our decision to require airports to explain any differences in profitability based on the pricing asset base and the profitability based on the RAB. In particular, BARNZ submitted that "requiring explanations of the difference, and any justification, will only improve the level of transparency and understanding achieved by interested persons".²⁹⁷

²⁹⁴ NZ Airports "Cross submission on Commerce Commission's input methodologies review: invitation to contribute to problem definition" (4 September 2015), para 46.

²⁹⁵ Air New Zealand "Input methodologies review draft decision – Cross submissions input methodologies review draft decision – Cross submissions" (18 August 2016), p. 2.

²⁹⁶ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 7.

²⁹⁷ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 15.

635. NZAA and Auckland Airport, however, are not convinced that the additional costs associated with complying with the new requirements outweigh the benefit of increased transparency. In particular, NZAA submitted that it "is concerned that this Schedule could create additional complexity if it requires reference to profitability outcomes from assets where the price setting process does not align with how airports set prices for airlines, and passengers, under the AAA".²⁹⁸ NZAA also submitted that:²⁹⁹

the airlines receive substantial detailed information from the airports during AAA consultation. Producing yet a further schedule of information for BARNZ is not required to enable assessment of the airport achievement of the Part 4 objectives".

636. Auckland Airport submitted that:³⁰⁰

It is unclear to us how the proposed solution will allow an interested party to more effectively assess whether the purpose of Part 4 is being met. Instead, the proposal risks adding further layers of analysis and complexity for interested parties that is not materially helpful for that assessment.

637. However, Auckland Airport is of the view that the new disclosure requirements must ensure that "the important point of principle is that a consistent approach is taken to all building blocks for the same scope of services when forecasting the pricing asset base" and "that Schedule 19 provides flexibility for airports to disclose the revenue that has been included in the pricing model, even though this revenue may not stem from standard charges set as part of the pricing consultation". In broader terms, Auckland Airport considers that "additional cost and complexity will arise if the Commission seeks to define pricing assets for ID purposes in a way that prevents airports from disclosing how they have established their pricing asset base in practice".³⁰¹

638. We agree with Auckland Airport and NZAA that additional complexity and compliance costs associated with populating the new schedule have to be minimised. In considering this:

638.1 we defined pricing assets as the asset base airports use to set prices (ie, we did not specify the pricing asset base that airports would have to provide information on);

²⁹⁸ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 248.

²⁹⁹ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 251.

³⁰⁰ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 41.

³⁰¹ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 42.

- 638.2 we confirmed that airports only have to provide information based on an aggregated asset level that they already have determined in their pricing decision; and
- 638.3 we do not require airports to determine opening and closing asset values for leased or other assets that are not part of the pricing asset base nor do they need to track those over time.
639. We therefore continue to hold the view that the benefits arising from enhanced transparency in the price setting event disclosures outweigh the cost of the increased disclosure requirements. Based on our own experience when performing the s 56G review, and strongly supported by airlines in submissions on our IM review draft decision, we are convinced that additional transparency needs to be created under information disclosure to be able to assess targeted returns by airports when setting prices. We have not seen any evidence in submissions on our draft decision that suggests otherwise.
640. This is confirmed by BARNZ in its cross submission on the IM review draft decision where BARNZ re-iterates that:³⁰²
- 640.1 "it is the return on the pricing assets which is most relevant to assessing whether an airport is targeting the extraction of excessive profits";
- 640.2 "it is a subset of the schedule 18 disclosure which cannot be separated out by interested parties themselves and it is a subset which interested people need to have in order to assess the levels of return being targeted through the exercise of the AAA price setting powers"; and
- 640.3 "adding schedule 19 is unlikely to substantially increase compliance costs or complexity. As noted by the airports themselves, the airports already prepare the information on the pricing asset base in consultation which demonstrates that this new schedule will not be an onerous task to prepare – the information already exists. In fact, some airports already voluntarily disclose summaries of the leased information (which is the complement to the pricing asset base information being proposed to be disclosed by the Commission)".

³⁰² BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 7.

Chapter 10: Forecast timing of cash-flows

Purpose of this chapter

641. The purpose of this chapter is to explain our solution to the problem associated with the forecast timing of cash-flows in the context of the profitability assessment of airports.

Structure of this chapter

642. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. It finishes with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

643. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops.

Summary of problem definition

644. The Airports ID Determination previously did not explicitly specify cash-flow timing expectations for airports, but it included a year-end ROI calculation in the *ex-post* information disclosure requirements from which year-end cash-flow timings could be inferred.
645. However, these year-end cash-flow timing assumptions consistently and materially underestimated airport returns, because they did not reflect the time value of money of cash-flows occurring throughout the year.
646. In addition, the previous year-end cash-flow timing assumptions were not consistent with our latest cross-sector thinking on this matter. We have applied updated intra-period cash-flow timing assumptions in the regulation of electricity distribution businesses (EDBs), gas pipeline businesses (GPBs) and Transpower (ie, both in the setting of price-quality determinations and in their information disclosure requirements).³⁰³

Year-end cash-flow timing assumptions understate targeted profitability

647. We used year-end cash-flow timing assumptions in our profitability assessment in the s 56G reviews, as this was the most consistent option with the treatment of cash-flows inferred by the *ex-post* information disclosure requirements. We also tested the impact of assuming that cash-flows would occur mid-year rather than at the end of the year.

³⁰³ See, for example, our reasons paper on the ID amendments for electricity distributors and gas pipeline businesses. Commerce Commission "Information Disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper" (1 October 2012), para 3.22-3.36 and Attachment E.

648. Our profitability assessment for Auckland Airport and Wellington Airport in the s 56G reviews indicated that the profitability of airports was understated by approximately half a percent using year-end cash-flow timing assumptions if cash-flows in fact occurred mid-year.³⁰⁴
649. Although we did not place any weight on our analysis based on mid-year cash-flow timing in drawing our conclusion on the effectiveness of the information disclosure regime, we indicated our intent to consider enhancing the information disclosure requirements to better reflect the actual timing of cash-flows.
650. In our invitation to contribute to problem definition for the IM review, we re-emphasised our intent to include cash-flow timing assumptions that better reflected the actual timing of cash-flows and invited interested persons to submit on this matter.³⁰⁵
651. BARNZ supported our intent to update the information disclosure requirements. In particular, BARNZ stated in its submission the following:³⁰⁶
- Given that revenues are received (and expenses incurred) throughout the year BARNZ considers that the end-of-year calculations understate the level of returns being targeted. BARNZ considers that the ID requirements in relation to intra-period cash flow timing assumptions should be amended to reflect mid-year cash-flows. Unless there are good reasons otherwise, the same timing assumptions should be applied to airport ID as are applied in the ID for other industries regulated under Part 4.
652. NZAA saw merit in reviewing the cash-flow timing assumptions under the Airports ID Determination further, but did not submit any particular views on this matter.³⁰⁷

³⁰⁴ See, for example, Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is Promoting the purpose of Part 4 for Wellington Airport – Section 56G of the Commerce Act 1986" (8 February 2013), para E33.2.

