



Maximum Levels of Airport Charges at Dublin Airport Draft Determination

Commission Paper 3/2009

18 June 2009

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This document has been redacted to exclude information that the Dublin Airport Authority (DAA) has provided to the Commission in confidence. Where information in the text has been redacted, the Commission has used square brackets: []. Charts that have been redacted are clearly identified. This report does not include as an Annex the study by Indecon Independent Consultants referred to in this report. The Commission currently intends to publish some of the redacted material within the next 10 days and has given DAA notice to this effect.

Executive Summary

1. This Paper presents the Commission's draft determination capping the level of airport charges that the Dublin Airport Authority (the DAA) may levy at Dublin airport. Airport charges include charges for taking-off, landing and parking aircraft, for the use of air bridges, for arriving and departing passengers, and for the transportation of cargo. The determination will cover the five-year period from 1 January 2010 to 31 December 2014. It will be expressed as an annual per passenger price cap.
2. The price cap in 2010 will be €8.35 per passenger.¹ Its subsequent level will depend on if and when a number of events occur, most notably the date at which the second terminal (T2) becomes operationally ready. If T2 were to open 1 January 2011, then the Commission expects that the average annual price cap in the subsequent four years will be €8.37 plus some adjustment for any change in operating costs that might accompany the opening of T2. The change in total allowed operating expenditure (opex) will reflect a reduced opex allowance for T1 and an opex allowance for T2. The net effect of this is uncertain, but likely to be positive.
3. Every determination presents its own challenges. In preparing this draft determination, the Commission has had to address two important issues peculiar to this third airport charges determination:
 - the downturn in the general economy in the past 18 months, and
 - the opening of a second terminal.
4. The economic downturn has led to a significantly reduced forecast for passenger numbers over the period 2010-2014. The Commission's current forecast for passenger numbers in 2014 corresponds to the level in 2008. This is considerably less than would have been forecast as recently as in 2007 during the Interim Review. A lower passenger forecast results in a higher average annual per passenger price cap, all else equal. Airports exhibit economies of scale, i.e. average costs per unit fall as the scale of the operation (the number of passengers) increases. This applies for some categories of operating cost. There are also fewer passengers from which to recover the costs of capital investments. The Commission estimates that the proposed average annual price cap is perhaps 18% higher than it would be if the 2007 passenger forecasts for this period remained valid.
5. The other building block most directly affected by the economic turmoil in the last 18 months has been the cost of capital calculation. There has been considerable volatility in the financial markets, creating even more uncertainty than usual about the appropriate assumptions to make for the

¹ Unless otherwise stated, all numbers presented both here and throughout this document are in 2009 prices. For costs previously presented in either 2006 prices (the 2007 Interim Review) or 2008 prices (the October 2008 Issues Paper), the Commission has applied an inflation rate of 4.0%, 4.9%, 4.1% and -1.0% for the years 2006, 2007, 2008 and 2009 respectively. These numbers are estimated using the Central Statistics Office consumer price index and, for 2009, the Economic and Social Research Institute (ESRI) Research Series No. 7 "Recovery Scenarios for Ireland" (May, 2009).

various parameters used to derive a weighted average cost of capital (WACC). This draft determination has assumed a cost of capital of 7%, but the Commission will review this estimate carefully prior to publishing its final determination. The most recent signs suggest that there may have been a fall from the high cost of debt seen in the past 12 months.

6. How the opening of the second terminal affects the annual price caps is only partially addressed in this draft determination. For those parts of T2 operations put out to competitive tender, the Commission intends that the annual price cap should exactly allow the DAA to recover the costs of the winning bidder. It would then fall for the Commission to determine a reasonable amount for the costs of those operations conducted by the DAA that were not subject to a competitive process. To date, there has not been a public announcement setting out definitively which parts of T2 operations will or will not be included in the tender. Consequently, the Commission has been unable to include in this draft determination an estimate of the costs the DAA may incur operating parts of T2. Instead, this draft determination provides some thoughts on the extent to which the costs of different aspects of a terminal's operations depend on different cost drivers.
7. For the purposes of assessing opex, the draft determination has focussed on T1 costs. The Commission's consultants Indecon/Jacobs identified the scope for real savings of about 10% in operating costs from a review of operations in 2008. The savings identified relate primarily to staffing costs, savings which are partially offset in the coming years by projected increases in non-staff costs. The draft determination is made on the basis that the identified efficiencies might be realised over a three-year horizon (2010-2012). Given the current economic climate, with many private and public-sector employers imposing nominal pay cuts, the Commission has assumed that real wages at the DAA will not grow during the regulatory period. Given assumptions about the effects of changing passenger numbers on opex and the Commission's passenger forecast, the average per passenger opex in the price-cap model used for this draft determination is €8.31. This number does not make any allowance (positive or negative) for the effect of T2 opening.
8. The price-cap modelling for this draft determination assumes that the DAA will earn on average €6.20 per passenger in retail and commercial revenues over the 2010-14 period. This assumes average annual revenues totalling €136.6m and average annual passengers of 22 million. This per-passenger estimate compares with similar figures of €[] in 2008 and €[] in 2009 (expected). The DAA forecasts a similar out-turn for commercial revenues in the coming period.
9. For capital costs the Commission has allowed an opening regulatory asset base (RAB) of €891m. The Commission will allow an additional €672.4m into the RAB when the trigger for T2 is met (and another €109.5m should passenger numbers exceed 33 million in any given year between now and 2014). The Commission proposes using as a trigger for "T2 Box 1" costs the date at which the contractor that wins the tender for T2 operations commences providing services in T2. The Commission has developed a set of principles that will guide its decisions regarding how to roll forward the RAB. A draft of these principles is included in Annex 1 of this report.

10. For the forthcoming period, the Commission has made a determination sufficient to allow €198.1m in new investment. A further €337.8m of investment, most relating to costs associated with a new runway, will be allowed if certain triggers are satisfied. The conditional nature of the investment allowance is consistent with the DAA's own proposals in its capital investment plan (CIP) and is arguably a sensible response to the uncertainty that currently exists concerning what the investment needs at the airport will be. In most cases, the DAA appears to have provided reasonable estimates for the costs of the various projects proposed in the CIP. Consequently, differences between the capital expenditure (capex) allowance sought by the DAA and the amount allowed by the Commission usually arise because the Commission has formed the view that some projects do not currently meet the reasonable requirements of current and prospective users. In reaching these conclusions, the Commission has benefited from input from various parties, including the DAA, during a series of meetings arranged to discuss the DAA's CIP.
11. The Commission proposes to introduce a link between the level of the annual price cap and the quality of service that users receive. It has identified 12 measures that it proposes monitoring on a quarterly basis. For each of these a target has been set. Should the DAA fail to meet the targets, the annual price cap could be up to 4% lower than would otherwise be the case. The table below describes the aspects of service quality that the Commission intends including in the scheme.

Service quality measurement
Security passenger search time
Availability of baggage handling system (incoming)
Contact stand utilisation
Ease of finding your way through the airport
Flight information screens
Cleanliness of airport terminal
Cleanliness of washrooms
Comfortable waiting/gate area
Courtesy/helpfulness of airport staff (excluding check-in & security)
All passengers' overall satisfaction with airport
Communication/telecommunication/e-facilities
Feeling of being safe and secure

Table E1: Quality of service measures included in the determination

12. This draft determination has been set to achieve the Commission's three statutory objectives. It protects the reasonable interests of current and prospective users. It will facilitate the efficient and economic development of Dublin airport to meet the requirements of these users – to help it determine capex requirements at the airport, the Commission organised a series of meetings to discuss the DAA's investment plans. Finally, the draft determination enables the DAA to operate and develop the airport in a sustainable and financially viable manner. The economic downturn has had a material effect on the DAA's revenues. This, combined with the completion of a significant investment programme relating to T2, has obvious implications for its funds from operations (FFO) to debt ratio. The

draft determination will allow this ratio to recover to levels consistent with an investment credit rating.

13. The proposals contained in this document are preliminary in nature. They are based on information that the Commission has received and accepted to date. The Commission has made no final conclusions, and nor will it until the Commission has considered any and all representations which it receives, and has decided to either accept or reject them.
14. The Commission invites comments on all aspects of this draft determination by no later than 5pm on 7 August 2009. Details on how to respond to this document are set out in Chapter 13 of this report. Following receipt of comments on the draft determination, and due consideration thereof, the Commission will publish a final determination before the end of the year. It currently plans to publish this final determination in October 2009. One constraint conforming to this timetable is the continuing uncertainty regarding the operating plans for the second terminal.

1. Notice of the Making of a Determination

- 1.1 In accordance with Section 32(7) of the 2001 Aviation Regulation Act, the Commission for Aviation Regulation hereby gives notice of its intention to make a determination specifying the maximum levels of airport charges that may be levied by the Dublin Airport Authority pursuant to Section 32(2) of the 2001 Act, as amended by Section 22 of the 2004 State Airports Act.
- 1.2 Pursuant to Section 32(7) of the 2001 Act, the Commission must allow a period, being not less than one month from the date of publication of notice of its intention to make a determination, within which interested parties or the public may make representations. As in previous periods, the Commission gives notice by way of publishing a draft determination. The closing date for the receipt of representations is **5.00pm, 7 August 2009**. Interested parties should note the contents of Chapter 13 concerning the deadline. The conditions contained therein will be strictly applied without exception. Interested parties should also note the guidelines regarding issues such as delivery of documents and confidentiality.

2. Introduction

2.1 This paper presents the Commission's draft determination specifying the maximum level of airport charges that may be levied at Dublin airport by the DAA. Making such a determination is one of the principal functions of the Commission. Section 33 of the Aviation Regulation Act, as amended by Section 22(4) of the 2004 Act, sets out the statutory objectives of the Commission and the statutory factors to which it must have due regard when making a determination on airport charges.

Consultation Process to Date

2.2 Since mid 2008, the Commission has made available its proposed timetable for the forthcoming determination. The timetable was included in the Commission's Annual Report to the Minister for Transport for the year ended December 2007. An up-to-date timetable has been maintained on the Commission's website since then.²

2.3 On 24 October 2008 the Commission published CP6/2008 which set out the various issues that the Commission considered relevant for the purposes of making a determination. The document invited comments from interested parties, on the approach that the Commission might take to assessing the various issues. The Commission received ten responses to that consultation paper. It subsequently offered all respondents the opportunity to meet with the Commission, an offer accepted by the DAA, the Car Rental Council of Ireland (CRC) and the Irish Association of International Express Carriers (IAIEC).

2.4 In February 2009 the DAA provided the Commission with a copy of its proposed capital investment programme for the period 2010-2014. In April 2009 the Commission received the DAA's regulatory accounts.³ Both of these documents were placed on the Commission's website. Subsequently, the Commission arranged and chaired a series of meetings open to all interested parties to discuss the DAA's proposed investment plans. These meetings were attended by the DAA, representatives from the Dublin Airport Consultation Committee, a body representing many of the airlines and ground handlers at the airport, local residents groups and various business representatives.

2.5 At the time that it published CP6/2008 (the Issues Paper), the Commission identified a number of possible developments that might have implications when making the next determination:

- The report of the appeal panel established by the Minister of Transport to consider the 2007 Interim Review;
- The possible separation of the airports (Cork, Dublin and Shannon) that the DAA currently operates into three independent companies; and
- Decisions regarding the operator of Terminal 2 (T2) at Dublin airport.

² See www.aviationreg.ie/2010_Airport_Charges/Default.122.html

³ These regulatory accounts are distinct from any statutory accounts that the DAA prepares.

- 2.6 On the first item above, the appeal panel published its reports in December 2008. As required, the Commission considered matters referred back to it and concluded by affirming its Determination of 2007.⁴ Parties were afforded an opportunity to make submissions relating to the matters referred back to the Commission. On the second bullet, the Commission is not aware of any plans to separate the three State airports. Lastly, in respect of T2 operations, the Commission is aware that there are plans to tender for certain elements of the operations of T2. Final details on how this process might work and its timetable were not published in time for this draft determination.⁵

Consultants Retained by the Commission

- 2.7 The Commission has considered the operation and development of Dublin airport from a number of different perspectives. To help with its deliberations, several external consultants have been commissioned to provide expert analysis of various parts of the business.
- 2.8 Indecon conducted a review of the operating efficiency of the DAA at Dublin airport looking at individual operating areas. Its report is attached as an annex. It is also referred to more particularly in Chapter 7 of this report. Indecon's work is based on information available to it in April and May 2009.
- 2.9 Booz & Co reviewed the costs of all projects in the DAA's capital investment plan (CIP) with an estimated cost of €5m or more. Its report is attached as an annex. The work was undertaken in parallel with the consultation meetings to discuss the extent to which the DAA's investment plans met the reasonable requirements of current and prospective users. Attendees at those meetings were made aware that such work was being commissioned, and that the review of the costings did not imply acceptance or rejection of the need for any of the projects in the CIP.

Structure of the report

- 2.10 The next chapter sets out the Commission's draft determination. Subsequent chapters explain in more detail how the Commission reached this decision. They are ordered in the same way as the Issues Paper published by the Commission in 2008.
- 2.11 *Chapter 4* discusses the general approach to regulation that the Commission has followed.
- 2.12 *Chapter 5* sets out how the Commission proposes to treat service levels in setting annual price caps for the next determination.

⁴ See CP2/2009 "Commission's decision on the 2008 Appeal Panel" www.aviationreg.ie

⁵ The most recent press release relating to the Department of Transport's plans can be found at <http://www.transport.ie/pressRelease.aspx?Id=47>.

- 2.13 *Chapters 6, 7, 8, and 9* respectively deal with the traditional regulatory building blocks of passenger forecasts, operating expenditure (“opex”), commercial revenues and capital costs. They set out the Commission’s forecasts for each of these variables and, where relevant, discuss how they compare to the projections of other parties.
- 2.14 *Chapter 10* sets out how the draft determination enables the DAA to operate and develop Dublin airport in a sustainable and financially viable manner.
- 2.15 *Chapter 11* addresses a number of miscellaneous but important issues that do not fall easily within one of the other chapters. Topics in this chapter include whether or not to include various sub-caps, how plans for a “Dublin Airport City” might be treated when making a determination, and how the Commission envisages ensuring compliance.
- 2.16 *Chapter 12* outlines how the Commission believes it has met its statutory objectives and had regard to various statutory factors. In most cases, this is done by referring to the preceding chapters.
- 2.17 The final chapter provides important details for parties wishing to respond to this draft determination. It is a statutory consultation period, so it is imperative that parties respond by the deadline of 5pm, 7 August 2009.

3. Draft Determination

3.1 The Commission proposes setting a per passenger price cap for each of the five years of the forthcoming determination. The proposed annual price cap in 2010 is €8.35. In subsequent years the annual cap will be €8.35 plus an adjustment to account for changes in the consumer price index and an X-factor of -3.8%. Additional adjustments to this price cap will be made if and when the following events occur:

- The contract to provide a range of services in the second terminal commences following the facility management tender process. This will prompt an allowance for the capital costs for T2 Box 1 (which will raise the price cap), as well as a possible change in the total allowed opex to reflect a reduced opex allowance for T1 and an opex allowance for T2 (the net effect of this is uncertain, but likely to be positive).
- Annual passenger numbers at the airport exceed 23.5 million. A number of capex projects relating to a new north runway will be triggered, adding €0.92 to the annual price cap in subsequent years.
- Surplus stand availability for aircraft in the peak week is less than 10 stands. This will trigger capex relating to new apron development, and add €0.07 to the annual price cap in subsequent years.
- There is a legal requirement to upgrade baggage security equipment in terminal 1 (T1). This will trigger capex for a new HBS, and result in the price cap increasing by €0.07 per annum in subsequent years.
- Annual fuel demand through Pier E is equal to 35% of 2008 airport-wide fuel demand. Capex for a new fuel hydrant will be allowed, adding €0.02 to the annual price cap in subsequent years.
- The DAA fails to realise results in excess of a target level for a variety of measures relating to quality of service. The price cap will reduce by up to 4% should quality of service at Dublin airport fail to reach the standards outlined in Chapter 5 of this report.

3.2 The Commission does not propose to include any sub caps.

3.3 A 'yield table' for the determination is shown overleaf. This shows the inputs used in the calculations. The table assumes that T2 operations commence in 2011 but that otherwise none of the events that trigger a change in an annual price cap, including low levels of service quality, occur. The change due to T2 operations commencing only assesses the effect on capital costs, and does not reflect possible implications for opex. The rationale for the numbers in the table is explained in more detail in the following chapters of this paper.

	2010	2011	2012	2013	2014
Opex	184.1	181.9	179.8	182.4	185.5
Commercial revenues	(127.4)	(130.6)	(135.0)	(141.0)	(148.9)
Opening RAB 2010	891.0				
Closing RAB 2014					1626.6
Capital Costs					
Existing assets	109.4	111.0	112.8	109.8	106.1
T2 & related box 1	-	13.0	15.6	19.1	23.8
Post 2009 capex	3.4	6.7	10.1	13.4	16.8
T1X	3.8	3.8	3.8	3.8	3.8
Total capital costs	116.6	134.4	142.2	146.2	150.4
Required revenue	173.3	185.7	187.0	187.5	187.1
Passengers	20.7	21.2	21.8	22.7	23.8
Price cap	8.35	8.78	8.58	8.27	7.86

Table 3.1: Yield table (T2 opens January 2011, no effect on opex)

4. Approach to Regulation

- 4.1 The Commission proposes to continue to express the cap on airport charges as a maximum per passenger charge that the DAA may levy on airport users. It will entail an annual price cap for each of the five years. The Commission will continue with an incentive-based form of price control, setting a CPI-X price cap: each year's cap will differ from the previous years according to the change in the consumer price index (CPI) and an X factor that reflects the Commission's judgement on anticipated efficiency gains at the airport. Various events might also result in changes to the annual cap in later years of the forthcoming determination. The annual price cap will be based on forecasts of all costs and expected net commercial revenues at Dublin airport, i.e. the 'single-till' approach. The Commission proposes that the determination should last for five years. During that period, the DAA will assume most of the risks (positive and negative) that out-turns do not accord with the forecasts made when making the determination.
- 4.2 The Issues Paper invited parties to comment on whether the Commission should change its general approach to regulation. While the Commission is mandated to set a cap on airport charges, it has some discretion on the form and operation of the cap subject to satisfying the following statutory objectives:
- *To facilitate the efficient and economic development and operation of Dublin airport which meets the requirements of current and prospective users of Dublin airport;*
 - *To protect the reasonable interests of current and prospective users of Dublin airport in relation to Dublin airport; and,*
 - *To enable Dublin Airport Authority to operate and develop Dublin airport in a sustainable and financially viable manner.*
- 4.3 Having considered the responses to the Issues Paper and reflected more generally on the merits of the existing approach, the Commission has decided to persist with its current approach of setting a CPI +/- X price cap based on a single till. Most of the responses to the Commission's Issues Paper that expressed a view on the general approach to regulation were broadly supportive of continuing with the current approach. One exception was Ryanair, which expressed dissatisfaction with the use of a "flawed RAB based approach".⁶ However, while calling for the Commission to ensure as far as possible an outcome consistent with how an airport operating in a competitive market would behave, Ryanair did not provide specific details on an alternative approach to regulation that the Commission might adopt.
- 4.4 The Commission rejects Ryanair's claim that the Commission has to date placed too much weight on the financial viability of the DAA. Its decisions have, and will continue to have, regard to and give equal weight to all of

⁶ See page 1, Ryanair's response to the Issues Paper, December 2008 (available on the Commission's website www.aviationreg.ie).

its statutory objectives. See Chapter 12 for a discussion of how the Commission believes this draft determination has satisfied those requirements.

- 4.5 The proposed duration of the forthcoming determination is five years. Both Aer Lingus and the DAA argued for five years. In contrast, Forfás argued that the present economic environment was so uncertain that the Commission should make a determination that lasts just four years, the minimum allowed under the 2001 Act as amended by the 2004 Act. Recent developments have certainly increased uncertainty in the economy. Nevertheless, these concerns appear insufficient to warrant a shorter price-cap period than that sought by both the DAA and by one of the largest airlines at the airport. Both of these parties have a significant financial interest in the determination, and would consequently be exposed to the risks that it is based on forecasts subsequently made redundant by events in the global economy. More frequent determinations reduce the incentive properties associated with price caps, increase uncertainty about future prices at the airport, and increase the administrative costs associated with regulation.
- 4.6 The determination's structure will continue to require the DAA to assume most of the risks that subsequent out-turns do not accord with forecasts made when making it. The Issues Paper mentioned the possibility that the price-cap formula might be changed so that users shared some of the risks of actual passenger numbers being higher or lower than forecast when setting the cap. Forfás supported such a change, suggesting it would reduce the significance of traffic forecasts used to make the determination in an economic environment which made forecasting especially difficult. However, both Aer Lingus and the DAA opposed such a change. Aer Lingus argued airlines were already bearing most of the risks associated with changes in economic circumstances. The DAA observed that such risk sharing would have the perverse implication that the cap would go up during downturns.
- 4.7 A rationale for requiring the DAA to assume the risks of passenger numbers being higher or lower than expected is that this is something over which the DAA has some control. The proposed approach provides the DAA with an incentive to operate the airport more efficiently by attracting more users to use the airport. Concerns about the uncertain economic environment are addressed later in this draft determination, notably in regard to capital expenditure plans where the Commission has accepted the DAA's proposal that some expenditure should be conditional on demand conditions improving.
- 4.8 To make the determination, the Commission has relied upon a series of inputs sometimes referred to 'regulatory building blocks'. These building blocks, discussed in later chapters, are:
- An estimate of efficient future opex (discussed in Chapter 7 of this report);
 - Plus a return on capital (discussed in Chapter 9);
 - Plus a depreciation allowance (also discussed in Chapter 9);

- Less an estimate of future commercial revenues (discussed in Chapter 8).
- The sum of these building blocks is divided by a forecast of passengers (see Chapter 6) to give the maximum per passenger airport charge.

4.9 In undertaking this work, the Commission has had regard to the needs of current and prospective users, including prospective users in the period after the forthcoming determination ends. The Commission is aware that decisions made for the current determination may have implications for future determinations. Aer Lingus thought it undesirable to have the price cap change significantly between determinations because of how the Commission allows the costs of investments to be recovered or because of changes in passenger forecasts. These concerns may partly reflect a misunderstanding by Aer Lingus on how unitised capital costs will work. The calculations are intended to result in a smoother pricing profile than would be the case if the Commission relied on straight-line depreciation. The Commission is keen to avoid making determinations that result in users facing very different price levels merely because of when in the DAA's investment cycle they visit the airport. Large fluctuations in prices are not in users' interests, particularly airlines trying to manage their own cash flows.

4.10 With regards to fluctuating passenger numbers, as outlined previously in this chapter, the Commission has proposed to continue requiring the DAA to assume the demand risk within the period of a determination. However, between determinations the Commission cannot protect airlines totally from the effects of passenger fluctuations on per-passenger airport charges. Such fluctuations may give rise to economies or diseconomies of scale that affect the DAA's per passenger costs and ultimately the determination needs to be set such that the DAA is able to recover efficiently incurred costs.

5. Quality of Service

- 5.1 The Commission proposes to introduce a link between the level of the price cap and the quality of service that users receive. It has identified 12 measures that it proposes monitoring on a quarterly basis. For each of these a target has been set. Should the DAA fail to meet the targets, the annual price cap could be up to 4% lower than would otherwise be the case. The table below describes the indicators that the Commission will observe, the target that the Commission has set, and the potential effect on the annual price cap should the target not be met throughout the year.

Service quality measurement	Target	Penalty
Percentage of time that security passenger search time is no longer than 7 mins	95%	0.67%
Percentage of time incoming element of the baggage handling system available during hours of operation	99%	0.67%
Contact stand utilisation for departing aircraft	90%	0.67%
Total airline-facing measures		2%
Ease of finding your way through the airport	3.7*	0.25%
Flight information screens	3.8*	0.25%
Cleanliness of airport terminal	3.5*	0.25%
Cleanliness of washrooms	3.3*	0.25%
Comfortable waiting/gate area	3.0*	0.25%
Courtesy/helpfulness of airport staff (excluding check-in & security)	3.8*	0.25%
All passengers' overall satisfaction with airport	3.5*	0.25%
Communication/telecommunication/e-facilities	3.1*	0.25%
Feeling of being safe and secure	3.8*	0%
Total passenger-facing measures		2%

Table 5.1: Quality of service targets and annual penalties

Notes: For the passenger-facing measures, the target relates to the ACI survey score.

- 5.2 The proposals outlined in this chapter build on earlier work that the Commission has undertaken. In June 2008 the Commission published a consultation paper inviting comments on how the Commission might have due regard to the level and quality of service when regulating airport charges at Dublin airport.⁷ Having considered the responses to that paper, the Commission set out in its Issues Paper its latest thinking on how it might have regard to quality of services when setting the next determination. In developing its proposals for quality of service outlined in this chapter, the Commission has carefully considered the various representations made to that document. This chapter assumes familiarity with the two Commission documents that have previously discussed quality of service, i.e. Commission papers CP3/2008 and CP6/2008.

⁷ See CP3/2008 "Quality of Service at Dublin Airport. Consultation on the Regulatory Approach taken towards Quality of Service at Dublin Airport", June 2008.

Assessing quality of service

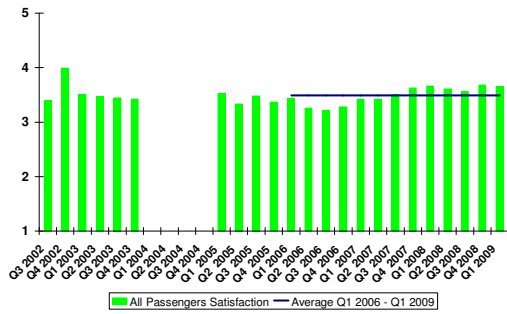
- 5.3 To assess quality of service, the Commission has previously identified three distinct issues: how should service quality be measured; what should the target level be; and how should it collect the information?

Measuring quality of service

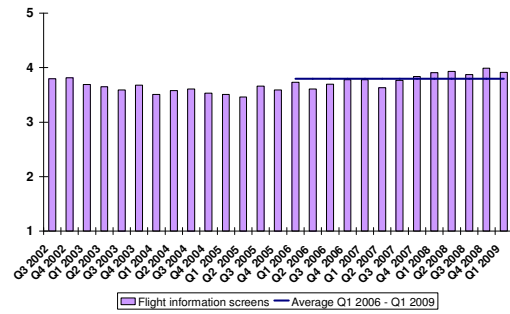
- 5.4 The Commission has proposed a total of 12 different measures that might be used as a proxy for the service quality provided at Dublin airport. The measures represent a mix of passenger survey results, sometimes referred to in this chapter as “passenger-facing measures”, and statistics on performance collected by the DAA, sometimes referred to as “airline-facing measures”. The Commission recognises that this attempted distinction between passenger- and airline-facing measures is imperfect. For example, queuing time for security passenger search is likely to be important to passengers as well as airlines. The Issues Paper included eight measures from an Airport Council International (ACI) passenger survey and three measures derived from the service-level agreement (SLA) that the DAA has with airlines.
- 5.5 The mix of measures seeks to capture the various elements that are important to the different types of airport users. It also includes a mix of statistics from subjective survey responses and objective data measurements. Aer Lingus, Ryanair and the Dublin Airport Consultation Committee (DACC) all expressed concerns about relying on survey responses, considering it wrong to rely on subjective measures.⁸ Problems identified by the airlines included the possibility of fluctuations in the data and difficulty interpreting the results.
- 5.6 The Commission has considered these arguments, but remains satisfied that it is right to include some ACI survey results in its service-quality monitoring for the following reasons. The results from this decade, illustrated in the charts overleaf, do not appear to exhibit excessive volatility. Such surveys also have some advantages to more mechanistic measures, in particular they may be less easy to manipulate. It may be possible to reduce a defined measure of queuing times in various ways, some of which may actually result in the user’s experience at the airport being worse than before, an outcome inconsistent with what the Commission intends. Moreover, the ACI survey data is the best available metric that the Commission is aware of to assess the perceived quality of service that passengers receive. Other users, including the Irish Tourist Industry Confederation and Forfás, were supportive of using the ACI survey data. A mix of survey data and objective measures of certain aspects of quality seeks to achieve the right balance between the competing merits of the different metrics that might inform an overall assessment of quality of service.

⁸ DACC membership includes a number of airlines, groundhandlers and transportation companies that currently use Dublin airport, including: Aer Lingus, AOC, Aviance, bmi, British Airways, Cityjet, DAUC, FedEx, IAIEC, the International Air Transport Association (IATA), Lufthansa, Ryanair, SAS, Servisair and Sky Handling Partners.

