Decision of the Commission further to Referral by the 2010 Aviation Appeal Panel

Commission Paper 2/2010

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1. Introduction

1.1 This document sets out the final decision of Commission for Aviation Regulation (the Commission) in relation to the referral from the 2010 Appeal Panel in respect of the 2009 Determination on the maximum levels of airport charges at Dublin airport. It also sets out the Commission's reasoning for its decision.

1.2 The Commission published the 2009 Determination on 4 December 2009 as CP4/2009. This document is available, along with associated papers, on the Commission's website at www.aviationreg.ie.

1.3 Following the 2009 Determination, three interested parties requested the Minister for Transport to establish an appeal panel pursuant to section 40 of the Aviation Regulation Act 2001. The Minister acceded to the requests, and on 3 March 2010 an appeal panel (the Panel) was established to hear the appeals of Aer Lingus, the Dublin Airport Authority (the DAA) and Ryanair.

1.4 On 2 June 2010, the Panel issued three separate decisions in relation to the three appeals. The Panel referred the 2009 Determination back to the Commission for review in respect of some of the grounds raised in each of the appeals, a total of seven issues in all

- The overspecification of T2 – to consider how the recovery of increased overheads associated with the overspecification of T2 could be postponed until commercially justified

- Differential pricing – the Panel referred this matter back to the Commission for it to consider how best differential pricing might be initiated

- T1X incremental revenues and remuneration – to carry out an analysis of the extent of incremental retail revenues attributable to T1X before allowing the capital expenditure associated with this project into the regulatory asset base (RAB)

- An error in the treatment of revenues from charges associated with providing services to passengers with reduced mobility (PRM) in calculating the price cap – to review whether there has been an error resulting in double counting for PRM charges

- An error in the treatment of inflation in the reconciliation of the capital investment programme 2006-2009 (CIP2006) outturn costs – to review and consider the effect of the application of deflation of -6.6% for 2009 to the DAA's submitted figures (which had allowed for an estimated inflation figure of 4% for 2009)

- The disallowance of temporary forward lounge (TFL) costs of €6.2m and Pier D fit-out costs of €1.2m

- The disallowance of €15.3m in respect of Pier D costs

1.5 In the case of the remaining grounds raised under each of the appeals, the Panel rejected the case made by the appellants. The decisions of the Panel are also available on the Commission's website.

1.6 Following the referral the Commission undertook a review to decide whether to affirm or vary the 2009 Determination. Prior to undertaking the review, the Commission issued Commission Paper CP1/2010 notifying interested parties of the review and inviting submissions in respect of those matters referred back to the Commission by the Panel. A list of those matters, together with a description of the scope of the review, was set out in CP1/2010. This document is available on the Commission's website.

1.7 Section 2 of this paper describes the review process. Section 3 sets out the decision of the Commission. Section 4 sets out the reasons for the decision.

2. Review Carried Out by the Commission

2.1 The scope of the review was set out in CP1/2010. The review was limited to those matters identified by the Panel as constituting sufficient grounds for referring the Determination back to the Commission. In conducting the review, the Commission considered the decision of the Panel and the reasons given by the Panel for the referral.

2.2 CP1/2010 was the first opportunity for parties to comment on appeals that they had not made: the Panel had not invited third parties to comment on the appeals before it. Nor were the appellants invited to comment on the other appeals before the Panel.

2.3 In response to CP1/2010 the Commission received submissions from the following nine parties: Aer Lingus, Chambers Ireland Air Transport Users Council (ATUC), Cityjet, the DAA, Dublin Chambers of Commerce, the International Air Transport Association (IATA), the Irish Business and Employers Confederation (IBEC), the Irish Tourist Industry Confederation (ITIC), and Ryanair. The Commission also gave parties an opportunity to comment on the responses received. Only the DAA and Ryanair provided such comments. The Commission met with the three parties that appealed its 2009 Determination to discuss their subsequent responses.

2.4 In conducting the review and making its decision, the Commission has considered the representations of all parties. The Commission has also had regard to the statutory objectives and the statutory factors set out in section 33 of the 2001 Act (as amended by the State Airports Act 2004) and the Ministerial Direction that the Commission received in 2009.

3. Decision of the Commission

3.1 The Commission has decided to vary the 2009 Determination. It has identified and set out below the reasons for and manner in which the 2009 Determination is altered. In all other respects, the Commission has decided to affirm its 2009 Determination. Henceforth, the Determination in force is the 2009 Determination as varied by this Decision.

3.2 The Commission has varied the forecast of commercial revenues it relied on for the purposes of estimating the price cap, having reconsidered

- The extent of incremental retail revenue attributable to T1X and
- Its treatment of PRM revenues.

3.3 The Commission has varied the forecast of capital costs it relied on for the purposes of estimating the price cap, having reconsidered

- The extent of incremental retail revenue attributable to T1X;
- Its treatment of 2009 deflation in reconciling outturn capital costs with the 2005 allowance;
- The disallowance of TFL and Pier D fit-out costs; and,
- The disallowance of certain Pier D costs.

3.4 All other aspects of the Determination were not varied following the referral back. This means that the Commission did not vary its Determination following the Panel referrals relating to

- How the recovery of increased overheads associated with the over specification of retail space in T2 could be postponed until commercially justified and
- Differential pricing.

3.5 The decision to vary forecasts for commercial revenues and capital costs has the effect of increasing the maximum charge that may be levied at Dublin airport over the five-year period 2010-2014 by an average of €0.10 per passenger (in 2009 prices). It also alters the starting and closing RAB. The yield table overleaf updates Table P1 in the 2009 Determination.

3.6 The following section explains why the Commission has reached this conclusion, discussing each of the issues referred back to the Commission in turn. Annex 1 contains a revised Determination that incorporates these changes.

	2010	2011	2012	2013	2014
RAB at start of the year (€m)	*842.0*	*811.5*	*792.8*	*771.9*	*748.2*
Net investment (€m)	37.8	37.8	37.8	37.8	37.8
Depreciation (€m)	*(68.2)*	*(56.6)*	*(58.7)*	*(61.4)*	*(63.3)*
RAB at end of the year (€m)	*811.5*	*792.8*	*771.9*	*748.2*	*722.7*
Average RAB (€m)	*826.7*	*802.1*	*782.3*	*760.0*	*735.5*
Discounting rate of return	7.0%	7.0%	7.0%	7.0%	7.0%
Rate of return on average RAB	6.8%	6.8%	6.8%	6.8%	6.8%
Return on assets (€m)	*55.9*	*54.3*	*52.9*	*51.4*	*49.7*
Operating costs (€m)	173.0	175.1	177.3	179.9	183.1
Commercial revenues (€m)	*(119.7)*	*(121.4)*	*(123.8)*	*(127.1)*	*(131.3)*
Depreciation (€m)	*68.2*	*56.6*	*58.7*	*61.4*	*63.3*
Required revenues (€m)	*177.4*	*164.6*	*165.1*	*165.7*	*164.9*
Discounted sum (€m) ***699.6***					
Passengers (millions)	19.5	19.9	20.5	21.3	22.4
Per passenger revenue (€)	*9.10*	*8.20*	*7.98*	*7.76*	*7.56*
Total revenues allowed (€m)	*177.4*	*163.0*	*163.4*	*165.4*	*169.1*
Discounted sum (€m) ***699.6***					
Adjustments per passenger					
Under recovery in 2008 (€)	0.03				
W-factor in 2008 (€)	0.04				
2001 judicial review costs (€)	(0.14)				
Maximum revenue per passenger (€)	***9.03***	***8.20***	***7.98***	***7.76***	***7.56***

Table 3.1: Amended Yield Table

Notes: All figure in 2009 prices. Italicised numbers have been varied following the referral (some changes may not be noticeable in the table because of rounding)

4. Reasons for the Commission's Decision

4.1 This section addresses, in turn, the seven topics that the Commission identified in CP1/2010 as being referred back for review.

Increased Overheads Associated with Over Specified T2 Retail Space

4.2 The Panel asked the Commission to consider how the recovery of increased overheads associated with the overspecification of retail space in T2 could be postponed until commercially justified.

4.3 The Panel was of the view that in its development of T2 the DAA has chosen to provide a much larger proportion of retail space than similar airports abroad and noted that in the absence of a significant increase in passengers, the existing sales seem likely to be spread over a larger floor area with greatly increased overheads. It expressed the view that whilst in the long run the DAA's retail plans may be a commercial success, in the meantime airlines should not be required to subsidise this overhead from current airport charges.

Responses to CP1/2010

4.4 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.5 According to Aer Lingus, the Commission's Determination allows the costs of excess retail space to be passed onto airport users because the Commission is forecasting no increase in the DAA's retail revenues on the opening of T2.

4.6 It stated that the single-till approach to regulation works provided all the costs included in respect of non-aeronautical facilities are efficiently used. However where an airport develops a significant amount of excess retail space in advance of it being needed the effect is to make airport users provide pre-financing for excess retail space that the airport has built.

4.7 To overcome this problem, Aer Lingus suggested using benchmarks of average retail revenue per metre squared from T1 or other airports to attribute notional revenue to the surplus retail space.

Cityjet

4.8 Cityjet argued that if the retail area is too large, this is a commercial risk for the DAA and not for airline users. It stated that the Commission should only offset direct and indirect overheads for the T2 space against the demonstrated incremental revenues of the area. Any excess should be disallowed.

The DAA

4.9 The DAA believed that concerns relating to T2 sizing have been dealt with extensively during two regulatory reviews, the independent verification process and two regulatory appeals. It stated that the terminal design was the outcome of consultation and claimed that the Government's independent verifier concluded that the wider T2 consultation process accorded with best practise. The DAA noted prior support from airlines users for T2's design and specification, in particular from Aer Lingus.

4.10 Observing that the retail area will cover 8,500m^2 against 13,500m^2 in T1, the DAA rejected the view that there is excess retail space in T2.

4.11 The DAA suggested that that any operating costs associated with the excess retail space would be immaterial, citing Booz & Co's work for the Commission in 2009 on T2 opex to supports its position.

4.12 The DAA also disputed the rationale for Aer Lingus' proposal to include an 'uplift' to commercial revenues to account for the alleged excess retail space in T2 for the following reasons:

- The DAA forecasts that its direct retailing operations will earn sufficient return to cover operating expenditure;
- Concession operated units, which will account for 84% of retail space, will pay for the opex incurred within these units;
- Overall retail space is expected to be fully occupied when operations commence in T2.

IATA

4.13 IATA argued that the development of significant excess retail space in advance of it being needed results in users pre-financing these facilities. While it supported single-till regulation, IATA opposed pre-financing.

Ryanair

4.14 Ryanair favoured reduced T2 (and T1X) opex costs pro-rated to the excess floor space constructed. It believed that the Commission needed to adjust various staff costs (terminals, maintenance, cleaning, management, commercial and retail) and non-staff costs (repairs and maintenance, rents and rates, energy, insurance, cleaning contracts and materials, fees and professional services, and marketing and promotional costs).

Commission's review

4.15 This referral relates to a subsection of the overall operating costs associated with T2. It would require the Commission to disallow or defer some allowance for such operating costs on the basis that T2 is currently oversized.