³⁰⁵ Commerce Commission "Input methodologies review – Invitation to contribute to problem definition" (16 June 2015), para 331-333.

³⁰⁶ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 13-14.

³⁰⁷ NZ Airports "Cross submission on Commerce Commission's input methodologies review: invitation to contribute to problem definition" (4 September 2015), para 56.

Our solution in respect of this problem

653. This section explains our solution in respect of this problem.

Our solution

654. We have not made any amendments to the Airport IMs Determination. Instead, we have amended the Airports ID Determination so that interested persons can better assess if airports are targeting excessive profits by more accurately reflecting actual and expected timing of cash-flows in airports' disclosures. Specifically, we have amended the Airports ID Determination to:
- 654.1 specify, in the **price setting event disclosures**, 182 days before year-end ('mid-year') timing assumptions for all expenditures and 148 days before year-end for all revenues; but
 - 654.2 provide, in the **price setting event disclosures**, the flexibility for airports to deviate from the default cash-flow timing assumption if airports provide evidence that the actual cash-flow timing for specific cash-flow items is different from the default cash-flow timing assumption; and
 - 654.3 specify, **in the annual *ex-post* disclosures**, 182 days before year-end timing assumptions for all expenditures and 148 days before year-end for all revenues.^{308, 309}
655. We note that any consequential changes affecting the *ex-post* Airports ID Determination will be considered as part of a follow-up project that is separate from the IM review. This project will be subject to a separate consultation process. As part of that consultation process, we will also seek stakeholder's views on alternative solutions regarding cash-flow timing assumptions in the annual *ex-post* disclosures.³¹⁰
656. We explain our reasons in more detail in the remainder of this section.

Better assessment of airports profitability

657. We consider that specified default cash-flow timing assumptions:

³⁰⁸ The Airports ID Determination requires airports to provide an ROI in the *ex-post* disclosures. *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 2.3.

³⁰⁹ The implementation of mid-year cash-flow timing assumptions in the *ex-post* assessment of airports profitability would require moving to an IRR-based profitability indicator as an ROI-based approach does not allow accounting for specific cash-flow timing assumptions.

³¹⁰ For example, as we stated in our reasons paper on the 2012 ID Determination amendments for electricity distributors and gas pipeline businesses, under some circumstances, using monthly cash-flows may result in a significantly better estimation of returns than using mid-year cash-flow timing assumptions. Examples include when capital expenditure during the year is lumpy or revenue is seasonal. See: Commerce Commission "Information Disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper" (1 October 2012), para 3.27-3.28.

- 657.1 better reflect the actual timing of cash-flows;
 - 657.2 result in improved accuracy as compared to assuming cash-flows occur year-end, as they take into account intra-year effects;
 - 657.3 consequently, allow interested persons to better assess if airports were targeting excessive profits; and
 - 657.4 only require changes to the profitability indicator calculation under information disclosure requirements, rather than a change to the data used by airports in the calculation of profitability (this is because our solution still requires the same revenue and expenditure amounts to be disclosed each year).
658. In addition, by allowing airports to deviate from the default cash-flow timing assumptions in their price setting event disclosures, we can take account of airport-specific circumstances which may result in an even better estimate of expected profitability.
659. We consider that under the previous year-end cash-flow timing assumptions airports did not have an incentive to comment on the appropriateness of the default assumption, because a year-end assumption is in favour of airports.
660. Our solution could potentially result in an over-estimate of expected returns, if the actual timing of cash-flows lies between the default assumptions and end-of-year. Our solution incentivises airports to provide evidence on the reason why the new default assumptions could be inappropriate.
661. If airports choose to use different cash-flow timing assumptions when setting prices, airports would have to provide evidence in their price setting event disclosures underpinning why the assumptions for specific cash-flow items are different from the default assumptions. We would then comment on the appropriateness of the default cash-flow assumptions in our summary and analysis.

Our solution is consistent with our approach to cash-flow timing assumptions in other regulated industries

662. Our solution is consistent with our approach to cash-flow timing assumptions for the EDBs and GPBs regulated under Part 4.
663. In our 2015 amendments to information disclosure determinations for EDBs and GPBs, we decided to use mid-year cash-flow timing assumptions with the exception of revenues. Suppliers provided evidence that revenues should be recognised as being received on the 20th day of each following month, which is equivalent to the aggregate annual revenue being received 148 days before year-end.³¹¹
664. Consistent with our decision for the EDBs and GPBs, our solution does also allow use of airport-specific cash-flow timing assumptions instead of applying our default assumption provided airports can give evidence why the alternative assumption is a more accurate reflection of actual cash-flows occurring for the airport.

Summary of submissions on our IM review draft decision and our response

665. In our IM review draft decision we specified mid-year timing assumptions for both revenue and expenditure.
666. In submissions on our IM review draft decision, NZAA did not oppose specifying mid-year cash-flow timing assumptions for expenditure and revenue.³¹² However, Christchurch Airport and BARNZ both pointed out that it is common practice in the industry for airports to receive payment of invoices on the 20th of the following month.³¹³ Christchurch Airport also considers that, given the default assumption for EDBs and GPBs reflects revenues being received on the 20th of the month, it would be misleading for consumers if we deviated from this approach for the airports sector.³¹⁴
667. We agree that adopting the timing assumption of 148 days before year-end for revenues creates higher accuracy in the respective profitability measures. We consider the additional compliance cost for airports, if there are any, to be minimal.

³¹¹ Commerce Commission "Amendments to information disclosure determinations for electricity distribution and gas pipeline services 2015: Final Reasons Paper" (24 March 2015), para 2.30 and Attachment A.

³¹² NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 253.

³¹³ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 17.

³¹⁴ Christchurch Airport submission on IM review draft decisions papers "IM review submission" (4 August 2016), para 27.

Chapter 11: Other adjustments to an airport's price path

Purpose of this chapter

668. This chapter discusses problems related to the transparency of airports profitability disclosures where an airport adjusts its price path, for example, to allow for a commercial concession or route incentive. This chapter also presents our solution to this problem.

Structure of this chapter

669. This chapter begins with a section on the problem definition, before going on to explain our solution to this problem. We then finish with a summary of the main comments stakeholders made in submissions on our IM review draft decision with regard to this problem and our response.

Problem definition

670. This section describes the problems that could be created in *ex-ante* and *ex-post* profitability assessments of airports due to 'other adjustments' an airport may make to its price path. To date we, and submitters, have identified two types of 'other adjustments' that have taken place:

670.1 commercial concessions; and

670.2 route incentives.

671. However, there may be additional ways that an airport may adjust its price path in the future which could give rise to transparency concerns.