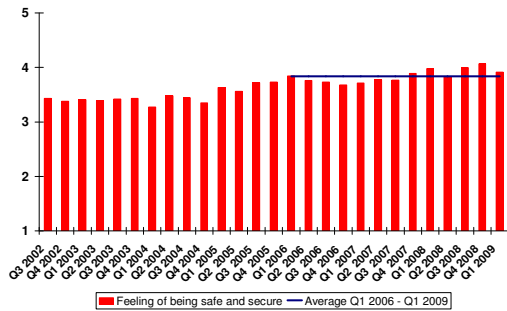
ACI Survey Results for Dublin airport, Q3 2002-Q1 2009



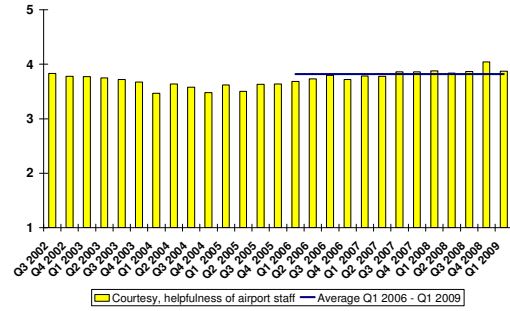
All passengers overall satisfaction with the airport



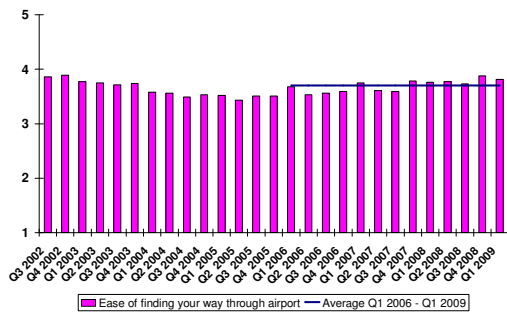
Flight information Screens



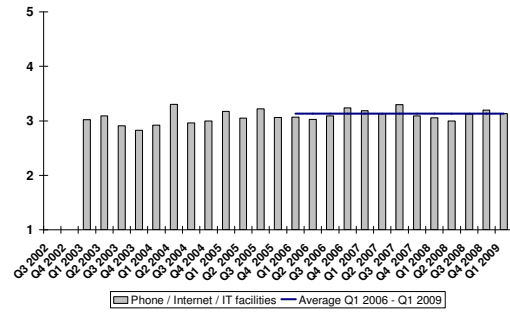
Feeling of being safe & secure



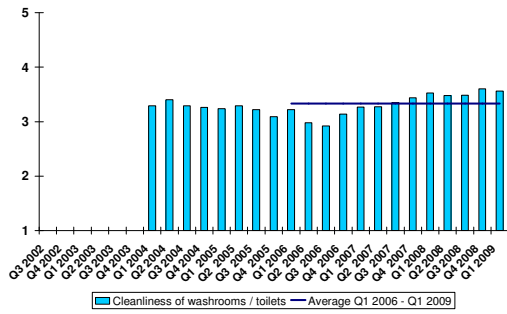
Courtesy, helpfulness of staff



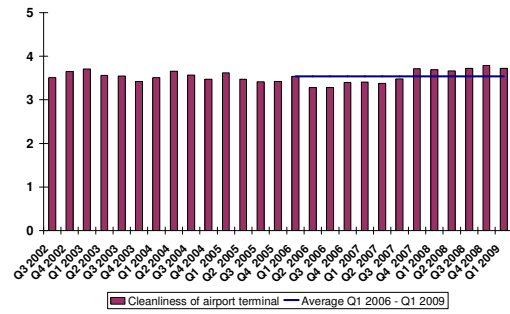
Ease of finding your way through the airport



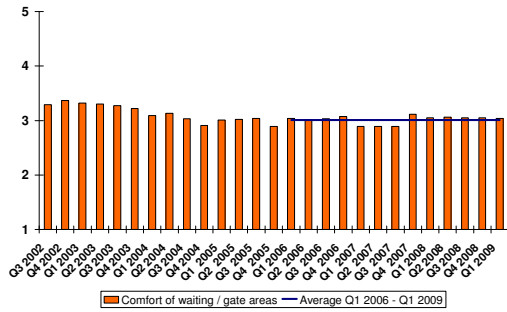
Phone/IT facilities



Cleanliness of Washrooms



Cleanliness of airport terminal



Comfort of waiting/gate areas

5.7 Since the Issues Paper, the Commission has decided to include two additional measures from the ACI survey – the feeling of being safe and secure, and satisfaction with communications/telecommunication/e-facilities – while dropping results relating to car parking services. The DAA suggested adding the measure concerning feeling safe and secure, and argued that it would be inappropriate to include the results for satisfaction with car parks given that the survey did not distinguish between passengers that used DAA-owned car parks and privately operated car parks. The Commission has accepted both suggestions.

5.8 It has also accepted Forfás’ suggestion to include survey results for “Communication/telecommunication/e-facilities”. Forfás also suggested including measures for business users’ satisfaction and satisfaction with business and executive lounges. The Commission has not included the latter two in the measures it will monitor for the following reasons. It has to have regard to all current and prospective users, so believes that it suffices to look at the overall satisfaction reported by all passengers rather than similar results for all the different sub-groups of users. Since there is a separate charge not included in the cap on airport charges for use of the lounges, the Commission believes that the DAA already has incentives in place to provide lounges that offer the service quality users of such facilities require.

- 5.9 Satisfaction with the levels of congestion is not included in the passenger-facing service-quality measures, despite the National Consumer Council (NCA) suggesting it. The Commission has sought to focus on measures of service quality that the DAA might address by changes in operating procedures rather than new investment (capex needs at the airport are discussed in Chapter 9). It is hoped that the various capital projects in recent years, including T2, will address a number of the concerns relating to congestion that many Dublin airport users have expressed in recent years.
- 5.10 To determine the airline-facing measures to use the Commission has sought on a number of occasions to meet with airlines to understand better the measures that are most important to them. Invitations have been sent to both the Airline Operating Committee (AOC) and DACC specifically to engage on this matter. To date, no such meeting has occurred. Consequently, the Commission has proposed three measures having regard to the airlines' responses to the Issues Paper and data that the Commission is aware is currently collected. Prior to the final determination, the Commission would be especially keen to hear suggestions on changes it might make to the airline-facing measures of service quality that it monitors.
- 5.11 The three measures proposed by the Commission relate to security passenger search, the baggage handling system and the stand utilisation rate for departing aircraft. The first two measures were included as possible measures in the Issues Paper. Both DACC and Ryanair argued it was important to include them in any monitoring scheme since reductions in service quality for these two airport facilities can result in delays or other costs to airlines. In the case of baggage handling, the Commission proposes focussing on the incoming element of the baggage handling system. The DAA has argued that the increase in self-service baggage check-in may result in an increase in stoppages to the outgoing baggage system not always within the DAA's control.
- 5.12 The draft determination also includes a measure for contact stand availability. Both Aer Lingus and DACC argued such a measure was important. The monitoring scheme will look at the stand utilisation rate for departing aircraft, data that the DAA already collects.
- 5.13 The Commission has decided to not include service levels for handling passengers with reduced mobility (PRM) in the monitoring scheme, despite the suggestion of both Aer Lingus and DACC that this be included. In its role as the National Enforcement Body the Commission already looks at the PRM service level for nine airports in the State – Dublin, Shannon, Cork, Kerry, Waterford, Sligo, Donegal, Ireland West and Galway.
- 5.14 There are a number of other possible measures for airline-facing service quality suggested in responses to the Issues Paper by airline users that the Commission has not included in the draft determination for want of additional information from the airlines (see the table below). In particular, the Commission is keen to understand how such measures might be measured precisely, what the current service level is and whether that would represent a reasonable target for the forthcoming determination, and the relative importance of the measure to users.

Service-quality measure
Airport facility delays
Stand allocation process
Aircraft taxi times
Availability and serviceability of electrical power
Availability of lifts

Table 5.2: Other quality of service measures proposed by airlines

- 5.15 Suggestions by some parties that the Commission should also publish quality of service measures for other companies fall outside the remit associated with making a determination. The determination sets a cap on airport charges that the DAA may levy at Dublin airport. In setting such a cap, the Commission does not believe that the service quality provided by other parties at the airport (other than the DAA's sub-contractors) should be a factor.

Target service level

- 5.16 Since there are financial incentives associated with meeting targets for each of the quality measures (discussed below), the Commission has sought to adopt a reasonable and realistic approach in setting the level. It has sought to set targets that the DAA currently achieves at the airport. It is hoped that the DAA might surpass the targets comfortably.
- 5.17 For the passenger-facing measures, the Commission has set targets that correspond to the average quarterly score achieved during the current price-cap period. For almost all these series, the survey results have improved between 2005 and today. With T2 scheduled to open in 2010, the Commission would expect that this welcome trend can continue.
- 5.18 The targets set for the airline facing measures are consistent with the currently agreed standards between the DAA and the AOC. The DAA currently meets the proposed targets.
- 5.19 Because the Commission has proposed to set target levels consistent with what the DAA currently delivers, its analysis of operating costs at the airport (discussed in Chapter 7) has not sought to make an adjustment to reflect increased or decreased quality of service at the airport. Should parties wish to propose a higher or lower target, they might also outline how they would expect such targets to affect costs. Alternatively, they might set out how much more they would be willing to pay for a more challenging target (or what reduction in airport charges they would like to see in exchange for a less challenging set of targets).
- 5.20 The Commission expects that the reported survey results will, over time, depend on how Dublin airport compares to other airports. A cleaner Dublin airport may not yield better survey scores relating to cleanliness if passengers believe that the improvements have been greater at other airports. For this reason, the Commission is not minded to explicitly measure the DAA's performance relative to other airports, despite such a suggestion from both the DAA and Forfás – the DAA suggested it be compared with European airports in the survey carrying 15-25 million

passengers per annum (mppa), while Forfás suggested hub airports and the airports of other capital cities as suitable comparators.

Collecting the information

- 5.21 The airline survey data is currently collected by the ACI quarterly. The Commission proposes relying on these survey results. Should the ACI stop undertaking the survey or change some or all of the questions, the Commission reserves the option of revising how it defines quality of services for the purposes of estimating an annual price cap. Any such revisions would have to be absolutely necessary for the integrity of the determination. Moreover, the changes would not seek to advantage any party. The intention would be that the target level for quality of service and the financial incentives facing the DAA to provide a good quality of service would remain the same.
- 5.22 The DAA would be responsible for arranging to collect the three airline-facing measures of service quality. It currently collects the data monthly. The Commission proposes that the DAA continue with this frequency, but in assessing whether the DAA has met the targets set, the Commission will take the average score each quarter.
- 5.23 Each quarter, the Commission will publish the results for all 12 service-quality measures.

Size and structure of financial incentives

- 5.24 The draft determination proposes linking the level of the annual price caps to the DAA achieving certain levels of service in that year. The Commission does not accept the DAA's argument that there is no need for such a link and that therefore it is inconsistent with the requirement that the Commission impose the minimum impositions consistent with satisfying its statutory objectives. Such a view ignores the fact that the quality of service concept is a 'due regard' item under Section 33(2)(e) of the Act as is the 'minimum restriction' under Section 33(2)(h) and one does not cancel the other out. Many other economic regulators have implemented similar schemes. For Dublin airport, the Commission is proposing a scheme that seeks to protect current and prospective users from an unacceptable deterioration in service quality at the airport. In the event that the DAA is unable to provide a service quality that it currently provides, the Commission believes it reasonable to reduce the cap on the level of airport charges it may levy. The scheme is relatively simple and does not impose a burden on the DAA to do anything other than operate an airport that meets the requirements of users.
- 5.25 On the size of any financial incentives, the Commission received two conflicting arguments that both had merit. The DAA argued that because such a scheme was new for Dublin airport, the financial incentives should be modest because of uncertainties with how it would actually work. In contrast, some airlines suggested that the financial incentives needed to be large to provide sufficient incentive for the DAA to deliver the service quality users wanted. Reflecting these two conflicting concerns, the Commission has decided to propose financial incentives that could result in the annual price cap being reduced by up to 4% should the DAA fail to

meet any targets. This compares to 7% that applies at the London airports, where such schemes have been in place at Heathrow and Gatwick airports since 2003: when the CAA initially introduced the scheme, the financial incentive amounted to 2% of charges revenue in the first two years and 3% thereafter. Quality monitoring was introduced at Stansted Airport in April 2009.

- 5.26 Each quarter, the Commission will assess whether the DAA has met its service-quality targets. In each quarter, there could be a reduction in that year's price cap of up to 1%. If, as a consequence, the DAA collects revenues in excess of the adjusted price cap, it will have to pay rebate to users within 45 days of the regulatory year ending. For the price cap to fall by the full 1% in a quarter would require the DAA to fail to meet 11 out of 12 of the targets that the Commission has set.
- 5.27 The financial incentives place an equal weight on the airline-facing and passenger-facing survey measures, e.g. in a year the price cap could fall at most by 2% should the DAA fail to meet any of the airline-facing measures. For the three airline-facing measures, the Commission currently proposes giving an equal weight to all three measures, i.e. 0.67% per annum or 0.17% per quarter. Suggested changes to these weightings are welcome. Should airline users identify other airline-facing measures that the Commission should include in the quality of service monitoring scheme, they might also indicate what relative weight to attach to these measures when finalising the financial measures.
- 5.28 For passenger-facing measures, the Commission proposes not to include any financial implications should the DAA fail to meet the target for feeling safe and secure, but will report on the results achieved in the quarterly ACI survey. For the other eight measures, the financial incentive to meet the target will be the same, i.e. should the DAA fail to meet one of those eight targets in a quarter the price cap would fall by 0.0625%.
- 5.29 The determination will be specified to allow for no reduction in the annual price-cap in the event that circumstances beyond the DAA's control caused it to fail to meet a target or targets. Possible candidates are increased security requirements introduced at short notice, severe disruption due to weather, or any malicious act by a passenger, airline or airline contractor. At the time of publishing the quarterly results on service-quality measures, the Commission will indicate if it is minded to waive the price-cap reduction or not, and afford all parties an opportunity to set out why a waiver should or should not apply in that instance.

6. Passenger Forecasts

- 6.1 The Commission is projecting an average of 22 million passengers per annum (mppa) over the 2010–14 regulatory period. This compares with the forecasts by the DAA and DACC of 21.8mppa and 21.9mppa respectively.⁹
- 6.2 Table 6.1 presents the annual forecasts from the DAA, DACC and the Commission. The profile of passenger traffic shows a significant drop in traffic in the early years as compared with recent trends. The most recent data from the DAA indicates a drop of about 11% in 2009 passenger traffic compared with 2008 (23.5mppa). It is only by the end of the forecast period that annual traffic begins to return the levels seen in recent years.

Passenger forecasts	2009	2010	2011	2012	2013	2014
DAA (mppa)	21.0	21.0	21.1	21.6	22.2	23.1
DACC (mppa)	21.4	20.9	21.3	21.8	22.4	23.3
CAR (mppa)	21.0	20.7	21.2	21.8	22.7	23.8

Table 6.1: Passenger forecasts for Dublin airport, 2009-2014

Source: DAA (DAPF04-09) and DACC (average of mid point of DACC high low range)

- 6.3 For 2009 the Commission relied on the DAA's projections for demand. In the near future, airline plans given to the DAA probably represent the best basis for predicting demand.
- 6.4 For subsequent years, the Commission's forecast depends on expected real gross domestic product (GDP) growth in Ireland. The Commission assumes an elasticity of one, i.e. passenger traffic changes one-for-one in line with proportionate changes in GDP. Several of the responses to the Commission's October 2008 Issues Paper proposed a similar approach to forecasting aggregate passenger numbers. Both the DAA and DACC's forecasts are GDP-based.
- 6.5 The assumed elasticity of one is derived from analysis of the historical relationship between passenger and GDP growth. The results of this analysis are summarised in Annex 2.
- 6.6 For its forecast of GDP the Commission has referred to a wide range of existing forecasts generated by outside bodies. The forecasts are summarised in Table 6.2. The Commission believes it is more appropriate to rely on such material rather than undertake its own macroeconomics modelling exercise. The real GDP growth projections the Commission has used in its forecast are shown in the final row of the table. As with the

⁹ The DACC forecasts were presented as a range to the Commission, the figure of 21.8mppa quoted above is the average of the mid-point of the range for each year in the 2010-14 period. Both the DAA and the DACC forecasts, along with the underlying methodologies, are set out in detail in two reports submitted to the Commission. Public versions of both of these reports are available on the Commission's website. The DACC report is entitled: "Dublin Airport Capital Development Requirements" (DACC, March 2009); the DAA report is entitled "Dublin Airport Passenger and Aircraft Movement Demand Forecast 2008–18" (DAA, March 2009).

forecasts used by Fitzpatrick's in work for the DAA, the Commission's forecasts for GDP growth are broadly in line with those of the Economic and Social Research Institute (ESRI). The ESRI sets out the assumptions underlying the upper end of its forecast range (3.5%-5.6% per annum between 2011 and 2014) in its May 2009 report "Recovery Scenarios for Ireland".

- 6.7 Between now and the final determination, the Commission proposes to continue monitoring macro-economic forecasts. Should these change materially, the Commission will adapt its passenger forecast accordingly.

GDP growth (%)	2009	2010	2011	2012	2013	2014
ESRI	-8.3	-1.1		3.5-5.6 p.a.		
Central Bank	-6.9	3.0		n.a.		
Fitzpatrick Assoc	-3.5	-1.0	1.0	2.0	4.0	4.0
OECD	-1.0	2.3		n.a.		
IMF	-8.0	-3.0		n.a.		
EIU	-7.4	-2.5	-0.1	1.5	2.1	n.a
Dept of Finance	-7.7	-2.9	2.7	4.2	4.0	n.a.
CAR assumption		-1.1	2.0	3.0	4.0	5.0

Table 6.2: Projections for real GDP growth

Sources: ESRI – Quarterly Economic Commentary, Spring 2009 (for 2009-10) and "Recovery Scenarios for Ireland", May 2009 (for 2011 -14); Central Bank – Quarterly Bulletin, April 2009; Fitzpatrick & Associates – Report for the DAA, January 2009; OECD – Economic Outlook November 2008; IMF – World Economic Outlook, April 2009; Economist Intelligence Unit (EIU) – Country Data Ireland, May 2009; Department of Finance Ireland – "Macroeconomic and Fiscal Framework 2009 – 13", April 2009

- 6.8 The Commission's forecast does not consider cost sensitivities. DACC has argued that traffic forecasts should consider a number of airline cost sensitivities to capture the effects of changes in airline costs on air fares and consequently demand at the airport. It has identified three particular cost items: the recently introduced government Air Travel Tax (ATT), the EU Emissions Trading Scheme (ETS) and airport charges. To look at the effects of these would require information on expected changes in costs arising from changes in the ATT and EU ETS, and expected pass through to air fares (as well as average air fares in the future themselves). The Commission does not believe that the necessary information is available to incorporate such cost sensitivities into the passenger forecast in a robust and transparent manner. Should it be the case that passenger demand at Dublin airport is very price sensitive, it might suggest that the airport is subject to competitive constraints, arguably making price-cap regulation unnecessary.
- 6.9 The forecasts for passenger numbers in the next five years are considerably lower than was expected as recently as 2007. This forthcoming determination will be the first one that the Commission has made for a period when demand is not expected to grow. If there are economies of scale to running an airport (which the Commission in previous determinations has argued there are), then one consequence of

this downturn is that the average annual price cap will be higher than would have been the case had passenger numbers been projected to grow. The Commission estimates that the average annual price cap in the forthcoming regulatory period might be about 18% higher than it would have been had forecast passenger numbers corresponded to the forecasts in 2007.

7. Operating Expenditure

- 7.1 For opex, the Commission has assumed that the DAA can realise efficiencies relative to its 2008 operations of about 10%. The savings identified relate to staffing costs, savings which are partially offset by projected increases in non-staff costs during the forthcoming regulatory period. Given assumptions about the effects of changing passenger numbers on opex and the Commission's passenger forecast, the average per passenger opex in the price-cap model used for this draft determination is €8.31. This number does not make any allowance (positive or negative) for the effect of T2 opening.

Opex	2010	2011	2012	2013	2014	Averages
Total (€m)	184.1	181.9	179.8	182.4	185.5	182.7
Passengers (m)	20.7	21.2	21.8	22.7	23.8	22.0
Per pax opex (€)	8.87	8.59	8.25	8.04	7.79	8.31

Table 7.1: Commission projection for Opex 2010-2014 (excluding T2)

- 7.2 To generate an opex forecast the Commission has relied primarily on a 'bottom-up' analysis conducted by Indecon International Consultants, in partnership with Jacobs consultancy. The bottom-up study looks at the efficiency of the various individual components of the DAA's operations at Dublin airport to form a view on what a reasonable level of overall operating costs might be. The Commission chose to commission such a study based on stakeholder responses to the October 2008 airport charges issues paper.
- 7.3 Indecon/Jacobs reviewed operations in the existing facilities and identified areas where there is scope for potential efficiencies. Their conclusions were expressed in terms of a conservative and an ambitious case. The Commission has taken the midpoint of these for the purposes of arriving at an opex estimate. It has assumed that these savings can be achieved over a three-year period, such that by 2012 the DAA will have realised the 'efficient' target level for operations. In addition to the savings identified by Indecon/Jacobs, the Commission has assumed constant real wages for the forthcoming regulatory period and made adjustments to opex to ensure consistency with its decisions relating to investment needs at the airport.
- 7.4 The forecasts do not address T2 opex due to continuing uncertainty about the tender process for the operations of that terminal. The Commission plans to include the contract price for T2 operations as a cost pass-through in the price cap from the date at which the operations contract commences, since these will constitute reasonably incurred costs that the DAA will need to recover. This assumes that the contract is awarded following a competitive tender. The Commission will be guided in its assumptions relating to T1 operations for the purposes of estimating an opex allowance for aspects of T2 operations that do not go to tender. Finally, the Commission will also make some allowance for any reasonably-incurred transitional costs associated with the opening of T2.

7.5 To maximise the incentive properties for the DAA to realise operating cost efficiencies, the Commission will introduce a system of rolling incentives to maintain an equal efficiency incentive in each year within a regulatory period.¹⁰ The introduction of the system of rolling incentives will not affect the annual price caps in the upcoming regulatory period as any ‘roll-forward’ of efficiency incentives from the upcoming regulatory period will be added to price caps in the following period. However the method and basis for rolling forward efficiency incentives is set out here.

Opex requirements, existing facilities

7.6 In its October 2008 Issues Paper the Commission sought the views of stakeholders as to how it might assess opex needs at the airport. The paper included indicative results from top-down approach based on total factor and partial factor productivity analysis. The responses to the Issues Paper indicated a preference for a bottom-up analysis. The Commission appointed Indecon/Jacobs to conduct a bottom-up efficiency assessment. Due to the uncertainty relating the operations of the second terminal and the share of passenger throughput between both terminals the Indecon/Jacobs brief related only to existing facilities.

2009 Operations	DAA 2009	Indecon/Jacobs 2009 optimised (conservative case)	Indecon/Jacobs 2009 optimised (ambitious case)
FTEs (# of FTEs)	[]	[]	[]
Costs (€, m)			
Airport police fire and security	[]	[]	[]
Retail (DAA and Corporate)	[]	[]	[]
Maintenance	[]	[]	[]
Cleaning	[]	[]	[]
Terminals	[]	[]	[]
Commercial	[]	[]	[]
Airport management & Head Office	[]	[]	[]
Exogenous costs (rent, rates, insurance and energy)	[]	[]	[]
Other	[]	[]	[]
Total costs	[]	[]	[]

Table 7.2: Indecon/Jacobs 2009 optimised opex

Source:Indecon/Jacobs

7.7 The Indecon/Jacobs study uses 2008 as the reference year. Its preliminary findings identify potential savings as great as 12%. Assuming that the DAA would only achieve a fraction of the potential savings each year between

¹⁰ For more details on rolling schemes, see CP4/2008 “Efficiency incentives (rolling incentives schemes)” and the Issues Paper.

2009 and 2014, Indecon/Jacobs nevertheless estimate that 2009 costs could be between 9.2% and 11.3% lower than the DAA's 2009 estimate. Approximately 1.7% of the savings are driven by the fall in passengers. The remainder are achieved through specific cuts to target existing inefficiencies.

7.8 The principal areas where Indecon/Jacobs identifies potential savings relate to security, corporate, commercial, retail and cleaning staff costs. The Indecon/Jacobs report setting out their preliminary findings provides details on how these conclusions were reached. It is attached as Annex A. A brief summary of their findings follows.

- Airport, fire, police and security: 2008 staffing levels for these tasks appear reasonable.
- Retail: The DAA's retail staffing levels seemed high – a reduction of between 5 and 10% should be possible whilst retaining turnover levels.
- Maintenance: By optimising outsourced maintenance contracts, efficiencies of between 5 and 10% of these costs could be achieved.
- Cleaning: Comparing the efficiency of the DAA's in-house and outsourced cleaning operations, savings of between 10 and 20% in the DAA's staff cleaning costs are realisable.
- Terminals: The DAA's terminal staff perform several functions not usually carried out at other airports. Nevertheless a reduction of about 5% of staffing numbers would bring DAA into line with best practice. The information centre appears over staffed.
- Commercial: There was a high level of manning in DAA's 2008 commercial department, with as much as 50% more FTEs than might be expected to carry out its functions.
- Dublin Airport Management and DAA Head office: Manning levels in planning and finance seem high compared to comparators. A reduction in FTEs of as much as 33% might be feasible.
- Exogenous costs: Rates, levies, insurance costs and energy prices are largely outside the DAA's control. For the forthcoming period, the DAA's forecasts seemed reasonable in these areas with the exception of the forecast energy quantity which seems high.
- Other costs: The 'other costs' category includes car parking, airfield services, support services, fees and professional services, IT, marketing and promotional costs, and overheads. Some of these costs would be excessive if cost savings identified elsewhere within the organisation were made, since they are costs that might be expected to respond to changing FTE numbers (e.g. employee related overheads, telephone print and stationary, other overheads, travel and subsistence). The costs for fees and professional services seem high and a cut of between 10% and 20% is possible.

7.9 Presented with both a conservative and an ambitious case for opex savings by its consultants, the Commission has chosen to adopt the mid-

point between these two ranges as the target level of efficiency for the DAA to reach. It has assumed these savings can be realised over a three-year period, so that if passenger numbers corresponded to 2008 levels the DAA's costs should have reduced in real terms to this target level. The efficiency savings are phased in on an equal basis for each of the first three years. Where Indecon/Jacobs included real cost increases in certain categories (e.g. exogenous costs), the Commission has also included these increases into its forecast.

- 7.10 The Commission has used its own passenger forecast for the purposes of estimating opex for each year of the forthcoming regulatory period. (Indecon/Jacobs' projections used the DAA's forecast.) It has used the passenger elasticities proposed by Indecon/Jacobs to adapt its opex forecast to reflect changes in scale. In addition, changes in passenger numbers have a second-order effect on certain other costs (e.g. overheads) which are assumed to change in line with changes in FTEs.

Category	2009 Elasticity
Security staff	1.00
Terminal staff	0.60
Retail staff	0.30
Aviation customer support	0.95

Table 7.3: Assumed elasticity of staffing numbers to passenger levels

Source:Indecon/Jacobs

- 7.11 Consistent with past determinations, the Commission has only included a share of the head office or the DAA group costs in its opex forecasts for Dublin airport. Some of these costs have been allocated to Cork and Shannon airports. The share is based on 2008 passenger numbers at the three airports, so consequently 78% of these costs are included in the total opex allowance for Dublin airport. (The results presented in Indecon/Jacobs do not allocate any head office costs to the other airports.)
- 7.12 Real wages are assumed to remain constant at 2008 levels for the duration of the determination. In the current economic environment, with many workers taking nominal pay cuts or freezes and public-sector employees (but not those at semi-State bodies such as the DAA) having had net pay reduced significantly following the introduction of the pension levy, there does not appear to be a compelling case for allowing wage rises in excess of inflation absent any corresponding productivity gains. The Central Bank's latest commentary on the Irish economy reports downward pressure on nominal pay rates in the economy.¹¹ This contrasts with the DAA's forecasts for real-wage growth of about []% per annum. (To generate their forecasts, Indecon/Jacobs took DAA's forecasts for wages.)
- 7.13 Finally, the Commission has included an additional €0.48m annual cost saving from 2012 onwards to reflect savings expected once the investment in a combined heat and power (CHP) plant is undertaken. The costs of this

¹¹ See pages 43-46, Central Bank (2009) "Economic commentary", *Quarterly Bulletin No 2*, <http://www.centralbank.ie/data/QrtBullFiles/CB-Q2-09-Econ-Comm.pdf>

project have been included in the capex allowance that the Commission has made (see Chapter 9). The rationale for allowing the costs of this project to enter the RAB was claimed opex savings it would generate.

- 7.14 Based on the above, the Commission’s forecast for opex during the forthcoming regulatory period is presented in the table below.