4.16 Before the 2009 Determination, the Dublin Airport Consultation Committee (DACC) proposed that the Commission disallow some T2 opex because the facility was too large. That representation concerned the generality of operating costs in T2, rather than just retail space. As outlined in paragraph 6.64 of the 2009 Determination, the Commission did not believe that it could best meets its statutory objectives and have regard to all its statutory factors if it disallowed such costs. It had previously sought to protect the interests of users by introducing a two-box approach that leaves the DAA bearing the risks that about €100m will not enter the RAB should demand not warrant the size of the facility.

4.17 The estimate of T2 operating costs included in the 2009 Determination did not include costs that would be incurred by concessionaires in running their operations, or those general costs that the DAA will recharge back to concessionaires. Consequently, most of the T2 operating costs allowed for in the 2009 Determination that relate to the retail area will be occupied by the DAA's own outlets, which account for just 16% of the total retail area. The overall retail area in T2 accounts for 8,500 square metres or about 11% of the total T2 area. Based on the Moodie Report cited in paragraph 7.25 of the 2009 Determination, the average retail space might have been about one third smaller than this area. This suggests that less than 1% of the total space in T2 might be deemed to give rise to “excess” retail space.

4.18 The Commission has not been convinced as to why overheads relating to the T2 retail area should be treated differently to other operating costs in T2 when considering the possibility that T2 is oversized. Consequently, it has decided not to vary the 2009 Determination following this referral.

Differential Pricing

4.19 The Panel suggested that the Commission consider how best differential pricing might be initiated.

4.20 Paragraph 8.4.10 of the Panel’s decision on the appeal of Ryanair states the following:

> *“... the panel considers that sufficient grounds HAVE been established to refer the Commission’s decision back for review. Specifically, the Panel refers the matter back to the Commission to consider how best differential pricing might be initiated”.*

4.21 The Panel’s reasoning is set out in the Decision document, in particular paragraphs 8.4.6–8.4.7, and can be summarised as follows: T2 potentially offers additional differential services, as compared with T1; airlines that do not require such differential services should not have to pay for them, therefore differential pricing merits consideration; the DAA will only introduce differential charges if it is mandated to do so by the Commission.

Responses to CP1/2010

4.22 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission’s website.

Aer Lingus

4.23 Aer Lingus opposed differential pricing between T1 and T2 because there is no difference between the service levels offered by the two terminals. All airlines will benefit from T2, regardless of whether they are located there or not, owing to reduced congestion across the whole airport. Any differential charge would be economically inefficient and unlawful under Irish competition law.

4.24 According to Aer Lingus, the DAA already operates an extensive system of pricing for different services at Dublin airport. This allows an airline to pick and chose services that best suit its business model. Some of these charges relate to aeronautical services, such as air bridges, aircraft parking and contact stands, and some do not, such as check-in desks.

4.25 Aer Lingus did not believe that T1 has any of the characteristics that would typify a low-cost terminal, and therefore it should not be priced on that basis.

Cityjet

4.26 Cityjet supported differential pricing between T1 and T2 at Dublin airport. It thought that T1 users should pay the same price regardless of whether T2 is open or not: T2 users should pay the full costs of its use, and not just the incremental costs. It identified four factors which the Commission should consider:

1. T2 opex;
2. apportioning common operating costs between T1 and T2 on a consistent basis;
3. commercial revenues in T1 versus T2; and
4. reconciling depreciation between T1 and T2 to ensure consistency.

Chambers Ireland Air Transport Users Council (ATUC)

4.27 ATUC did not believe there is a business case for differential pricing at T2. The opening of T2 will, in ATUC's view, be important for Ireland's ability to attract and retain international investment. ATUC thought that differential pricing could threaten the opening of T2. It believed that the development of the new terminal should be complementary to developments at the existing terminal.

The DAA

4.28 The DAA opposed introducing differential pricing into the Determination, claiming that it is not necessary to ensure that the needs of airport users are met. It argued that neither a high-level analysis of costs, nor economic theory, nor the regulatory system in place support the introduction of differential pricing at Dublin airport. Mandating differential pricing would *"hurt the interests of all users as it is more likely to seriously distort the allocation of capacity, the management of demand, and competition between airlines at the airport"*.[1] The DAA also believed that the mandated introduction of differential terminal pricing could generate a number of complex legal and technical difficulties.

4.29 The DAA made a number of specific points in its response on differential pricing, including:

- Mandating differential pricing would be a fundamental change to the nature of the regulatory model at Dublin airport, requiring the Commission to re-address key questions on remuneration, cost allocation, financial viability and the statutory objectives in the Act. Given the two-month timeframe for the Commission to respond to the Appeal Panel referrals, there is insufficient time to address all of the issues in a satisfactory manner.
- The current structure of airport charges at Dublin airport offers a range of differential prices for aeronautical services. The DAA does not serve only one airline business model.
- The general service standards in both T1 and T2 are the same on all key dimensions. If there is differential pricing, then given that the two terminals offer the same level of service there will be no incentive for airlines to move to T2. The construction of T2 does not retrospectively make T1 a low-cost terminal. T1 passengers will benefit from T2 because of reduced congestion in T1 and the increased attractiveness of the airport resulting in positive network externalities for airport users.

[1] See page 9 of the DAA response to CP1/2010.

- Differential pricing between the terminals has the potential to strand T2, and therefore threaten the financial viability of the DAA. Airlines will not move to T2 if there is differential pricing.

- The DAA provided an estimate of the cost-differential between T1 and T2. In contrast to Ryanair, it found that T2 costs per passenger are significantly lower than T1 costs per passenger: €6.68 versus €10.18 in 2011. For reasons outlined in its submission, the DAA did not attempt to allocate non-terminal capital costs and commercial revenues as part of its calculation. The DAA suggested that economic theory supports a lower charge for T2, given that it is likely to be an underutilised asset relative to T1.

- The Commission's approach to calculating depreciation charges, using unitisation, was incompatible with introducing differential pricing.

4.30 The DAA also raised various questions regarding the legality of the Commission requiring differential terminal charges. It suggested that if implemented in an arbitrary manner, the differential could be in breach of the European Commission's Airport Charges Directive (due for transposition in Member States by March 2011) because it would not be transparent nor could it be justified on any objective criteria. Moreover, the DAA did not believe that the Commission was legally entitled to mandate differential pricing between the two terminals under the 2001 Act.

4.31 Commenting on other parties' responses to CP1/2001, the DAA observed that the majority of respondents opposed the introduction of differential pricing.

4.32 The DAA claimed that Ryanair's response to CP1/2001 contained arguments relating to differential pricing that were "*seriously flawed and incorrect*". It cited three reasons why this was the case: (i) Ryanair had not indicated which services were of a higher quality in either T1 or T2; (ii) since T1 and T2 were designed to operate to the same level of service, there was no economic justification for differential pricing; and (iii) differential pricing would not improve resource allocation, notwithstanding Ryanair's claims, because of the possibility that it would leave T2 unused. The DAA claimed that the calculations that Ryanair provided to estimate possible differential price caps made questionable assumptions, and were designed to provide Ryanair with a competitive advantage over rival airlines. The DAA questioned Ryanair's concept of 'T1 redundancy', stating that Ryanair failed to define or provide a rationale for this concept. The DAA thought that it was untenable for Ryanair to assume that the DAA's total revenues would be the same if differential pricing was introduced.

Dublin Chamber of Commerce

4.33 The Dublin Chamber of Commerce opposed differential pricing between the two terminals. Like the ATUC, the Dublin Chamber believed that the development of T2 should complement the developments at T1. It also thought that airport infrastructure was crucial in attracting and retaining foreign direct investment into Ireland.

IATA

4.34 IATA opposed differential pricing at Dublin airport, claiming that it would be contrary to the Commission's statutory objective to meet the requirements of current and prospective users. Furthermore, it would be unfair and unreasonable to introduce such charges now, given that throughout airline negotiations with the DAA concerning a possible relocation to T2 there was never any mention of differential pricing. IATA concluded by saying that to maintain a competitive level playing field and to avoid potential discrimination, differential pricing should not be introduced.

IBEC

4.35 IBEC thought differential pricing between T1 and T2 would not meet the criteria of fairness, transparency and proportionality. The level of service offered by the two terminals will, in IBEC's view, be the same. Any additional services, such as customs and border protection (CBP), check-in desks and executive lounges, will be paid for separately. IBEC claimed that introducing differential pricing would undoubtedly delay the opening of T2.

ITIC

4.36 ITIC raised similar concerns to IBEC in opposing differential pricing between the two terminals. It thought the two terminals offer the same level of service, and argued that there should be the same charges for the same services regardless of the facility being used. It also worried that the long overdue opening of important national infrastructure (T2) was at risk if differential pricing was introduced.

Ryanair

4.37 Ryanair supported differential pricing. It thought differential pricing would benefit users in two ways: first it would enhance competition in the downstream market for air travel; and second, it would generate benefits from improved airport resource allocation. Ryanair also thought that Article 10.2 of the Airport Charges Directive required airports to provide users with differentiated terminal services.

4.38 Ryanair quoted extensively from published Commission papers (CP5/2007 and CP6/2007) which refer to both differential pricing and the user-pays principle – concepts which Ryanair thought were "inextricably linked". Drawing on this material, Ryanair observed that:

- The DAA's investments at Dublin airport to develop T1 facilities and T2, combined with its failure to offer users differentiated services and differentiated prices, demonstrated that the DAA had not acted in a manner consistent with previous Commission statements regarding differential pricing and the user-pays principle.

- The DAA was bundling 'basic' access to Dublin airport with high-cost, high specification facilities. This bundling favoured high-fare carriers at the expense of low-fare carriers such as Ryanair. It harmed consumers through higher prices, and through negative supply effects as airlines withdrew flights which were no longer deemed profitable.

4.39 For the years 2011-2014 when T2 is expected to be open for the full year, Ryanair provided some examples calculating possible differential price caps for the two terminals. The results are presented in the three tables below. The calculations used data in the Commission's financial model published at the time of the 2009 Determination. Ryanair argued that T1 users should not have to pay for the costs of T2 or the costs of 40% of T1 capacity that would become redundant once some airlines moved to T2.

Table A – Differential Price Cap Calculation for 2011 (€, 2009) (no adjustment for T2 unitisation)				
	2011	**2012**	**2013**	**2014**
T2 Price Cap	14.37	14.09	13.81	13.53
T1 Price Cap	7.82	7.66	7.51	7.36

Source: Ryanair, page 9 response to CP1/2010

Table B – Differential Price Cap Calculation for 2011 (€, 2009) (adjustment for T2 unitisation)				
	2011	**2012**	**2013**	**2014**
T2 Price Cap	16.88	16.55	16.22	15.90
T1 Price Cap	6.14	6.02	5.90	5.78

Source: Ryanair, page 10 response to CP1/2010

Annex 5 – Differential Price Cap Calculation for 2011 (€, 2009) (alternative, simplified assessment)				
	2011	**2012**	**2013**	**2014**
T2 Price Cap	17.20	16.85	16.52	16.19
T1 Price Cap	5.93	5.81	5.70	5.59

Source: Ryanair, page 20 response to CP1/2010

4.40 Attached to the Ryanair submission was correspondence between solicitors representing Ryanair and the DAA relating to the possibility of introducing differential prices at Dublin airport. Ryanair claimed that this was evidence that demonstrated the DAA would not introduce differential prices unless mandated to do so.