Commercial concessions

672. Commercial concessions are commercial decisions made by an airport to under-recover revenue. 'Commercial concessions' is a descriptive term used in discussions between us, airports, and interested persons. It is not in our Airport IMs or ID requirement definitions. Previously, there was no requirement for airports to report on commercial concessions or whether any planned under-recovery is intended to be permanent.

673. Airports may apply commercial concessions to pricing for a number of reasons. An example we have seen is Christchurch Airport's commercial decision of a phased implementation of its long-term pricing model in order to support the economic recovery of Canterbury following the 2010 and 2011 earthquakes.³¹⁵

³¹⁵ Christchurch International Airport Limited, Price Setting Disclosure, 19 December 2012.

674. When setting prices for 2012-2017 (ie, its second price setting event, PSE2), Christchurch Airport set prices at a level that created forecast revenue temporarily lower than its long-term pricing model. This commercial concession had a present value (in 2014 dollars) of \$16 million according to Christchurch Airport.³¹⁶ Christchurch Airport stated that it does not intend to recover the concession, however, there could be other instances of commercial concessions that airports may intend to recover in future regulatory periods.
675. The principal problem with commercial concessions is that they are a complication to understanding an airport's pricing intent and may cloud any profitability assessment by interested persons. If commercial concessions are not applied in a clear and transparent way, they could lead to the double counting of the concession in profitability assessments.
676. Double counting may occur if an airport applied a commercial concession during one price setting event, did not signal that it would claim this back in a future price setting event, but subsequently did. In this case, there is the risk that in future price setting events an airport may attempt to claim some sort of a credit for past commercial concessions.
677. The consequence of this would be that the airport would benefit from a lower assessed target profitability in the year that the concession is applied. However, it may later successfully argue for the impact of the commercial concession to be ignored when the amount is claimed back in a future price setting event. This would mean that the airport would again benefit from lower assessed target profitability.

Route incentives

678. Route incentives are decisions by an airport to charge an airline less than the standard charge in order to secure new routes or additional passengers on an existing route to the airport from that airline. The Airports ID Determination previously only specified a need to disclose information on financial incentives (which can be route incentives or other incentives) on an *ex-post* basis. There was no requirement to disclose information on route incentives in price setting event disclosures.
679. While route incentives appear to be simply a lower price for a particular airline, there are benefits to other airlines. The other airlines can benefit in the long run through the fixed (if not constrained) airport costs being spread over more flights once the route incentive is lifted and the new route has established itself at the airport (or during the route incentive period, if the remaining charge is greater than the short run incremental cost). This benefit could flow through to consumers in the form of increased competition between airlines and, as a result of increased competition, lower prices.

³¹⁶ Christchurch International Airport Limited, Price Setting Disclosure, 19 December 2012.

680. A recent example of a route incentive is what Wellington Airport has offered for new routes and increased passenger numbers, as described in its publicly disclosed pricing schedule.³¹⁷ Wellington Airport has included consideration of its route incentives in the forecast of demand and revenue in its last price setting event.³¹⁸
681. In contrast to commercial concessions, route incentives are targeted towards specific airlines, so the prices for other airlines may be higher than they would be if there was no route incentives planned, so that the airport can maintain its revenue level. In the past, there generally did not appear to be sufficient publicly disclosed information for interested persons to fully understand the forecast impact of route incentives and thus understand whether the charges for other airlines were higher as a result of the incentives.
682. Route incentives were, therefore, another problem of transparency. Interested persons may have been prevented from assessing the impact of route incentives on the *ex-ante* assessment of airport profitability because there was no specific price setting event disclosure requirement for airports to report on route incentives.
683. BARNZ has supported the need to amend the ID requirements to add further detail on route incentives.³¹⁹
- "The disclosures around financial incentives are currently not clear – improved definitions and disclosure lines could provide better clarity over the relationship between the incentives and the disclosed costs and revenues and between the incentives and the published charges".
684. In contrast, NZAA said in its cross submission on our problem definition paper that "BARNZ fails to identify and fully explain any problem with the current disclosure of pricing incentives."³²⁰

Our solution in respect of this problem

685. This section provides a description of our solution for improving transparency of other adjustments that an airport may make to its price path as well as our reasoning. The solution is framed in terms of the two 'other adjustments' that we have seen to date (commercial concessions and route incentives).

³¹⁷ Wellington International Airport Limited "Schedule of Landing and Terminal Charges Effective 1 June 2014 to 31 March 2019", p.2, available at:

<https://www.wellingtonairport.co.nz/corporate/financial/airport-charges/>

³¹⁸ Commerce Commission, Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, 8 February 2013, para D40.

³¹⁹ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015).

³²⁰ NZ Airports "Cross submission on Commerce Commission's input methodologies review: invitation to contribute to problem definition" (4 September 2015).

686. There may be additional ways in which the price path may be adjusted that are yet to be identified. However, we consider that our solution is flexible enough to also deal with other adjustments to the price path that may arise.
687. In respect of the commercial concessions problem, we have not made any changes to the Airport IMs or ID Determinations. We consider that that the carry forward mechanism to adjust the forecast closing investment value in Chapters 4 and 7 could be used to make the expectations regarding commercial concessions sufficiently transparent. We explain our reasoning for this in paragraphs 690 to 698.
688. In respect of the route incentive problem, our solution is:
- 688.1 not to make any amendments to the Airport IMs Determination at this stage;
and
- 688.2 to amend the Airports ID Determination under s 52Q, as explained in paragraph 699.
689. This change is aimed at providing greater transparency to interested persons to better understand an airport's approach to pricing where it provides route incentives. This will ultimately better enable us and interested persons to assess airports' targeted returns. We explain our reasoning for this change in paragraphs 699 to 701.

Commercial concessions

690. In respect of the commercial concessions problem, we have not made any changes to the Airport IMs or ID Determinations. This is because we consider that the carry forward mechanism to adjust the forecast closing investment value discussed in Chapters 4 and 7 could be used to make the expectations regarding commercial concessions sufficiently transparent.
691. As discussed in Chapters 4 and 7, we will only accept the inclusion of a commercial concession in the carry forward mechanism to adjust the forecast closing investment value if the airport has specifically indicated in its price setting disclosure that it intends to recover the concession in the future, and the reasons for doing so.
692. Further, we do not consider that the disclosure of commercial concessions is required unless airports intend to recover the amounts in future price setting events.³²¹ In cases where an airport does not intend to recover the amount, the commercial concession can simply be viewed as relatively lower target revenue, and thus profitability will rightfully be assessed to be relatively lower.

³²¹ However, airports are always welcome to voluntarily provide additional information in their price setting event disclosures to assist interested persons in understanding their pricing approach.