	2010	2011	2012	2013	2014
Payroll costs (€m)	111.6	109.3	107.4	109.1	111.5
Non payroll costs (€m)	72.4	72.6	72.4	73.2	74.1
Total costs (€m)	184.1	181.9	179.8	182.4	185.5
Opex per pax (€)	8.87	8.59	8.25	8.04	7.79

Table 7.4: Forecast opex, existing facilities

- 7.15 These forecasts include an allowance for the costs the DAA might incur fulfilling its obligations to persons of reduced mobility (“PRM”) under Regulation (EC) No 1107/2006. The Commission has used the contract price that the DAA is paying to a contractor to provide PRM services as its estimate of an appropriate allowance for these costs. In assessing compliance with the annual price cap, the Commission will include revenues from charges for PRM services.
- 7.16 On a final point, the Commission wishes to notify interested parties of a minor downward adjustment to the price cap that it intends to make in respect of the impact of the costs of the 2001 Judicial Review taken by the former Aer Rianta. The Commission’s position on settlement of the case was that users should not be required to bear the legal costs which the Commission would ultimately be awarded following completion of the Settlement/Taxation process. As this adjustment now falls to be made, it will be addressed in the final determination.

T2 operations

- 7.17 When T2 opens, the annual price cap will need to change to reflect any changes in opex that arise. Opex in T1 should fall, while there will be new opex in T2. The Commission proposes to use the elasticities identified in Table 7.3 to determine the appropriate revised level of opex for T1 operations once it has a forecast for the share of passengers using T1.
- 7.18 For T2 the Department of Transport currently plans to run a tender to select an operator to provide some of the services required. The exact breakdown of services has not yet been published.
- 7.19 Once it becomes known which services the DAA will provide in T2 without any competitive tender being used to select the operator, the Commission will set its own forecasts for a reasonable cost estimate for these categories. Such forecasts will be consistent with the assumptions made for a reasonable level of opex for T1. Different ‘drivers’ will influence difference cost categories. The table below summarises which drivers the Commission currently proposes applying to different costs where it has to make assumptions about the effect T2 opening has on opex.

Driver	Cost category
Passenger numbers	Security staff, terminal staff, retail staff, aviation customer support
Capacity	Cleaning, maintenance, car park, commercial
FTE Numbers	Overheads

Table 7.5: Assumed drivers

Source:Indecon/Jacobs

- 7.20 For services provided by an independent contractor, the Commission will revise the annual price cap to allow the DAA to recover the costs it has to pay the contractor net of any payments that the contractor makes to the DAA. Should the DAA win the contract following a competitive process, the costs included in the DAA's bid to provide the services will be factored into the price cap.
- 7.21 Should an independent operator be awarded the contract, the DAA may incur some costs associated with facilitating such an arrangement. Some of these may be one-off costs. To the extent that the Commission concludes that the DAA has been efficient in incurring such costs, it is minded to make an allowance. For one-off costs, it will capitalise the costs and allow them to be recovered over a five-year period.
- 7.22 One obvious candidate for costs of any handover relates to possible redundancies that the DAA has to make. Ordinarily, the Commission would not make an allowance for redundancy costs, viewing them as costs that the DAA should only incur if they generate overall opex savings. However, when T2 opens the DAA will potentially have a significant excess staffing complement should it not be awarded the T2 contract. To the extent that the DAA can demonstrate that the company was unable to plan for this outcome, the Commission is minded to allow for redundancy payments. In particular, the Aviation Action Plan in 2005 indicated that the Government was minded to appoint an independent operator in T2. Hence, the Commission would expect the DAA to be able to demonstrate that any redundancy costs which it wishes to have included in price-cap calculations are unavoidable even though the DAA has had since 2005 to plan for the possibility that it will not operate T2. The level of any redundancy payments allowed will be made with reference to what firms in other, competitive sectors are paying. The DAA will have an incentive to beat these costs.

Rolling scheme

- 7.23 As indicated in the Issues Paper, the Commission intends to introduce a rolling scheme for opex. Should the DAA incur opex costs less than the target level set by the Commission in any year, the DAA will realise the cost savings for five years from that date. The Commission will report annually, starting in 2011, on how the DAA's actual opex compares with the target level of opex (and therefore what adjustments will fall due to be made in the next price-cap determination to reward the DAA for better-than-expected efficiency savings).

- 7.24 The Commission proposes to exclude the regulatory levy, local authority and other regulatory levies, insurance, and energy costs from the rolling scheme for opex. All of these cost categories were identified by Indecon/Jacobs as largely outside the control of the DAA. The Commission does not consider it appropriate for the DAA to be allowed to roll forward savings made in opex categories over which it has limited control, notwithstanding Aer Lingus' request that all opex be included in a rolling scheme. Of the excluded cost categories, energy is perhaps the one over which the DAA has most control. Certainly, it should have some control over the quantity of energy required. But most of the variability in energy costs is likely to be due to changing energy prices. Given the difficulties in ascertaining the extent to which changes in such prices are outside the control of the DAA, the Commission has decided not to include energy costs in the rolling scheme.
- 7.25 For those cost categories included in the rolling scheme, the Commission will compare the DAA's opex with the target level implied by the opex forecast included in making this draft determination. The actual opex that the DAA incurs will be adjusted to reflect deviations in passenger numbers, using the elasticities assumed in Table 7.3. In addition, the Commission will apply the drivers outlined above when assessing how the DAA's opex costs change after T2 opens.
- 7.26 The DAA will include any costs relating to Dublin airport city in a separate cost centre. Consequently, the reported opex will not include such costs. The Commission's forecast opex does not make an allowance for Dublin airport city.

8. Commercial Revenues

- 8.1 The price-cap modelling for this draft determination assumes that the DAA will earn on average €6.20 per passenger in retail and commercial revenues over the 2010-14 period. This assumes average annual revenues totalling €136.6m and average annual passengers of 22.0 million. This per-passenger estimate compares with similar figures of €6.00 in 2008 and €[] in 2009 (expected). The DAA forecasts a similar out-turn for commercial revenues in the coming period.

Commercial revenues	2008	2009	2010	2011	2012	2013	2014
Total (€m)	143.4	131.0	127.4	130.6	135.0	141.0	148.9
Per pax (€)	6.00	6.20	6.14	6.17	6.19	6.22	6.26
Average 2010-14					6.20		

Table 8.1: Commission projection for retail and commercial revenues

- 8.2 In making the draft determination, the Commission has continued to set commercial revenue targets broadly consistent with the DAA seeking to maximise net revenues from sources other than airport charges. Since the Commission does not regulate these revenues – with the exception of access-to-installation (ATI) fees – it is a matter for the DAA as to the individual charges it sets in these areas regardless of what the Commission assumes when making the determination. The introduction of service-quality targets may partially address DACC’s concern that additional commercial revenues should not come at the expense of processing passengers at the airport.
- 8.3 To forecast commercial revenues, the Commission has primarily relied upon ‘top-down analysis’. It has looked at macro-economic trends and time-series data for the various components that constitute commercial revenues to generate a forecast for each of these elements. One appeal of this approach is that the forecaster does not have to address explicitly how every individual factor may affect final out-turns and how they might inter-relate. Identifying the possibility that one retail space could generate additional revenues does not necessarily mean that the airport’s overall commercial revenues will increase since it is possible that the increased revenues will come at the expense of commercial revenues elsewhere at the airport. Moreover, identifying all the possible developments between now and 2014 that might affect car-parking revenues, for example, is difficult.
- 8.4 The results generated by this top-down econometric modelling have not been applied mechanically. The Commission has also had regard to the DAA’s forecasts, and where those differ significantly from the predicted time-series outcomes the Commission has sought to understand why. It has sought a balanced approach to forecasting commercial revenues, making use of both ‘top-down’ and ‘bottom-up’ analysis, something that Aer Lingus advocated in its responses to the Issues Paper. The Commission has not accepted the DAA’s argument that general macroeconomic data provides no information for the purposes of

forecasting commercial revenues. The econometrics analysis reported in Annex 2 shows that there is a strong statistical link. However, the Commission accepts that it would be insufficient to rely solely on such information.

- 8.5 The rest of this chapter presents the Commission’s forecasts for commercial revenues, looking at seven major groupings. Figure 8.2 provides a breakdown of the DAA’s commercial revenues into these seven groupings for 2008, a year when the DAA earned €143m (net of the cost of sales for direct retailing) from these activities at Dublin airport. The chapter also includes a section discussing how the Commission proposes to treat ATI fees when setting the annual price caps given that such fees are subject to a separate regulatory regime.



Figure 8.2: DAA retail and commercial revenues at Dublin airport 2008

Source: DAA

Direct retail revenues

- 8.6 Retail activities at Dublin airport are categorised into *direct retailing* activities carried out by the DAA ([]% of overall retail and commercial revenues) and *concession retailing* activities carried out by third parties under contract to the DAA ([]% of revenues). Projections for each are presented separately below.
- 8.7 Gross profit from direct retailing activities accounted for €[]m, or []%, of the DAA’s total commercial revenues at Dublin airport in 2008. This gross profit figure is net of the DAA’s cost of sales in 2008. Adding back in cost of sales of €[]m, the DAA’s total revenues from direct retailing in 2008 were €[]m.
- 8.8 Figure 8.3 compares the growth in direct retail revenues at Dublin airport since 2001 with economy-wide trends from the CSO: GDP and indexed retail sales. For the purposes of the comparison here, the DAA figures *include* the cost of sales.

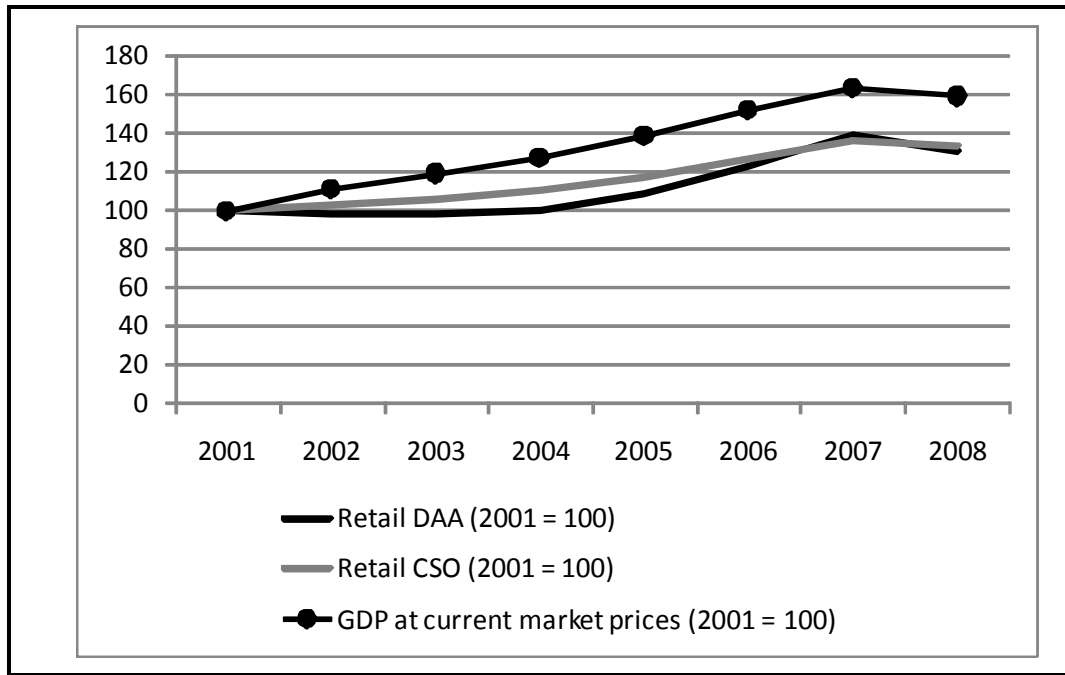


Figure 8.3: Direct retail revenues at Dublin airport and Index of Value Retail Sales in Ireland (CSO, 2001 = 100).

Source: DAA and Central Statistics Office (CSO), all growth is nominal.

- 8.9 Historically, trends in direct retail sales at Dublin airport have closely tracked trends in the value of retail sales in the economy as a whole. Econometric analysis of historic data (see Annex 3) reveals a long-run elasticity between the two series of around one: any proportionate change in the value of economy-wide retail sales tends to be reflected in a similar proportionate change in the DAA's direct retail revenues at Dublin airport.
- 8.10 To produce a macro-forecast for commercial revenues, the Commission has used the same GDP forecast it used when looking at passenger forecasts (see Table 6.2). The Commission is not aware of any medium-term forecasts for retail sales at an economy-wide level. However, from 2003–04 onwards, retail sales for both the DAA and the wider economy have closely tracked trend growth in GDP, so the Commission has assumed that direct retail revenues at Dublin airport will change in line with changes in GDP growth, i.e. with an elasticity of one.
- 8.11 To project forward *gross profit* from direct retailing, which is the relevant figure for the price-cap calculation, the annual cost of sales must be netted-off the projected total revenues from direct retailing. The Commission has assumed a ratio of 0.55 for cost of sales to total direct retailing revenues. This is the average ratio for the previous eight years, and the actual ratio for both 2007 and 2008.



Figure 8.4: Direct retail revenues (net of cost of sales), comparing CAR and DAA projections

Source: DAA, CAR

8.12 For direct retail revenues, the Commission proposes using the forecasts its top-down approach generates. []. The annual projections for direct retail revenues (gross and net of cost of sales) are shown in the table below.

Retail revenues (€m)	2008	2009	2010	2011	2012	2013	2014
DAA net forecast	[]	[]	[]	[]	[]	[]	[]
CAR gross forecast			72	74	76	79	83
CAR net forecast			33	33	34	36	37

Table 8.5: Direct retail revenues at Dublin airport

Notes: Totals subject to rounding. Source: DAA, CAR

Concession retail revenues

8.13 As well as receiving retail revenues from its own direct retailing activities, the DAA earns revenues from concessionaires at the airport engaged in retailing activities. In 2008, the DAA received revenues of €[]m from these activities; up from €[]m in 2001. This increase in revenues represents a substantial annual growth rate over the period, as illustrated in the figure below.

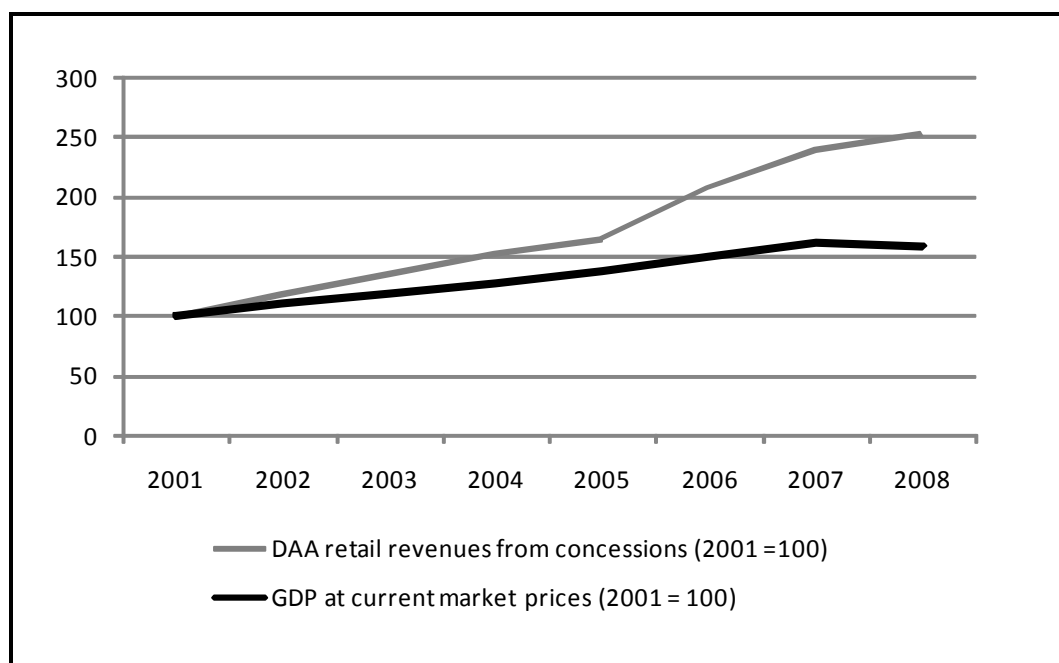


Figure 8.6: DAA’s concession retail revenues at Dublin (2001 = 100).

Source: DAA and Central Statistics Office (CSO), all figures nominal

- 8.14 Growth in concession-driven retail revenues for the DAA has significantly outstripped the growth rates for any of the economy-wide indicators presented above, such as the CSO’s retail sales index and GDP growth. The Commission has carried out an econometric analysis of the relationship between concession retail revenues and various economic indicators using historic data. The results of this analysis (see Annex 2), indicate a long-run elasticity relationship between GDP growth and growth in concession revenues of around 1.8.
- 8.15 The Commission has used its forecasts of GDP and the elasticity assumption identified above to project forward concession retail revenues. As with direct retail revenues, [].



Figure 8.7: Concession retail revenues, comparing CAR and DAA forecasts

Source: DAA, CAR

- 8.16 These forecasts include an incremental amount of €[]m, which corresponds to the incremental income that the DAA has indicated it expects T1X to generate. In the 2007 Interim Review the Commission indicated that should the T1X project proceed, the DAA would only recover the costs to the extent that the project yields incremental commercial revenues. This €[]m increase in the forecast concession retail revenues will be offset by an equivalent amount for T1X capital costs (return on the capital costs). Given the cost of capital that the Commission has assumed, the incremental revenues identified by the DAA for T1X are less than the return on capital that the Commission would ordinarily have allowed for such a project. Consequently, there is no depreciation allowance for T1X. The project does not currently appear to be self-financing.
- 8.17 The Commission continues to favour a single-till approach. T1X was a deviation from a strict application of such an approach. This reflects the Commission’s willingness to show some flexibility in its regulatory approach. Where users and the DAA differ in their assessment of an investment’s commercial prospects, the Commission would be willing to entertain suggestions from the DAA that might allow it to proceed without requiring airport users, through higher airport charges, having to underwrite the costs of the project should it not prove positive in net present value terms.
- 8.18 The table presents the annual forecasts for concession retail of the Commission and the DAA, including T1X revenues. The DAA has forecast a 10% uplift in 2011 due to its plans to move a number of its own direct-retail operations to a concession-operated model. This includes electrical/travel, glass/china, jewellery and watches. The Commission has

not included such a one-off adjustment in its forecast for either direct or concession retail revenues.

Concession retail revenues (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			25	25	27	29	31

Table 8.8: Commission projection for concession retail revenues at Dublin airport

Source: DAA, CAR

Car parking

8.19 In 2008, the DAA operated 21,555 car parking spaces at Dublin airport, from which it earned income of €[]m. The table below provides a further breakdown of car-parking spaces into short-term, long-term year-round and long-term seasonal for 2001, 2008 and the DAA forecast for 2014.

	2001	2008	2014*
Short-term spaces	4,250	2,325	4,031
Long-term spaces (year-round)	10,000	10,900	10,900
Long-term spaces (seasonal)	4,000	8,330	8,330
Total spaces	18,250	21,555	23,261
Total pax (m)	14.1	23.5	23.1
Total car-parking income	€[]m	€[]m	€[]m

Table 8.9: Dublin airport car-parking spaces and income

Source: DAA

Notes: All figures are nominal. * DAA estimates.

8.20 Up to 2007, year-on-year changes in income earned from car parking at Dublin airport tracked changes in passenger numbers one-for-one. The trends in the two series are set out in Figure 8.10. Econometric analysis of monthly data on car-park revenues and passenger numbers between 2001 and 2007 indicates a long-run elasticity relationship between the two series over the period of around one (see Annex 2).

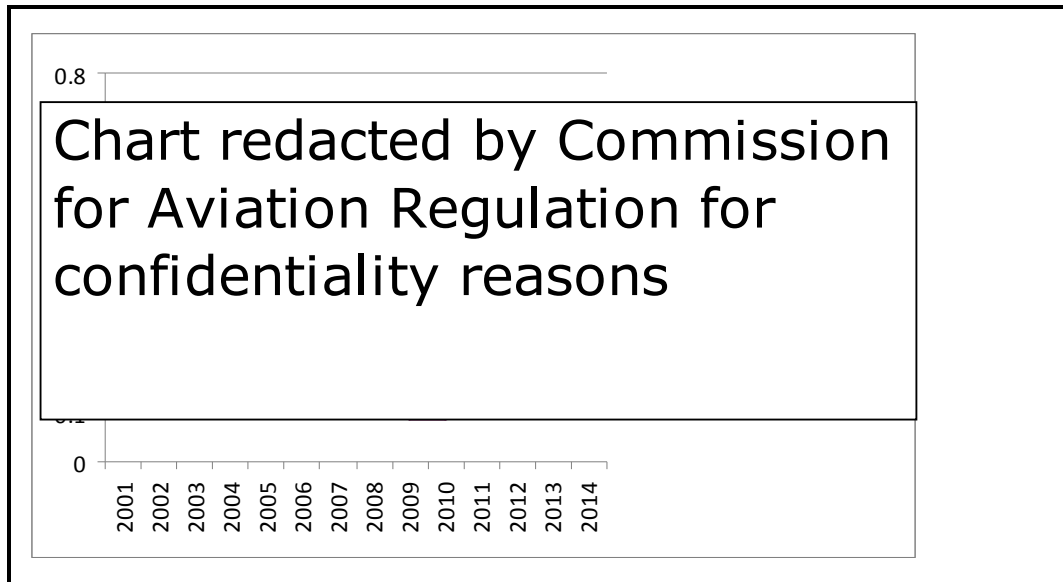


Figure 8.10: DAA's car-parking income at Dublin airport

Source: DAA, CAR

- 8.21 In 2008, there was almost a 10% nominal decline in car parking income at Dublin airport, as compared with almost no change in passenger traffic. Clearly, this observation represents a departure from the long-run unit-elasticity relationship observed up to the end of 2007. The DAA has suggested a number of reasons for the change:
- Short-term car-parking prices were increased to the point which precipitated a sharp decline in occupancy in 2008
 - A reduction in overall customer numbers and customer spends given the challenging economic environment and increasingly cost-conscious consumers
 - Competition for long-term car park revenues
 - Competition from other modes of transport, including coaches and taxis
- 8.22 The DAA has already indicated, both to the Commission and to users, that it has responded to these factors by adopting new pricing and promotional strategies. For example, it will engage in "dynamic pricing" of car-park spaces to increase overall occupancy and yields. As a consequence, the DAA expects to increase car-parking income during the forthcoming price-control period. It views the 10% drop as a permanent one-off change in car-park revenues, and its projections assume that this represents the new base from which incomes will grow.
- 8.23 To project future car-park revenues the Commission has relied on its own forecast for passenger numbers at the airport and has assumed that events in 2008 represent a permanent one-off change in the level of car-park revenues that the DAA will collect.

- 8.24 The top-down forecasts do not explicitly account for the plans to build a new multi-storey car park (MSCP). In discussions relating to its capex plans at the airport, the DAA has indicated that it expects the MSCP to generate enhanced car-parking revenues (along with incremental income from property concessions that the DAA expects an associated hotel to generate). The DAA has not set out precisely how much incremental car-park revenue it expects the new MSCP to generate. Since the Commission has not made any additional allowance for capex relating to an MSCP, the Commission's projections for car-parking revenues do not assume any step change in car-parking revenues that the DAA might earn.

Car parking revenues (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			29	29	30	32	33

Table 8.11: Commission projection for DAA car-parking income

Source: DAA, CAR

Property concessions

- 8.25 Revenues from property concessions accounted for €[]m ([]%) of total retail and commercial revenues for the DAA at Dublin airport in 2008. Such revenues come from a range of activities, including the provision of space, facilities and contracts to commercial entities operating in the airport.
- 8.26 In the past, revenues from property concessions have tended to grow broadly in line with passenger growth at the airport, as illustrated in Figure 8.12.

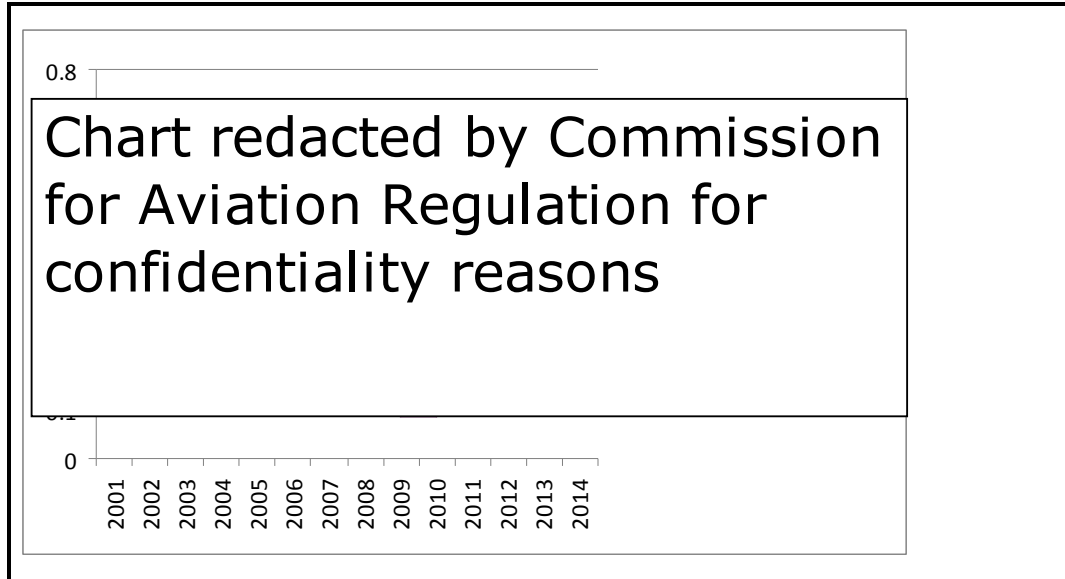


Figure 8.12: DAA’s revenue from property concessions at Dublin airport, forecast from 2010

Source: DAA, CAR

- 8.27 The DAA has indicated that it expects this trend to continue for many of its property concession revenues, including banking, hotels and car hire. Based on historic patterns, the Commission is inclined to agree with this assumption. Econometric analysis of historic data from 2002–2008 reveals a stable long-run elasticity between property concession revenue and passenger numbers of around one (see Annex 2).
- 8.28 The Commission has not included any incremental projections for property concessions that might be associated with the DAA’s plans for an MSCP. This is because the draft determination has not made a specific allowance for the revised MSCP plans. Hence, the Commission does not consider it appropriate to assume any step change in commercial revenues from such a project. The DAA has projected significant increases in commercial revenues should the investment proceed.

Property concession income (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			17	18	18	19	20

Table 8.13: Commission projection for DAA income from property concessions

Source: DAA, CAR

Property rental

- 8.29 The DAA earned income of €[]m in 2008 from the rental of property to airport users and other entities. This property portfolio includes office

space, hangers, warehouses, check-in desks and other airport-specific facilities such as the fuel depot.

- 8.30 The DAA asserts that there is no direct relationship between property rental income and passenger numbers. Rather, such income is driven by factors such as occupancy levels, the overall demand for rental property, prevailing market rents and the timing and outcomes of periodic rental reviews. The DAA has indicated that it plans no major investments in property-related developments during the period 2010-2014.
- 8.31 Over the medium-term the Commission does not accept the DAA's assertion that property-rental income is independent of passenger numbers. This is because the available evidence suggests that the two series have tended to move together over the period since 2002. They do diverge in some years, possibly reflecting the timing of specific factors such as rent-reviews and contract renegotiations. But the Commission's interest when making the determination is to forecast expected commercial revenues over the next five-year period. The Commission is not aware of any factors that suggest property rental income should deviate from long-term trends for all five years of the forthcoming determination. Moreover, the DAA's own projections for property rental income over the 2010-14 period broadly track projections for passenger growth over the same period. Figure 8.14 shows the recent trends (2001-2008) in property rental income, GDP and passenger traffic at Dublin airport.



Figure 8.14: DAA’s property rental income Dublin airport, € nominal.

Source: DAA

8.32 The draft determination uses the forecast presented in the table below. The forecast assumes a long-run elasticity relationship of 0.75 between property-rental income and passenger numbers. The projections use the Commission’s own passenger forecasts. Annex 1 presents the econometric results that support this forecast.

Property rental income (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			15	15	15	16	16

Table 8.15: Commission projection for DAA property rental income

Source: DAA

Property advertising

8.33 The DAA earned income of €[]m in 2008 ([]% of revenues) from property advertising activities at Dublin airport.



Figure 8.16: DAA’s property advertising revenues, € nominal.

Source: DAA

8.34 In the next regulatory period the DAA has indicated that it expects the opening of T2 and T1X to provided additional and better advertising space, in terms of audience flow and dwell times. Figure 8.16 shows historic trends in property advertising growth alongside the DAA’s own projections for the 2010-14 period. Over the period 2001–2008, property advertising revenues have tended to move in-line with passenger growth. The DAA’s projections for 2010 onwards indicate a deviation from this relationship, consistent with its expectation that recent developments at the airport will allow it to generate more income from property advertising.