4.41 Ryanair subsequently provided comments on other parties' submissions to CP1/2010. It argued that the current set of differential charges levied by the DAA for aeronautical services represented "tinkering on the margin" and did not address the need to provide the differential facilities required by low-fares airlines. T2 was designed to a higher space standard than applied in T1, to meet the requirements of a single airline user. Therefore T2 users should bear the excessive costs of T2, as well as redundant costs in T1.

4.42 Adjusting the DAA's differential price-cap calculations for these T1 redundancy costs, and the fact that 7.98 million passengers were expected to use T2 in 2011, Ryanair obtained a price cap for T1 of €7.80 rather than €10.18 (and correspondingly a much higher cap for T2 of €16.19 rather than the DAA's €6.68).

4.43 Ryanair thought that the DAA's concerns about asset stranding and potential problems with financial viability were because the DAA had failed to operate efficiently and secure legally binding commitments from anchor tenants before incurring the T2 expenditure; this should not prevent mandating the DAA to introduce differential prices between the terminals. Ryanair observed that the DAA relied on regulatory commitment to remunerate T2, rather than any argument that it represented efficient investment. Regarding regulatory commitments to remunerate T2, these were made in the context of a clear commitment to users that differential pricing would be introduced in consequence.

4.44 Ryanair dismissed the practical and legal issues raised by the DAA in its response to CP1/2010. It did not accept the DAA's contention that the concepts of differential pricing and unitisation were mutually exclusive. Ryanair also rejected as lacking in substance the DAA's claims that differential pricing could not be mandated because of the 2001 Act and the European Airport Charges Directive.

4.45 In commenting on Aer Lingus' response to CP1/2010, Ryanair made two points. First, the IATA level of service standard 'C' is meaningless as it merely defined the floor area to provide for particular functions, and did not consider the extent to which low-fare users required those functions. Second, if Aer Lingus will not move to T2 at a differential price that reflects its true cost, then this confirms that T2 is an inefficient development which the Commission cannot remunerate given its statutory objectives.

4.46 On other parties' responses to CP1/2010, Ryanair noted Cityjet's support for differential pricing. Ryanair claimed that the IATA response highlighted the "anti-competitive" practice of low-fares airlines being required, through a uniform pricing policy, to cross-subsidise the operational costs of rival high-fares airlines. Finally, in a summary response to the submissions from the various tourism and business groups, Ryanair disputed the claim that differential pricing would be anti-competitive. Instead, Ryanair argued that introducing such pricing would remove a distortion to airline competition that currently exists.

Commission's review

4.47 The Commission continues to believe that there is merit in the DAA responding to specific users' needs and offering differential services with associated differential prices where this is feasible. The opening of a second terminal should provide enhanced opportunities for the DAA to provide such tailored services. The Commission agrees with the general arguments that Ryanair makes concerning the merits of differential pricing. Nevertheless, for the reasons that follow, the Commission has decided not to vary its 2009 Determination to mandate differential pricing between the terminals.

4.48 One approach to determining the level of sub-caps would be to develop a cost model and allocate costs between different services. Both the DAA and Ryanair included rough calculations that derived estimates for sub-caps on T1 and T2, although both parties acknowledged that with more time and data there would be scope for considerable refinement. Although both parties relied primarily on the Commission's 2009 Determination for source data, they arrived at very different conclusions: the DAA's calculations would imply that T2 should have the lower price cap, while Ryanair's various estimates all concluded that the lower sub-cap should apply to T1. Having reviewed the two sets of estimates, the Commission has identified two key differences that explain much of the discrepancy:

- The existence or otherwise of a "T1 redundancy cost" associated with some airlines vacating T1 and moving to the new terminal; and
- How the parties chose to treat the fact that the 2009 Determination uses a depreciation profile for T2 (but not for other assets in the RAB) that backloads recovery of many of the capital costs associated with the project until after 2014.

4.49 For the first of these differences, the Commission is not persuaded by the rationale Ryanair offers for requiring T2 users to pay for T1 redundancy costs. The argument appears to be that any capacity at the airport over and above what remaining T1 users need should be paid for by other airport users. Yet, this argument could be reversed and the opposite conclusion reached by arguing instead that T2 users should only be asked to pay for the capacity that they require, with all remaining costs borne by other users (i.e. those in T1). There are common costs incurred at the airport over and above the incremental costs of a service that need to be recovered.

4.50 The second adjustment points to a more general limitation of relying on the Commission's existing price-cap model for the purposes of allocating costs to estimate sub-caps. In the context of a cost-based differential pricing exercise, Ryanair is right to query the appropriateness of allocating costs to T1 and T2 using different depreciation profiles for some of the key capital costs. However, there is an equally strong case to revisit all depreciation profiles and asset valuations if such an allocation exercise is to be undertaken. Arguably, the cost allocation should make use of current-cost accounting techniques and seek to identify depreciation profiles consistent with economic depreciation. This would be a major, and contentious, undertaking. Thought would also have to be given to whether and how such calculations might be used to determine relative prices within an overall price cap that has to date used indexed historic capital costs within a RAB-based framework.

4.51 Given the data currently available, the Commission is of the preliminary view that were it to set differential prices based on an allocation of costs in its current model between the two terminals it would arrive at numbers closer to those proposed by the DAA than by Ryanair. The Commission interprets this as a general limitation with attempting to mandate differential pricing based on an allocation of the costs (and commercial revenues) between the two terminals, rather than as providing a strong rationale for higher prices in T1.

4.52 Differential prices should be with reference to what users want. Such an approach would point to a demand rather than cost basis for setting differential prices (as seems to be used by many airlines when setting airfares). If some users value access to an air bridge and others do not, a charge might be levied on users wishing to use an air bridge. Similarly, if users would rather be in one terminal than the other, then there should be higher prices for using the more desirable terminal.

4.53 The evidence shows that the DAA does currently engage in some differential pricing, such as differentiating between users using contact and non-contact stands. There may be scope for more tailoring of services and prices, but nevertheless there is already some differential pricing at Dublin airport. The Commission does not believe that there is anything to be gained by mandating the DAA to introduce differential pricing given it already does price differentially on occasion.

4.54 The essence of the Panel's referral is to consider introducing a notional difference between the per-passenger charges paid by airports users in the two terminals. Yet the available evidence suggests that were the Commission to mandate just a notional difference, it is unlikely to affect charges: the projected users of the two terminals already pay very different per passenger airport charges. Data provided by the DAA suggests that in the past, the per passenger revenues from airport charges that the DAA collects from airlines expected to move into T2 was about €0.50 more than that collected from airlines expected to remain in T1. If the comparison is extended to other services purchased by the airlines that are not covered by the cap on airport charges – such as check-in desks, customs and border protection, airline lounges, ramp and office accommodation and warehouse rental – the difference increases to over €0.90 per passenger. Looking at the data for individual airlines generates even larger differences. The table below shows what higher percentage per passenger different airlines paid in airport charges relative to the airline paying the cheapest per passenger airport charges. The table is for a sample of airlines that account for over 80% of traffic at Dublin airport; while the ordering of the airlines in terms of amounts paid per passenger changed over the years, the general pattern that emerges is one of significant differences in the per passenger airport charges by airline. Within our sample, there were airlines paying 1.5 times more per passenger than the airline paying the least.

Airline	2006	2007	2008	2009
A - airline paying the least per passenger	0%	0%	0%	0%
B	10%	9%	7%	10%
C	15%	10%	8%	11%
D	26%	16%	18%	21%
E	27%	23%	20%	25%
F	35%	35%	32%	28%
G	39%	37%	38%	32%
H	50%	40%	41%	33%
J - airline paying the most per passenger	55%	42%	50%	45%

Table 4.2: Mark-up over airline paying the lowest airport charges per pax

Source: DAA

4.55 This decision not to mandate differential pricing between the terminals should not be interpreted as evidence that the Commission opposes differential pricing between the two terminals. If users have differing needs, then the Commission expects the DAA to tailor its services accordingly. It would not be acceptable for the DAA merely to assert an airport-wide level of service with no regard to the needs of individual users.

4.56 Ideally, the DAA and users should reach agreements to adjust the level of individual airport charges in response to changing the level of service provided. For the current Determination, the DAA will need to make such changes while complying with the overall price cap and associated quality of service. At future determinations, the Commission may consider setting an overall price cap that envisages different levels of service in different piers or terminals if that appears to align better with the needs of current and prospective users. In such circumstances, it might still prefer not to set individual airport charges but that does not rule out the possibility that it might introduce some sub-caps if it concludes that this is the best way to protect the interests of current and prospective users.

4.57 Airport users that favour a higher level of service should not presume that all users at the airport will be required to pay for a similar level of service. Controlling the overall level of costs at Dublin airport requires that individual users are aware of the extra costs that they impose on the airport when they require higher standards of service.

4.58 Conversely, users favouring lower airport charges need to identify the service(s) (or reduced service quality) that they are willing to forego in exchange for lower charges. At this stage, the Commission has not been informed of a clearly defined service that T2 users want, but that T1 users do not want, for which a separate charge is not already in place. Rather, the current complaint of T1 users seems primarily to be that they object to paying for the costs associated with increasing the capacity of Dublin airport. Should the Commission at future determinations have to consider arguments relating to the scope for differential pricing, it does not envisage reversing past commitments to remunerate capital investments. The focus instead should be on identifying future cost savings that might be realised by reducing the services or service quality.

T1X Incremental Revenues and Remuneration

4.59 The Panel referred the Commission to the issue of the T1X incremental revenues and remuneration – to carry out an analysis of the extent of incremental retail revenue attributable to T1X before allowing the capital expenditure associated with this project into the RAB.

4.60 As to the evidence required to assess the level of any incremental revenues, the Panel stated the need for a counterfactual position, i.e. what would retail revenues have been in the absence of the investment. It added that it is not sufficient to assume an increase in revenue and assert that T1X is therefore charges neutral. The Panel added that the Commission should secure more detailed information from the DAA regarding total T1 revenue and in particular what portion of revenue (if any) can be attributed to the T1X improvements.

Responses to CP1/2010

4.61 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.62 Aer Lingus stated that the objective of charges neutrality was most simply achieved by excluding the costs of T1X from the RAB. As a next best solution it suggested that the Commission present a revised calculation that explicitly adds to the commercial revenue forecast an additional sum equal to the costs of T1X that need to be recovered.

Cityjet

4.63 Cityjet wanted the Commission to ensure that any revenues considered in the price cap are incremental to those revenues earned prior to the closure of Pier C. It argued that the key revenue test should be revenues with T1X included compared to revenues earned prior to the closure of Pier C. In support of its position Cityjet cited the response to the draft determination of the Dublin airport Consultation Committee (DACC) in August 2009.