693. In cases where an airport intends to recover a commercial concession it will be in the airport's interest to disclose this intention so that it can be included in the carry forward mechanism to adjust the forecast closing investment value. Therefore, our view is that an additional ID requirement would not provide any additional benefit.
694. NZAA seems to generally support this approach.³²² NZAA submitted that:
- "discounts and commercial concessions are clearly in the long-term interest of consumers, and the ID regime should not disincentivise this behaviour....This does make a case for changes to the IMs or ID requirements."
695. However, NZAA also said that "it is not necessary to alter the disclosure regime to introduce a new layer of complexity in "tracking" these concessions over time to ensure they are not clawed back."³²³ This suggests that NZAA may consider that the carry forward mechanism is not required.
696. We agree that when an airport does not intend on recovering the commercial concession in the future, it is not necessary to track it. However, when the airport does intend to recover the commercial concession, it is important for this to be transparent and for interested persons to be able to understand the impact of it. Our solution accommodates this.
697. NZAA also said that "greater clarity is required from the Commission on the principles that will guide the assessment of historical over and under-performance."³²⁴ This supports our solution, which will provide guidance on how we will treat a specific decision to under-recover due to a commercial concession. Chapter 6 provides more specific detail on *ex-post* risk allocation arrangements when actual outcomes differ from forecast.
698. BARNZ questioned in its submission on our problem definition paper how the commercial concession amount should be calculated.³²⁵ Our solution will make an airport's expected returns, including commercial concessions which an airport intends to recover at a later date, more transparent.

³²² NZ Airports "Submission on Commerce Commission's input methodologies review: Invitation to contribute to problem definition" (21 August 2015), para 238-240.

³²³ NZ Airports "Submission on Commerce Commission's input methodologies review: Invitation to contribute to problem definition" (21 August 2015).

³²⁴ NZ Airports "Submission on Commerce Commission's input methodologies review: Invitation to contribute to problem definition" (21 August 2015).

³²⁵ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015).

Route incentives

699. Our solution is to amend the Airports ID Determination under s 52Q of the Act to improve transparency of route incentives. In particular, it requires airports to disclose the forecast total annual dollar amount of pricing incentives (which include route incentives) consistent with the *ex-post* ID requirement to disclose financial incentives.³²⁶
700. We consider that this additional information is relatively simple for airports to calculate. This is because airports already forecast the volume of flights that will meet the requirements for route incentives in order to forecast demand, revenue, and prices.
701. Requiring airports to disclose the aggregate impact of pricing incentive forecasts as part of price setting event disclosures will help interested persons understand whether or not the forecast effect of pricing incentives are included in an airport's target revenue. This will improve transparency and help interested persons assess an airport's profitability with and without any route incentives as a sensitivity test.³²⁷

Summary of submissions on our IM review draft decision and our response

702. Our final solution remains unchanged from our proposed solution outlined in our IM review draft decision. BARNZ continues to support the additional disclosure requirement regarding pricing incentives.³²⁸ NZAA disagrees with this new requirement. In particular, NZAA has the following three major concerns regarding the disclosure of forecast pricing incentives:³²⁹
- 702.1 the information disclosed could be commercially sensitive;
- 702.2 the outcome of pricing incentives may only be assessed *ex-post* or be conditional on airlines taking particular actions; and
- 702.3 incentive arrangements may not be reflected in the pricing forecasts by airports.

³²⁶ le, require airports to disclose the amount of revenue foregone compared to applying standard charges.

³²⁷ We undertook such a sensitivity test in our s 56G report on Wellington Airport to help assess the impact of the incentive scheme on the airports profitability.

³²⁸ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 15-16.

³²⁹ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 253.

703. We do not consider the information provided under the new disclosure requirement to be commercially sensitive. We agree with the comment BARNZ made in its submission that "the disclosures proposed by the Commission are at an aggregate level and therefore should not be so commercially sensitive".³³⁰ For example, if the total revenues were \$100 m including pricing incentives of \$10 m, airports would only be required to disclose the total amount of pricing incentives included in its price setting event (\$10 m). The pricing incentives would not have to be split into smaller components, allocated to airlines or explained in further detail.
704. Our solution requires airports to disclose the forecast total annual dollar amount of pricing incentives. We acknowledge that this information can only be provided in the price setting event disclosure where it is quantifiable on an *ex-ante* basis and where it has been included in forecasts used to support a price setting event. We are aware that this cannot capture any incentive arrangements that can only be assessed *ex-post*, that are conditional on airlines taking particular actions or that are not reflected in the pricing forecasts by airports.
705. We therefore continue to hold the view that the additional information is relatively simple for airports to calculate given that airports already forecast the volume of flights that will meet the requirements for route incentives in order to forecast demand, revenue, and prices. Our view has been endorsed by BARNZ in its cross submission on our IM review draft decision.³³¹
706. Despite BARNZ's support for our solution, BARNZ considers the definition of 'pricing incentives' in the Airports ID Determination needs amending (both applying to information disclosed *ex-post* and *ex-ante*). In particular, BARNZ is of the view that it should be amended to reflect "what starting position pricing incentives should be measured from" as such a reference is currently missing in the Airports ID Determination. BARNZ considers "the charges set under the Airports Authorities Act" an appropriate reference point.^{332, 333}

³³⁰ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 8.

³³¹ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 8.

³³² BARNZ "Technical drafting comments on [DRAFT] Amendment to the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010" (18 August 2016), p. 35.

³³³ BARNZ proposes to amend the definition as follows (words in bold added): pricing incentives means the value of incentives provided to customers by an airport that have the effect of lowering the price paid for specified airport services, **as compared to the charges set under the Airports Authorities Act**, including discounts, rebates, credits, route incentives or reimbursements.

707. We have not made such an amendment to the Airports ID Determination. This is because "the charges set under the Airports Authorities Act" are only associated with a subset of the RAB that airports have to disclose information on in their price setting event disclosures. Given that revenues which are unrelated to charges set under the AAA may also be subject to pricing incentives, we want airports to report transparently under information disclosure on those as well.

Chapter 12: Initial RAB value of land

Purpose of this chapter

708. The purpose of this chapter is to explain our solution to the problem associated with the initial RAB value of land.

Structure of this chapter

709. This chapter includes a section on the problem definition, before going on to explain our solution to this problem.

Problem definition

710. This section explains the problem definition, including how it evolved through consultation, which included submissions and workshops.
711. The original Airport IMs required an initial RAB value for land as at 2009. However, the High Court judgment in the merits appeals requires that the initial RAB value for land has to be assessed as at 2010. We made the Court-ordered amendments to the Airport IMs in late 2014.^{334, 335}
712. The problem is that airports currently do not have MVAU land valuations as at 2010. Airports only have MVAU land valuations for the years 2009 and 2011.³³⁶
713. The problem has been well-canvassed with interested parties since the High Court issued its judgment in December 2013. Various discussions have been held between airports, airlines and us about possible approaches to addressing the problem. Auckland Airport presented on the problem at the IM Forum.³³⁷ NZAA, BARNZ and Auckland Airport also submitted on the problem as per the views presented in this chapter.

³³⁴ Commerce Commission "Publication of Electricity, Gas, and Airport Input Methodologies Amendments ordered by the High Court" (27 November 2014).