BAA Airport	Year	Advertising revenues per passenger (€)
Heathrow	2005/6	0.54
Gatwick	2005/6	0.21
Stansted	2007/8	0.12

Table 8.17: Advertising revenues per passenger at BAA airports

Source: UK Competition Commission (ECB for historical €/£ exchange rates)

8.35 The Commission has chosen to []. The projections anticipate advertising income per passenger increasing by almost 50% in nominal terms between 2008 and 2014. The targets, while challenging, appear reasonable when compared with the advertising revenues BAA earns at its three London airports (shown in the table above). The table below shows the projected income from property advertising used to make the draft determination.

Advertising revenues (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			3	4	4	4	5

Table 8.18: Forecast advertising revenues

Source: DAA

Other Commercial Operations

8.36 Income from “Other Commercial Operations” accounted for €[]m ([]%) of the DAA’s total retail and commercial revenues at Dublin airport in 2008. This income comes from a variety of activities, including:

- Executive lounges and VIP services
- Taxi permit income
- US Customs Border Protection Income
- Income from water-disposal services, utility handling charges, communications and cabling charges and identity badge income.

8.37 Figure 8.19 shows that in the past total revenues from these activities have tended to move in-line with growth in passenger numbers at the airport. The DAA’s projection for the 2010-14 period implicitly assumes that this relationship will continue.



Figure 8.19: DAA’s income from “Other Commercial Operations”, outturn and projections

Source: DAA

8.38 The DAA’s forecast for future revenues form “Other Commercial Operations” appears reasonable to the Commission, since it appears consistent with recent trends. []

Income from other commercial operations (€m)	2008	2009	2010	2011	2012	2013	2014
DAA forecast	[]	[]	[]	[]	[]	[]	[]
CAR forecast			6	6	6	6	6

Table 8.20: Forecast revenues from other commercial operations

Source: DAA

Scale effects

8.39 The forecasts for the various commercial revenues groupings outlined above imply differing elasticity-based relationships with passenger growth. These (implicit) relationships are set out in the table below, although the Commission’s forecasts have not relied solely on these elasticities (most notably in the case of property advertising). There are some differences from the scale effects assumed in 2005.¹² The findings suggest an overall elasticity of commercial revenues in relation to passenger throughput

¹² See table 14, page 32 of the Issues Paper (CP6/2008).

slightly above one. DACC indicated in its response to the Issues Paper that it expected this elasticity to be approximately one.

Category	2005 Elasticity	2009 Elasticity
Direct retailing	1.00	1.00
Concession retailing and other		1.80
Car parking	1.00	1.00
Property concessions		1.00
Property rental and other	0.50	0.75
Property advertising		1.00
Other commercial operations	1.00	1.00

Table 8.21: Implied elasticities of commercial revenues to passenger numbers

Source: CAR

Access to Installations (ATI) Fees

- 8.40 These fees relate to charges that the DAA levies ground handlers at the airport to access installations needed to provide ground handling services. Revenues from ATI fees are included in the projections for income from Property Rental. Nevertheless, they are discussed further here because how these fees interact with the price cap has attracted particular interest from various airport users in the past two years.
- 8.41 The DAA is required to seek approval from the Commission for changes to ATI fees. Approval requires that the fees satisfy four criteria: relevancy, objectivity, transparency and non-discrimination. The approval process is governed by EC legislation and is a separate function of the Commission with no overt mechanism for linking with the regulation of airport charges. It was in that context the Commission issued a consultation notice in March 2008 (CN2/2008). Approval does not depend on what assumptions about ATI fees the Commission made when making an airport charges determination. At Dublin airport the only ATI fees that currently have approval are fees for check-in desks.
- 8.42 Forfás thought that when making a determination the Commission should change its approach towards the supply of non-regulated services if the DAA has market power providing that service. DACC argued that the DAA has market power when setting ATI fees, since access to the installations is an essential and unavoidable part of the service that the airlines are forced to purchase from the DAA as a monopoly supplier. It supported a change in the legislation to include ATI fees within the definition of airport charges. The Commission has written to the Minister for Transport setting out the arguments for such a change. However, the draft determination is set on the basis that the legislation will remain as it currently is.
- 8.43 In these circumstances, the Commission proposes that future determinations will allow for the possibility of 'clawbacks' and 'top ups' in instances where the DAA collects more or less revenue from ATI fees than forecast at the time of the last determination. This change will not apply retrospectively. The change means there is no incentive for the DAA to

seek to maximise revenues from ATI fees, representing a change from the Commission's approach to all other sources of commercial revenues. Nevertheless, it addresses the concerns of users that in some sense there is "double counting" if the DAA increases charges for ATI fees after a price cap on airport charges has been set, while avoiding the need for the DAA to anticipate precisely how revenues from this source will evolve in the next five years if it is not to be financially disadvantaged.

- 8.44 The forthcoming draft determination assumes that revenues from ATI fees will be between €1.5m and €1.7m per annum. []. Projected revenues from these fees are lower [] because of an assumption that there will be reduced utilisation of check-in desks.

9. Capital Costs

- 9.1 This chapter discusses the capital costs building block for a price-cap calculation. It is divided into three sections: opening Regulatory Asset Base ('RAB'), post-2009 capex and cost of capital.

Opening RAB 2010

- 9.2 For the purposes of estimating annual price caps during the next determination, the Commission has allowed an opening RAB of €891m.¹³ The Commission will allow an additional €672.4m into the RAB when the trigger for T2 Box 1 is met (and another €109.5m should passenger numbers exceed 33 million in any given year between now and 2014). The date specified in the contract for the operator of T2 to commence providing services will be used as the trigger for allowing T2 Box 1 capex to enter the RAB.
- 9.3 The Commission has developed a set of principles that will guide its future decisions regarding how to roll forward the RAB. A draft of these principles is included in Annex 1 of this report. In their responses to the Issues Paper, both Aer Lingus and the DAA suggested that the regulatory process would benefit from a clear articulation of the Commission's approach to rolling forward capital costs from one regulatory period to the next. The Commission has sought to make decisions consistent with these principles when determining the 2010 opening RAB. It also hopes that the principles will provide greater clarity to interested parties about how future capex is likely to be treated at subsequent regulatory determinations.
- 9.4 The rest of this section outlines how the Commission reached its decision to allow a starting RAB in 2010 of €891m. Parties wishing to argue for a different opening RAB are encouraged to clarify whether they disagree with the principles outlined in Annex 1 (and why), or whether their objection to the starting RAB reflects a belief that the Commission has made judgements inconsistent with the principles outlined in Annex 1.
- 9.5 To determine the starting RAB for 2010, there are four key inputs/factors that the Commission must consider:
- What was the value of the starting RAB at the beginning of the current regulatory period in 2006?
 - What was the level of allowed capex over the regulatory period, as determined by the Commission?
 - What was the cumulative depreciation charge during the regulatory period as determined by the Commission?

¹³ Unless otherwise stated, all of the figures presented both here and throughout this document are in 2009 prices. For costs previously presented in either 2006 prices (the 2007 Interim Review) or 2008 prices (the October 2008 Issues Paper), the CPI figures the Commission has used are as follows: 4.0%, 4.9%, 4.1% and -1.0% for the years 2006, 2007, 2008 and 2009 respectively. The figure for 2009 is taken from the ESRI Research Series No. 7 "Recovery Scenarios for Ireland" (May, 2007).

- What was the DAA’s actual capex over this period, and how should the Commission treat differences between allowed and actual capex spend?

This section provides information on each of these inputs.

- 9.6 The starting RAB in 2006 was €673.1m. The level of capex allowed was the focus of the Interim Review that the Commission undertook in 2007. The cumulative depreciation charge over the regulatory period 2006-2009 was €204.1m. Table 9.1 summarises the capex that the DAA actually incurred during the period of the last determination, as well as the amount the Commission ‘allowed’ at the time of the Interim Review. For ease of comparison, the table summarises capex under the main project headings as set out at the time of the 2007 Interim Review. A full project-by-project breakdown is presented as Annex 3, although the Commission’s approach to reconciliation has been to focus on categories of capex rather than each individual project. The out-turn capex reported here and in Annex 3 corresponds to what the DAA initially provided to the Commission; in early June, the DAA provided the Commission with updated information that the Commission has not had time to consider and fully incorporate into this draft determination. The DAA’s revised numbers are presented in Annex 4.

	Allowance	Out-turn	Difference
Airfield Projects	106.9	88.1	-18.8
Other Capacity Projects	101.4	107.5	6.1
Pier D Project	93.4	124.9	31.6
General projects	46.1	28.6	-17.4
Runway project fees	8.0	4.8	-3.3
Projects not in the 2006 CIP		33.3	33.3
Total without T2 or T1X	355.8	387.2	31.4
T1X Project	59.2	53.8	-5.4
T2 projects (main projects plus associated projects)	782.0	822.0	40.0

Table 9.1: Summary of 2006 – 09 capex: allowance versus outturn
Source: DAA

- 9.7 The Commission has not sought to reconcile the actual capex spend with the proposed capex spend for the T2 project or for T1X. To incentivise the DAA to manage costs associated with building the second terminal, including associated projects, the Commission committed in the Interim Review to not reconciling actual and proposed spend in 2009, instead deferring this exercise until the time of the fourth determination. Consequently, the treatment of capital costs associated with T2 is based on the allowance made at the time of the Interim Review, €782m. For T1X, the Interim Review indicated that the DAA would be at risk if the project cost more than it managed to generate in incremental commercial revenues.
- 9.8 The first five rows of Table 9.1 show that for the projects not directly related to either T1X or T2, the DAA has spent €388m in total, against a Commission allowance of €356m. The net excess of €31m covers a range of over- and under-spend across a number of individual projects described in the original 2006-09 CIP.

- 9.9 All the individual projects have been grouped under one of the headings in Table 9.1. The Commission has sought to understand the rationale for discrepancies between allowed capex and actual capex for each of these headings other than the T1X and T2 projects. The results of the Commission's analysis are summarised in the following six sub-sections, corresponding to each of the main headings in Table 9.1.

Airfield Projects

- 9.10 The 2006 CIP contained a number of separate airfield-related capex projects, which broadly covered airside apron and taxiway works over the 2006-09 period. The DAA has indicated to the Commission that the majority of these airfield projects are either complete or close to completion, with an expected outturn of €88.1m versus the Commission's allowance of €106.9m, an 'underspend' of €18.8m.
- 9.11 Relating back to the RAB roll-forward principles set out in Annex 1, the Commission is minded to treat such underspend as an instance where the outputs have been delivered but at a lower cost than was originally anticipated. In line with the principles in Annex 1, the €18.8m of underspend will therefore be netted off the starting RAB from the beginning of the next price control period, i.e. the 2010 starting RAB

Other capacity projects

- 9.12 Within this project grouping, the DAA has not undertaken projects CIP5.036 "External Retail Delivery Facility" (€5.41m) and CIP8.003 "Airport Development" (€24.66m). In line with its RAB roll-forward principles, the Commission proposes the 2010 starting RAB will be net of this capex, including an adjustment for cost of capital and depreciation already incurred. The adjustment in 2009 prices is equal to €33.9m.
- 9.13 The reconciliation information reported here includes an overspend of €32.8m for project IT/AITT (CIP8.008). Subsequently, the DAA has responded to the Commission by claiming that this figure includes the costs for various other projects in the 2006 CIP (including CIP8.003). For the purposes of this draft determination, the Commission has offset the €32.8m overspend against the adjustment of €33.9m set out in the previous paragraph. This decision will be reviewed carefully between now and the final determination. Consequently, the net adjustment to the RAB for capex on other capacity projects is minus €1.1m.

Pier D

- 9.14 The Pier D allowance for the 2006-09 period, determined by the Commission in the 2005 determination and unchanged following the 2007 Interim Review, was €93.4m (2009 prices). The Commission allowance, at the time of the 2005 determination included a downward adjustment to Pier D capex of €7.6m (2009 prices) because, prior to 2006, the DAA had already been remunerated for certain Pier D costs.
- 9.15 Table 9.2 provides the DAA's breakdown of Pier D outturn costs, as set out in Appendix D to the DAA response to the October 2008 Issues Paper

(published on the Commission’s website). The Commission has netted €7.6m from figures set out in Appendix D of the DAA’s submission.

Element	€m
Pier Construction	70.1
Link bridge / Walkway construction	35.3
Adjustments to existing buildings	5.7
Construction and regarding of aprons	5.0
Design fees and project management	13.9
Miscellaneous	0.3
Fingal Co. Co. levies	2.2
Less amount remunerated prior to 2006	7.6
Total	124.9

Table 9.2: Pier D costs

Source: DAA

- 9.16 The Commission has endeavoured to identify the reasons for the Pier D overspend against the capex allowance for the 2006-09 period. Table 9.3 provides a breakdown of this overspend.

Element	Estimated overspend
1. Walkway/link	€8.6m
2. Increase in contact stands from 12 to 14	€2.8m
3. Amendments to walkway at Pier A to accommodate GNIB requirements	€1.8m
4. Improved building aesthetics	€1.1m
5. Life cycle improvements	€1.1m
6. Retention of TBG	€0.5m
7. Airport Operations driven changes	€3.8m
8. Changes to tenant requirements	€0.3m
9. Value added scope increases	€2.5m
10. Design Development	€5.6m
11. Overspend versus original allowance	€3.5m
Total	€31.6m

Table 9.3: Elements of Pier D overspend versus CAR allowance

Source: DAA

- 9.17 In Appendix D of its submission to the October 2008 Issues Paper, the DAA explains the spend on elements 2–10 in the above table. With the exception of elements (2), (6) and (7), the Commission views all of the other additional costs, including (11), as being at the risk of the DAA in undertaking the project. They should therefore have been either captured directly in the contingency allowance set at the time of project costing, or indirectly in the cost of capital allowance. For contact stands, retention of TBG and airport operations, the Commission is content to allow these costs (€7.1m) into the RAB going forward.
- 9.18 The Commission is proposing that all of the additional costs relating to the walkway/link be included in the RAB going forward. The DAA’s allowance

for a walkway (originally planned to go through the OCTB) and elevated link was €26.7m, based on costings provided to the Commission at the time of the 2005 review; the outturn cost is €35.3m, a difference of €8.6m. The cost overruns relating to this element of the project are attributable largely to elements that, in the Commission’s view, were outside of the control of the DAA – planning hold-ups and planning decisions relating to the future use of the OCTB. The Commission believes that even with the additional costs, users are materially better off with the current Pier D than without a new pier.

9.19 In summary, of the €31.6m of Pier D-related overspend, the Commission proposes that €15.7m enter the RAB from 2010 onwards.

General Projects

9.20 As shown in Table 9.1, the DAA spent €28.6m on ‘General Projects’ over the 2006-09 period, against an allowance of €46.1m. The Commission proposes that the difference (-€17.4m) be removed from the opening RAB for the next price-control period.

Runway project fees

9.21 The Commission proposes that the €3.3m of underspend relating to the Runway Fees project be removed from the starting RAB in 2010.

Projects undertaken during 2006 – 09 but not in the 2006 CIP

9.22 The following projects undertaken by the DAA during 2006-09 did not appear in the 2006 CIP. Consequently there was no ex ante capex allowance for the projects.

Project	Actual cost
Section 49 Contributions	€18.59m
South Apron Village	€4.00m
T1 Life Safety Improvements	€2.81m
CHP Upgrade	€1.62m
Tenant Office Refurbs	€1.41m
Masterplanning	€1.19m
Cargo - Longterm solution	€0.97m
Church Lands	€0.86m
TBG Upgrade	€0.43m
Fuel Hydrant System	€0.43m
Consultancy Fees	€0.32m
Blast Fence	€0.22m
Consultancy Fees	€0.22m
Cuckoo Culvert	€0.22m
Total	€33.3m

Table 9.4: Projects undertaken during 2006–09 but not in the 2006 CIP
 Source: DAA

9.23 The Commission believes that it is consistent with its statutory duties to allow a degree of flexibility to the DAA in delivering a proposed capex

programme. In particular where there are a number of small projects important for the ongoing maintenance and operation of the airport, the DAA should have the flexibility to manage how those projects are actually delivered. While the previous section showed an 'underspend' of €17.4m in 'General Projects', it would not be unreasonable to argue that many of the projects in Table 9.4 are themselves general projects. The Commission proposes that, with the exception of CIP8.013 (Section 49 contribution) and CIP 2.011 (South Apron Village) the costs of all the projects in the table (€10.7m) enter the RAB from 2010 on this basis.

- 9.24 The DAA has indicated to the Commission that it expects to incur Section 49 levies of €18.59m payable by the end of 2009. These levies relate to the obligations imposed by Section 49 of the Planning and Development Act 2000. In summary, this allows a local authority to introduce in a planning approval situation a condition whereby the undertaker of a project (in this case the DAA constructing T2) is obliged to make a financial contribution by way of a levy to any public infrastructure project (in this case the proposed Metro North railway). The levy, essentially a capital tax imposed on the DAA, was not envisaged at the time of the 2006 CIP and therefore not included in any DAA costings. The draft determination includes these costs in the starting RAB in 2010, on the basis that they are costs that the DAA cannot avoid as they have a clear statutory obligation. However, there remains some uncertainty around the timing (and delivery) of the Metro North project in the environs of the airport. It is uncertain whether the DAA will actually incur such costs prior to end 2009. Consequently, the Commission will seek further clarity on the timing and delivery of the Metro North project and when the DAA may have to make any payments prior to the final determination. Should payments not be due before end 2009, the starting RAB will not include such costs.
- 9.25 The South Apron Village project (CIP 2.011, €4m) is directly linked to the construction of T2. The project provides temporary accommodation and facilities for tenants previously housed in Pier C, and subsequently moved out following commencement of the T2 project. The Commission proposes to treat this project as a T2 project, and therefore will address it as such prior to the 2014 determination.

T2-related costs

- 9.26 To provide incentives for the DAA to complete the T2 project on time, and consistent with protecting the reasonable interests of users, the Commission indicated that it would not include any T2-related capital costs in price-cap calculations after 2009 unless and until the terminal was operationally ready. (That determination also separately indicated that remuneration of some of the T2 costs – so-called T2 Box 2 costs – would be conditional on passenger numbers at the airport exceeding 33 million passengers per annum.) The Issues Paper invited parties to offer suggestions for a precise definition of "T2 ready for operations".
- 9.27 The Commission proposes to define "T2 ready for operations" as corresponding to the date specified in the contract for the operator of T2 to commence providing services.

- 9.28 In response to the Issues Paper, the DAA proposed a trigger of 'Practical Completion', one attraction being that it is a well-defined milestone in a construction contract whereby the engineer inspects the building and signs a formal contract. The main drawback with the proposal is the potential lag between the final certificate and the time taken to complete systems integration, fit outs, training and operational trials, a period of time when passengers will not enjoy the benefits of the facility. The Commission accepts that this time gap's length will depend not just on the DAA but on co-operation from users. Nevertheless, it believes that the identifiable event of a contract to start operations in T2 is more consistent with the concept of a terminal ready for operations.
- 9.29 The alternative suggested by a number of airlines was to link the trigger to the opening of a second runway. The Commission rejects this suggestion for a number of reasons. First, it ignores the fact that T2 will provide benefits to users in advance of a second runway opening – a number of airlines have indicated to the Commission that they intend moving into T2 when it opens, without any requirement that the second runway be in place. Second, the effects on incentives of such a definition are also questionable. The economic situation today is different to what prevailed in 2007. Then, work on a second runway was envisaged once the second terminal was complete. Now that demand at the airport has declined, the need for a second runway appears less pressing. Linking remuneration of T2 costs to completion of a second runway would create an incentive for the DAA to build the runway earlier than might otherwise be optimal given current economic conditions. Moreover, the Commission's decision at the time of the Interim Review did not make remuneration of T2 costs conditional on completing a runway; to introduce such a condition now might reduce the DAA's willingness to undertake any future capital projects because of concerns that the Commission will later act opportunistically and not allow the costs to be recovered. Such an outcome would not be consistent with facilitating the efficient and economic development of Dublin airport.
- 9.30 Assuming that the trigger for T2 Box 1 is met, the costs will be depreciated on a unitised basis. The Commission has adapted the calculations used to generate the unitised depreciation profile. This change partially reduces the extent of the back-loading of depreciation charges for T2 Box 1. The effect of T2 Box 1 on the annual per passenger price caps is similar to what was envisaged at the time of the Interim Review.
- 9.31 The forthcoming determination will only include an allowance to remunerate T2 Box 2 costs should passenger numbers at the airport exceed 33 million passengers. The level of T2 costs assigned to Box 2 is €109.5m; in net present value terms this is the same amount as was allocated to Box 2 in the Interim Review. The airport charges users pay have been and will continue to be based on calculations that exclude the costs associated with building a large T2 facility until such time as 33 million passengers use the airport in a year. In keeping with the Commission's indications following the appeal panel decision in 2008, the Commission also proposes netting of a sum of €11.3m from the open RAB, equal to the return (with interest, in €2009 prices) on T2 Box 2 assets earned by the DAA prior to 2010.

Derivation of Opening RAB	€m
Opening RAB 2006	673.1
Allowed capex 2006 – 2009	422.0
Regulatory depreciation 2006 – 2009	-204.1
Closing RAB 2009	891.0
T2 Box 1 trigger	672.4
T2 Box 2 trigger	109.5
2010 Opening RAB if T2 box 1 trigger not met	891.0
2010 Opening RAB if T2 box 1 trigger met	1564.5
Breakdown of capex allowance	€m
Total allowance as per Interim Review without T2, T1X	355.8
Airfield projects over/underspend	-18.8
Other capacity projects over/underspend	-1.1
Pier D project over/underspend	15.7
General projects over/underspend	-17.4
Runway project fees over/underspend	-3.3
Projects undertaken during 2006–09 not in the 2006 CIP	29.3
T1X as per Interim Review	59.2
Head office as per Interim Review	13.9
Box 2 adjustment as per Appeal Panel	-11.3
2006-2009 Capex Allowed	€422.0m

Table 9.5: Derivation of the opening RAB

Post-2009 capex

9.32 The draft determination that the Commission proposes allows for capex of €198.1m in the period 2010 to 2014. A further €337.8m of investment will be allowed if certain triggers are satisfied, as summarised in the tables below. In choosing to allow different sums for investment to those proposed by the DAA in its CIP, the main difference arises because the Commission has concluded that some projects as specified do not meet the reasonable requirements of current and prospective users. The available evidence suggests that the DAA has proposed costs for most of the projects that are reasonable estimates.

Category	€m
Airport Infrastructure - Airport Operations	49.0
Airport Infrastructure - Landside Infrastructure	23.0
Airport Infrastructure - Plant and Equipment	3.3
Airport Infrastructure - Utilities	41.9
Piers and Terminals	2.4
Revenue Projects - Retail	8.8
Revenue Projects - Revenue	19.2
Stands and Airfield	30.3
Programme Contingency	15.8
Programme Management	4.5
Total non-trigger capex	198.1

Table 9.6: Derivation of the opening RAB

9.33 The DAA's CIP itself proposed a number of triggers for various capital projects. In the current economic environment, the use of triggers is considered a sensible regulatory approach. It allows the Commission to make a determination that gives the DAA flexibility to respond to changing economic circumstances and adapt its investment programme without requiring further regulatory intervention. The triggers included in the draft determination do not correspond exactly to those proposed by the DAA, with changes made to the definition, amount or projects included. The most significant trigger in terms of its effect on the annual price caps relates to a number of capacity-related projects, including a second runway, for which the Commission proposes allowing just under €300m should annual passenger numbers at the airport exceed 23.5 million prior to 2014.

Trigger	€m	Project(s)
Annual traffic exceeds 23.5mppa	298.3	North runway construction works, house buy-out, engine testing facility, new pier design, control tower facilitation (CIP 6.051, 6.019, 6.053, 7.018, 2.009)
Surplus stand availability in the peak week less than 10 stands	22.7	New apron development (CIP6.047)
Legislation passed requiring baggage security equipment upgrade prior to 2015	10.8	Upgrade HBS (CIP4.017)
Annual fuel demand through Pier E equal to 35% of airport-wide demand in 2008.	6.0	Fuel hydrant system (CIP 9.023)
Total trigger capex	337.8	

Table 9.7: Derivation of the opening RAB

9.34 The DAA submitted its proposed capital investment programme (CIP) for Dublin airport, 2010-2014, in February 2009. The CIP contained details on projects costing a total of €747m, split into the following three 'tranches':

- **Tranche 1 - €255m**, or €51m per annum over five years, contained what the DAA described as operational projects comprising the minimum spend necessary to carry out economic replacement or upgrade life-expired assets and to comply with specific regulatory or safety requirements.
- **Tranche 2 - €139m**, related to service delivery and was motivated by the DAA as investment necessary to maintain customer service levels, protect or enhance commercial revenue opportunities, and to conduct planning and design work to reduce lead times for future capital programmes.
- **Tranche 3 - €353m** of 'enabling' projects which would only be undertaken if certain demand triggers were satisfied.

9.35 Following receipt of the CIP, the Commission arranged a series of meetings to discuss the investment needs at the airport. The purpose of the meetings was to allow the Commission to understand better the extent to which the DAA's proposed CIP would meet the reasonable requirements of current and prospective users. An invitation to attend the first meeting went to all parties that had previously expressed an interest in issues relating to Airport Charges – either by partaking in consultations on previous Commission determinations or attending the DAA's own capex consultation meetings in the past. Subsequent proposed agendas were sent to parties that expressed an interest in attending such meetings. A stenographer was present at all meetings. Copies of transcripts, slides used in presentations, and responses to information requests were forwarded to parties that requested such materials. In total, the

Commission organised five meetings, held on 18 March, 8 April, 22 April, 6 May and 29 May. The Commission wishes to thank all participants who attended and partook in these meetings.

- 9.36 The Commission also awarded a tender contract to Booz and Co to review the proposed costings in the DAA's CIP for those projects (or groupings of projects under a common theme) whose value was €5m or more. Parties attending the meetings to discuss capex needs at the airport were made aware of this parallel process. It was also made clear that the Commission's decision to ask Booz to review the costs of individual projects did not imply that the Commission had formed a view as to whether or not the project as currently proposed met the reasonable requirements of current or prospective users. Booz's report is attached as an annex to this report. The findings of Booz were that the DAA's estimated costs were generally reasonable; in some cases, Booz even found that the DAA had forecast costs lower than Booz would have estimated.
- 9.37 In outlining the rationale for its decisions relating to post-2009 capex needs at the airport, the Commission has followed the grouping of capital projects proposed by the DAA in its CIP – eight categories plus programme contingency and programme fees. For each of these headings, the Commission is keen to grant the DAA the necessary discretion to manage the airport efficiently and respond appropriately to evolving needs at the airport. Consequently, consistent with its principles for the RAB outlined in Annex 1, the Commission plans at the time of the next determination to review out-turn versus allowed capex for each heading rather than for each individual project. In doing this, the Commission will of course look for evidence that the DAA has undertaken efficient capital expenditure.
- 9.38 To calculate the annual price caps, the Commission has assumed that the DAA will spend one fifth of the total, untriggered allowance of €198.1m in each year of the forthcoming price-cap review. The return on and return of capital has been estimated as an annuity, and assumes that the average asset life is 26 years.

Airport Infrastructure – Airport Operations

- 9.39 For capital projects relating to airport operations, the Commission proposes to allow €49m over the price control period. None of this allowance is conditional on any triggers being met.

Code	Project	CIP	Booz	Allowed
CIP8.001	Operations	40.0	40.0	40.0
CIP8.008	Corporate IT	10.7	9.0	9.0
CIP2.017	Hangar Maintenance	4.2	n/a	0.0
	TOTAL	54.9		49.0

Table 9.8:Capex allowance for airport infrastructure – airport operations

- 9.40 This allowance is consistent with what Booz considered appropriate for airport operations and corporate IT budgets. The sum for airport operations is also consistent with previous annual allowances for the DAA. The corporate IT allowance envisages that a share of some of these costs should be allocated to Cork and Shannon airports and borne by users at those airports. The Commission has not received persuasive evidence that the costs for hangar maintenance would meet the reasonable interests of current and prospective users.

Airport Infrastructure – Landside Infrastructure

- 9.41 For capital projects relating to landside infrastructure, the Commission is proposing to allow €23m over the 2010-14 period. None of this allowance is conditional on any triggers being met.

Code	Project	CIP	Booz	Allowed
CIP3.035	Internal Secondary Campus Roads upgrade	5.0	4.9	5.0
CIP3.033	Repairs to Departures Road - Sealing bridge deck, repairs & resurfacing. Incl. new footpath pavement along length of road.	4.3	n/a	4.3
CIP3.012	New Taxi Holding area	4.0	n/a	4.0
CIP1.016	Refurbishment of existing MSCP - Blocks A,B &C	3.0	n/a	3.0
CIP3.034	External Roads upgrade	2.2	n/a	2.2
CIP3.014	Upgrade Airside / Landside Perimeter Fence	2.0	n/a	2.0
CIP8.300	Metro and GTC Design Fees	2.0	n/a	2.0
CIP2.008	Maintenance of listed properties	0.5	n/a	0.5
	TOTAL	23.0		23.0

Table 9.9:Capex allowance for airport infrastructure – landside infrastructure

- 9.42 The airlines, as represented by DACC, sought to have only €3.75m allowed for work relating to maintenance of listed properties, the landside perimeter fence and repairs to the departures road (the DAA sought €6.8m for the same projects). For the other projects under this heading, DACC argued that either the current economic circumstances did not warrant the project or a business case for the project had not yet been

established. DACC opposed outright making an allowance for metro and GTC design fees.