The DAA

4.64 The DAA did not see a requirement for any further analysis of commercial revenue projections at T1X. The DAA thought that the Panel may have misinterpreted the treatment adopted by the Commission for ensuring charges neutrality. According to the DAA, in setting a higher revenue target by including an uplift for T1X the Commission ensured that the project is charges neutral, regardless of whether or not the revenue target is achieved by the DAA.

4.65 In responding to other parties' submissions on the issue of incremental revenues and the closure of Pier C, the DAA clarified that certain areas of Pier C still remain in use, that the remainder has been incorporated into the T2 project, and that the Pier C route will operate as the airside access between T1 and T2. The DAA also suggested other factors should be considered when trying to measure incremental revenues, such as changing consumer spending patterns resulting from the economic downturn and exchange rate movements, the opening of Pier D, and Ryanair's one-bag policy.

Ryanair

4.66 Ryanair contended that incremental commercial revenues deriving from T1X must be separately identified and analysed, net of any incremental operational costs incurred in operating and managing the area. It suggested that only when it can be demonstrated that revenues would not have been earned in any pre-existing retail or catering outlet in the absence of T1X can they be considered as incremental revenues. If it is determined that there are no incremental commercial revenues, Ryanair claimed that the opex costs associated with T1X must also be eliminated from the price cap in order to ensure charges neutrality.

4.67 Ryanair claimed that the extent to which revenues are incremental has to assessed against the level of revenues per passenger earned prior to the closure of Pier C and the diversion of a proportion of passengers away from retail outlets at the Pier C end of the Street. There were two material considerations. First, are passengers buying additional goods or catering products in T1X over and above those they would have purchased anyway? Second, what income has been lost due to closure of outlets at the Pier C end of the Street, and other outlets in the vicinity of Pier A. Ryanair cited the assumed lower retail revenues per passenger in 2010 relative to 2007 outturns as evidence that T1X did not add incremental revenues. It claimed that the Commission offers no explanation as to why it accepted this lower figure as a starting point for 2010.

Commission's review

4.68 The Commission has continued to calculate the price cap in a manner that ensures its treatment of T1X is charges neutral. To do this, it has added the incremental net revenues from T1X to its baseline commercial revenue forecast for 2010-14, and allowed an equal and offsetting amount in capital costs. In considering the Panel's views and the comments received from parties concerning the presence, if any of incremental revenues associated with T1X, the Commission has sought to address the following questions:

- What retail revenues might have been expected in those months of 2009 when T1X was open had the facility not been in place?
- Did the closure of Pier C have a demonstrable effect on retail revenues earned by the DAA?
- What, if any, implications does T1X have for the forecast level of operating costs at Dublin airport?

4.69 Data from the DAA separately identifying retail revenues accrued from the T1X facility since it opened is shown in the graph below. The graph shows total retail revenues earned by the DAA at Dublin airport, and also total revenues earned from "existing facilities" for the months after T1X came into operation in April 2009. The difference between these series, about €1m per month, is the revenue recorded in T1X. This difference does not necessarily correspond to the incremental revenues from T1X. It may be that instead T1X is merely attracting revenues that, in a world without T1X, would otherwise have been earned in other retail areas.

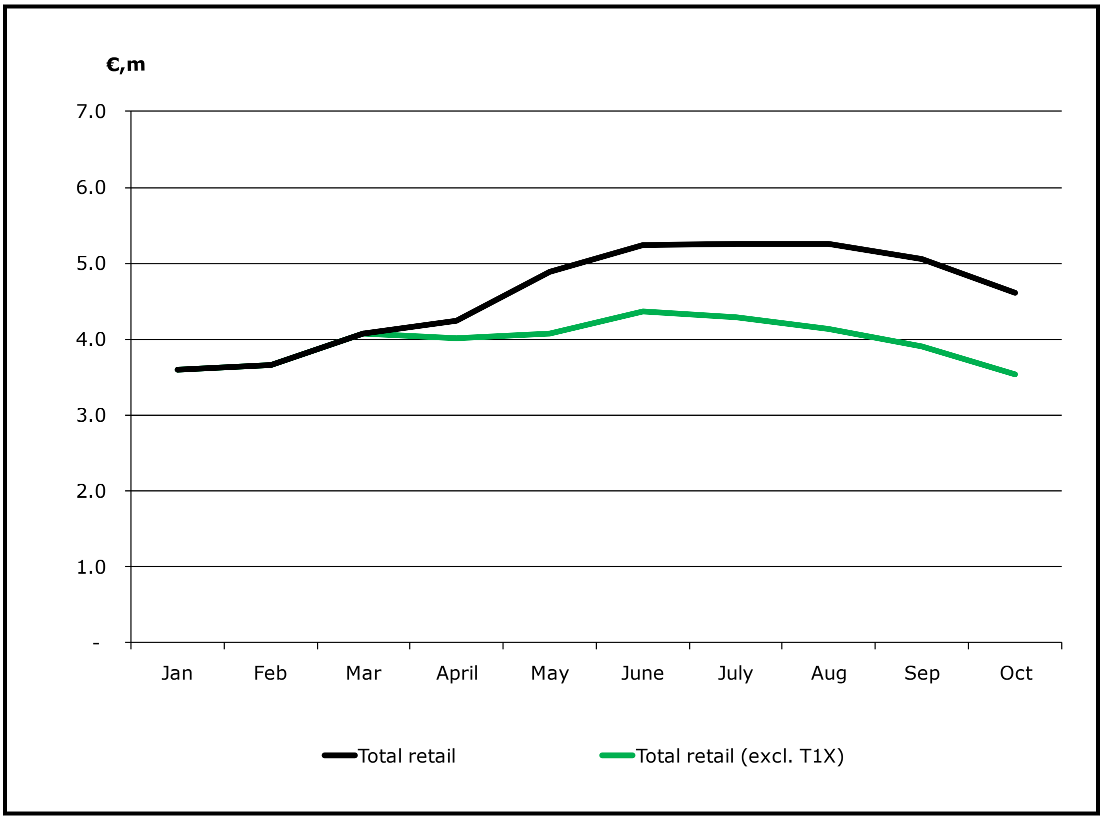

Figure 4.1: Retail revenues at Dublin airport in 2009

Source: DAA

4.70 To test that the revenues were incremental the Commission has conducted some time-series econometric modelling. It has looked at monthly data for retail revenues between January 2001 and March 2009 inclusive to form a view on what level of retail revenues it might have expected from April 2009 onwards had T1X not opened. To generate an estimate of the incremental revenues associated with T1X opening the Commission has compared the forecasts from this time-series model with the actual outturn data reported by the DAA for the months after T1X opened. To control for changing passenger numbers, the analysis was conducted using per passenger retail revenues. The modelling included monthly dummy variables to allow for the possibility that per passenger spending would be higher in some months than others. More details on the results of the modelling can be found in Annex 2.

4.71 The chart below plots retail revenues at Dublin airport from March 2005 until October 2009, and also the forecast level of retail revenues using the time-series model described in Annex 2. The solid line represents the actual outturn revenues, while the lower dashed line represents the time-series forecast based on available data until end March 2009. Outturn retail revenues were higher in the months after T1X opened than might have been expected; the evidence is consistent with the idea that T1X has generated incremental retail revenues.

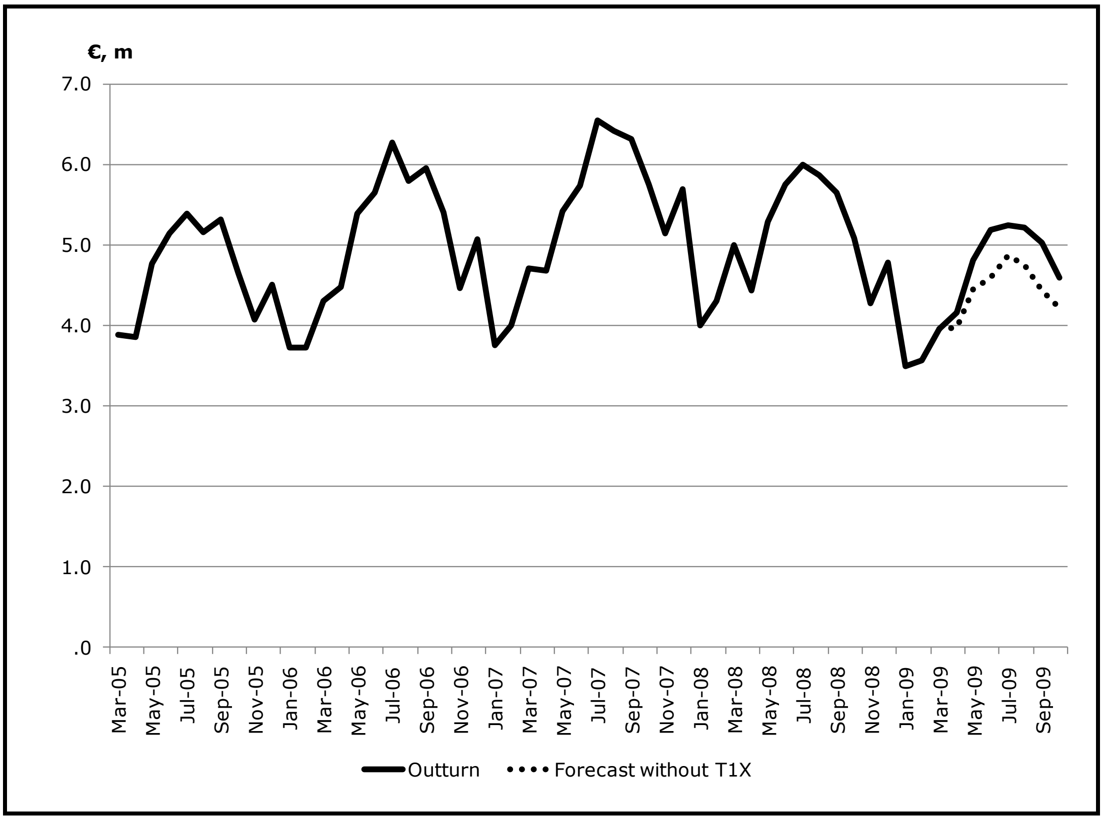

Figure 4.2: Outturn and Forecast Monthly Retail Revenues

Source: DAA data, Commission calculations

4.72 A similar analysis was conducted to see if there was evidence that the closure of six gates in Pier C in June 2008 affected retail revenues. The results from the econometric modelling do not suggest that Pier C's closure caused retail revenues at Dublin airport to fall markedly after May 2008. The actual retail revenues earned following the closure of the gates in Pier C in June 2008 were higher than what would have been forecast based on historic revenues earned up until June 2008. This evidence does not support the hypothesis that T1X is merely recovering retail revenues that the DAA lost when it closed Pier C. See Annex 2 for more details on this analysis.

4.73 The Commission estimates that T1X contributed €0.25 per passenger in incremental retail revenues after it opened in April 2009. The Commission has used this estimate to generate a forecast for incremental T1X revenues for the 2010-2014 period. The forecast is shown in the table below. The table also builds up the total retail revenue forecast that the Commission used in its calculations to determine a price cap, to show what the forecast would be with and without an allowance for incremental revenues from T1X.