³³⁵ *Wellington International Airport Ltd and others v Commerce Commission* [2013] NZHC 3289, para 892.

³³⁶ The value of land assets in the initial RAB for all airports must be established using the Market Value Alternative Use (MVAU) valuation approach. *Airport Services Input Methodologies Amendments Determination 2016 [2016] NZCC 28*, clause 3.2 and Schedule A.

³³⁷ Auckland International Airport Limited "Initial regulatory asset value for land" (30 July 2015), available at <http://www.comcom.govt.nz/dmsdocument/13513>.

Our solution in respect of this problem

714. This section explains our solution in respect of this problem.

Our solution

715. Our solution in order to be consistent with the High Court judgment is to amend the Airport IMs Determination:

715.1 to set the initial RAB value for airport land as at 2010 using a pragmatic proxy by interpolating 2009 and 2011 MVAU land values (net of any capex or disposals of land that occurred during the years 2009 to 2011) based on existing MVAU land valuations; and then

715.2 to add to the calculated proxy the value of any capex and disposals related to land that occurred up to the date of the interpolated value.

716. This is our solution because:

716.1 an interpolation of 2009 and 2011 MVAU land valuations will likely result in a similar value to a 2010 MVAU land valuation as the existing MVAU land valuations are from nearby dates; and

716.2 it would be inefficient for each airport to incur the cost of obtaining a 2010 MVAU land valuation considering that we expect using interpolated values would provide similar results.

Solution is consistent with the High Court judgment

717. Given that the 2009 and 2011 land valuations for each airport are consistent with the MVAU approach specified in Schedule A of the Airport IMs, we consider that our amendments are also consistent with the High Court judgment.

718. This is because an interpolated valuation will reflect the value of the land as at 2010, and still be consistent with the MVAU land valuation methodology set out in Schedule A of the Airport IMs.³³⁸

719. We consider that our approach is a pragmatic and cost-effective way to be consistent with the High Court judgment. Our solution is likely to result in a similar value to a 2010 MVAU land valuation, as the existing MVAU land valuations are from nearby dates, and our approach would not impose significant costs on airports, with little identifiable benefit.

³³⁸ For clarification, this refers to Schedule A of the Airport IMs that was in place at the time, ie, not the amended one we published in February 2016.

Impact of any capex or disposals of land that occurred after the date of the interpolated value should be removed

720. Simply interpolating 2009 and 2011 land values would result in any capex or disposals of land that occurred after the date of the interpolated land value being included in the initial RAB value for land as per 2010.
721. Therefore, we have decided not to add to the calculated proxy the value of any capex and disposals related to land that occurred after the date of the interpolated value in order to:
- 721.1 most accurately reflect the initial RAB value for land as per 2010; and
- 721.2 not to distort the initial RAB value as per 2010 by any events subsequent to the High Court-determined date of the initial RAB date.

Solution is widely accepted in industry

722. Our final solution is unchanged from our proposed solution outlined in our IM review draft decision. Both NZAA and BARNZ express their support for the proposed solution in submissions on our IM review draft decision.^{339, 340}
723. The apparent industry support for pragmatism is also consistent with the support we received from stakeholders on our proposal not to update the analysis undertaken for our s 56G reports for the High Court judgment. In the s 56G reports we concluded updating the MVAU land valuations to 2010 would not change the conclusions presented in our final reports for all airports.^{341, 342}
724. Despite the industry-wide support for our solution, BARNZ did not initially support interpolating existing 2009 and 2011 MVAU land valuations in the case of Wellington Airport.³⁴³
725. BARNZ was of the view that Wellington Airport's 2009 and 2011 MVAU land valuations were not IM-compliant, and that therefore Wellington Airport needed to provide a 2010 MVAU land valuation.

³³⁹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 16.

³⁴⁰ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 262.

³⁴¹ Email from Ruth Nichols (Commerce Commission) Consultation on impact of IM judgement on s 56G reports for airports regulated under Part 4 of the Commerce Act (6 January 2014), available at <http://www.comcom.govt.nz/dmsdocument/11451>

³⁴² Letter from John Beckett (Executive Director, BARNZ) to Ruth Nichols (Senior Legal Counsel, Commerce Commission) regarding impact of Merits Review judgement on section 56G reports (24 January 2014), available at <http://www.comcom.govt.nz/dmsdocument/11455>

³⁴³ BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 2.

726. NZAA agreed with BARNZ that 2010 valuations could be required if the MVAU land valuations carried out by airports were found to be non-compliant, but did not consider this to be an issue. This is because NZAA considers all airports' MVAU land valuations to be IM-compliant.
727. We disagree with BARNZ's concern regarding Wellington Airport's 2009 and 2011 MVAU land valuations. In our summary and analysis of Wellington Airport's third price setting event, we concluded that Wellington Airport's approach to the 2013 MVAU land valuation was not inconsistent with the Airport IMs for land valuation.³⁴⁴
728. Given that the approach used in the 2013 MVAU land valuation did not materially differ from the approaches used in the 2009 and 2011 MVAU land valuations, we consider those valuations to be IM-compliant as well.

³⁴⁴ Commerce Commission "Summary and analysis of Wellington Airport's third price setting event" (30 June 2015), para A14.

Attachment A: Transitional arrangements

Purpose of this attachment

- A1 The purpose of this attachment is to explain our transitional arrangements for information disclosures in the Airports ID Determinations.

Information disclosure requirements

Information required in price setting event disclosure

- A2 Under the Airports ID Determination the forward-looking disclosure airports make following a price setting event must include:
- A2.1 information relating to each of the components of the airports' forecast total revenue requirement; and
 - A2.2 an explanation of the differences between the preparation of each component and the most recent corresponding historical financial disclosure.
- A3 This allows us and other interested persons to understand the extent to which and the reasons why airports have deviated from the default position in the Airports IM Determination when setting prices. It also allows us and other interested persons to understand the extent to which approaches consistent with the Airport IMs were being applied as part of the pricing decisions.

Timings of the historical financial disclosure and the IM review

- A4 The Airports ID Determination requires airports to make their historical financial disclosure within five months after the end of each disclosure year.³⁴⁵ For Auckland and Christchurch airports this means that they must make their annual historical disclosure in November of each year.
- A5 The historical financial disclosures that Auckland and Christchurch airports made in November 2016 were based on the previous Airport IMs and ID determinations (ie, they do not reflect the changes resulting from this IM review).

³⁴⁵ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 2.3.

Timings of Auckland Airport's and Christchurch Airport's next price setting disclosure

- A6 The next price setting disclosure for both Auckland and Christchurch airports are due following their price setting events which are expected to occur in July 2017. Under the Airports ID Determination they are required to provide the explanation described above by comparing the information relating to their forecast total revenue requirement with the *ex-post* information disclosed in November 2016.³⁴⁶
- A7 As noted above, the November 2016 historical disclosures made by Auckland and Christchurch airports do not reflect any of the changes made as part of the IM review. Therefore, without any transitional arrangements, Auckland Airport and Christchurch Airport be required to provide significant explanation to us in their price setting event disclosures made following the July 2017 price setting events.³⁴⁷
- A8 The absence of transitional arrangements may also obscure the differences between their price setting methodologies and the Airport IMs Determination, which is undesirable since it would reduce transparency making it more difficult for us and other interested persons to assess profitability and it would add to the cost of compliance.