- 9.43 Despite these representations, the Commission has decided to allow the DAA €23m under this heading. It believes that the generality of airport users will value these projects by more than the €0.06 per passenger that they add to the price cap each year. Many of the projects included under this heading affect passengers and other non-airline users of the airport more directly than they affect the airlines, e.g. the taxi holding area or the multi-storey car-park upgrades. The Commission believes that for these projects the available documents from the DAA set out clearly the scope and motivation for the projects.

Airport Infrastructure – Plant and Equipment

- 9.44 The Commission proposes to allow the DAA €3.3m for capex under this heading. A further €10.8m will be allowed if an upgrade to the hold baggage screening (HBS) is required because of new legislation.

Code	Project	CIP	Booz	Allowed	Trigger
CIP4.017	Upgrade HBS Dublin	10.8	11.3		10.8
CIP4.014	Replace CHP 2	3.3	n/a	3.3	
	TOTAL	14.1		3.3	10.8

Table 9.10: Capex allowance for airport infrastructure – plant and equipment

- 9.45 The airlines supported the combined heat and power (CHP2) project, subject to a demonstrated saving in operating costs. In allowing the capex for this project, the Commission has reduced the DAA's operating costs associated with T1 energy costs by €0.48m per annum from what it would otherwise have allowed. This exactly offsets the capital costs in the RAB assuming a 10-year asset life.
- 9.46 For the HBS-system upgrade, the Commission's proposal is consistent with the DAA's stated intention to undertake the work only if required to by new EU regulations coming into force. The Commission will allow the €10.8m if the DAA is required under statute to undertake the work, and if it is convinced that it is necessary to procure 15 new HBS machines. A significant proportion of the costs of the proposed upgrade relate to the number (15) of new HBS machines required (€6.3m of the €10.8m spend). During the meeting on 29 May 2009 between users and DAA to discuss this project, users expressed some reservations as to the exact number of *new* machines that might be required. Prior to the final determination, the Commission will seek further evidence from the DAA and other interested parties (including the airlines) about the scope to either (a) re-use HBS machines currently in Area 14 or (b) procure fewer machines because of a lower level of demand for check-in desks in T1.

Airport Infrastructure – Utilities

- 9.47 The Commission is proposing an allowance for Utilities related projects over the 2010-14 period of €41.9m, plus an additional €6.0m should fuel demand in Pier E be sufficient to warrant the Pier E fuel hydrant system project proceeding.

Code	Project	CIP	Booz	Allowed	Trigger
CIP9.024	Fuel Farm Redevelopment	28.8	26.6	17.9	
CIP9.019	Divert and Increase Cuckoo Culvert capacity	11.0	11.7	11.0	
CIP9.022	Airfield Pollution Control	7.5	8.0	7.5	
CIP9.023	Fuel Hydrant System phase 1	6.0	6.2		6.0
CIP9.021	Airfield Drainage upgrade (3km)	3.0	3.1	3.0	
CIP9.020	MV Network Renewal Works A	2.5	n/a	2.5	
	TOTAL	58.8		41.9	6.0

Table 9.11: Capex allowance for airport infrastructure – utilities

- 9.48 The one reduction the Commission has made to the costs sought by the DAA for these projects relates to the fuel-farm redevelopment. The scope of the project proposed by the DAA included work relating to an airside “into-plane” facility that does not appear to meet the reasonable requirements of current users. The airlines expressed opposition to this facility, sceptical that it would generate any operating cost savings for them (the rationale for the into-plane facility). The core project of upgrading the storage tanks and associated works was supported by users, and the estimated costs for this work were similar for both the DAA (€17.9m) and Booz & Co (€18m).
- 9.49 For the projects relating to drainage and pollution control, the Commission is keen to make an appropriate allowance for such work to take place. The DAA’s costing for these projects appear very reasonable based on the findings of Booz. The airlines responses to the CIP seem to acknowledge the need for the work, despite a reluctance to meet the costs (between €0.03 and €0.04 per passenger on the annual price cap) because of the current economic downturn.
- 9.50 The need for, and potential net benefits of, the proposed fuel hydrant system for Pier E depends on the level of demand at the airport. Both the DAA and the airlines accepted this. The Commission proposes allowing the costs for this project once annual fuel demand in Pier E exceeds 35% of airport-wide fuel demand in 2008.

Piers and Terminals

- 9.51 The Commission is proposing an allowance for Piers and Terminals of €2.4m, with a further €7.0m allowed for pier design fees if annual passenger throughput increases to 2008 levels, i.e. €23.5mppa. Should demand remain below this level, the Commission does not believe that the risks of delay in providing a new pier in a timely manner at the airport would be sufficient to warrant allowing the design fees.

Code	Project	CIP	Booz	Allowed	Trigger
CIP7.032	T1 Passenger Processing Enhancements	16.0	16.0	0.0	
CIP7.035	Pier B Connectivity	11.0	9.2	0.0	
CIP7.030	Terminal 2 Completion	10.0	n/a	0.0	
CIP7.018	New Pier Design Fees	7.0	7.0		7.0
CIP7.036	T1 Life Safety System Upgrade	5.0	2.4	2.4	
	TOTAL	49.0		2.4	7.0

Table 9.12:Capex allowance for piers and terminals

- 9.52 Two of the other projects proposed in the CIP under this heading – T2 completion and Pier B connectivity – are T2-related projects that the Commission will review when it seeks to reconcile actual versus allowed capex for T2 projects. The allowance for the T2 project was made in the 2007 Interim Review.
- 9.53 Based on feedback the Commission has received, the T1 passenger processing enhancements do not appear to meet the reasonable requirements of users. No allowance for the costs of this project has been included in this draft determination.

Revenue projects - Retail

- 9.54 The Commission is proposing a total allowance of €8.8m for retail projects over the 2010–14 period. The sum allowed is consistent with allowances made in the previous regulatory period for a recurring investment need at the airport. It is less than the DAA sought. It is also less than Booz identified as a suitable cost for what the DAA proposed. However, Booz’s analysis did suggest a considerable range for how much might be spent on retail refurbishment and the DAA’s proposals appear to be towards the top of this range. The Commission believes a more modest sum is appropriate.

Code	Project	CIP	Booz	Allowed
CIP5.013	Retail Refurbishments	16.8	14.6	8.8
	TOTAL	16.8		8.8

Table 9.13: Capex allowance for revenue projects - retail

Revenue projects - Revenue

- 9.55 The Commission is proposing a total allowance of €19.2m for Revenue Projects.

Code	Project	CIP	Booz	Allowed
CIP1.006	MSCP	40.5	37.5	0.0
CIP2.018	Cargo Distribution Centre	14.3	13.1	13.1
CIP2.015	DAA Tenant Accommodation	5.0	5.0	0.0
CIP2.019	Retail Logistics Centre	3.1	n/a	3.1
CIP2.016	DAA Tenant Accommodation - Piers _ GSH	3.0	n/a	3.0
CIP2.014	DAA Office Accommodation	2.5	n/a	0.0
	TOTAL	68.4		19.2

Table 9.14: Capex allowance for revenue projects – revenue

- 9.56 For the various projects relating to refurbishing accommodation, the Commission has allowed the DAA a reduced budget. The proposed spend did not seem consistent with the concerns of users that in the current economic environment the DAA should focus on keeping capex to a minimum.
- 9.57 The 2007 Interim Review allowed €29.7m (2009 prices) for a new MSCP of 1,500 spaces. At the time of the Interim Review, the Commission indicated that it would evaluate T2-related capex spend in the run-up to the 2014 determination. Users, particularly members of DACC, opposed the project, citing a poor expected net return. The DAA's commercial revenue forecasts for the 2010–14 period included an uplift relating to the MSCP(/Hotel). The Commission's forecast for commercial revenues has not made an allowance for such an uplift.
- 9.58 The diverging views between the DAA and airlines concerning the MSCP project present an interesting regulatory conundrum given the current single-till environment that the Commission operates. The Commission is keen to allow the DAA discretion to undertake investments that the DAA believes present a commercial opportunity, but at the same time the Commission also wishes to protect users from having to underwrite a project (in the form of higher airport charges) should they not share the DAA's confidence that the project will yield positive returns. Suggestions on how this tension might be resolved are welcome. For example, in the case of the MSCP(/hotel) project, one option might be to remove car parking revenues (and costs) from the regulatory till altogether. This would require a one-off adjustment to the RAB to compensate users for

the stream of car-park revenues that currently feed into the RAB. At that stage, the DAA would then be free to pursue investments relating to car parks without the need to demonstrate the commercial merits of the project to other parties.

Stands and Airfields

- 9.59 The Commission proposes a total allowance of €344.2m for Stands and Airfields Projects, the majority of which (€314m) would be subject to a demand-related trigger.
- 9.60 The trigger-related projects are all linked to the proposed new North Runway project, the single most expensive item in the DAA's CIP. For all these projects, the Commission proposes a trigger of "*Demand in the preceding year equal to or exceeding 23.5mppa*". This is a different trigger to those proposed by the DAA or the airlines although it arguably accords with the macro approach favoured by the Portmarnock Residents Association (UPROAR). The proposed trigger's attractions are that it is easily verified and relatively robust to the potential for parties to engage in regulatory gaming. Moreover, it encourages the DAA to manage its existing facilities efficiently and utilise the existing runway throughout the day. Should demand become more peaked, the Commission would only be willing to include the costs of the runway into the RAB if there was a demonstrated willingness on the part of those airlines wishing to use the runway in the busiest times of the day to pay for the associated capital costs.

Code	Project	CIP	Booz	Allowed	Trigger
CIP6.051	North Runway Construction works	305.0	320.0		255.0
CIP6.017	Overlay Runway 10/28	23.0	29.9	7.0	
CIP6.047	New Apron Development	22.7	32.0		22.7
CIP6.052	Central apron reconstruction	15.0	13.8	13.8	
CIP6.053	Engine Testing Facility	13.8	9.5		9.5
CIP6.019	North Runway house buy-out	8.0	3.8		25.4
CIP6.054	Taxiway C L lights and associated stop bars on runway 16/34	6.3	1.4	0.0	
CIP6.018	North Runway Fees	4.2	4.7	4.2	
CIP6.055	B7 Taxiway Overlay	3.0	2.8	2.8	
CIP6.056	Apron Road Reconstruction	1.8	n/a	1.8	
CIP2.009	Control Tower Facilitation Works	1.4	n/a		1.4
CIP6.057	Airfield Generator replacement	0.5	n/a	0.5	
CIP6.009	Engine Testing Facility fees only	0.4	0.2	0.2	
	TOTAL	405.1		30.0	314.0

Table 9.15: Capex allowance for stands and airfields

- 9.61 Regarding the costs for the North Runway itself, the Commission has allowed €255m, equal to the amount the DAA proposed for a 3,110m runway. If the DAA wishes to build a longer runway then the Commission would encourage the DAA to seek to recover the associated incremental costs from the parties that stand to benefit from a runway length greater than 3,110m. The Commission's allowance is not conditional on the direction of the runway that the DAA ultimately decides to build – there are already incentives for the DAA to favour a runway option that allows it to complete the work under budget.
- 9.62 The Commission has allowed the DAA more than it sought for the house buy-out scheme. At the same time, the Commission has made these costs conditional on the second-runway project proceeding. The Commission has allowed a sum that it considers sufficient for all the house buy-outs. Should the DAA decide to start purchasing in advance of the trigger being satisfied, it will be at risk that the costs are ultimately not recovered through higher airport charges should the runway project never commence. In effect, the Commission has proposed an allowance of €280.4m for the DAA to build a runway, including any costs associated with house buy outs.
- 9.63 For both the overlay runway project and the taxiway centreline lights and stop-bars projects, the Commission has allowed an amount consistent with

the requirements articulated by airlines, the current users most qualified to comment on these projects. DACC preferred one of the lower cost options presented by the DAA for the runway overlay, while opposing the work on taxiway centreline lights.

Programme Contingency and Programme Management

- 9.64 The Commission is proposing an allowance for programme contingency and programme management of €15.8m and €4.5m respectively.
- 9.65 For programme contingency, the Commission has applied a contingency of 8.9% of the total project value for all non-triggered projects (€177.8m). Because the Commission has allowed a smaller sum than was in tranches 1 and 2 of the DAA's CIP, it has made a correspondingly lower allowance for this category than proposed by the DAA or suggested by Booz's analysis.
- 9.66 For programme management, the Commission has included an allowance for six 6 full-time equivalents (FTEs), at an annual per-FTE cost of €150,000. Again, the Commission has had to finalise its estimate of a suitable sum given its decisions relating to other projects in the CIP. The total allowed capex proposed by the Commission is €515m, including €337.8m of trigger-related projects. Taking these figures as a range, and an estimate of €10m of works per annum per FTE involved in programme management, gives a range of 3.5–10.3 FTEs for programme management. The Commission has assumed that the DAA will need 6 FTEs.

Cost of capital

- 9.67 Based on the information currently available, the Commission believes that an appropriate cost of capital is in the range 6.1% to 7.1%. For the purposes of making this draft determination, the Commission has used a point estimate of 7% as the allowed rate of return applied to the RAB for the duration of the next regulatory period. Given events in the financial markets in the last 18 months, it is possible that these estimates will need to be revised between now and the final determination to reflect further changes in market conditions.
- 9.68 The Commission has estimated the cost of capital using the same approach as in previous determinations, i.e. the weighted average cost of capital (WACC), using the capital asset pricing model (CAPM) to estimate the cost of equity. Respondents to the Issues Paper that commented on how to estimate a cost of capital supported continuing with this approach. Unlike in previous determinations, the Commission has undertaken its own analysis to estimate the cost of capital. However, its approach is generally consistent with the approach that its consultants have taken when advising the Commission on the cost of capital, both for previous determinations governing airport charges and for determinations setting a

cap on aviation terminal services charges (ATSC) set by the Irish Aviation Authority (IAA).¹⁴

- 9.69 For each of the components required to calculate the WACC, the Commission has identified a range of values it believes to be reasonable, summarised in the table below. The table also lists the point values used in the 2005 Determination and in this draft determination. The rest of this section discusses each of the components of the WACC in turn.

	2005	Range	2009
Real risk free rate (%)	2.6	1.5-2.5	2.5
Equity-risk premium (%)	6.0	4.0-5.0	5.0
Asset Beta	0.61	0.5-0.7	0.61
Tax (%)	12.50		12.50
Real cost of equity (pre-tax) (%)	10.51		9.9
Real cost of debt (pre-tax) (%)	3.7	3.5-4.5	4.1
Gearing (%)	46	37-50	50
Real WACC (pre-tax) (%)	7.4		7.0

Table 9.16: Range of estimates for WACC components

Forward looking risk-free rate

- 9.70 The risk-free rate represents the interest that can be obtained by investing in financial instruments with no default risk. As there is no financial instrument that is risk free, typically the yields on government bonds are used as a proxy for the risk-free rate.
- 9.71 As in previous determinations, the Commission has looked at the yield on nominal German ten-year bonds over an extended period of time (for this draft determination it has looked at data between January 1997 and April 2009). To estimate the real returns, the Commission has made use of the Fisher equation. This equation links the nominal rate of return to the real rate of interest plus an expected inflation component:

$$(1 + r_{nominal}) = (1 + r_{real})(1 + I_{expected})$$

where r represents the interest rate and I represents the rate of inflation. The Commission's estimate uses actual inflation out-turns in Germany (based on the harmonised index of consumer prices) as a proxy for expected inflation. For the sample period monitored, the average real return on German government bonds has been 1.5%. The nominal returns have averaged 3.1% with average inflation just under 1.6%.

¹⁴ A new European directive (EC1794/2006) had some implications for the way that the cost of debt was calculated in 2007 for the purposes of setting a cap for ATSC.

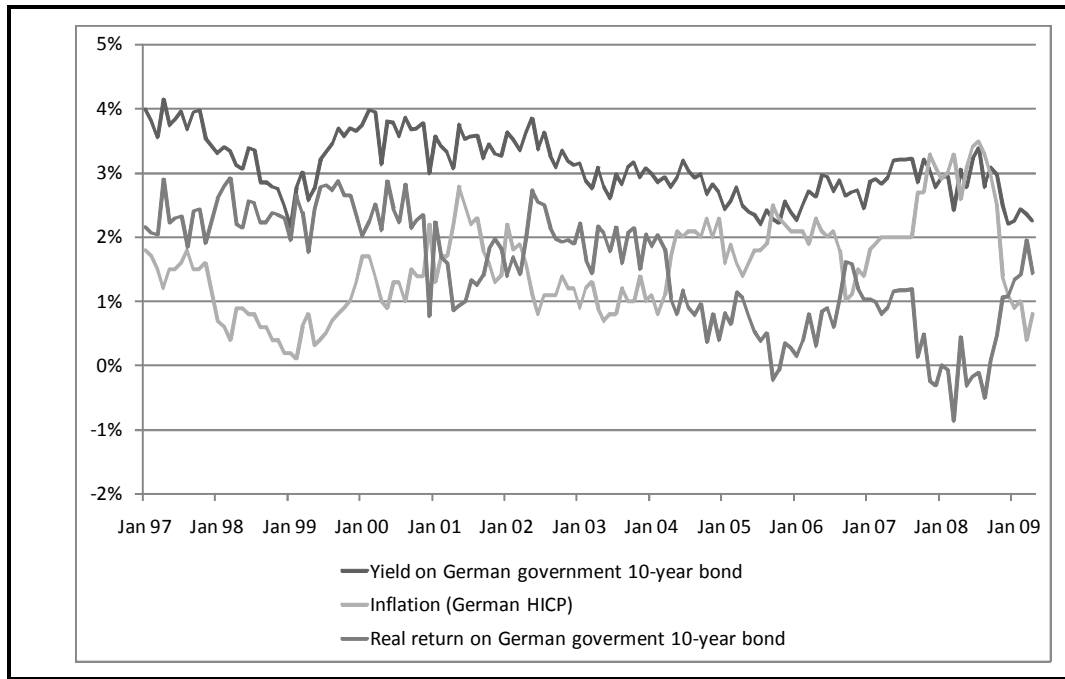


Figure 9.17: Nominal and real bond yields: German 10-year bonds

Source: Reuters

- 9.72 The Credit Suisse Global Investment Survey 2009 looks at data on investment returns over a longer time horizon. It estimates the average annualized real returns on government bonds (varying maturities) for 17 countries from 1900 to 2008 were just over 2.3%. The return for Europe was 2%. Germany had an average annualised real return on government bonds of 0.7% while Ireland had an average real return of 2.1%. The sample includes a period of German hyperinflation in 1922–1923. During the first half of the 20th century, many countries experienced low returns as a result of war and extreme inflation.
- 9.73 To estimate the real risk-free rate from nominal bond data, the Commission continues to believe an inflation-risk premium of 40% is appropriate. This is the premium assumed in 2001 and 2005. The inflation-risk premium arises because actual inflation rarely equals expected inflation and investors are assumed to seek compensation for the risks that ex-post inflation will be greater than expected. The Credit Suisse Global Investment Returns Sourcebook 2009 referred to a maturity premium which is the compensation for bond duration to take account of the effect of inflation on long-run investment performance. The premia for Ireland, Germany, Europe, and the world are 1.0%, 0.4%, 1.0% and 0.8% respectively. As a proportion of the estimated real risk-free rates derived from bonds returns from 1900–2008, the inflation risk premiums amount to 47%, 57%, 50% and 34% respectively for Ireland, Germany, Europe and the world.
- 9.74 An alternative data source that avoids the need to make assumptions about expected inflation or the size of any inflation-risk premium is to use data on index-linked government bonds, since these already yield a real return. The table below shows the average real return on a variety of

government inflation linked bonds of differing maturities. It shows a range of returns, from 1.8% to 2.5%.¹⁵

Inflation linked index	Period	Average monthly yield
Euro government	Dec 1999-June 2009	2.46%
French government	Sep 1998-June 2009	2.48%
German government	Mar 2006-June 2009	1.87%
Euro government (using EMU HICP)	Oct 2001-June 2009	2.20%

Table 9.18: Average daily rates of return on inflation-linked bond indices, various maturities

Source: *Barclays Capital*

- 9.75 There are some concerns with placing too much reliance on data for index-linked bonds. These markets are generally less liquid, and prices are often thought to be influenced by institutional factors rather than just fundamentals. On 1 June 2009 the spot rate on German ten-year index linked bonds was just above 1%, considerably lower than most estimates of the real risk-free rate derived from nominal bond data.¹⁶ A further problem is that trading in such bonds is relatively recent, so that the time series data available cover limited periods. For example, data for German ten-year index-linked bonds only date back to March 2006.
- 9.76 Based on the various sources of evidence described in this section, the Commission is minded to conclude that a reasonable range for the real risk-free rate is between 1.5% and 2.5%. Most recent price-cap decisions by Irish and UK regulators, as reported in the Commission's Issues Paper, assume a risk-free rate within this range. In assessing the evidence, the Commission has focussed primarily on financial instruments with a 10-year maturity, consistent with previous determinations. Both Aer Lingus and the DAA considered a ten-year horizon to be appropriate for regulatory purposes. For this Draft decision, the Commission has used a real risk-free rate of 2.5%.

Equity-risk premium

- 9.77 The equity risk premium (ERP) reflects the additional return that investors require to invest in equity instead of a risk-free asset. The academic literature discussing how to estimate the ERP is extensive. The variable cannot be measured directly in the market place as there is uncertainty associated with future returns from equities.

¹⁵ Calculating the monthly average using daily data available on the Barclays Capital website at ecommerce.barcap.com/indices/index.dxml

¹⁶ Daily reference index and indexation coefficient dated 15.05.09 for a 1.5% inflation indexed bond due 15 April 2016 for the date 1.06.09, issued by Finanzagentur GmbH, the German Debt Agency available on its website: www.deutsche-finanzagentur.de/cdn_117/nn_683136/EN/InstitutionalInvestors/GovernmentSecurities/InflationLinkedGGS/InflationLinkedBonds/daily_reference_index_inhalt.html

- 9.78 For evidence on the ERP the Commission has used the Credit Suisse Global Investment Returns Sourcebook 2009 and looked at the evidence from other regulatory decisions in Ireland and the UK. This is consistent with its approach in the past, where its consultants have looked at evidence from studies of actual (ex-post) equity returns and other regulatory decisions. Hutson and Kearney (2005) identified three methods for estimating the ERP: the first uses historical data to calculate the difference in the return between the long-run return on the stock-market index and the return on risk-free bills or bonds; the second uses models incorporating data on fundamental information such as earnings, dividends or economic productivity; and the third relies on analyst surveys.¹⁷ The latter two approaches were rejected because they were respectively difficult to implement in practice and subject to biases associated with trends and fads.
- 9.79 The Credit Suisse Global Investment Returns Sourcebook 2009 estimates the historical equity mean returns relative to bonds was 4.6% for the world, 5% for Europe and 4.4% for Ireland. This study looks at data for 17 countries from 1900 to 2008, including seven European countries from the Euro currency area. The advantage of such a long sample period is that it covers periods of both growth and of decline in equity markets. Shorter sample periods might only cover part of a business cycle, and because equity markets tend to lead this cycle it is possible that a sample covering the period of a rising (or bull) market may well result in an over-estimate of the ERP and vice versa.
- 9.80 The authors of the study, Dimson, Marsh and Staunton, argue that the ERP is smaller than was once thought from a long-run perspective. They suggest that investors can expect a long-run equity premium of between 4.5% and 5%. However, they go on to argue that countries like Ireland and Belgium may be subject to greater risk than others as a result of their banking sectors. Should this be the case, then the ERP may have to reflect the greater country specific risks compared to the average world index. A recent academic paper by DeLong and Magin (2009) also suggested that the ERP may be lower than previously thought, suggesting a figure closer to 4% rather than a historical value of 6%.¹⁸

¹⁷ See Annex 5 to CP2/2005, www.aviationreg.ie

¹⁸ J. Bradford DeLong and Konstantin Magin "The US equity return premium: past, present and future", *The Journal of Economic Perspectives*, Winter 2009, Volume 23(1).

9.81 Recent regulatory decisions in Ireland and the UK looking at the ERP show a range from 3% to 6%, as shown in the table below.

Year	Regulatory decision	Regulator	ERP
2009	Stansted	CAA	3.0 – 5.0%
2009	NERL	CAA	3.0 – 5.0%
2008	Network Rail	ORR	4.5%
2008	Heathrow	CAA	4.5%
2008	Eircom	ComReg	6.0%
2008	Gatwick	CAA	4.5%
2008	Openreach	Ofcom	4.5-4.75%
2007	Gas transmission	CER	4.5%
2007	Gas distribution	CER	4.5%
2007	ATSCs	CAR	5%
2006	Gas transmission	Ofgem	5.2%
2006	Electricity transmission	Ofgem	5.2%
2006	Electricity distribution	Ofreg	4.75%
2006	Electricity transmission	Ofreg	4.75%
2006	Electricity – wholesale market	CER	5.5%

Table 9.19: Equity-risk premia used in recent regulatory decisions in Ireland and the UK

Source: CAA, CAR, CER, ComReg, Ofgem, Ofreg, ORR

9.82 The Commission believes that an ERP within the range of 4%-5% is reasonable. The available evidence suggests that the ERP of 6% that the Commission used in both its 2001 and 2005 airport charges determinations is high. For the 2007 IAA Determination capping ATSC, the Commission assumed an ERP of 5%, a level it has assumed for this draft determination.

Beta

9.83 The risks associated with owning an asset comprise systematic and idiosyncratic (or asset-specific) risks. The equity beta reflects the systematic risk, measuring the covariance between the expected return on the company's stock and the return on the market portfolio. It is usually estimated applying simple time-series regression analysis of the equity's price over time relative to some market index. Because the DAA is not a listed company, in previous determinations the Commission has used evidence relating to movements in BAA's share price as a proxy for the beta (making appropriate adjustments to convert between equity betas and asset betas). BAA operates a number of airports in the UK, including three in London that are subject to a similar regulatory regime as Dublin airport.

9.84 Regulated airports are generally perceived as being riskier than other regulated businesses because of greater risks associated with changes in the volume of demand. The Commission believes that it should place more weight on evidence on betas for other airport companies (including ones not subject to price-cap regulation), rather than other regulated companies. It does not accept Ryanair's argument that capital city airport

facilities face almost zero risk: the findings in Chapter 10 illustrate clearly the extent to which the DAA has been exposed to demand shocks.

- 9.85 Although BAA shares are no longer listed, for the purposes of this draft determination the Commission has continued to have regard to evidence relating to BAA for the purposes of calculating a beta. Specifically, the Commission has reviewed the work undertaken in the UK to estimate betas for BAA as part of the price-cap decisions for Heathrow and Gatwick airports in 2008, and Stansted airport in 2009. The Competition Commission in its 2008 report derived an asset beta for Heathrow and Gatwick airports of 0.47 and 0.52 respectively. For Stansted, which was considered at a later date, the Competition Commission ultimately applied an asset beta of 0.61¹⁹. Stansted was viewed as riskier than Heathrow and Gatwick because of the greater volatility in passenger numbers at Stansted, perceptions that Stansted was more exposed to GDP and oil-price shocks and the greater degree of competition that Stansted faced in comparison to Heathrow and Gatwick.
- 9.86 When considering what weight to attach to the beta estimates quoted above for BAA airports, the Commission is mindful of two important considerations. First, is there evidence that the DAA's exposure to systematic risk has changed in a materially different way to the exposure of the BAA airports? Second, to what extent has the airport sector become more risky since those studies were undertaken?
- 9.87 In 2005 the Commission's consultants identified a number of factors that led them to conclude that the DAA was 20% more risky than BAA. First, the DAA was probably more susceptible to shocks in the Irish economy than BAA was to shocks in the UK economy, coupled with a perception then that the Irish economy was itself riskier than the UK economy. Second, there was uncertainty about the timing of completion of a second terminal at Dublin airport and who would operate it. Finally, the DAA would ultimately become less diversified given the plans to separate Cork and Shannon airports. A similar 20% mark-up might remain appropriate today. There do not appear to be any immediate plans to divest Cork and Shannon airports. Against this, the Irish economy is perhaps riskier than it was in 2005: on 8 June 2009 Ireland had its credit rating cut for the second time in three months by Standard and Poor's (S&P). In 2005, Hutson and Kearney stated that the effect of a minor ratings downgrade might result in a marginal increase in risk to equity investors although the effect on beta was likely to be minor.
- 9.88 Changes in passenger numbers at various airports since 2007 suggests that Dublin airport may be in the middle of the range of airports in terms of how badly passenger numbers have been affected by the economic downturn, as shown in the table below. The volume risk at Dublin airport is perhaps less than at Stansted airport but greater than at Heathrow. This might suggest an asset beta somewhere between the estimates for Heathrow and Stansted. The DAA does not appear to be an outlier amongst airports in terms of its exposure to demand risk.