	2010	2011	2012	2013	2014	Total
Direct retail (€m)	29	30	30	31	32	151
Concession (€m)	22	22	23	25	26	118
Total retail, excl T1X (€m)	**51**	**52**	**53**	**55**	**58**	**269**
T1X uplift (€m)	4.4	4.5	4.6	4.8	5.0	23.3
Total retail, incl T1X (€m)	**55**	**56**	**58**	**60**	**63**	**295**

Table 4.3: Retail Revenue Forecasts

Source: Commission calculations

4.74 The Commission has not considered it necessary to revise down its forecast for incremental T1X retail revenues to account for increased operating costs. To generate forecasts for operating costs in T1, the Commission projected forward using data for 2008, after making adjustments to reflect the scope for efficiency savings and changing passenger numbers. Since T1X was not open in 2008, the Commission is satisfied that its operating expenditure forecast does not include any incremental T1X operating expenditure allowance.

4.75 To ensure that the T1X project enters the RAB on a charges neutral basis, the Commission has only allowed capital costs equal to the incremental revenues from T1X for each year in the period 2010 to 2014. These capital costs cover both the return on capital and depreciation (the return of capital). The level of depreciation is determined as the difference between the estimated T1X incremental revenues and the return on capital given the assumed 7% cost of capital. This ensures that the project is charges neutral.

Possible Double Counting of PRM Charges

4.76 The Panel referred back to the Commission the issue of how it treated PRM revenues in calculating the price cap. In particular, the Commission was invited to consider the possibility that there was a double counting of these revenues as both commercial revenues and aeronautical charges.

4.77 The Panel suggested that if there was an error, it might be resolved using one of the DAA's solutions: either subtract PRM revenues from "other commercial revenues" or remove PRM revenues from the price cap.

Responses to CP1/2010

4.78 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.79 Aer Lingus said that there has been some ongoing confusion in relation to the treatment of costs and revenues relating to the provision of services to PRMs in the Commission's Determination. It suggested that further to the decision of the Appeal Panel, the Commission should clarify this issue and, if necessary, correct the 2009 Determination accordingly.

Cityjet

4.80 Cityjet did not believe that the Commission had double-counted PRM charges. It observed that the other revenues figure in the Determination are constant over the five years, which would not be the case if the PRM revenues at €0.33 per passenger were included as the forecast traffic is not constant over those years.

The DAA

4.81 The DAA submitted that in calculating its aeronautical revenue allowance for the regulatory period 2010–2014, an error had in fact occurred as the Commission double counted PRM revenues as both commercial income and aeronautical revenue. The DAA said that the error arose as a result of the Commission considering PRM revenues as an aeronautical revenue, when in fact a certain portion of these revenues were also included in its commercial revenue forecasts under the heading *other commercial operations*. The DAA proposed that the error should be corrected by reducing the *other commercial operations* category of the Commission's commercial revenue forecast by this PRM revenue amount and adjusting upwards the annual price cap formulae. The DAA estimated that, based on a circa €6 million double count in PRM revenues, correction of this error would require that the average price cap should be increased by €0.06 over the period 2010–2014. Alternatively the DAA recommended that PRM revenues be removed from the aeronautical price cap and treated separately from aeronautical revenues with the appropriate adjustment being made for the double count.

4.82 The DAA subsequently responded to Ryanair and Cityjet's opposition to making an adjustment for double counting of PRM revenues. It claimed that the projected PRM revenues of €6 million are less than the full amount of PRM revenues forecast for the regulatory period 2010-2014. This was because the DAA had projected forward PRM revenues on the basis of the 2008 revenues from this source, when the DAA had only collected PRM revenues for part of the year. The DAA's forecast for the remainder of the *other commercial revenues* category did assume that these would move in line with passenger numbers.

Ryanair

4.83 Ryanair noted that ready-reckoner model issued with the 2009 Determination showed that the Commission allowed opex of €3.8 million in 2010, rising to €4.4 million in 2014 as the cost of providing PRM services. The total amount allowed by the Commission for other commercial revenues in making the Determination was €5.7 million per annum. Given the increase in revenues expected from PRM charges, if the Commission has allowed for this income within the other commercial revenue heading, the implication is that revenues from other sources would fall during the period 2010-2014. Ryanair did not consider this credible, given the increase in the provision of executive lounges and US border protection facilities (other categories included under the heading of 'other commercial revenues') coupled with the expected passenger growth over the period.

4.84 Ryanair suggested that the Commission adjust the price cap downwards to the extent that the DAA is seeking to charge for this service outside of the price cap. The Commission should ensure mechanisms are in place to control any increase in costs to users and prevent the DAA from being able to increase charges and double recover within the regulatory period as has occurred in the past with access-to-installation fees. Ryanair considered it preferable that such charges for essential facilities are included within the overall price cap to ensure that efficiency incentives apply.

Commission's review

4.85 The Commission has reviewed whether forecast PRM revenues were included in the forecasts for commercial revenues used in setting the 2009 Determination. The price cap includes PRM revenues, so consequently revenues from this source should not be included in any forecasts of commercial revenues.

4.86 On 24 April 2009 the Commission requested a breakdown of the DAA's post 2009 commercial revenue projections. In response the DAA provided a spreadsheet that included a breakdown of *other commercial revenues* into the following categories: immigration and national surveillance, maintenance contracts, executive lounges & VIP, handling charge recovery overheads, security/static guard income, cleaning revenue contracts and miscellaneous. There was no obvious PRM category nor was there a note marked on the spreadsheet. The draft determination and the 2009 Determination both estimated a price cap assuming that *other commercial revenues* excluded PRM revenues.

4.87 During the Appeal Panel process the DAA pointed out that there was a note on a different tab within the workbook stating that the 2008 miscellaneous figures within the *other commercial revenues* category included €1,170,000 of PRM revenues. To forecast *other commercial revenues* in 2009 and the years 2010-2014, the DAA also included a forecast for PRM revenues. In its April 2009 submission to the Commission, the DAA's forecast for PRM revenues failed to correct for the fact that the 2008 outturn was only for five months and assumed similar revenues as in 2008 in later years. In submissions to the Panel, the DAA quoted forecast PRM revenues consistent with a full-year's recovery, although such numbers had not been presented to the Commission nor used in calculations prior to the 2009 Determination.

4.88 Since the referral back to the Commission, the DAA has clarified that the alleged double counting relates to just over €1m per annum of PRM revenues, given that is an amount consistent with the data relied on by the Commission in making its Determination. This latter qualification addresses the reasonable concern of both Cityjet and Ryanair that the DAA's argument appeared to imply a significant forecast fall in revenues from sources such as immigration and national surveillance and executive lounges after 2008. The chart below shows the share of PRM revenues in the DAA forecast of *other commercial revenues.* The 2009 Determination used this forecast for the period 2010-2014 to arrive at an overall commercial revenues forecast.

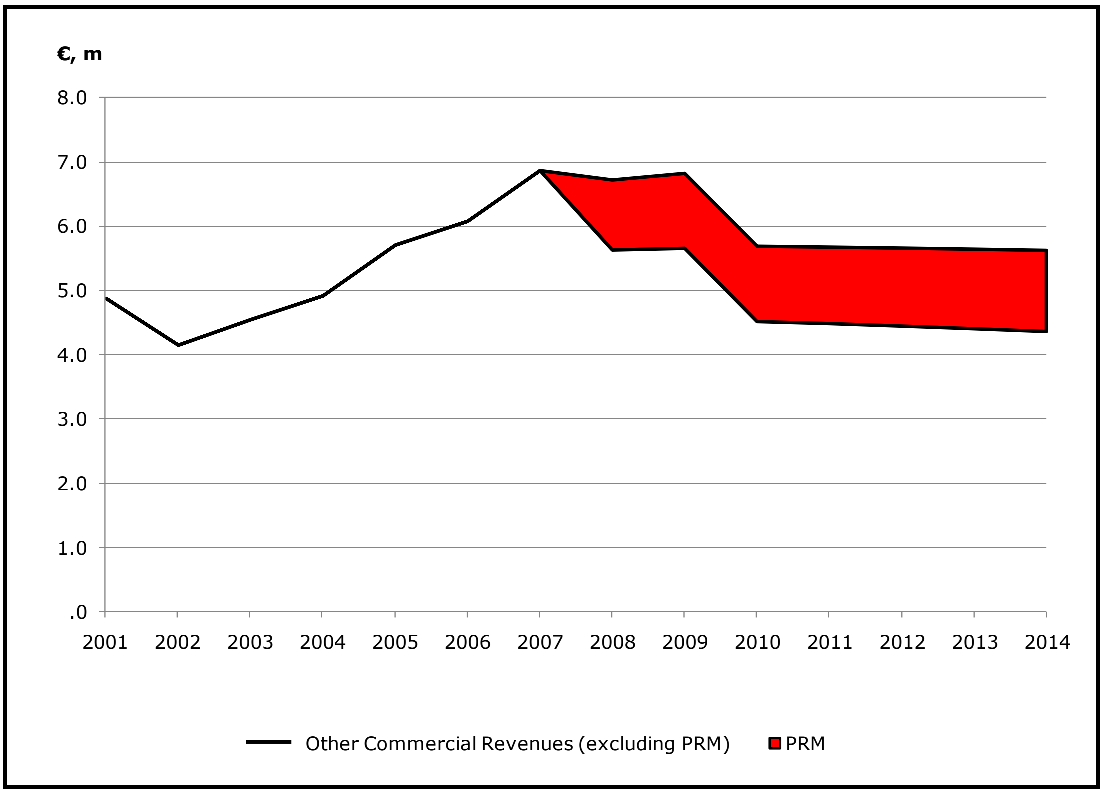

Figure 4.3: Share of PRM in Other Commercial Revenues, 2009 Determination

Source: DAA

4.89 To satisfy itself that PRM revenues are not included in forecasts for future commercial revenues, the Commission has revisited its forecast. It has rejected the alternative option suggested by the Panel of deeming PRM revenues not to be airport charges, given the statutory definition of airport charges.

4.90 Rather than rely on the DAA's revised forecast for *other commercial revenues*, the Commission has generated its own forecast using the same top-down approach it used to generate forecasts for other categories of commercial revenues. Using monthly data for the *other commercial revenues* category for the period January 2001 to June 2008 (dates prior to the DAA assuming responsibility for providing PRM services), the Commission has generated forecasts for the period 2010-2014 based on an econometrics model controlling for any link between passenger numbers and *other commercial revenues.*[2] The chart below shows how the forecast *other commercial revenues* (in per passenger terms) compares to outturn data and to the 2009 Determination's forecast. The DAA explained that the drop in 2008 was because a sub-category within this grouping – revenues from fuel concessions – was re-categorised under *property rental revenues.* The Commission has verified that the one-off drop in one category is offset by a one-off increase in the other category and that the 2010-14 forecasts are consistent with these changed categorizations.

[2] See Annex 2.