Our transitional arrangements for Auckland and Christchurch airports next price setting event disclosures

- A9 This section explains our approach for Auckland and Christchurch airports while we transition from the current Airport IMs and ID determinations to the amended determinations.

Transitional requirements

- A10 We have not amended the Airport IMs Determination at this stage. We have amended the Airports ID Determination to introduce transitional requirements in the Airports ID Determination to require Auckland and Christchurch airports to:
- A10.1 restate some key information provided in their November 2016 historical financial disclosure, in a manner consistent with the amended Airport IMs and ID determinations;³⁴⁸ and

³⁴⁶ *Airport Services Information Disclosure Amendments Determination 2016 [2016] NZCC 29*, clause 2.5.

³⁴⁷ This is because differences must be explained by comparison to the most recent corresponding historical financial information disclosed rather than information disclosed using the most recent Airports IMs.

³⁴⁸ le, asset roll-forward, and the costs that are used to make up the components of their revenue requirement.

- A10.2 explain the difference between the preparation of each component for pricing purposes in Auckland and Christchurch airports' next price setting event disclosure to be provided considering this transitional schedule (this means that for components where the information has changed since the most recent historical financial disclosure we would expect the comparison to be made to the transitional schedule rather than the most recent historical financial disclosure).³⁴⁹
- A11 Auckland and Christchurch airports could provide a restated transitional schedule at the same time as they report on their price setting event disclosures in order to reflect the most recent IM and ID determination requirements.
- A12 This would mean that, in the event that historic disclosures do not reflect the most recent IM and ID Determination requirements, the explanations provided would compare the components disclosed in the Schedule 18 of the price setting event disclosure template (Report on the Forecast Total Asset Base Revenue Requirements) and the corresponding information in the new transitional schedule.
- A13 We consider these transitional requirements to be appropriate as they require minimal adjustments to the way information disclosure has operated in the past. We would only request additional information in Auckland and Christchurch airports' next annual disclosures in so far as it is required to reflect the amendments resulting from the IM review.
- A14 The transitional requirements are also consistent with the approach within airport information disclosure requirements we have taken in the past.³⁵⁰ We have also requested other regulated businesses to restate past disclosures to reflect amendments to IM and ID Determinations requirements.³⁵¹

³⁴⁹ For components where the information has not changed since the most recent historical financial disclosure we would expect the comparison to continue to be made to the most recent historical financial disclosure.

³⁵⁰ For example, we included a transitional provision for disclosure of the initial RAB in a form of a transitional schedule. This schedule was only required to be produced in the first disclosure year in which airports were subject to information disclosure.

³⁵¹ For example, EDBs were required to provide restated financial information regarding the roll-forward of the RAB and deferred tax balances for the years 2010-2012 in the 2013 annual disclosures after IMs came into effect in 2012. In addition, we required EDBs to provide restatements of the previous two years' ROI calculations in 2015 after we amended the ID disclosure requirements for ROIs to better reflect the cash-flow timings used to set prices for the DPP.

Summary of submissions on our IM review draft decision and our response

A15 Our final decision remains unchanged from our proposed solution outlined in our IM review draft decision. Stakeholders have not expressed concerns about the need for transitional arrangements; however, NZAA and Auckland Airport have expressed concerns about the inclusion of a five-year restatement of its historical asset values in the transitional schedule.

A16 In particular, NZAA submitted that:³⁵²

The transitional Schedule does not raise concerns in and of itself. However, the requirement to make restatements for up to five years of historical disclosures goes beyond what is strictly required for a transitional Schedule.

A17 Auckland Airport submitted that:³⁵³

We are struggling to see the benefit in providing retrospective disclosure of what the RAB would have been for each year in PSE2 if "disclosure-only" revaluations were excluded (as per the transitional schedule 24). We have considerable doubts about the value of seeking retrospective annual precision for historically disclosed information at a year-on-year level. Instead, we think the key focus should be on getting the right disclosure starting point for forward-looking analysis.

A18 BARNZ, however, support the inclusion of historic asset values stating that it:³⁵⁴

considers that a restated RAB for each of the years in PSE2 is needed. Not restating the asset base would mean that any metrics involving the asset base would be inconsistent for the first five years of the disclosure regime. It would prevent an accurate consistent set of historical information from commencement until FY16 or FY17 in the case of Christchurch and Auckland Airports, which is not in the long-term interests of consumers.

A19 We consider that it is important for interested persons to understand the consequence of an airport restating its RAB on previously disclosed asset values. We agree with BARNZ that a historic restatement of the RAB will contribute significantly to the ability of interested persons to understand historic airport performance in light of the recent Airport IMs and ID determination changes resulting from the IM review.³⁵⁵

³⁵² NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 266.

³⁵³ Auckland Airport "Review of input methodologies – Submission on commerce commission draft decision" (4 August 2016), para 11c.

³⁵⁴ BARNZ "Cross submission by BARNZ responding to airport submissions on the Commerce Commission proposed changes to the input methodology and information disclosure determinations in relation to the airport topic" (18 August 2016), p. 4.

- A20 We also note that the disclosure of historic aggregate RAB values (as provided for in the transitional schedule) is a common information requirement in annual disclosures in other regulated sectors.³⁵⁶
- A21 The transitional schedule is a one-off disclosure requirement that we anticipate will only be completed by Auckland Airport. By requesting the information at the aggregate RAB level we do not consider the disclosure requirement to be particularly onerous and we expect that Auckland Airport will already have information available to complete this disclosure.

³⁵⁶ We collect aggregate RAB information for the most recent disclosure year and the four preceding disclosure years in each annual disclosure for EDBs, GDBs, GTBs and Transpower.