¹⁹ www.competition-commission.org.uk/rep_pub/reports/2008/fulltext/539aa.pdf

Airport	2007-8	2008-9			
		Jan-Jan	Feb-Feb	Mar-Mar	Apr-Apr
Copenhagen	0.6	-14.3	-18.7	-15.6	-9.6
Girona	13.6	-14.1	-18.3	-20.6	-0.3
Vienna	5.2	-12.1	-16.5	-15.6	-9.5
Stansted	-6.0	-11.2	-16.1	-15.9	-12.6
Gatwick	-2.8	-10.8	-14.3	-17.6	-3.0
Dublin	0.8	-7.9	-11.8	-13.9	-4.5
Paris CDG	1.6	-6.5	-8.8	-9.1	-1.9
Hahn	-1.9	-3.4	-5.1	-11.9	-0.8
Heathrow	1.4	-2.1	-9.5	-7.5	2.6
Charleroi	20.3	19.0	21.4	11.6	29.4

Table 9.20: Annual percentage change in passenger numbers at various European airports

Source: www.aena.aero

- 9.89 There is a perception that the airport business has become riskier following recent turbulence in global economies. S&P viewed the outlook for European airports as being as gloomy as during 2001–2002 as there has been a considerable drop in traffic in many airports.²⁰ ACI in June 2009 reported that while traffic in April 2009 has declined by 4% compared to last year, the falling traffic experienced during the first quarter of 2009 appears to be decelerating.²¹ IATA expected the worst of the economic downturn to be over but added that it had not seen any signs that recovery is imminent.²² While the global economic downturn will affect the airport business, it is difficult to quantify. Recent air disasters, the outbreak of swine flu, growing environmental awareness of carbon footprints and the rise in the price of oil during summer 2008 may all be considered to exacerbate the riskiness of the airport business.
- 9.90 The aviation sector has clearly suffered a significant decline in demand in the last year resulting in some uncertainty about the extent to which investors' perceptions about its exposure to systematic risk has changed. Evidence from moves in share prices for five quoted airports - Auckland, Florence, Frankfurt, Vienna and Aeroport de Paris – suggest an increase in volatility during 2008. However, between August 2007 and September 2008 the UK Competition Commission found little evidence of any change in the asset beta for international airports. Interestingly, four of the five airports shown in the charts experienced their largest share-price fall after September 2008. It is possible that even within the last 8 months, the perceived riskiness of airports has increased.

²⁰ Standard & Poor's industry report card: European Airports' credit quality entering turbulence: fasten your seat belts, February 10, 2009

²¹ ACI press release, 2 June 2009

²² IATA, "Demand decline slows – but no recovery in sight", May 27 2009, <http://www.iata.org/pressroom/pr/2009-05-27-01.htm>

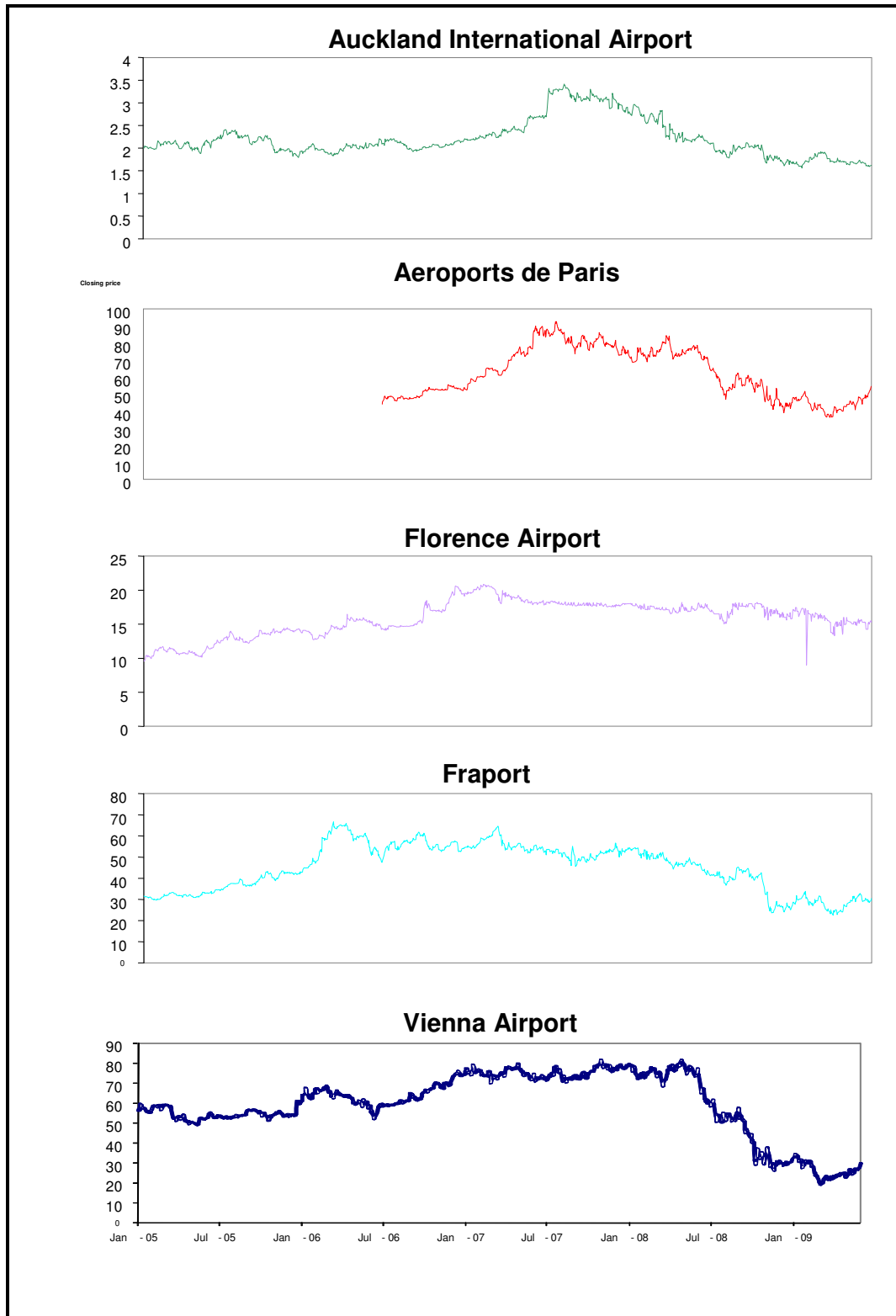


Figure 9.21: Share prices for five airports

Source: www.finance.yahoo.com and www.aeroportsdeparis.fr

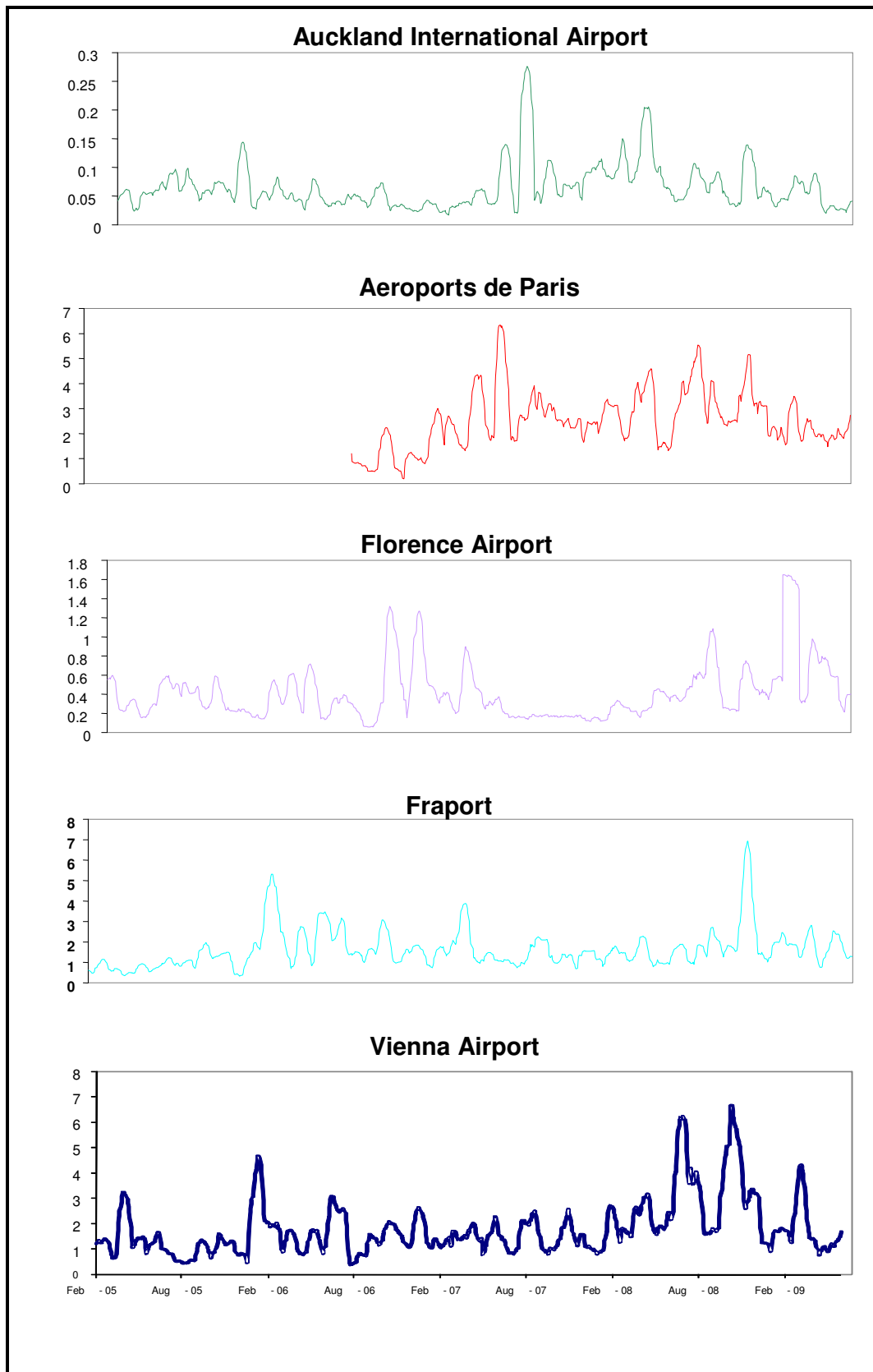


Figure 9.22: Rolling 25-day standard deviation for 5 airports' share prices
Source: www.finance.yahoo.com and www.aeroportsdeparis.fr

- 9.91 The Commission proposes to continue monitoring the evidence relevant for determining the DAA's exposure to systematic risk. It currently believes that a plausible asset beta lies in the range 0.5 to 0.7, and for this draft determination it has used an asset beta of 0.61.

Cost of debt

- 9.92 The cost of debt is a measure of the risk-free rate plus a premium paid to debt holders to reward them for the additional risk associated with corporate debt. The debt premium reflects the likelihood that the company will default on its debt obligations and reflects company and industry specific risk. As in previous determinations for airport charges, the Commission has looked at both the actual cost of debt of the DAA and of comparator companies.
- 9.93 The DAA's long term corporate credit rating was downgraded by S&P on 3 March 2009 from A to A-, with a negative outlook although still within the ratings range for 'investment grade'. S&P stated at the time that it expected the DAA's financial profile to weaken more than previously expected, with decreasing passenger numbers and reduced commercial revenues affecting the DAA's financial position.
- 9.94 In 2001 and 2005, the Commission estimated the cost of debt based on the debt premia facing comparator companies and/or the actual (real) cost of debt, where available. The debt premium in 2005 was estimated at 120 basis points. Adding this to the estimated risk-free rate generated a real cost of debt of 3.7%, the same rate that was used in the 2001 Determination.
- 9.95 Recent events in the financial markets suggest the cost of issuing debt has increased. Data in late May 2009 showed corporate bonds with a ten-year maturity had average yields of 4.24% for AAA-rated bonds, rising to 6.41% for BBB-rated bonds. An A-rated corporate bond, which is a similar rating to the DAA's bond, with ten years to maturity yielded 5.22%. Assuming that in the long term the average rate of inflation will be 2% (the current European Central Bank target rate of inflation), this implies a real cost of debt between 2.2% and 4.4%.

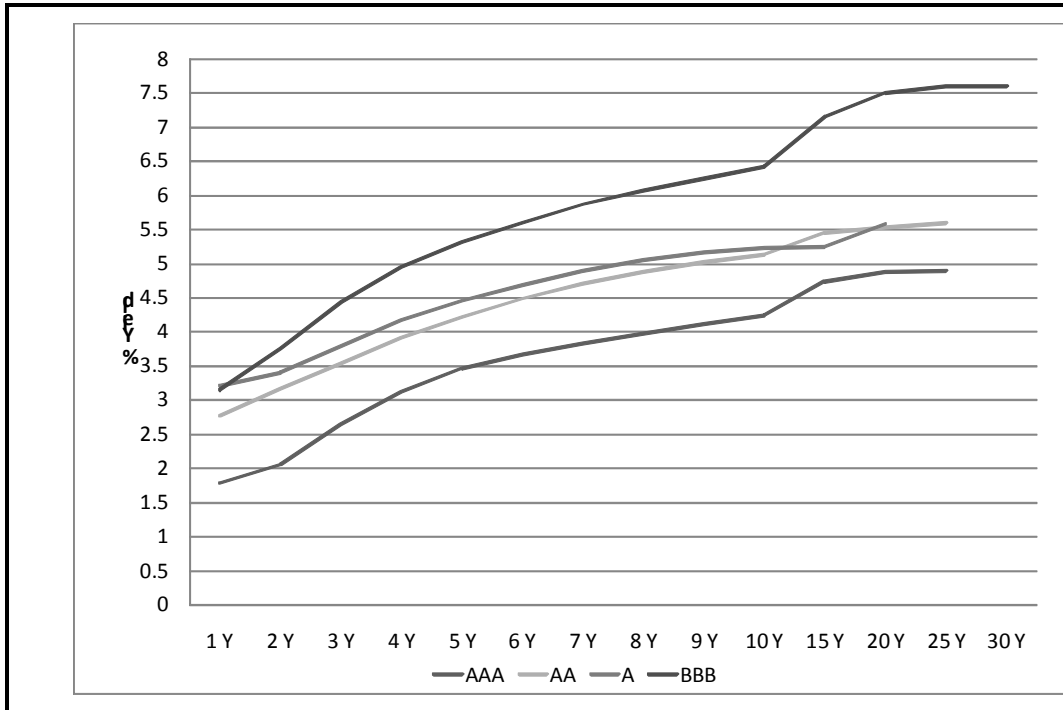


Figure 9.23: Yield spread on corporate bonds for European benchmarks: maturity 1-30 years.

Source: Reuters, 25 May 2009

- 9.96 S&P observed in its March 2009 note that, from a cash-flow perspective, the DAA's exposure to developments in the debt market is limited because nearly all of its debt is arranged on a fixed-rate basis. Aer Lingus argued that the cost of debt should consider the medium term finance that the DAA has in place on pre-credit crunch terms, notwithstanding the fact that the "credit crunch" may have caused some components of the cost of capital to increase, particularly the debt premium. The DAA's €250 million bond issue that is due to expire in 2011 has a coupon of 6.15%, while the €600 million that the DAA secured in funding through the issue of Eurobonds in 2008 carries a coupon rate of 6.59%. Again, using the current ECB target for long-term inflation of 2%, the implied real cost of debt is in the range of 4.1-4.6%.
- 9.97 Based on the evidence available, the Commission considers that an appropriate real cost of debt is in the 3.5%–4.5% range. This compares with the CAA's estimated range of 3.6%–3.9% for Stansted airport in March 2009, based on what a regulated company with an A3/a- rating might pay. For this draft determination, the Commission has assumed a real pre-tax cost of debt of 4.1%. The Commission will continue to monitor developments in the corporate bond market over the coming months prior to publication of a final determination.

Gearing

- 9.98 The gearing determines the weightings attached to the costs of debt and equity for the purposes of calculating the WACC. The Commission has

sought to choose a gearing that is consistent with its assumptions about the cost of debt, i.e. would allow an investment grade.

- 9.99 In 2001, the consultants retained by the Commission advised that the weightings applied to the estimates of the cost of debt and equity in the WACC should ideally be based on the firm's optimal capital structure. In 2005, the Commission's consultants stated that their preferred approach to estimating gearing for the WACC calculation is to use its actual current gearing or its expected average gearing for the forecast period (given it was expected that the DAA's gearing would rise over the regulatory period).
- 9.100 The DAA in its response to the Issues Paper argued that the use of optimal gearing was appropriate since the actual gearing can be hard to estimate and may not represent the capital structure consistent with an efficient level of financing costs. It recommended that the Commission consider the cost of capital the DAA would incur if it raised new finance, since the optimal capital structure will enable the DAA to raise finance as efficiently as possible. In the UK, the assumed gearing of 50% used by both the CAA and Competition Commission for Stansted reflected their judgements about its optimal gearing. This was 10% lower than assumed for Heathrow and Gatwick airports, because of the greater systematic risk at Stansted.
- 9.101 For the draft determination the Commission has assumed a gearing of 50%. In the Issues Paper, the Commission reported that the DAA's gearing level in 2009 using actual forecasts for net debt and net equity amounts to approximately 37%. The Commission has received some evidence about the DAA's borrowing requirements, but uncertainty remains as to the DAA's funding plans for the new regulatory period. It is these plans, rather than any need to fund new investments (given the deferral of most of the post-2010 investment plans) that will likely determine how much new borrowing the DAA undertakes in the next five years, and consequently what its level of gearing will be. This assumes that Cork and Shannon airports remain within the DAA group.

Cost of Capital

- 9.102 The Commission has estimated a pre-tax WACC. To do so it has assumed the current Irish corporate tax rate of 12.5% will remain unchanged throughout the regulatory period. During the April 2009 emergency budget, the Minister for Finance announced that this tax rate would remain unchanged as it was a vital part of Ireland's economic brand.

10. Financial Viability

- 10.1 The economic downturn has had a material effect on the DAA's revenues. This, combined with the completion of a significant investment programme relating to T2, has obvious implications for its FFO-debt ratio.²³ The proposed determination is intended to facilitate improvements in this ratio to levels consistent with an investment credit rating. The DAA will be able to operate and develop the airport in a sustainable and financially viable manner.
- 10.2 In assessing the DAA's financial viability the Commission has sought to be consistent with the approach it has previously followed.
- In making a determination, the Commission is keen to provide a solid foundation for lender confidence. This does not imply that the regulatory regime, and associated price caps, will protect lenders fully against general business risks.
 - The Commission seeks to enable the DAA to maintain an investment grade for its debt for the purposes of operating Dublin airport in a financially viable manner. It is satisfied that an investment grade is sufficient to allow the DAA adequate access to funds. As stated in previous determinations, this does not imply that the Commission must act in such a way as to ensure the DAA receives a single A (or equivalent) credit rating.
 - The profitability and overall debt at the DAA Group level has been analysed.
 - The analysis of financial viability seeks to have regard to all relevant information affecting the financial health of the business, recognising that individual financial ratios only provide a partial picture. At the same time, the Commission does look at these ratios, particularly the FFO-debt ratio which S&P uses when rating DAA debt. In the medium term, the Commission continues to believe a 'threshold' FFO-debt ratio of around 15% is consistent with the DAA being able to operate Dublin airport in a financially viable and sustainable manner.
- 10.3 In the current economic climate, the first bullet point is particularly relevant. The general economic downturn has exposed lenders to many businesses to greater risks. The current levels of debt facing the DAA Group include a significant sum that might be attributed to the DAA's decision to build a large T2 facility in 2007 – at the time of the Interim Review, the Commission concluded that the DAA was spending over €100m more than might be required to meet projected demand levels in the near future. Investors at the time might reasonably be expected to have priced in the risks associated with demand for such a large facility not materialising. The Commission's draft determination has been made with a view to enabling the DAA to operate Dublin airport, but [].

²³ FFO:Debt is the ratio of DAA's 'Funds from Operations' (equal to Group EBITDA, minus tax and interest paid, plus dividends received) to its net debt (equal to gross debt minus 50% of cash).

Indicator	2009	2014	Average 2010-4
FFO-debt	[]%	26%	16%
FFO-interest	[]	5.1	3.4
EBITDA-interest	[]	4.6	3.3
Cash interest cover	[]	2.6	2.8

Table 10.1: Various financial indicators for the DAA Group

Source: DAA, CAR

- 10.4 Two significant factors have had an adverse effect on the DAA's balance sheet. First, the DAA is just completing a significant capital investment program relating to the building of a second terminal. Such an investment inevitably has had an effect on its level of debt and the size of cash holdings. Second, this project's completion has coincided with a significant economic downturn which has had an adverse effect on the DAA's profitability at Dublin airport, and elsewhere within the DAA Group. For example, at the time of the 2007 Interim Review and throughout much of 2008, the DAA was forecasting 50 million passengers at Dublin Airport over the course of 2009 and 2010. Current expectations are now just 42 million, a drop of 16%.
- 10.5 The impact of these events on the DAA's FFO-debt ratio is shown in the chart below, which shows the historic FFO-debt ratio and the projected path thereafter if the assumptions concerning costs and revenues at Dublin airport made in this draft determination apply. The chart assumes that T2 opens in 2011 (and the price cap is adjusted accordingly), but that the T2 operating arrangements have no effect on the DAA's profitability.



Figure 10.2: DAA Group FFO:Debt 2001–14 given proposed price cap and T2 opening in 2011.

Source: DAA, CAR

- 10.6 In the medium term, the DAA’s FFO-debt ratio trends upwards such that by the end of the forthcoming regulatory period the DAA is forecast to be comfortably above 15%. The Commission has not made any adjustments to the DAA’s planned capex programmes at other airports or in any of its subsidiaries. These capex plans are not insignificant: the DAA plans to spend €[]m at Shannon airport between 2009 and 2012. Clearly, if the group was to spend less on capex overall, at least in the short-term, then the forecast ratio would improve in the near term.
- 10.7 Should T2 not open throughout the regulatory period and consequently the price cap not increase in any year to allow the DAA to recover the costs it has incurred building the facility, the DAA’s debt-FFO ratio is still projected to be above 20% by 2014.
- 10.8 The DAA’s regulatory submission to the Commission sought a per passenger opex allowance more than 10% greater than that assumed by the Commission in making the draft determination (using the Commission’s demand forecast and continuing to apply the caveats relating to T2 opex). If the DAA’s opex estimates are correct, then the FFO:debt ratio will take much longer to climb above 15%, as the chart below illustrates.



Figure 10.3: FFO:Debt for different OPEX assumptions

Source: DAA, CAR

- 10.9 As recent events have clearly highlighted, an important risk factor facing the DAA is possible changes in demand. The Commission projects average annual passenger numbers at Dublin Airport of 22 million during the next five years. This is derived from expected 2009 passengers of 21 million (DAA), growing each year by -1.1%, 2%, 3%, 4% and 5% respectively. Figure 10.4 shows the trend in FFO-debt for various demand projections, holding the annual price caps constant. If passenger numbers remain at 2009 levels throughout the 2010-2014 period, the FFO-debt barely reaches 15% by 2014.



Figure 10.4: FFO:Debt for different demand projections

Source: DAA, CAR

Conclusions on SFV

- 10.10 Having evaluated all the materials and applied the economic regulatory policies considered the most appropriate in the current circumstances, the Commission is satisfied that its price-cap decision is consistent with the obligation to enable the DAA to operate and develop Dublin airport in a financially viable manner. The recession has had a significant impact on many companies’ finances, including the DAA. At the time of the 2007 Interim Review the Commission highlighted the sensitivity of the DAA’s cashflows, and therefore financing, to sudden changes in demand, particularly in the context of a large capital programme.²⁴
- 10.11 Recovering from this shock will take time. The Commission believes that the proposed draft determination will allow the DAA to improve its financial position from 2011 onwards, provided it makes adjustments to its cost base. To rely solely on a higher price cap to improve the DAA’s financial well being would not be consistent with protecting the interests of current and prospective users. Such a solution may not even be feasible, since it would require a sizeable one-off increase in prices in 2010 []. There must be some limit to the ability of airlines to assume such cost increases, particularly in the current circumstance where many of them are reporting significant losses. The proposals in this draft determination seek to strike a balance in this regard between the DAA’s financing concerns and the interests of users.

²⁴ See chapter 8, “Draft Decision. Interim Review of 2005 Determination on Maximum Levels of Airport Charges at Dublin Airport”, CP5/2007.

11. Other Issues

11.1 This chapter presents the Commission's proposals on a number of miscellaneous but important issues relating to the determination that were identified in the Issues Paper. To summarise, the Commission has decided:

- To end the sub cap on cargo charges;
- Not to introduce any new sub caps for general aviation;
- To treat the Dublin airport city project, should it proceed, as outside the regulatory till; and
- To revise its approach to how it treats annual deviations between the price cap and what the DAA actually collects in airport charges per passenger.

Cargo

11.2 The draft determination includes no sub caps relating to cargo charges at Dublin airport. Although there currently is such a cap in place, the DAA does not currently levy any cargo-specific charges. Cargo carriers pay runway and, when appropriate, parking charges just like other aircraft operators at the airport.

11.3 In response to the Issues Paper both the DAA and the IAIEC supported ending a sub cap on cargo charges. IAIEC felt it served no useful purpose. The DAA argued that it would be counter-productive for it to discriminate against cargo operations, as such operations facilitate the efficient use of airport infrastructure. The DAA also argued that the sub cap restricted its ability to structure charges at the airport to maximise economic efficiency.

11.4 The Commission does not propose to replace the cargo sub cap with any other treatment specifically relating to cargo in the forthcoming determination. There does not appear to be demand from cargo users for DACC's proposal to deal with potential distortions associated with cargo. DACC suggested excluding revenues earned from cargo operations from the calculation of the price cap but to subject these prices to the same limits on the rate of increase as applied to the passenger yield cap. Ryanair's suggestion that price-cap regulation needed to address the fact that passenger airlines currently cross subsidise cargo services at Dublin airport is not convincing for the following reasons. The regulatory till includes a host of operating and capital costs relating to facilities such as the terminal and piers which are more obviously costs relating to passenger services. Moreover, as the DAA observes, cargo operators often allow better utilisation of facilities at the airport, operating at times when there is otherwise idle capacity.

11.5 Since the Commission does not propose any sub cap relating to cargo charges, the DAA's request for greater clarity concerning the definition of "cargo" for the purposes of the forthcoming determination is moot.

General Aviation

- 11.6 There is no sub cap or any other specific regulatory treatment proposed for general aviation in the draft determination. The available evidence does not suggest that the current price-cap structure creates a significant distortion in the way general aviation and other users are treated at the airport. In these circumstances, the Commission is keen to allow the DAA flexibility when setting the structure of charges.
- 11.7 The DAA's response to the Issues Paper distinguished between different types of general aviation user at the airport, from executive jets to flying schools. These accounted for about 7% of overall movements at Dublin Airport. Currently the DAA is actively discouraging the growth of the operation of pleasure craft at Dublin Airport as such operations are difficult to accommodate in a congested airfield. In contrast, executive jets (business aviation) are accommodated by the DAA as far as practicable. Executive jets are allocated parking stands in a defined area and rates charged are lower than those for commercial aircraft as the specification for the stands are also lower.
- 11.8 The Commission is minded to agree with the DAA that any intervention relating to charge setting for general aviation currently seems disproportionate. For this reason, the Commission has not developed a new charging regime to take account of general aviation's effect on airport capacity, such as a two-part tariff with a fixed minimum charge per aircraft, despite Aer Lingus' suggestion; and nor has it adopted DACC's suggestion to exclude revenues related to general aviation from price cap calculations but limit the rate of increase to that applied to the passenger yield cap.

Dublin Airport City

- 11.9 The regulatory till will not include the costs or revenues associated with Dublin airport city should the project proceed. The Commission has concluded that the project has an insufficient nexus to the regulated business. This conclusion is consistent with the treatment preferred by both the DAA and the airlines.
- 11.10 Dublin airport city is a high-density development announced by the DAA in 2008. It will include commercial offices, retail, industrial, hotels and car parking with the capacity to support upwards of 30,000 jobs. In the Issues Paper the Commission asked for responses about how it should treat any land used in the project that is currently included in the RAB and how it should treat costs already incurred by the DAA relating to Dublin airport city in setting an opex forecast for the next regulatory period. The Commission also asked about the actions, if any, it might take to ring-fence the airport city project from the regulatory till.
- 11.11 Should land, or any other assets, be disposed of as part of the Dublin airport city project, the Commission envisages applying the same principles to the opening RAB for the fourth regulatory period as it would apply to any asset disposal. These principles are set out in Annex 1, which describes the Commission's general policies on RAB roll-forward. The DAA said that it would consult with the Commission in advance of any

extraction of land from the RAB should the project proceed beyond the concept stage. As any details about the project become more developed, the Commission would be happy to provide clearer guidance on how it believes its RAB principles might apply to specific proposals relating to Dublin airport city.