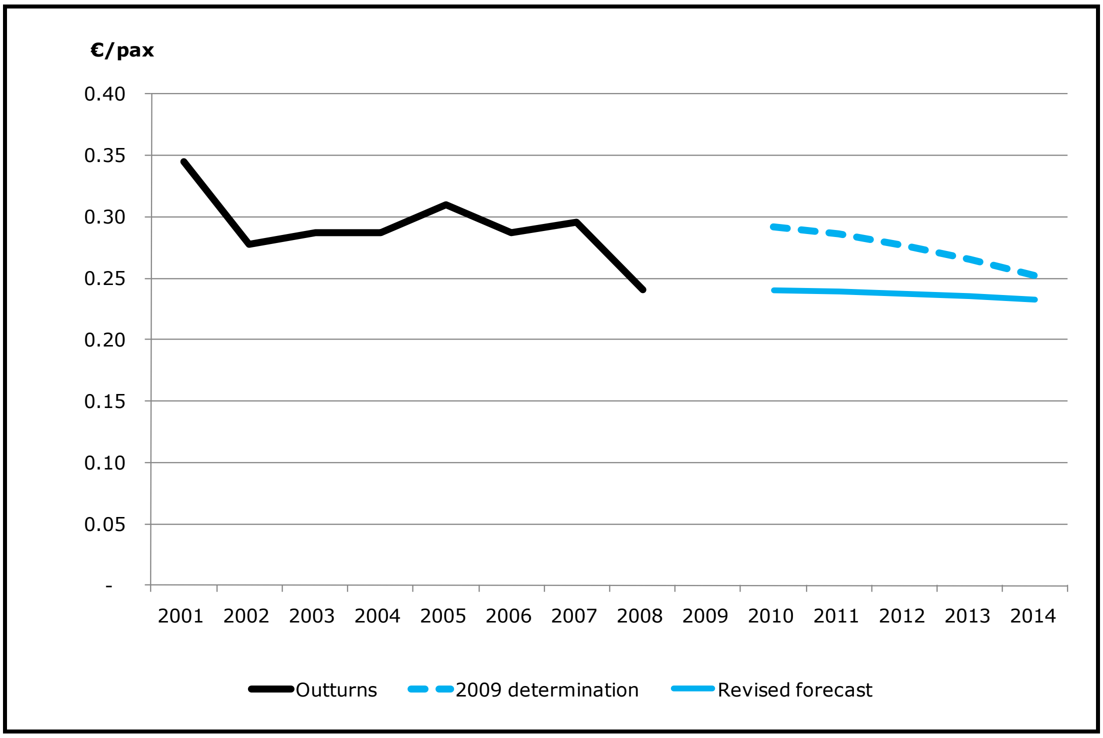

Figure 4.4: Per Passenger Forecasts for Other Commercial Revenues

Notes: All figures in 2009 prices.

4.91 The table below presents the forecast commercial revenue for *other commercial revenues*, along with the forecast used at the time of the 2009 Determination. The inclusion of a lower forecast for *other commercial revenues* in the price cap calculation increases the price cap on average by about 4 cents per annum.

	2010	2011	2012	2013	2014	Total
2009 Determination (€m)	5.7	5.7	5.7	5.6	5.6	28.3
Varied Determination (€m)	4.7	4.8	4.9	5.0	5.2	24.5

Table 4.4: Forecasts for Other Commercial Revenues

Notes: All figures in 2009 prices.

Treatment of Inflation in Reconciling 2006-09 Outturn Costs

4.92 The Panel asked the Commission to review and consider the effects of its application of 6.6% deflation for 2009 to the DAA's submitted figures when reconciling project outturn costs for CIP2006 with allowances at the time of the last Determination. The concern was not with the principle of indexation, but with the possibility that there may have been a mathematical error in the indexation calculations.

Responses to CP1/2010

4.93 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.94 Aer Lingus was concerned that the RAB should be increased by a further €59m, given the size of the price rises implemented in 2010. It was also concerned at the prospect that the Commission might mechanically re-index the DAA's CIP2006 budget.

4.95 Aer Lingus thought that if the DAA's CIP2006 was prepared in nominal terms with a provision for inflation of 4% in 2009, then it is extremely likely that investment costs will be exaggerated in nominal terms. It suggested that if the Commission identifies a discrepancy between inflation assumptions, it cannot increase all of the DAA's projected costs in real terms. Aer Lingus suggested that the Commission conduct a proper investigation into the appropriate level of costs given that deflation was almost 7% in 2009.

Cityjet

4.96 Cityjet agreed with the Commission's treatment of inflation in its 2009 Determination.

The DAA

4.97 The DAA said that to correct the mathematical error in reconciling project outturn costs required the Commission to amend its capital expenditure reconciliation for DAA's CIP2006 using the correct outturn costs for each year. This would allow the Commission to set an opening RAB on the basis of an accurate cost assessment of the expenditure for the period 2006-2009, as well as ensuring the costs of those assets for which a reconciliation was deferred until 2014 would also be valued correctly. The DAA provided the Commission with its grouped project outturn costs with spend broken down by year.

4.98 The DAA estimated that correcting the error will result in an average increase of €0.05 in the price cap over the period 2010–2014.

4.99 In its comments on the submissions received to CP1/2010 the DAA said that it found no basis for the stance taken by Aer Lingus, Ryanair and Cityjet in their responses. It considered Ryanair to have reconciled the CIP2006 using indices that were used for the Draft Determination, which have since been superseded. The DAA said that Ryanair's conclusions ignored the main issue, which is the need to correct the misalignment of inflation indices to ensure the proper application of recognised regulatory principles and to reduce regulatory risk.

Ryanair

4.100 Ryanair noted that the aggregate outturn stated by the Commission in the draft determination amounted to €488.37 million (in 2009 prices) whereas the aggregate outturn required by the DAA for these projects was €487.56 million. It was apparent from a review of the schedule that the vast majority of items matched precisely and the difference of €0.81 million arose as a result of small differences in 15 of the 104 projects analysed. Ryanair would have expected that the project outturns (in 2009 prices) would differ from the DAA restated figures but the evidence suggests that the Commission did not err when re-inflating the capital expenditure (capex) figures submitted by the DAA and that both the 'allowed capex' and the 'outturn capex' were correctly expressed in 2009 prices based on the CPI assumptions used by the Commission in CP3/2009. Ryanair did not think that the Commission had made a fundamental mathematical error when converting the DAA's capex allowance and capex outturn costs 2006–2009 to 2009 prices. Ryanair found the evidence to suggest that the deflation of -6.56% in

2009 has been correctly incorporated by the Commission into its computations relating to the capex 2006–09 reconciliation.

4.101 Ryanair suggested that if it is the case that issues arise with respect to capex outturns for individual projects where costs have been redacted, users should be afforded an opportunity to review and consider the costs fully in advance of any adjustment taking place.

4.102 In commenting on other parties' responses to CP1/2010, Ryanair did not see merit in the DAA's argument. It asked that users be given an opportunity to consult if a new project-by-project reconciliation of CIP2006 is required.

Commission's review

4.103 To review the indexation of outturn capex spend in the period 2006-2009, the Commission has revisited all calculations converting nominal prices into real prices. It has sought and received from the DAA outturn spend (in nominal terms) by year for every project included in Annex 3 and 4 of the draft determination, and converted these sums into 2009 real prices. This contrasts with the approach for the 2009 draft and final determinations, when the Commission used outturn data provided in 2006 prices by the DAA.

4.104 In applying adjustments to nominal costs to restate the figures in October 2009 prices, the Commission has identified two areas where it finds that the figures presented at the time of the draft and final determinations were misstated.

- There was a mismatch between the inflation rates for 2009 used by the DAA and the Commission for the purposes of converting prices into 2006 or 2009 prices. The DAA assumed an inflation rate of 4% in 2009 when converting 2009 capex spend into 2006 prices. To re-base these figures into 2009 prices, the Commission had used an inflation rate for 2009 of -1% at the time of the draft determination and -6.6% by the time of the 2009 Determination. The Commission is satisfied that it is correct to apply a deflationary adjustment of minus 6.6% when converting expenditure into 2009 prices.[3] However, for projects undertaken in 2009 or later, the fact that the DAA had assumed an inflation rate of 4% (rather than -6.6%) means that the Commission had rolled forward costs into 2009 prices based on data provided by the DAA that were not correctly stated in 2006 prices.

- The DAA had included projected capex for dates after December 2009 when providing information in May 2009 on its outturn capex for the period 2006-2009. For such projects, there is the discrepancy between the DAA's assumed 4% inflation in 2009 and the actual outturn of -6.6% inflation. However, the Commission does not believe that such projected spending should be included in a reconciliation exercise relating to capex incurred in the period 2006-2009. It has consequently excluded such spend from its calculations.

4.105 The differences between the DAA outturn spend as used in the 2009 Determination and what the Commission now believes it should have used are illustrated in the table below, using the same groupings for projects used at the time of the draft determination. The table also includes a column showing what the DAA believed should have been used in its response to CP1/2010.[4] The exclusion of post-2009 capex in the Commission's calculations explains the

[3] For the purposes of indexing prices, the Commission used an inflation rate of 4.9% in 2007, 4.1% in 2008 and -6.6% in 2009. These figures were derived by measuring the change in the consumer price index reported in October of the year in question and the preceding year.

[4] See page 13 of the DAA response to CP1/2010.

differences between the revised DAA estimates and the figures that the Commission considers to be correct.

	Draft and Final Determination	*DAA Response to CP1/2010*	*Revised Estimate of Commission*
Airfield projects	86	86	85
General projects	27	28	26
Runway project	4	5	5
New projects*	32	34	32
Other capacity projects	99	101	101
Pier D **	125	125	125
T2 (box 1 and box 2)	776	826	675
T1X	51	53	53
Total	**1,199**	**1,257**	**1,101**

Table 4.5: Outturn Capex Spend, 2006-2009

*Notes: All figures in €m, 2009 prices. The numbers exclude what the DAA termed "capitalised labour" and "capitalised interest", consistent with the approach used in the 2009 Determination. * Includes €4m for the South Apron Village Project. ** Includes the Pier D TFL and Pier D fit-out costs.*

4.106 The 2009 Determination deferred reconciliation of T2 spend until the time of the fourth determination (2014). The T2 project accounts for the overwhelming majority of post-2008 capex included in the DAA's calculations for capex reconciliation. Consequently, for the purposes of capex reconciliation and estimating the starting RAB there is a relatively small difference between the reported outturn capex cited in the 2009 Determination and what the Commission has now concluded should have been reported.

4.107 The table below compares the outturn spend by the DAA (as now estimated by the Commission) with the 2007 Interim Review allowance for those capital expenditure groupings for which the 2009 Determination included a reconciliation between allowed and outturn spend. It also includes columns showing the Commission's final allowances for the purposes of estimating a starting RAB and how this differs to what was assumed at the time of the 2009 Determination. The table excludes Pier D costs which are discussed separately later in this document, when the Commission addresses the Panel referrals relating to the allowances for Pier D cost overruns and allowances for TFL and Pier D fit-out costs. It also excludes T1X, for which the Commission continues to assess charges neutrality relative to the allowance at the time of the 2007 Interim Review.