Attachment B: Stylised example

Purpose of this attachment

- B1 The purpose of this attachment is to illustrate how an airport can, in its price setting event disclosures:
- B1.1 disclose asset revaluations that are based on approaches that are not provided for by the Airport IMs; and
 - B1.2 determine un-forecast revaluation gains or losses for the purpose of establishing the opening investment value of the current pricing period.
- B2 We consider it useful for the stylised example to be looked at alongside the narrative provided in this topic paper. This is because the matters relating to the disclosure of asset revaluations based on non IM-consistent approaches and the treatment of any resulting un-forecast revaluation gains or losses in the price setting event disclosures span across several chapters of this topic paper.³⁵⁷

Problem definition as discussed in this topic paper

- B3 As explained in this topic paper, we have provided additional flexibility in the Airport IMs such that airports can roll forward their asset base in the annual *ex-post* disclosures by using CPI-indexation, an un-indexed approach or a combination of both. However, airports may, when setting prices, still use approaches to revaluing assets that are different to those specified in the Airport IMs.
- B4 As discussed in Chapter 5, this may create a transparency issue, as it can result in a situation where the value of the asset base rolled forward in the annual *ex-post* disclosures is not consistent with the value of the asset base used when setting prices and disclosed in the price setting event disclosures.³⁵⁸
- B5 Our preference is that airports use consistent approaches to revaluing assets for both pricing and disclosure purposes. This is generally supported by stakeholders.^{359, 360}

³⁵⁷ We note that Attachment B was not included in our draft topic paper. It has been added to this final topic paper to provide clarification regarding the mechanics of some of our solutions. It is a stylised example only and as such should only be looked at for illustrative purposes. This stylised example takes a similar form of the stylised examples provided during the Airports Profitability Assessment Workshop 2 and has the same base case assumptions.

³⁵⁸ We discuss this in the context of Auckland Airport's asset moratorium which was, when we performed our s 56G reviews, not consistent with the Airport IMs.

³⁵⁹ BARNZ "Submission on airports for input methodology review draft decision" (4 August 2016), p. 8.

³⁶⁰ NZ Airports "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 215.

B6 As noted at paragraph 463, in its submission on our IM review technical consultation paper, NZAA identifies an area that requires clarification which is related to a situation where an airport, when setting prices, revalues its asset base not consistent with the approaches specified in the Airport IMs.³⁶¹ In particular, NZAA seeks clarification on how an airport can disclose un-forecast revaluation gains or losses in the carry forward adjustment to the opening investment value of the current pricing period if it had forecast asset values based on non IM-consistent approaches in the previous pricing period.

Our solutions discussed in this topic paper

B7 We discuss in this topic paper how an airport can:

B7.1 disclose asset revaluations that are based on approaches that are not provided for by the Airport IMs (see Chapter 5, paragraphs 226-230); and

B7.2 determine un-forecast revaluation gains or losses for the purpose of establishing the opening investment value of the current pricing period, provided it has disclosed those asset revaluations as discussed in Chapter 5 (see Chapter 6, paragraphs 414-418).

B8 We understand that the most likely case in which an airport forecasts asset revaluations based on approaches that are not consistent with the Airport IMs will be a scenario where it adds an increment to the forecast CPI-indexation rate that is applicable to its asset base or certain parts thereof (ie, $CPI + Z$).³⁶²

B9 In summary, it is our preferred approach:

B9.1 that an airport includes in the carry forward adjustment to the forecast closing investment value the difference in asset revaluations resulting from its pricing approach and an IM-consistent approach (ie, the value associated with the forecast of Z); and

B9.2 that the opening investment value will be adjusted for the un-forecast revaluation gain or loss that occurred in the previous pricing period as a result of the forecast revaluation being different from the equivalent actual revaluation (ie, the value associated with the actual out-turn of Z less the value associated with the forecast of Z).

B10 We prefer this approach because it ensures that the revaluation approaches reflected in the closing asset bases in price setting event and *ex-post* disclosures will still be the same even if an airport, for price setting purposes, revalued its asset base or parts of it by using a non IM-consistent approach.

³⁶¹ NZ Airports, Untitled submission on IM review technical consultation update paper (3 November 2016), para 20(a).

³⁶² For example, to build into the price setting event the expectation of airport land value increasing at a higher rate to that implied by the airport's estimate of CPI.

B11 In the stylised example provided below, we illustrate how this can be done in practice. In particular, we illustrate how the carry forward mechanism introduced following this IM review can be used to provide transparency in the price setting event disclosures if airports choose different approaches to revaluing assets as those specified in the Airport IMs. The stylised example also illustrates how the carry forward adjustment to the forecast closing investment value of the previous pricing period and the carry forward adjustment to the opening investment value of the current pricing period can work together when establishing un-forecast revaluation gains or losses.³⁶³

Stylised example

B12 This stylised example takes a similar form to the stylised examples provided during Workshop 2 and has the same base case assumption.³⁶⁴ These assumptions are:

B12.1 Airport target return = 7%

B12.2 Opening disclosed RAB = \$500m

B12.3 Opex per annum = \$15m

B12.4 Capex per annum = \$20m

B12.5 Average asset life = 40 years

B12.6 CPI = 2.0%

B13 Figure B1 shows the RAB roll-forward and the IRR calculation under the base case scenario. This table is identical to the base case workings included in the stylised examples provided during the Airports Profitability Assessment Workshop 2.

³⁶³ The carry forward mechanism introduced following this IM review can be used in various circumstances of which we discuss a few in this topic paper. Also, it can potentially be used as a solution to a range of yet unforeseen circumstances. We note that a situation where an airport revalued land based on non IM-consistent approaches is only one example where an airport can use the carry forward mechanism to transparently disclose the pricing intent in its price setting event disclosures.

³⁶⁴ Commerce Commission "Stylised examples – Airports profitability assessment workshop 2" (19 April 2016).

Figure B1: Base case scenario**IRR Calculation**

	Base case					
	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Opening RAB	500					
Opening carry forward adjustment						
Opening Investment Value	500					
Revenue		65	65	65	65	65
less Opex		(15)	(15)	(15)	(15)	(15)
less Capex		(20)	(20)	(20)	(20)	(20)
less Tax		(11)	(10)	(10)	(10)	(10)
add asset disposals		-	-	-	-	-
Closing RAB						586
Closing carry forward adjustment						
Closing Investment value						586
Total cash flows	(500)	20	20	20	20	607
Effective return targeted by airport	7.0%					

Asset Base Roll Forward Base case

	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Total opening RAB		500	518	535	552	569
Total depreciation		13	13	13	14	15
Total revaluations		10	10	11	11	11
Assets commissioned		20	20	20	20	20
Asset disposals		-	-	-	-	-
Total Closing RAB	500	518	535	552	569	586

B14 If an airport were to forecast revaluations using CPI + Z the airport would be forecasting lower revenues than under the base case scenario. This is because the Airport IMs require revaluations to be treated as an offset to revenues and therefore higher revaluations result in lower revenues.³⁶⁵ The forecast asset base at the end of the pricing period would also be greater than under the base case scenario.

B15 Figure B2 shows the IRR calculation and the asset roll-forward if the airport were to project its asset roll-forward using a revaluation rate of CPI + Z.

³⁶⁵ We note that airports do not have to apply the Airport IMs when setting prices.