- 11.12 The Commission does not propose “clawing back” any operating costs incurred by the DAA on Dublin airport city in the current regulatory period (2006-2009). If the DAA was able to provide services at the airport for less than the costs estimated by the Commission at the time of the last determination, it is for the DAA and its shareholder to decide how that money is spent. The DAA claimed that its 2005 opex projections included no costs for the project. For the forthcoming determination, the Commission has sought to forecast operating costs (and capital costs) absent any allowance for the Dublin airport city project. The DAA’s accounts identify costs relating to Dublin airport city and these are allocated to a separate till not included in any of the “building blocks”. The calculations in this draft determination are intended to be consistent with the view of both Aer Lingus and Ryanair that management and other costs relating to Dublin airport city should be excluded from the estimates used to derive a price cap.
- 11.13 The DAA and the airlines both appear to support ring fencing the Dublin airport city project. The DAA proposed that Dublin airport city be ring fenced from other projects in a separate legal entity. Aer Lingus and Ryanair advocated ring-fencing the DAA’s costs associated with the development. While the Commission does not have any formal powers to ring fence Dublin airport operations from other parts of the DAA’s operations, it does intend to exclude costs and revenues of Dublin airport city from the “building blocks” used to estimate price caps now and in the future.

Price Cap Compliance

- 11.14 The Commission proposes refining how it treats annual deviations between the price cap and what the DAA actually collects in airport charges per passenger. In particular, the Commission will require any over collection to be refunded to airport users who have paid such airport charges within 45 days of the end of that regulatory year. This is similar to the arrangements during the first determination.
- 11.15 The current regulatory regime includes a correction factor in the price cap formula, such that if the DAA over or under recovered two years previously, the cap will be adjusted accordingly. The DAA supported retaining this system, arguing that uncertainties meant it was not practical to always set individual charges in such a way that its average per passenger yield equated with an annual price cap. Aer Lingus expressed satisfaction with the existing compliance regime, and added that within regulatory period compliance arrangements would be excessively cumbersome and expensive for little or no practical benefit.
- 11.16 While the Commission appreciates the concerns about the uncertainties that may be associated with charges fluctuating within the year, it has concluded that an annual price cap is appropriate for meeting the needs of

current and prospective users' interests. The Commission has not set an average cap for the duration of the regulatory period, but sets the price cap for the first year of the regulatory period and then specifies a formula that reflects the Commission's decision on how prices should evolve in real terms during the regulatory period. While there has been a "k-term" to address deviations between what the DAA collects and the cap, it is not intended that this might give the DAA discretion to ignore the annual cap because of cash flow or other considerations. To avoid such a possibility, the Commission proposes requiring the DAA to refund within 45 days of the regulatory year ending any over collection relative to the cap. This proposal will not require within season changes to individual charges if, as Aer Lingus and the DAA argue, that would be cumbersome or otherwise undesirable, whilst ensuring that ultimately users of the airport in any year are not overcharged relative to the annual price cap.

- 11.17 The "k-term" will continue to apply for years in which the DAA collects less than the price cap, subject to this sum never being more than 5% of the revenues that the DAA was allowed to collect in the year for which it under collected. This is to protect prospective users from an unduly large increase in the price cap from that which was intended. At the same time, the deviation under the cap that is allowed is sufficiently large that the DAA should not normally have to raise charges within the season if it wants ultimately to collect all the revenues allowed by the determination. The Commission would intend that the principle of allowing the DAA to roll forward any under collections into future price-cap calculations should apply in all years, including those at the end of a regulatory period (in this case 2013 and 2014), since the motivation of limiting the need for late changes in individual charges at the airport holds equally in all years.
- 11.18 The compliance exercise will continue to be conducted in a transparent manner, with compliance papers published annually along with the DAA's regulatory accounts. The Commission started publishing the regulatory accounts in 2007, and proposes to continue doing so. Consequently, it concurs with DACC's argument that proper compliance requires proper and adequate transparency. A review of the contents and style of the regulatory accounts that the DAA provides is something that the Commission might review in the coming years.

12. Compliance with Statutory Requirements

12.1 Section 33 of the 2001 Act, as substituted by Section 22(4) of the 2004 Act, sets out the Commission’s statutory objectives, and also the statutory factors to which the Commission must have regard. Previously the Commission has set out its interpretation of these statutory objectives and factors.²⁵ This chapter sets out how the Commission believes that this draft determination complies with the various statutory objectives and factors that apply.

Statutory objectives

12.2 There are three statutory objectives. These must be read together and in light of each other. The Commission remains of the view that the statutory objectives permit the regulation of airport charges imposed at Dublin Airport by the DAA by reference to the economic concepts of productive, dynamic and allocative efficiency. Accordingly, economic efficiency continues to be the driving principle of this determination as it has been for all price-cap determinations since 2001.

12.3 The Commission shows how full consideration has been given to each of the statutory objectives in this draft determination below:

- *to facilitate the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users of Dublin Airport*

12.4 The Commission facilitates the efficient and economic development and operation of Dublin Airport for both current and future users by making a determination that allows the DAA to recover revenues sufficient to meet efficiently incurred costs of operating and developing the airport. Chapters 7 and 9 provide details on how the Commission has determined what capital and operating expenditures to include in its calculations when setting a price cap.

- *to protect the reasonable interests of current and prospective users of Dublin Airport in relation to Dublin Airport*

12.5 The reasonable interests of current and prospective users of Dublin airport are protected by setting a price cap that reflects a reasonable estimate of the costs that need to be recovered to provide the services that current and prospective users require. Relevant to this objective is both a consideration of costs (see Chapters 7 and 9) and also a consideration of what the reasonable interests of current and prospective users might be. To protect users’ reasonable interests, the Commission has set quality of service standards that the DAA must provide (see Chapter 5) and has made a determination that only includes allowances for investment projects that the Commission believes meets the reasonable requirements of current and prospective users (see Chapter 9).

²⁵ See CP2/2005 “Draft determination on maximum level of airport charges” www.aviationreg.ie

- *enable Dublin Airport Authority to operate and develop Dublin Airport in a sustainable and financially viable manner*
- 12.6 Chapter 10 on financial viability sets out why the Commission believes its draft determination enables the DAA to operate and develop Dublin Airport in a sustainable and financially viable manner. The annual price cap is set to allow the DAA to recover all forecast operating costs as well as allowing for some depreciation charges and a return on capital, as measured by the RAB. Those investment costs not fully depreciated during the forthcoming determination will be included in the closing RAB in 2014, with the intention being that such costs should be remunerated through airport charges at later dates.

Statutory factors

- 12.7 There are nine factors to which the Commission must have due regard when making a determination on airport charges. Consideration of each is set out below.
- *the restructuring including the modified functions of Dublin Airport Authority*
- 12.8 Section 33 of the 2001 Act addresses the situation in respect of the proposed restructuring of Cork and Shannon airports. The restructuring has not occurred to date nor has the Commission received any indication that the restructuring of the DAA is likely to occur during the new regulatory period. No issues in respect of restructuring or modified functions have been put to the Commission and therefore it has not had to take this factor into account.
- *the level of investment in airport facilities at Dublin Airport, in line with safety requirements and commercial operations in order to meet the needs of current and prospective users of Dublin Airport*
- 12.9 Chapter 9 sets out how the Commission has assessed the DAA's CIP with a view to ensuring that an efficient level of investment is allowed for the new regulatory period to meet the needs of current and prospective users and in recognition of any safety obligations placed on the DAA.
- *the level of operational income of Dublin Airport Authority from Dublin Airport, and the level of income of Dublin Airport Authority from any arrangements entered into by it for the purposes of the restructuring under the State Airports Act 2004*
- 12.10 Chapter 8 presents the approach taken by the Commission towards commercial revenue at Dublin Airport. The Commission continues to use a single-till approach when determining a cap on airport charges. The Commission has included commercial revenues from Dublin airport in the regulatory till, and sought to set a cap on airport charges such that the DAA will be able to recover sufficient income from these two sources (commercial revenues and airport charges) to recover efficiently incurred costs.

12.11 The Commission is not aware of any income arising from any arrangements entered into by the DAA for the purposes of restructuring under the 2004 Act.

- *Costs or liabilities for which Dublin Airport Authority is responsible*

12.12 There are a number of chapters in this draft determination where the Commission has had regard to the costs or liabilities for which the DAA is responsible. This is most obviously demonstrated in Chapters 7 and 9, where the Commission has regard to the operating and capital costs of the DAA.

- *the level and quality of services offered at Dublin Airport by Dublin Airport Authority and the reasonable interests of the current and prospective users of these services*

12.13 This draft determination includes a service quality monitoring scheme, something not previously included in determinations for airport charges at Dublin airport. Chapter 5 provides details on how the Commission has had due regard to the levels and quality of services at Dublin airport and the reasonable interests of the current and prospective users of these services.

- *Policy statements, published by or on behalf of the Government or Minister of the Government and notified to the Commission by the Minister, in relation to the economic and social development of the State*

12.14 The Commission has to date received no such notifications for the purposes of setting the forthcoming determination. Consequently there are no matters to be taken into account in the draft determination in respect of this factor.

- *the cost competitiveness of airport services at Dublin Airport*

12.15 The Commission believes that this factor must be read in the light of statutory objective (a), which seeks the efficient operation of Dublin Airport. The Commission has taken due regard of this factor when setting its indicative maximum levels of airport charges per passenger, in particular in its bottom-up analysis of the DAA's operating costs.

12.16 In the Issues Paper the Commission noted that the DAA's charges for turning around an Airbus A320, Boeing 737 or Boeing 747 were between 61 and 80% of the average for a sample of 32 airports. While the envisaged determination in the forthcoming period will allow the DAA to charge more than is currently the case, it should not result in the DAA charging substantially more than the average charged at the various airports in that sample.

- *imposing minimum restrictions on Dublin Airport Authority consistent with the functions of the Commission*

12.17 Similar to previous determinations the Commission has sought to minimise restrictions on the DAA consistent with its own statutory functions. By

proposing an overall annual price cap on airport charges, the Commission will be affording a large measure of discretion to the DAA. This determination includes no subcaps, allowing the DAA full discretion to set charges within the confines of an overall price cap. Measures linking the price cap to quality of service standards and investment projects at the airport are designed to protect the interests of current and prospective users, and are necessary if the Commission is to satisfy its statutory objectives.

- *such national and international obligations as are relevant to the functions of the Commission and Dublin Airport Authority*

12.18 For the purposes of making a determination, national and international obligations are only relevant when they affect the functions of the Commission or the DAA.

12.19 In formulating its proposed determination the Commission has had due regard to the DAA's safety and compliance obligations under national law, including the Air Navigation and Transport Acts, 1936 to 1998, as well as legislation relating to the Irish Aviation Authority. It has also had due regard to the particular security, immigration and health and safety requirements that airports are subject to because they are used to enter and exit the State. Those requirements are evolving and could be subject to change during the period of the determination.

12.20 In relation to international obligations, Ireland is a signatory to the Chicago Convention, which has been incorporated into domestic law by the Air Navigation and Transport Act 1946. To the extent that this Treaty creates international and national obligations, the Commission has had due regard to it.

12.21 Separately, Ireland as a Member of the EU, is bound by its laws, and in particular competition rules. The Commission is aware that the EC Directive 2009/12/EC of March 11th 2009 on airport charges will come into effect by 15 March 2011. The directive was published by the Official Journal of the European Union on March 15th 2009, with the objective to set common principles for the levying of airport charges at Community airports. Following this objective a common framework regulating the essential features of airport charges and the way they are set will be established for EC airports whose annual traffic is over five million passenger movements. The directive states that airport charges should be non-discriminatory and a compulsory procedure for regular consultation between airport managing bodies and airport users should be put in place with the possibility for either party to have recourse to an independent supervisory authority whenever a decision on airport charges or the modification of the charging system is contested by airport users. The Commission feels that its current approach towards airport charges regulation fits well with the directive's criteria.

13. Responding to the Draft Determination

13.1 The Commission would like to hear the views of interested parties in relation to the proposals in this draft determination. Respondents are asked to support any views and comments expressed in submissions with relevant evidence.

13.2 Responses should be titled "Response to Airport Charges Draft Decision paper" and sent to

Commission for Aviation Regulation
3rd Floor
Alexandra House
Earlsfort Terrace
Dublin 2.

- By email to info@aviationreg.ie
- By fax to 00-353-1-6611269

13.3 The closing time for receipt of submissions is **5.00pm, 7 August 2009**. To ensure that the Commission acts in a fair, transparent and non-discriminatory manner, the Commission is concerned to ensure that all parties making representations in respect of the determination are clear about the meaning of the deadline set for receipt of such representations and the consequences of failing to meet the deadline.

- Subject, where applicable, to the specific rules set out below, the time of receipt of representations by the Commission, whether in electronic form or otherwise, shall be the time when the representations are actually received at, or in, the offices of the Commission whether sent by post, courier, hand delivery, fax, e-mail or otherwise and all references to "received by the Commission" shall be construed accordingly.
- The onus is on the party making representations to the Commission to ensure that the representations are received by the Commission on or before the deadline.
- The Commission accepts no responsibility and will make no allowances for delays or technical faults, which arise otherwise than as a direct result of an act or omission of the Commission, howsoever caused, and which result in representations being received by the Commission after the deadline or which results in part only of the representation being received by the Commission on or before the deadline.
- Representations, which are received by the Commission after the deadline, will be deemed not to have been received by the Commission and the Commission will not take them into account. If a portion of representations are received by the Commission on or before the deadline and the remaining portion received after the deadline, then only that part received by the Commission on or before the deadline will be taken into account by the Commission. The remaining portion will be deemed not to have been received by the Commission.

- In determining the time at which representation are actually received by the Commission, in accordance with the rules set out in this chapter, the Commission shall use the clock settings, time and date stamps in uses in the offices of the Commission, on its fax machine and on its information systems, as appropriate.
 - The Commission envisages that it may correspond with interested parties who have made submissions for clarification or explanation of their submissions. Such correspondence is not an invitation to make further submissions.
 - Without prejudice to the generality of the foregoing, the following specific rules shall apply to the following situations:
 - a. Post: Representations sent to the Commission by post shall be deemed to have been received by the Commission at the time when they are delivered by An Post to the offices of the Commission, at 3rd Floor, Alexandra House, Earlsfort Terrace, Dublin 2. In the event of any disagreement as to this time, the time at which the Commission received the representations will be deemed to be the time at which the they are delivered by An Post unless the party sending the representations can prove otherwise.
 - b. Courier or hand delivery: Representations sent to the Commission by courier or hand delivery shall be deemed to have been received by the Commission at the time when they are delivered by the courier company or the person effecting the hand delivery to the offices of the Commission, at 3rd Floor, Alexandra House, Earlsfort Terrace, Dublin 2. In the event of any disagreement as to this time, the time at which the Commission received the representations will be deemed to be the time at which the they are delivered by the courier company or the person effecting hand delivery unless the party sending the representations can prove otherwise.
- 13.4 Respondents should be aware that the Commission is subject to the provisions of the Freedom of Information legislation. It is the usual practice to place all submissions received on our website. If submissions contain confidential material, it should be clearly marked as confidential, and a version of the submission should be provided which can be used for publication.
- 13.5 The Commission may also include the information contained in submissions in reports and elsewhere as required. Ordinarily, the Commission does not edit this material. Any party submitting information to the Commission shall have sole responsibility for the contents of such information and shall indemnify the Commission in relation to any loss or damage of whatsoever nature and howsoever arising suffered by the Commission as a result of publication or dissemination of such information either on its website, in its reports or elsewhere.
- 13.6 While the Commission endeavours to ensure that information on its website is up to date and accurate, the Commission accepts no responsibility in relation to and expressly excludes any warranty or

representations as to the accuracy or completeness of the contents of its website.

ANNEX 1: Principles for RAB Roll Forward

- A1.1 Because one of the cost building blocks for the price-cap calculation is a return on existing assets, the opening RAB at the beginning of a regulatory period is one of the determinants of the price-cap level throughout the entire period.
- A1.2 This annex sets out the Commission’s current thinking on the principles to apply when rolling forward the RAB from one regulatory period to the next. The current determination has sought to apply such principles in setting the opening RAB, and in 2014 the Commission expects to apply these same principles then. By setting out its principles to RAB roll forward, the Commission expects that this will allow the DAA to make investment plans with greater certainty about the likely regulatory outcome. The Commission does not propose to revisit past determinations to ensure that they always followed the same principles outlined in this annex.
- A1.3 There are two fundamental issues that need to be considered in rolling-forward the RAB from one regulatory period to the next:
- On what basis will the RAB be re-valued going forward?
 - How will the value of the opening RAB from the beginning of one regulatory period to the next be adjusted for (i) depreciation, (ii) new investment and (iii) any changes to the value of assets in the existing asset base.
- A1.4 Before answering either of these questions, it is appropriate first to clarify exactly what the RAB is and its role in the overall regulatory process. It is a valuation of the DAA’s asset base designed solely for the purposes of making a determination in a manner consistent with the Commission’s statutory objectives (including enabling the DAA to operate the airport in a sustainable and financially viable manner and to undertake investments that meet the reasonable interests of current and prospective users). It is not a fixed-asset account and there should be no expectation that it will always correspond to fixed-asset accounts retained by other parties, for example the DAA’s own fixed asset register.

Valuation basis of the starting RAB

- A1.5 There are a range of approaches to valuing a regulated company’s asset base, as shown in Table A1.1. These can be categorised as cost-based and value-based approaches.

Cost-based	Value-based
<ul style="list-style-type: none"> ▪ Historic cost ▪ Indexed historic cost ▪ Replacement cost ▪ Depreciated optimised replacement cost 	<ul style="list-style-type: none"> ▪ Fair market value ▪ Net present value ▪ Deprival value ▪ Optimised deprival value

Table A1.1: Methodologies for valuing the Regulatory Asset Base

- A1.6 The Commission favours using indexed historical costs when valuing the RAB. Combining this methodology with a real cost of capital means that the real value of the (allowed) historical cost of a given investment is returned to the DAA over the lifetime of the asset in net present value terms.
- A1.7 The approach has a number of attractive features. It is relatively simple and straight forward to apply. It minimises the need for subjective inputs from the regulator or regulated company, and is therefore arguably more transparent than some other methods. It creates considerable certainty. Once an asset’s costs have been allowed into the RAB the regulated company knows that future determinations will be set sufficient to allow it to recover these costs (in real terms). There is no need to revisit such decisions at the time of each determination.
- A1.8 The Commission will use the consumer price index to revalue the RAB. As with the IHC method, this has the attraction of being relatively simple to implement. Should the Commission use a different price index (or cease to use any index approach), this would have implications for the cost of capital used to calculate a price cap. For example, if the Commission switched to an historic-cost approach (no indexing), it would apply a nominal cost of capital instead of the (ordinarily lower) real cost of capital that it has applied to date.

Adjusting the RAB for depreciation, new investment and disposals

- A1.9 Changes in the opening RAB from one period to the next reflect the impact of three factors:
- 1) Depreciation
 - 2) New investment
 - 3) Changes to the value of assets in the existing asset base, including, for example, the sale of existing assets.

Depreciation

- A1.10 At the start of a multi-year regulatory period, the Commission sets a depreciation allowance for each year. This allowance is set having regard to the starting RAB and any expected new investment over the forthcoming regulatory period.

- A1.11 The depreciation profile will reflect policy judgements by the Commission, made to ensure it meets its statutory objectives. As a general rule, the Commission will favour depreciation profiles that avoid the potential for significant spikes in the annual price cap depending on where in the investment cycle Dublin airport is at the time of a determination. The depreciation charges may not correspond to those that the DAA applies in preparing its statutory and regulatory accounts.
- A1.12 At the next determination, should the DAA have undertaken investments at the costs allowed at the time of the previous determination and not disposed of any assets, then the opening RAB in the following regulatory period will simply be net of cumulative expected depreciation in the preceding period, up-rated for inflation. If, however, an asset in the RAB is sold or outturn capex does not evolve in-line with the Commission's expectations, then the opening RAB at the beginning of the following period may need to include a capitalised adjustment to reflect this divergence.
- A1.13 Whether there is an ex post adjustment to the depreciation profile, and the extent of any such adjustment, will depend on the reasons for the divergence. This is the focus of the next two sections.

New investment

- A1.14 Much-like the depreciation allowance, at the start of each multi-year regulatory period the Commission sets a capex allowance for each year of that period. If, at the end of the period, actual capex has not evolved as expected, the Commission may be required to make a capitalised adjustment to the opening RAB in the following regulatory period. As noted above, there will need to be an accompanying adjustment to reflect differences in the depreciation profile also.
- A1.15 Whether the adjustment in the rolled-forward RAB is positive, negative or zero depends on the underlying *reason* for the differences in capex outturn versus *ex ante* expectations. There are a number of situations which may give rise to a divergence over a regulatory period in actual capex versus allowed capex (allowed in the sense that the preceding determination took a sum of capex into account for the purposes of making a determination).
- A1.16 When assessing outturn versus allowed capex, the Commission will often look at classes of capex. This is to allow the DAA flexibility to manage the airport and respond to evolving needs during a regulatory period without unnecessary regulatory uncertainty about how changes in its capex plans may be treated at the next determination. For large, specific projects (such as a new terminal) the Commission will look at what it allowed and what was spent to deliver this specific output. In other cases, the Commission may instead set a general allowance for a class of capex without making it conditional on the DAA delivering any specific investment. So if the Commission allows €40m for stands and airfield projects, at the next determination it will review the reasons why the DAA's out-turn capex on such projects was not €40m. If the €40m was based on a number of projects in the DAA's CIP, the Commission may not seek to understand why each of those individual projects did not cost exactly as much as was projected if, in aggregate, the DAA's spent €40m

and it conducted all the stands and airfield works expected when the capex allowance was made.

A1.17 The Commission’s principles for rolling-forward the RAB under various scenarios are presented in the table below.

<p>Scenario 1 - The investment delivers the expected outputs, but at a <u>lower</u> cost than allowed.</p>
<p>The regulated company may realise efficiency savings on given projects for a variety of reasons, both internal to the company itself (i.e. management efficiencies) or external to the company (e.g. a general fall in construction costs).</p> <p>Ordinarily, the Commission envisages the DAA retaining any such cost savings until the next determination. At that date, the opening RAB will include a forward-looking capitalised adjustment to reflect project outturn costs. There will, however, be no clawback of the historic cost-savings realised by the regulated company. For some investments, the Commission may indicate that it will defer reconciling actual versus allowed capex until a later date, to increase the incentives for the DAA to realise savings and/or because the investment spans a number of regulatory periods making it difficult to reconcile allowed and actual spend at an earlier date.</p>
<p>Scenario 2 - The investment delivers the expected outputs, but at a <u>higher</u> cost than allowed.</p>
<p>As well as efficiency savings, there is also the potential for projects to come in over budget. The ex-post treatment of such costs will depend on the reasons for the project coming in over-budget.</p> <p>If the investment is over-budget as a result of changes in user requirements over time, then the Commission would propose that such costs enter the RAB from the beginning of the following price control period, including an adjustment to allow for the return on this additional capital that the previous determination did not include. The Commission would expect supporting evidence from the DAA demonstrating that users were aware that the changes would result in higher costs and that the generality of users supported the changed specification.</p> <p>If the over-budgeting results from factors strictly outside of the regulated company’s control, e.g. changes in planning contributions or unforeseen environmental costs, then the Commission will allow such costs into the RAB from the beginning of the next price control period.</p> <p>Finally, if the evidence suggests that the over-budgeting is because of factors clearly within the control of the company, e.g.</p>

mismanagement of the project or changes in specification without adequate user consultation, then the Commission will not allow the costs into the RAB in the future.

When making a determination, both users and the DAA will have the opportunity to comment on the extent to which additional costs were or were not outside of the DAA's control.

Scenario 3 – The investment is not made and consequently anticipated outputs are *not* delivered.

Under this scenario the Commission would clawback all of the related capital costs through a one-off adjustment to the opening RAB at the beginning of the following price control period.

Scenario 4 – The investment does not deliver the outputs envisaged at the time of the original capex allowance, but instead yields a number of other outputs.

If the 'unplanned' outputs met the reasonable interests of users, and there is evidence of consultation with users on such, the Commission would be inclined to allow such costs into the RAB. There would be no adjustment to the opening RAB at the beginning of the following regulatory period. (The Commission may review its decisions about what depreciation profile to assume for future determinations if, for example, the revised investment has a markedly different asset life.)

If the investment yields outputs that did not meet the requirements of airport users (and for which the evidence did not suggest adequate consultation with the users had taken place), the Commission would follow the same approach outlined in scenario 3. It would clawback all the related capital costs through a one-off adjustment to the opening RAB at the beginning of the following price control period. Investments on outputs without a sufficient nexus to the airport would necessarily be deemed not to have met airport users' needs.

When making a determination, both users and the DAA will have the opportunity to comment on whether the revised outputs met users' requirements. While the Commission will look for evidence of adequate consultation, this should not be interpreted as granting individual users a 'veto' over the DAA's ability to alter its capex plans. Evidence of consultation is one (important) piece of evidence the Commission will seek when looking for evidence that the revised investment met users' requirements and the costs should remain in the RAB.

Scenario 5 – The investment was abandoned prior to completing all the work, such that some outputs were not delivered.

For allowed capex that remains unspent, the same approach as in scenario 3 applies: the Commission would clawback all of the related capital costs through a one-off adjustment to the opening RAB at the beginning of the following price control period.

For capex already incurred, the Commission would normally expect to allow the costs to remain in the RAB. This is despite the fact that the investment may ultimately have failed to deliver a beneficial output to users. The Commission believes that this approach provides better incentives for efficient investment decisions than alternatives such as disallowing all the costs. In particular, it avoids providing incentives for the DAA to complete projects when changing circumstances mean that the remaining costs exceed the net benefits of the project. It also allows the Commission to set a lower cost of capital than might otherwise be the case, since there is no need to compensate the DAA for the risk of obsolescence between the start and completion date for an investment.

The proposed approach provides the long-term regulatory commitment that is necessary if the DAA is to undertake large long lived investments at the airport. It is arguably consistent with the treatment that would arise if the DAA were to enter into long-term contracts with airport users to undertake infrastructure investments.

Changes in the value of existing assets in the RAB

A1.18 Finally, the Commission envisages two possible scenarios where changes in the value of existing assets might have implications for the RAB when rolling it forward. There are discussed in the following table and, following from the previous table, presented as Scenarios 6 and 7. In both scenarios it is assumed that parties act in good faith, and that decisions affecting assets currently in the RAB are not made merely to achieve a more favourable regulatory outcome.

Scenario 6 – An existing asset in the RAB becomes obsolete before the end of its assumed asset life.

'Obsolete' in this context means that, for whatever reason, airport users no longer get use from or the benefit of the asset in question. This could arise for a variety of reasons, such as shifts in demand patterns or new investment decisions by the regulated company that affect existing assets.

The Commission proposes a similar approach to that outlined in scenario 5. It will not normally reverse an earlier decision to remunerate investments just because of changed circumstances. If the investment was considered to represent efficient and economic development when it was made, then the DAA needs to know before undertaking the investment that the Commission will not subsequently reverse its decision and disallow the recovery of such costs. To adopt a different approach would require corresponding adjustments to the way that the Commission sets the cost of capital.

Similarly, the Commission will not revise the RAB upwards in instances where an investment has a longer asset life than expected. Users will benefit from an asset that has a zero value in the RAB.

Where the DAA undertakes a new investment that makes an existing asset in the RAB obsolete, it is assumed that the new investment was only allowed into the RAB because it provided a net benefit to users.

Scenario 7 – An existing asset in RAB is sold by the regulated company to a third party at a value that is different to the current/remaining value in the RAB.

Assets in the RAB can be sold by the regulated company at either a value less than, equal to or greater than the value currently attributed to that asset in the RAB. In all three cases the Commission proposes that the rolled-forward RAB reflect the sale value of the asset. This will apply whether the third party is independent of the DAA, or is part of the DAA group outside the regulated entity.

For assets sold at *less than* the value in the RAB, the issues are similar to those for obsolete assets as described in scenarios 5 and 6. The Commission believes that the proposed treatment here should be consistent with the proposed treatment under each of these scenarios. Therefore, while the opening RAB would include a capitalised adjustment for the sale price (including clawback), the 'obsolete' element of the historical investment would remain in the RAB for the remainder of the asset life.

For assets sold at the value in the RAB, the Commission proposes that the opening RAB at the next price control period reflect the value of the transaction, including a capitalised adjustment to repay

remunerated capital costs for the asset since the date of sale.