	2007 Interim Review allowance	Outturn spend	Revised outturn allowance	Change in allowance since 2009 Determination
Airfield projects	103	85	85	-0.6
General projects	44	26	26	-1.3
Runway project	8	5	5	0.3
New projects*		32	28	-0.1
Other capacity projects	94	101	93	0
Total				**-1.6**

Table 4.6: Reconciling 2006-2009 Outturn Capex with Allowances

*Notes: All figures in €m, 2009 prices. *The outturn spend for* new projects *includes €4m for the South Apron village project, a project that the Commission concluded should be considered when it reconciles T2 costs. Consequently, the reported outturn allowance does not include any amount for this project.*

4.108 The Commission has concluded it should revise the opening RAB down by €1.6m following this referral by the Panel. In arriving at this figure it has continued to have regard to its principles governing reconciling allowed and outturn capex, and not automatically adjusted the figures. For the groupings where the Commission now concludes that the DAA spent less in the period 2006-2009 than it allowed in the 2009 Determination, the Commission has revised down its allowances to this lower sum. The only categories where the revised outturn spend is higher than the Commission allowed are *runway projects* and *other capacity projects*. For the former, the Commission has included the larger amount in the RAB since this sum continues to be less than allowed at the time of the 2007 Interim Review. For *other capacity projects*, the Commission has concluded that the revised figure represents a greater level of overspend than identified at the time of the 2009 Determination. The Commission disallowed the smaller overspend, and does not believe it should revisit that decision now that it has concluded that overspend is even larger. Consequently, it has not increased the allowance for spending on *other capacity projects* in the opening RAB.

Temporary Forward Lounge and Pier D Fit-out Costs

4.109 The DAA submitted to the Panel that the Commission made no allowance for capital costs that it says were legitimately incurred during the 2006-2009 period associated with the TFL (€6.2m outturn cost) and Pier D fit-out costs (€1.2m outturn cost).

4.110 The Panel concluded that determining whether these costs were excluded appeared to it to be a matter of fact which could be objectively justified. It stated that if the expenditure was incurred and cannot be said to be imprudent, an allowance should be made for it.

Responses to CP1/2010

4.111 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.112 Aer Lingus submitted that the Commission should reject the DAA's arguments with respect to these costs for the same reason that Aer Lingus opposed cost overruns. It stated that these costs were not included in CIP2006 or the previous price control. They therefore constitute part of the risk that the DAA takes in the investment process and for which it is remunerated through the cost of capital.

Cityjet

4.113 Cityjet agreed with the Commission's approach. It stated that the 2007 Interim Determination set a principle that users should be consulted by the DAA regarding cost overruns and that such consultation did not occur.

The DAA

4.114 The DAA argued that the Commission was incorrect to conclude that these costs were included in the Pier D outturn cost. It claimed that the TFL was not originally listed as an individual project or a Pier D project, as it was not envisaged as necessary. However given the rise in passenger numbers between 2005 and 2007 it provided a TFL in the absence of a pier to facilitate users as an interim solution. It added that the project was separate from Pier D and was primarily driven by a short-term and sudden increase in passenger numbers which could not be facilitated by the construction of a long-term piece of infrastructure.

4.115 In discussing Pier D fit-out costs, the DAA stated that the Pier D project had originally been tendered on a shell and core basis (i.e. excluding fit-outs to ramp accommodation). It stated in negotiations to secure a tenant for the ramp accommodation it became apparent that there was a requirement for a Pier D fit-out in order to achieve a higher rental income. The DAA argued that the Commission should either allow the cost of fitting out Pier D or else revise down the property rental forecast (in commercial revenues).

Ryanair

4.116 Ryanair presented evidence from the DAA's own reconciliation of its capex outturns 2006-2009 from the DAA's response to the draft determination to test if the TFL and Pier D fit-out costs had been included or excluded from the Commission's allowance for Pier D. Ryanair's evidence, presented in paragraph 85 and 86 of its submission, indicated that the figures used by the Commission in its Draft Determination did not exclude these projects. As Ryanair's evidence appeared to suggest that the outturn expenditures for these projects had been fully considered in the Commission's reconciliation and analysis, it argued that no adjustment should be made.

Commission's review

4.117 The Panel's referral on this matter has two facets:

- whether the TFL or Pier D fit-out projects were included in the opening 2010 RAB, a matter that the Panel describes as a "matter of fact", and
- whether these projects should now be added to the RAB if they were omitted in the 2009 determination.

4.118 In resolving the first aspect of this referral the Commission has reviewed its previous capex allowances, if any, for these projects, the actual expenditure incurred by the DAA during the regulatory period, and how the Commission reconciled the DAA's actual expenditure with the allowances in the 2009 Determination.

4.119 There were two TFL projects in the DAA's CIP2006. One was to facilitate demand for contact stands during the construction of Pier D (the Pier D TFL), and the other to temporarily cover contact stand demand after Pier D's opening but before the opening of Pier E (the Pier E TFL). During the 2007 Interim Review the Commission included an allowance for Pier E TFL within *T2 Associated Projects*, to be reconciled along with all other T2 projects in 2014. The Pier D TFL was considered to be part of the Pier D project, an allowance for which had been made in the 2005 Determination, the costs of which the Commission indicated it would reconcile in the 2009 Determination. The Pier D fit-out project was not mentioned at the time of either the 2005 Determination or the 2007 Interim Review.

4.120 A review of the Commission's 2006-2009 reconciliation has indicated that the Commission did not include the costs of either the Pier D TFL or the Pier D fit-out project in its opening 2010 RAB. It now falls on the Commission to determine whether it should include these projects in the RAB, in the context of its RAB roll-forward principles.[5]

4.121 The Pier D TFL project enabled DAA to meet the needs of users for contact stand capacity during the delivery of a major piece of long-term capacity, namely Pier D. The facility was provided during a period of high growth in demand and facilitated the quick turnaround models of airline users. Whilst not included at the time of the 2005 Determination when the Pier D allowance was made, the project does appear to have met the needs of users during the last determination period. In the period leading up to the 2009 Determination, the Commission received submissions from users calling for the retention of the TFL facility and was regularly copied on correspondence between DAA and its users on the same issue. Documentary and empirical evidence indicates that the TFL was a heavily used facility which users valued and that users were reluctant for it to be decommissioned in 2009. The Commission has consequently concluded that it should allow the Pier D TFL costs as an overspend on the Pier D project arising from a changed project scope to meet users' needs. Consequently, the 2010 opening RAB has been increased by €6.1m (in 2009 prices). (In addition, the Commission added a further €0.5m for the retention of the TFL, as discussed in the following Panel referral.)

4.122 In contrast, the Commission has not made an additional allowance for the Pier D fit-out costs. The Commission accepts that it is a standard and sensible approach to only fit-out a facility once the needs of the users for that facility are known. However, this does not mean that there is no cap on what the DAA can spend on such a fit-out. In this instance, the Commission believes that the DAA should have managed the costs of the overall Pier D project to include the costs of such a fit-out. If the fit-out was more expensive than might have been envisaged because of the particular demands of the user availing of the fit-out, that user should have been asked to incur the extra costs. The interests of all current and prospective users are best served if the DAA operates within the framework of an overall budget. It can decide how to service bespoke requirements of individual users within that overall budget, but should not overspend the allowance unless the generality of users concur that the airport's economic and efficient development will be better achieved if the DAA spends additional capex over and above its allowance. For the Commission to do otherwise would be inconsistent with the RAB roll-forward principles and contrary to the Commission's approach to the overspend on Pier D described below.

[5] See Annex 3 to CP4/2009: Determination on Maximum Level of Airport Charges at Dublin Airport.

Pier D Costs

4.123 The Panel was of the view that the Commission should review its disallowance of Pier D cost overruns. In its decision the Panel stated that it was concerned that capital markets might react negatively if the approach to regulation is seen to disallow large tranches of past investment, as such retrospective adjustment almost invariably gives rise to regulatory uncertainty.

4.124 The Panel then stated the circumstances under which it thought that RAB disallowances might be legitimately justified, namely:

- Where the investment is obviously imprudent; or,
- Where there is some manifest deficiency in the performance of the regulated entity.

4.125 In considering the latter requirement the panel stated that merely operating at less than maximum efficiency would not be sufficient reason to disregard expenditure as most companies fall short of this standard in some areas. Rather it stated that ex post disallowance should only be contemplated where the performance of the regulated company can be considered to fall outside normal commercial parameters.

Responses to CP1/2010

4.126 The Commission has sought below to summarise, without comment, the observations and arguments that parties made on this referral topic in their responses to CP1/2010. Their full responses are available on the Commission's website.

Aer Lingus

4.127 Aer Lingus disagreed with the Panel and restated its earlier view from its response to the draft determination that the additional costs of Pier D should be excluded from the RAB. It stated that the costs were not included in CIP2006 and did not form part of the earlier (2005) price settlement and were therefore not being retrospectively disallowed.

4.128 Aer Lingus added that dealing with cost variations of this nature forms an intrinsic part of the settlement under price-cap regulation and that risks associated with such cost variations are included in the cost of capital. It added that the Panel's concern about capital markets was misplaced, as no adverse precedent was being set. It thought that this issue was not a case of disallowing capex that was included in a final regulatory price control but rather a matter of debate between the regulated company and the regulator over the justification of ex post changes to that settlement.

4.129 It argued that if the Commission were to begin to allow cost overruns the system of regulation would be in danger of becoming one of cost pass through rate of return regulation. This was known to lead to over-investment and inefficiency.

Cityjet

4.130 Cityjet agreed with the Commission's approach to Pier D costs. It stated that the 2007 Interim Determination set a principle that users should be consulted by the DAA regarding cost overruns and that such consultation did not occur.

The DAA

4.131 The DAA presented the circumstances that arose at the time of the 2005 determination in respect of the estimated cost of Pier D. It stated that a tight timeframe mandated by the Government led to Pier D commencing construction prior to the completion of its design. As the Commission's 2005 determination review had commenced at the same time, the DAA proposed a cost estimate at a stage where the final design of the project was not complete. The DAA stated that while this approach was necessary in such a scenario, cost estimates were less reliable than would otherwise have been the case and that insufficient consideration was given to Pier D outturn costs or the rationale for these cost provided by the DAA during the 2009 review.

4.132 In an annex to its response the DAA presented evidence of its benchmarking exercise, which compared Pier D to other recently delivered piers in the UK, as well as an explanation of the cost overruns against the estimate in the 2005 determination. In respect of the cost overruns the DAA stated that individual cost drivers were either out of the control of the DAA or were in the interests of users. It claimed that Pier D had been delivered efficiently and competitively and that there was "*no question that users are being asked to pay for inefficiently incurred capital investment"*.

Ryanair

4.133 Ryanair expressed a similar view to Aer Lingus regarding the compensation that the cost of capital provides investors for the risks of overspending on capital projects. It added that any adjustment to the disallowed expenditure would amount to a duplication of charges to users and compensation to the DAA.