Figure B2: Roll forward of asset base using CPI + Z revaluations for land**IRR Calculation****Including CPI + Z revaluation rate for land**

	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Opening RAB	500					
Opening carry forward adjustment	–					
Opening Investment Value	500					
Revenue		60	60	60	60	60
less Opex		(15)	(15)	(15)	(15)	(15)
less Capex		(20)	(20)	(20)	(20)	(20)
less Tax		(9)	(9)	(9)	(9)	(9)
add asset disposals		–	–	–	–	–
Closing RAB						606
Closing carry forward adjustment						–
Closing Investment value						606
Total cash flows	(500)	16	16	16	17	623
Effective return targeted by airport	7.0%					

Asset Base Roll Forward**Including CPI + Z revaluation rate for land**

	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Total opening RAB		500	521	543	564	585
Total depreciation		13	13	13	14	15
Total revaluations		14	14	15	15	16
Assets commissioned		20	20	20	20	20
Asset disposals		–	–	–	–	–
Total Closing RAB	500	521	543	564	585	606

B16 As demonstrated above, the use of CPI + Z can be reflected in the asset base roll-forward and can be accounted for in the IRR calculation.³⁶⁶ However, this is not our preferred treatment of this particular scenario as it provides no indication of the value of the additional revaluations or the value of the reduction in the revenues as compared to using CPI-indexation. When the RAB is rolled forward in *ex-post* disclosures using only CPI-indexation, there is no information to assist interested persons in understanding the differences between what was forecast and what is being disclosed *ex-post*.

B17 In addition, when an airport sets prices for the following pricing period it will be more difficult for interested persons to predict what the opening carry forward adjustment will be.

³⁶⁶ In reality, an airport is only likely to apply CPI + Z to its land assets, therefore the above example increases the value of the revaluations by \$4m per annum as a proxy for an airport forecasting CPI + Z revaluations for land and CPI revaluations for all other assets.

- B18 An alternative approach to disclosing CPI + Z revaluations is using the closing carry forward adjustment. The closing carry forward adjustment can be used to capture the value difference of the airports forecast asset base and the forecast RAB such that the airport can continue to disclose an asset base that is IM-consistent while still appropriately reflecting its price setting methodology.
- B19 Figure B3 shows the IRR calculation and the asset roll-forward using the closing carry forward mechanism.

Figure B3: Using closing carry forward to reflect impact of CPI + Z revaluations for land

	Use closing carry forward to capture difference in airport asset roll forward compared to IMs					
	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
IRR Calculation						
Opening RAB	500					
Opening carry forward adjustment						
Opening Investment Value	500					
Revenue		60	60	60	60	60
less Opex		(15)	(15)	(15)	(15)	(15)
less Capex		(20)	(20)	(20)	(20)	(20)
less Tax		(9)	(9)	(9)	(9)	(9)
add asset disposals		-	-	-	-	-
Closing RAB						586
Closing carry forward adjustment						20
Closing Investment value						606
Total cash flows	(500)	16	16	16	17	623
Effective return targeted by airport	7.0%					

Asset Base Roll Forward

	31-Mar-16	31-Mar-17	31-Mar-18	31-Mar-19	31-Mar-20	31-Mar-21
Total opening RAB		500	518	535	552	569
Total depreciation		13	13	13	14	15
Total revaluations		10	10	11	11	11
Assets commissioned		20	20	20	20	20
Asset disposals		-	-	-	-	-
Total Closing RAB	500	518	535	552	569	586

- B20 As can be seen in the above example, the IRR is still able to reflect the airport's target return and the reduction in forecast revenue. However, the asset base roll-forward is now IM-consistent which means it is now directly comparable to the RAB disclosed in an airport's *ex-post* disclosures. Interested persons can then interpret *ex-post* disclosures with knowledge of the value of the closing carry forward adjustment.
- B21 An additional benefit of this approach is that it makes the calculation of the opening carry forward adjustment in the subsequent pricing period more transparent.

- B22 The opening carry forward adjustment is made up of the closing carry forward adjustment from the previous pricing period and the un-forecast revaluation gain/loss adjustment.³⁶⁷ When an airport revalues its land using a periodic MVAU valuation, the airport will disclose the value of any revaluation gain or loss over and above CPI-indexation. The value of this gain/loss from the periodic land valuation is included in the un-forecast revaluation gain/loss adjustment in the opening carry forward adjustment of the current pricing period. It can be offset against the forecast land revaluation above CPI-indexation (ie, the value associated with Z) captured in the closing carry forward adjustment of the previous pricing period.
- B23 If an airport has forecast land valuations to be CPI + Z, we can foresee three scenarios occurring when the airport undertakes a periodic MVAU land valuation.
- B23.1 **Scenario 1:** the airport's CPI + Z valuation approach accurately reflects the periodic MVAU land valuation.
- B23.2 **Scenario 2:** the airport's CPI + Z valuation approach underestimates the periodic MVAU land valuation.
- B23.3 **Scenario 3:** the airport's CPI + Z valuation approach overestimates the periodic MVAU land valuation.
- B24 The examples below show the impact on the opening carry forward adjustment under the three possible scenarios.

Scenario 1

In the stylised examples above, an airport has forecast an additional \$20m of land revaluations over and above CPI-indexation (ie, the value associated with Z). The example below illustrates the calculation of the opening carry forward adjustment if the airport's forecast accurately reflects the periodic MVAU land valuation.

Closing carry forward adjustment from prior pricing period	\$20m
Un-forecast revaluation gain/loss adjustment	-\$20m
Opening carry forward adjustment	\$0m

- B25 Therefore, where an airport has accurately reflected a periodic MVAU land valuation through its CPI + Z forecasting approach, it will not need to make any adjustment to its opening investment value through the opening carry forward adjustment.

³⁶⁷ The opening carry forward adjustment would also include any adjustments for the difference between forecast and actuals proposed by an airport but this is not relevant to our stylised example.

Scenario 2

The example below illustrates the opening carry forward adjustment if the airport's forecast of land revaluations is over and above CPI-indexation (ie, the value associated with Z) underestimates the periodic land valuation by \$10 m.

Closing carry forward adjustment from prior pricing period	\$20m
Un-forecast revaluation gain/loss adjustment	-\$30m
Opening carry forward adjustment	-\$10m

- B26 Therefore, where an airport has underestimated the periodic MVAU land valuation through its CPI + Z forecasting approach, it will need to adjust its opening investment value using the opening carry forward adjustment. The adjustment to the opening investment value would still be less compared to only using CPI-indexation in the previous pricing period, meaning that the outstanding revaluation gain to be returned to consumers is reduced.

Scenario 3

- B27 The example below illustrates the opening carry forward adjustment if the airport's forecast of land revaluations is over and above CPI-indexation (ie, the value associated with Z) overestimates the periodic land valuation by \$10m.

Closing carry forward adjustment from prior pricing period	\$20m
Un-forecast revaluation gain/loss adjustment	-\$10m
Opening carry forward adjustment	\$10m

- B28 Therefore, where an airport has overestimated the periodic MVAU land valuation through its CPI + Z forecasting approach, it will need to adjust its opening investment value using the opening carry forward adjustment. The adjustment to the opening investment value allows an airport to catch up in future pricing periods such revenues foregone in the previous pricing period that were associated with overestimating land revaluations for that pricing period.