For assets sold at a price higher than the value in the RAB, the Commission proposes that the opening RAB at the next price control period include a capitalised adjustment for the value of the asset in the RAB at the time of the sale, including clawback for capital costs remunerated since the date of sale. The excess, with no claw back, will be netted from the RAB. This provides the DAA with an incentive to seek the highest sale price possible, while sharing the benefits between the DAA and users.

In all cases, as part of the next determination the Commission would independently review the asset sale to satisfy itself that the DAA realised a sale price at or close to prevailing market prices.

The proposed approach to assets sales is symmetric. Airport users share from any gains or losses that are realised by such sales. Alternative treatments might create distorted incentives. For example, allowing the DAA to retain all of the revenues from selling an asset for a price that exceeds its value in the RAB might encourage the DAA to appropriate the net present value of a stream of commercial revenues. In a single-till environment, such revenues would have resulted in lower airport charges. By adjusting the RAB accordingly, the expected airport charges will be the same whether the sale occurs or not.

ANNEX 2: Modelling results for traffic and commercial revenues**Passenger forecasts (1997–2008)**

Long-run model	coefficient	std. error	t-ratio	p-value	
const	4.44342	0.360695	12.32	2.30E-15	***
GDP	1.01094	0.034608	29.21	4.56E-29	***
Quarter=1	-0.0928411	0.014887	-6.236	1.99E-07	***
Quarter=1	0.164966	0.014862	11.1	6.29E-14	***
Quarter=1	0.331384	0.014848	22.32	1.49E-24	***
Year=2006, 2007	0.127808	0.018143	7.044	1.43E-08	***
Year=2008	0.178099	0.022361	7.965	7.42E-10	***
Mean dependent var	15.17999		S.D. dep. var	0.312085	
Sum squared resid	0.054219		S.E. reg.	0.036365	
R-squared	0.988156		Adjusted R-sq	0.986422	
F(6, 41)	570.0954		P-value(F)	7.60E-38	
Log-likelihood	94.75299		Akaike crit.	-175.506	
Schwarz criterion	-162.4076		Hannan-Quinn	-170.556	
rho	0.251651		D-W	1.460032	

Differenced	coefficient	std. error	t-ratio	p-value	
const	2.48713	0.825908	3.011	0.0046	***
Change GDP	0.435574	0.254911	1.709	0.0957	*
Pax (t-1)	-0.539181	0.159794	-3.374	0.0017	***
GDP (t-1)	0.522181	0.166124	3.143	0.0032	***
Quarter=1	0.07969	0.058755	1.356	0.183	
Quarter=1	0.362465	0.069493	5.216	6.75E-06	***
Quarter=1	0.410874	0.030253	13.58	3.68E-16	***
Year=2006, 2007	0.078479	0.024661	3.182	0.0029	***
Year=2008	0.0828448	0.037951	2.183	0.0353	**
Mean dependent var	0.020314		S.D. dep. var	0.237132	
Sum squared resid	0.041212		S.E. reg.	0.032932	
R-squared	0.984067		Adjusted R-sq	0.980713	
F(6, 41)	293.38		P-value(F)	1.03E-31	
Log-likelihood	98.73034		Akaike crit.	-179.461	
Schwarz criterion	-162.8094		Hannan-Quinn	-173.195	
rho	-0.011141		D-W	2.001037	

Direct retail revenues (2001–2008)

Long-run model	coefficient	std. error	t-ratio	p-value	
const	9.19853	0.765208	12.02	8.85E-20	***
Passengers	0.0887941	0.110363	0.8046	0.4234	
Retail Sales (CSO)	0.996143	0.179138	5.561	3.27E-07	***
Month = 2	0.128131	0.0316543	4.048	0.0001	***
Month = 3	0.306344	0.0378783	8.088	4.69E-12	***
Month = 4	0.276351	0.0391237	7.064	4.83E-10	***
Month = 5	0.467684	0.0491541	9.515	6.83E-15	***
Month = 6	0.505736	0.0572971	8.827	1.59E-13	***
Month = 7	0.509155	0.067457	7.548	5.45E-11	***
Month = 8	0.531901	0.0670224	7.936	9.35E-12	***
Month = 9	0.545977	0.05671	9.628	4.08E-15	***
Month = 10	0.42896	0.0477156	8.99	7.54E-14	***
Month = 11	0.281775	0.0336521	8.373	1.27E-12	***
Month = 12	0.432324	0.0325117	13.3	3.61E-22	***
Mean dependent var	15.58576		S.D. dep. var	0.235125	
Sum squared resid	0.315609		S.E. reg.	0.062039	
R-squared	0.939906		Adjusted R-sq	0.930379	
F(6, 41)	98.65645		P-value(F)	2.40E-44	
Log-likelihood	138.2266		Akaike crit.	-248.453	
Schwarz criterion	-212.5524		Hannan-Quinn	-233.942	
rho	0.59172		D-W	0.774596	

Differences	coefficient	std. error	t-ratio	p-value	
const	-3.51949	0.820523	-4.289	4.97E-05	***
Change retail sales (CSO)	-0.188876	0.277321	-0.6811	0.4978	
Retail sales DAA (t-1)	0.320487	0.0825919	3.88	0.0002	***
Retail sales CSO (t-1)	-0.370596	0.103144	-3.593	0.0006	***
Dmonth_2	0.530027	0.0249704	21.23	1.31E-34	***
Dmonth_3	0.521774	0.0388101	13.44	3.17E-22	***
Dmonth_4	0.307354	0.0366838	8.378	1.46E-12	***
Dmonth_5	0.448613	0.054966	8.162	3.90E-12	***
Dmonth_6	0.284695	0.0583406	4.88	5.32E-06	***
Dmonth_7	0.251856	0.0573627	4.391	3.43E-05	***
Dmonth_8	0.255852	0.0582791	4.39	3.43E-05	***
Dmonth_9	0.251507	0.0552478	4.552	1.87E-05	***
Dmonth_10	0.126082	0.0549665	2.294	0.0244	**
Dmonth_11	0.126855	0.0442261	2.868	0.0053	***
Dmonth_12	0.479911	0.0360509	13.31	5.49E-22	***
Mean dependent var	0.006704		S.D. dep. var	0.175375	
Sum squared resid	0.157927		S.E. reg.	0.044431	
R-squared	0.945375		Adjusted R-sq	0.935815	
F(6, 41)	98.89452		P-value(F)	2.11E-44	
Log-likelihood	169.177		Akaike crit.	-308.354	
Schwarz criterion	-270.0459		Hannan-Quinn	-292.875	
rho	-0.104262		D-W	2.201808	

Concession retail revenues (2001–2008)

Long-run model	coefficient	std. error	t-ratio	p-value	
const	-3.27235	1.25069	-2.616	0.0146	**
GDP	1.74077	0.118886	14.64	4.53E-14	***
Quarter=1	0.0947405	0.0507167	1.868	0.0731	*
Quarter=1	0.296422	0.0508057	5.834	3.78E-06	***
Quarter=1	0.0531725	0.0508908	1.045	0.3057	
Year=2008	0.137235	0.0597469	2.297	0.0299	**
Mean dependent var	15.23969		S.D. dep. var	0.35309	
Sum squared resid	0.267347		S.E. reg.	0.1014	
R-squared	0.930827		Adjusted R-sq	0.91752	
F(6, 41)	69.97364		P-value(F)	3.04E-	
Log-likelihood	31.15304		Akaike crit.	-50.306	
Schwarz criterion	-41.51167		Hannan-Quinn	-47.391	
rho	15.23969		D-W	0.35309	

Differences	coefficient	std. error	t-ratio	p-value	
const	-5.09192	1.15971	-4.391	0.0002	***
Change in GDP	0.705066	0.610891	1.154	0.2603	
DAA concession	-1.18144	0.163453	-7.228	2.34E-07	***
GDP (t-1)	2.17265	0.30004	7.241	2.27E-07	***
Quarter=1	0.115546	0.0416812	2.772	0.0108	**
Quarter=1	0.33991	0.0428405	7.934	4.94E-08	***
Quarter=1	0.123651	0.0623036	1.985	0.0592	*
Year=2008	0.103403	0.056943	1.816	0.0824	*
Mean dependent var	0.025168		S.D. dep. var	0.216933	
Sum squared resid	0.143489		S.E. reg.	0.078985	
R-squared	0.898364		Adjusted R-sq	0.867432	
F(6, 41)	29.04265		P-value(F)	5.72E-10	
Log-likelihood	39.33289		Akaike crit.	-62.6658	
Schwarz criterion	-51.19388		Hannan-Quinn	-58.9262	
rho	0.025168		D-W	0.216933	

Car parking revenues (2001–2008)

Long-run model	coefficient	std. error	t-ratio	p-value	
const	0.676934	0.783303	0.8642	0.39	
Passengers	1.00488	0.0566897	17.73	8.79E-30	***
Month = 2	-0.0509303	0.0391284	-1.302	0.1967	
Month = 3	-0.109097	0.0406926	-2.681	0.0089	***
Month = 4	-0.136599	0.0411464	-3.32	0.0013	***
Month = 5	-0.165949	0.0440362	-3.768	0.0003	***
Month = 6	-0.145628	0.0468887	-3.106	0.0026	***
Month = 7	-0.113096	0.0506249	-2.234	0.0282	**
Month = 8	-0.184062	0.050555	-3.641	0.0005	***
Month = 9	-0.115121	0.0469975	-2.45	0.0164	**
Month = 10	-0.117447	0.0442187	-2.656	0.0095	***
Month = 11	-0.0794702	0.0400072	-1.986	0.0503	*
Month = 12	-0.252374	0.0396581	-6.364	1.07E-08	***
Year = 2008	-0.229296	0.0316048	-7.255	2.04E-10	***
Mean dependent var	14.74422		S.D. dep. var	0.239537	
Sum squared resid	0.499545		S.E. reg.	0.078051	
R-squared	0.908356		Adjusted R-sq	0.893827	
F(6, 41)	62.52044		P-value(F)	6.52E-37	
Log-likelihood	116.1853		Akaike crit.	-204.371	
Schwarz criterion	-168.4698		Hannan-Quinn	-189.859	
rho	14.74422		D-W	0.239537	

Differences	coefficient	std. error	t-ratio	p-value	
const	0.376904	0.589352	0.6395	0.5243	
Change in passengers	0.556404	0.178639	3.115	0.0026	***
Car Parking Revenues (t-1)	-0.308547	0.0799335	-3.86	0.0002	***
Passengers (t-1)	0.307468	0.0915973	3.357	0.0012	***
Month = 2	-0.157964	0.0355703	-4.441	2.88E-05	***
Month = 3	-0.134414	0.0445145	-3.02	0.0034	***
Month = 4	-0.178122	0.0321247	-5.545	3.77E-07	***
Month = 5	-0.142113	0.0417171	-3.407	0.001	***
Month = 6	-0.115167	0.0396486	-2.905	0.0048	***
Month = 7	-0.0911707	0.0425897	-2.141	0.0354	**
Month = 8	-0.234706	0.0371516	-6.318	1.46E-08	***
Month = 9	-0.162903	0.0379483	-4.293	4.97E-05	***
Month = 10	-0.208782	0.0359766	-5.803	1.29E-07	***
Month = 11	-0.221566	0.0456375	-4.855	5.96E-06	***
Month = 12	-0.340337	0.0309237	-11.01	1.29E-17	***
Year = 2008	-0.0929367	0.0281354	-3.303	0.0014	***
Mean dependent var	0.002041		S.D. dep. var	0.133871	
Sum squared resid	0.251479		S.E. reg.	0.056421	
R-squared	0.850721		Adjusted R-sq	0.822376	
F(6, 41)	30.01392		P-value(F)	1.94E-26	
Log-likelihood	147.0788		Akaike crit.	-262.158	
Schwarz criterion	-221.2955		Hannan-Quinn	-245.646	
rho	0.002041		D-W	0.133871	

Property concessions (2002–2008)

Long-run model	coefficient	std. error	t-ratio	p-value	
const	-1.61115	1.89235	-0.8514	0.3975	
Passengers	1.12875	0.136552	8.266	5.91E-12	***
Month = 2	-0.0431094	0.0871723	-0.4945	0.6225	
Month = 3	-0.189997	0.090749	-2.094	0.0399	**
Month = 4	-0.195974	0.0918489	-2.134	0.0364	**
Month = 5	-0.336199	0.0990741	-3.393	0.0011	***
Month = 6	-0.417255	0.106039	-3.935	0.0002	***
Month = 7	-0.533818	0.115195	-4.634	1.61E-05	***
Month = 8	-0.678591	0.115254	-5.888	1.23E-07	***
Month = 9	-0.360005	0.105932	-3.398	0.0011	***
Month = 10	-0.338844	0.0994104	-3.409	0.0011	***
Month = 11	-0.16265	0.0891963	-1.824	0.0725	*
Month = 12	-0.156731	0.0884797	-1.771	0.0808	*
Year = 2008	-0.257723	0.0679278	-3.794	0.0003	***
Mean dependent var	14.07516		S.D. dep. var	0.220243	
Sum squared resid	1.853559		S.E. reg.	0.162725	
R-squared	0.539613		Adjusted R-sq	0.454112	
F(6, 41)	6.311224		P-value(F)	1.09E-07	
Log-likelihood	40.98495		Akaike crit.	-53.9699	
Schwarz criterion	-19.93846		Hannan-Quinn	-40.2896	
rho	14.07516		D-W	0.220243	

Differences	coefficient	std. error	t-ratio	p-value	
const	-1.75199	2.00264	-0.8748	0.3848	
Change in passengers	0.31596	0.552845	0.5715	0.5696	
Property concession revenue (t-1)	-0.954322	0.138023	-6.914	2.16E-09	***
Passengers (t-1)	1.0927	0.216847	5.039	3.78E-06	***
Month = 2	-0.00830607	0.0976586	-0.0851	0.9325	
Month = 3	-0.0686876	0.130449	-0.5265	0.6002	
Month = 4	-0.168276	0.100039	-1.682	0.0972	*
Month = 5	-0.223509	0.130288	-1.716	0.0909	*
Month = 6	-0.328243	0.129971	-2.526	0.0139	**
Month = 7	-0.432726	0.143595	-3.014	0.0036	***
Month = 8	-0.661879	0.138234	-4.788	9.67E-06	***
Month = 9	-0.427405	0.154537	-2.766	0.0073	***
Month = 10	-0.402292	0.121389	-3.314	0.0015	***
Month = 11	-0.321155	0.147617	-2.176	0.0331	**
Month = 12	-0.172235	0.0937369	-1.837	0.0706	*
Year = 2008	-0.256308	0.0751085	-3.413	0.0011	***
Mean dependent var	-0.001168		S.D. dep. var	0.209267	
Sum squared resid	1.778859		S.E. reg.	0.162942	
R-squared	0.504633		Adjusted R-sq	0.39373	
F(6, 41)	4.550218		P-value(F)	7.44E-06	
Log-likelihood	41.70714		Akaike crit.	-51.4143	
Schwarz criterion	-12.71284		Hannan-Quinn	-35.8662	
rho	-0.001168		D-W	0.209267	

Property rental (2001–2008)

Long-run model	coefficient	std. error	t-ratio	p-value	
const	3.99388	1.1143	3.584	0.0006	***
Passengers	0.720929	0.0806544	8.938	1.28E-13	***
Month = 2	-0.0312888	0.0622314	-0.5028	0.6165	
Month = 3	-0.201727	0.0642299	-3.141	0.0024	***
Month = 4	-0.162159	0.0648125	-2.502	0.0144	**
Month = 5	-0.308094	0.0685487	-4.495	2.36E-05	***
Month = 6	-0.351287	0.0743104	-4.727	9.76E-06	***
Month = 7	-0.35641	0.0772101	-4.616	1.49E-05	***
Month = 8	-0.372568	0.0771173	-4.831	6.54E-06	***
Month = 9	-0.331101	0.0724197	-4.572	1.76E-05	***
Month = 10	-0.21152	0.0687861	-3.075	0.0029	***
Month = 11	-0.110764	0.0633524	-1.748	0.0843	*
Month = 12	-0.388618	0.0655058	-5.933	7.50E-08	***
Year = 2006	0.00745567	0.0401588	0.1857	0.8532	
Year = 2007	-0.0996944	0.0443233	-2.249	0.0273	**
Mean dependent var	13.95286		S.D. dep. var	0.185762	
Sum squared resid	1.218655		S.E. reg.	0.124202	
R-squared	0.620264		Adjusted R-sq	0.552969	
F(6, 41)	9.217085		P-value(F)	1.34E-11	
Log-likelihood	70.86049		Akaike crit.	-111.721	
Schwarz criterion	-73.57155		Hannan-Quinn	-96.3114	
rho	13.95286		D-W	0.185762	

Differences	coefficient	std. error	t-ratio	p-value	
const	3.26366	1.24009	2.632	0.0103	**
Change in passengers	1.03283	0.408269	2.53	0.0135	**
Property rent rev(t-1)	-0.843803	0.113314	-7.447	1.43E-10	***
Passengers (t-1)	0.619748	0.116088	5.339	9.88E-07	***
Month = 2	-0.0982016	0.0839222	-1.17	0.2457	
Month = 3	-0.296573	0.102765	-2.886	0.0051	***
Month = 4	-0.192617	0.0738375	-2.609	0.011	**
Month = 5	-0.37722	0.0949721	-3.972	0.0002	***
Month = 6	-0.39059	0.090186	-4.331	4.60E-05	***
Month = 7	-0.404841	0.0960069	-4.217	6.93E-05	***
Month = 8	-0.374119	0.0794657	-4.708	1.14E-05	***
Month = 9	-0.297973	0.0831971	-3.582	0.0006	***
Month = 10	-0.186721	0.0790096	-2.363	0.0207	**
Month = 11	-0.0673059	0.10663	-0.6312	0.5298	
Month = 12	-0.415382	0.076471	-5.432	6.81E-07	***
Year = 2006	0.00521679	0.0405618	0.1286	0.898	
Year = 2007	-0.0877053	0.0456074	-1.923	0.0583	*
Mean dependent var	-0.000823		S.D. dep. var	0.199327	
Sum squared resid	1.1575		S.E. reg.	0.125068	
R-squared	0.676296		Adjusted R-sq	0.606306	
F(6, 41)	9.662763		P-value(F)	2.04E-12	
Log-likelihood	69.46577		Akaike crit.	-104.932	
Schwarz criterion	-62.24693		Hannan-Quinn	-87.7110	
rho	-0.000823		D-W	0.199327	

ANNEX 3: Project-by-project capex reconciliation (2006-2009)

Code	Airfield Project	Allowed	Outturn	Difference
CIP6.026	South Apron Infill Phase 5B	5.87	10.70	4.83
CIP6.030	Taxiway P2 bypass for Phase 6 – MIKE 2	7.89	11.35	3.46
CIP6.039	North Apron Infill Phase 5 E	14.59	17.30	2.70
CIP6.042	Overlay Taxiway B4/B5/B6	5.00	6.16	1.16
CIP6.006	Apron Recon Nth Side Pier A	4.44	4.54	.10
CIP6.038	Central Apron Infill Phase 5 D	.01	.00	-.01
CIP6.040	Met Relocation	.48	.32	-.16
CIP6.028	Refurbishment Taxiway H2	1.62	1.41	-.22
CIP6.017	Overlay runway 10/28	.59	.32	-.27
CIP6.043	Remedial works and diversion to support 6.035	6.59	.00	-6.59
CIP6.047	Apron 5A - 65,000m2	8.65	.32	-8.32
CIP6.035	Aircraft Stands Phase 6A,B &C (GA)	51.14	35.68	-15.46
	TOTAL	106.89	88.11	-18.78

Table A3.1: Airfield projects: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	General Project	Allowed	Outturn	Difference
CIP9.018	Boiler House Replacement/District Heating	2.16	5.08	2.92
CIP5.013	Retail Refurbishments	4.37	6.16	1.79
CIP9.016	Voice & Data Comms Corridors	2.92	3.46	.54
CIP6.014	Ground Power Pier B	.90	1.19	.29
CIP6.033	Water Monitoring Equipment	.26	.54	.28
CIP2.010	Refurbish West end Cloghran Hse	.11	.22	.11
CIP4.008	Rapid Intervention Fire Tender.(RIFT)	.51	.54	.03
CIP4.011	Refurbish & Replace PT 14&15 Lifts	.43	.43	.00
CIP4.006	Escalator 6	.22	.22	.00
CIP5.015	Holiday Shop Revamp	.12	.11	-.01
CIP4.015	Replacement 2 Lifts PT17_PT18	.13	.11	-.02
CIP5.025	Perfumery Revamp	.35	.32	-.02
CIP5.017	Vehicles Warehouse Centre	.02	.00	-.02
CIP5.008	Pier A Breakroom	.02	.00	-.02
CIP3.022	Upgrade Castlemoate House Phase 1	.25	.22	-.03
CIP3.015	External Roads	1.34	1.30	-.04
CIP6.005	Airfield Lighting Control System	.80	.76	-.04
CIP5.002	CCTV Commercial	.04	.00	-.04
CIP4.010	Refurbishment A Complex Lifts	.40	.32	-.08
CIP1.008	MSCP Upgrade Phase 1	.84	.76	-.09
CIP6.004	Airfield Equipment Upgrade	.30	.22	-.09
CIP5.034	Retail - local projects	.74	.65	-.09
CIP5.012	Pier B Travel Value Refurbishment	1.72	1.62	-.10
CIP5.035	Mezz Catering Dublin	.11	.00	-.11
CIP5.018	Street Intersection	1.65	1.51	-.14
CIP6.012	Air Monitoring System	.41	.22	-.19
CIP4.003	Baggage Reclaim Carousels	1.30	1.08	-.22
CIP2.007	Office accommodation	1.08	.86	-.22
CIP3.014	Remaining Perimeter Fence	.78	.43	-.35
CIP1.001	Additional works Harristown Car Park	.36	.00	-.36
CIP6.025	Repl Centreline Lights 10/28	.43	.00	-.43
CIP3.028	Waste Recycling Units	.59	.00	-.59
CIP6.045	Cargo - Shortterm Solutions	.61	.00	-.61
CIP4.016	Replacement of Standby Generator at Main Terminal	.81	.00	-.81
CIP8.004	M&E Maintenance	1.56	.00	-1.56
CIP6.029	Taxiway Centreline Lighting	1.70	.00	-1.70
CIP4.013	Repl Air-Handling Syst Pier B	2.57	.32	-2.25
CIP8.007	Fire	2.95	.00	-2.95
CIP8.006	Airport Police & Security	3.24	.00	-3.24
CIP8.005	Airside operations	7.00	.00	-7.00
	TOTAL	46.09	28.65	-17.44

Table A3.2: General projects: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	Other Capacity Project	Allowed	Outturn	Difference
CIP8.008	IT / AITT	23.05	55.89	32.85
CIP7.025	Central Immigration - Pier A&D	7.78	10.27	2.49
CIP1.012	3000 Additional Spaces Harristown Ph 1	2.51	4.11	1.60
CIP6.037	Runway 10/28 Stopbars	1.81	2.81	1.01
CIP1.003	Convert Site Compound to staff Car Park	.18	.65	.46
CIP7.034	Area 14	16.22	16.65	.43
CIP1.007	Passenger Links (travelator to Atrium)	1.07	1.30	.22
CIP3.012	New Taxi Holding Area	.11	.32	.22
CIP1.002	Car Parking Equipment	3.23	3.24	.02
CIP5.005	Landlord provision to Book Stores	.14	.11	-.03
CIP5.009	Pier A New Bar	.05	.00	-.05
CIP4.007	New Chiller BOI Departures Flr.	.22	.11	-.11
CIP1.009	Upgde Eastlands To Planning Compliance	.15	.00	-.15
CIP6.041	MV Alteration	3.32	3.14	-.19
CIP5.001	Landside Restaurant	1.91	1.62	-.28
CIP1.013	2500 Additional Spaces Harristown Ph 2	2.57	2.27	-.30
CIP1.011	Upgde Eastlands To Permanent Status	5.22	4.76	-.46
CIP7.001	Airbridge #2	.72	.22	-.51
CIP3.032	Temporary Passenger Waiting Area	.54	.00	-.54
CIP7.023	Executive Jet Terminal - West	.54	.00	-.54
CIP5.036	External Retail Delivery Facility - Excludes sortation equipment	5.41	.00	-5.41
CIP8.003	Airport Development	24.66	.00	-24.66
	TOTAL	101.40	107.46	6.06

Table A3.3: Other capacity projects: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	Pier D Project	Allowed	Outturn	Difference
	TOTAL	93.37	124.90	31.60

Table A3.4: Pier D project: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	Runway Fees	Allowed	Outturn	Difference
CIP6.018	Parallel Runway Fees	8.04	4.76	-3.29
	TOTAL	8.04	4.76	-3.29

Table A3.5: Runway fees: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	T1X	Allowed	Outturn	Difference
CIP7.002	Terminal 1 Extension	59.22	53.84	-5.38
	TOTAL	59.22	53.84	-5.38

Table A3.6: T1X: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	T2 Associated Project	Allowed	Outturn	Difference
CIP2.006	Car Hire Facilities Eastlands (was Dardistown)	13.05	26.05	13.01
CIP9.003	Utilities Diversions, excl. T2	4.43	15.14	10.70
CIP9.014	Surface Water Quality Attenuation System	2.59	8.97	6.38
CIP8.010	Programme Fees	13.83	17.51	3.69
CIP9.005	Electricity Distribution System Enhancements, MV (10KV)	7.46	10.81	3.35
CIP9.015	Surface Water Quantity Attenuation System	2.59	5.30	2.70
CIP7.027	Customs & Border Protection	22.49	24.08	1.59
CIP9.007	Potable Water Storage & Service Pipe Upgrade	4.54	5.30	.76
CIP3.005	Bus Park Entrance & Exit Road	2.40	2.59	.19
CIP3.009	Internal Campus Roads - Excluding Western Approach	11.35	11.35	.00
CIP9.004	Electricity Distribution System Enhancements, HV (38 KV and 110kv)	11.14	11.03	-.11
CIP9.006	Gas Distribution System Enhancement	2.05	1.62	-.43
CIP9.001	Utilities Consultancy Services	1.08	.11	-.97
CIP1.010	Staff Car park Relocations	1.21	.00	-1.21
CIP9.009	Non-potable Water Storage	1.62	.00	-1.62
CIP9.010	Fire Hydrant Distribution System	1.62	.00	-1.62
CIP9.011	Sprinklers Distribution System	1.62	.00	-1.62
CIP9.013	Surface Water Drainage System Enhancements	2.59	.00	-2.59
CIP9.008	Potable Water Distribution System Enhancements	4.54	1.41	-3.14
CIP9.012	Foul Water Drainage System Enhancements	4.32	.76	-3.57
CIP7.028	Temporary Forward Lounge - P2	6.49	2.49	-4.00
CIP1.006	MSCP Short-term Car-Parking	29.68	21.51	-8.16
	TOTAL	152.70	166.02	13.32

Table A3.7: General projects: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	T2 Main Project	Allowed	Outturn	Difference
CIP7.030	Terminal 2 Projects	629.28	655.93	26.65
	TOTAL	629.28	655.93	26.65

Table A3.8: T2: allowed and actual capex (€m, 2009 prices)

Source: DAA

Code	Other Project	Allowed	Outturn	Difference
CIP8.013	Section 49 Contributions	.00	18.59	18.59
CIP2.011	South Apron Village	.00	4.00	4.00
CIP4.020	T1 Life Safety Improvements	.00	2.81	2.81
CIP7.325	CHP Upgrade	.00	1.62	1.62
Commo	Tenant Office Refurbs	.00	1.41	1.41
CIP8.014	Masterplanning	.00	1.19	1.19
CIP6.044	Cargo - Longterm solution	.00	.97	.97
Churchl	Church Lands	.00	.86	.86
CIP4.021	TBG Upgrade	.00	.43	.43
CIP9.017	Fuel Hydrant System	.00	.43	.43
CIP8.012	Consultancy Fees	.00	.32	.32
CIP16.020	Blast Fence	.00	.22	.22
CIP8.011	Consultancy Fees	.00	.22	.22
CIP9.019	Cuckoo Culvert	.00	.22	.22
	TOTAL	0.00	33.30	33.30

Table A3.9: Actual capex on projects not included in CIP 2006 (€m, 2009 prices)

Source: DAA

ANNEX 4: Information on capex spend from DAA received June 2009

A4.1 In June 2009 the DAA provided some additional information relating to capex out-turns, following a query from the Commission about IT/AITT expenditure. The response included some revised numbers for various individual projects. These are presented in the table below. As indicated in the text, the Commission has not had time to consider and incorporate this information fully into its draft determination.

Code	Project	Allowed	Outturn	Difference
CIP8.003	Airport Development	24.66		
CIP8.004	M&E Maintenance	1.56		
CIP8.005	Airside operations	7.00	30.99	-8.42
CIP8.006	Airport Police & Security	3.24		
CIP8.007	Fire	2.95		
CIP8.008	IT / AITT	23.05	24.90	1.85
	TOTAL	62.44	55.89	6.57

Table A4.1: Revised presentation of capex outturns for 6 projects

Source: DAA