4.134 In order to allow any additional expenditure Ryanair stated that the Commission had to satisfy itself that the additional expenditure has been efficiently incurred and meets the reasonable requirements of users. It argued that this principle was set out by the Commission in CP6/2007 and was evident when the cost of capital allowance was set. The financial markets would therefore have been aware of the risks attaching to developments undertaken by the DAA without the agreement of its users.

Commission's review

4.135 The Commission has sought to reconcile the Panel's statements on how to treat cost overruns with the Commission's own policy towards overspend described in Annex 3 of the 2009 Determination. The Panel set out two situations where overspend should not be allowed: where the investment is obviously imprudent; and where there is some manifest deficiency in the performance of the regulated entity. It did not give practical examples of situations where its conditions for disallowing overspend would be met nor did it comment on the Commission's RAB roll-forward principles and whether they described such situations.

4.136 Scenario 2 of the RAB roll-forward principles describes how the Commission will treat overspend and splits such a scenario into three situations:

- Over-budgeting resulting from changes in user-requirements;
- Over-budgeting resulting from factors outside the DAA's control; and,
- Over-budgeting resulting from factors within the DAA's control

4.137 The treatment of overspend will depend on which of the situations the actual overspend falls within. Where factors are outside the DAA's control the

Commission will allow costs into the RAB from the beginning of the next determination. The Commission will not allow additional costs where they arise because of factors within DAA's control, e.g. mismanagement of the project or changes in specification without consulting users. Where overspend arises from responding to changing user requirements, the Commission expects to see supporting evidence from the DAA demonstrating that users were aware that the changes would result in higher costs but continued to support the project proceeding after allowing for the additional costs. Otherwise DAA should either proceed with the original plan or wait until a subsequent determination and make the case to the Commission for the changes.

4.138 The Commission views the RAB roll-forward principles and the Panel's views on overspend as consistent. No party suggested that the RAB roll-forward principles needed to change given this referral by the Panel. In a meeting with the DAA, it confirmed to the Commission that the basis of its appeal was not an objection to the approach described in the RAB roll-forward principles but rather the application of the principles.

4.139 Therefore, the Commission has approached this referral by the Panel by reconsidering the reasons for the Pier D overspend and how they should be treated given scenario 2 of the RAB roll-forward principles. The analysis has used the allowance for Pier D costs in the 2005 Determination as a starting point. The chart below shows the allowance in 2005, the outturn expenditure (consistent with the approach adopted following the Panel's referral back of the approach to indexation for previous capex), and what was allowed in the 2009 Determination. The chart does not include the costs of the TFL or Pier D fit-out, expenditure separately addressed in the preceding Panel referral.

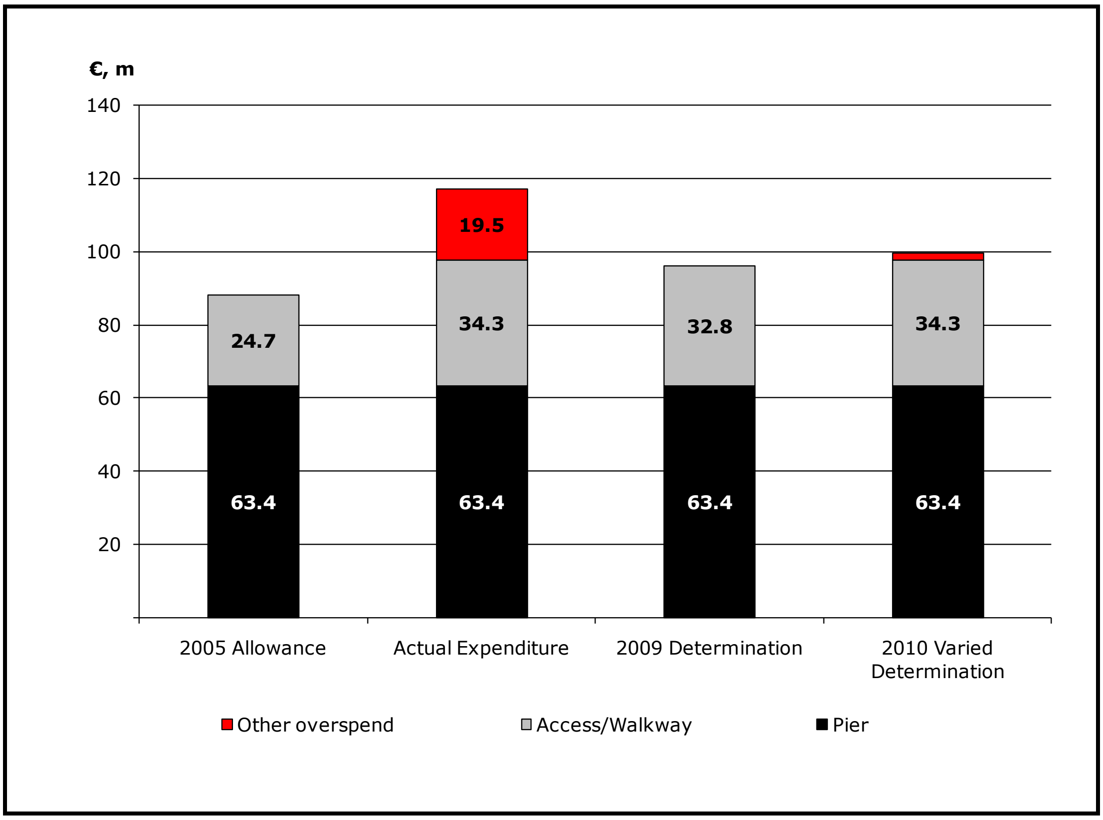

Figure 4.5: Pier D Allowances and Spend (excluding TFL and Fit-out)

Source: DAA, Commission

4.140 The opening RAB in the 2005 Determination included €7.2m based on expenditure on the project in 2005. The Commission allowed a further €63.4m in respect of the Pier and €24.7m in respect of an access/walkway through the OCTB. The DAA actually spent €117m on these projects, including €34.3m on the Pier D access project. The DAA explained that the need to build an elevated walkway around the OCTB as a result of a decision by planning authorities was the basis for the overspend on the walkway. The 2009 Determination accepted that these costs arose from factors outsides the DAA's control and were allowed into the RAB. The Commission continues to believe that was the correct decision. In reviewing the numbers the Commission has identified that its 2009 Determination previously only allowed €32.8m for the walkway; the Commission has increased the RAB by €1.5m to correct for this discrepancy.

4.141 The DAA also offered various reasons for a further €19.5m overspend relative to the Commission's 2005 allowance for building Pier D and an access walkway in its response to CP1/2010.[6] These reasons are set out in the table below.

Other Overspend	**€m,2009**
Two Additional Stands	2.7
Walkway adjustment (GNIB)	1.8
Improved Building Aesthetics	1.1
Life Cycle Improvements	1.2
Retention of TBG	0.5
Airport operations driven changes	3.8
Changes to tenant requirements	0.3
Value added scope increases	2.5
Design development	5.6
Total overspend	19.5

Table 4.7: Factors leading to a Pier D Overspend

Source: DAA

4.142 The Commission continues to regard all the items in the table as examples of expenditure within the control of the DAA. The test therefore is whether there is evidence that there was support from users for additional costs to be incurred to provide additional services that users value. The amount allowed for the Pier D project in the 2005 Determination included a project contingency allowance. Absent evidence that the DAA was responding to evolving user needs, the Commission regards the items as identified as standard cost variations within a project for which it falls to the DAA to manage costs. The Commission continues to concur with the view expressed by Aer Lingus following the draft determination that cost variations of this nature form an intrinsic part of the settlement under price-cap regulation and the risks associated with such cost variations are included in the cost of capital.

4.143 The evidence available to the Commission suggests that users did value retention of the TBG at a cost of €0.5m. The Commission was copied into correspondence between the DAA and airlines showing that users supported retaining this facility. Consequently, the Commission has varied its Determination by adding this sum to the 2010 opening RAB.

[6] See page 48 of DAA response to CP1/2010

4.144 For the other reasons offered by the DAA for an overspend, the Commission has not varied its 2009 Determination. It has not been provided with evidence that the DAA was responding to user needs for a revised project scope with accompanying increased costs. In such circumstances, it would be inconsistent with scenario 2 of the RAB roll-forward principles to allow such costs to enter the RAB. In many cases, the overspend appears to be for costs incurred providing the output envisaged at the time of the 2005 Determination. In the case of providing two additional stands, this did change the scope of the Pier D project, but the Commission did not receive supporting evidence demonstrating that users were aware that the changes would result in higher costs and nevertheless supported the changed specifications.

ANNEX 1: Revised Price Cap

The Dublin Airport Authority shall ensure that, for each year of the regulatory period 2010–14, the level of revenue collected from airport charges, expressed as a *per passenger yield*, does not exceed the *maximum permitted revenue per passenger, P_t,* as set out by the following formulae. In the event that the DAA should collect more than permitted, it shall arrange to rebate users within 45 days of the year ending a sum sufficiently large such that the revenues collected net of this sum, on a per passenger basis, do not exceed the maximum permitted revenue per passenger.

Regulatory period 1 January 2010 to 31 December 2010

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2010 shall be equal to:

$$P_{2010} = [€9.03 + T2_{2010}] * QS_{2010}$$

Where:

$T2_{2010}$ is an increase in the maximum permitted revenue per passenger allowed if T2 becomes operationally ready in 2010.

$T2_{2010}$ = €2.33 * (*Number of days in 2010 T2 operationally ready) / 365*

QS_{2010} represents a *Quality of Service* adjustment that takes a value between 0.965 and 1 depending on how many service quality targets the DAA manages to achieve. It equals 1 if the DAA achieves all the targets. If the DAA failed to meet any target, it would equal 0.965 and the level of permitted revenues would be 3.5% lower.

QS_{2010} = one minus the sum of

0.0005 * number of days in 2010 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2010 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2010 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.7 in the '*ease of way-finding through airport'* category of the Airport Council International ("ACI") airport service quality survey ("ACI survey") in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*flight information screens*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.6 in the '*cleanliness of airport terminal*' category of the

ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.3 in the '*cleanliness of washrooms*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.0 in the '*comfort of waiting/gate area*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.00025 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.0005 (0.05%); plus

0.000375 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the 'c*ourtesy/helpfulness of security staff*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00075 (0.075%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.5 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.1 in the '*communications/ telecommunications/e-facilities*' category of the ACI survey in the first two quarters of 2010, such that the value never exceeds 0.00125 (0.125%).

Regulatory period 1 January 2011 to 31 December 2011

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2011 shall be equal to:

P_{2011} = [(€8.20 + $T2_{2011}$ + $Trigger_{2011}$) * (1 + CPI_{2010}) + k_{2009} + w_{2009}] * QS_{2011}

Where:

$T2_{2011}$ is an increase in the maximum permitted revenue per passenger allowed if T2 becomes operationally ready in 2010 or during 2011.

$T2_{2011}$ = €2.33 * (*Number of days in 2011 T2 operationally ready) / 365*

$Trigger_{2011}$ is an increase in the maximum permitted revenue per passenger arising should triggers for additional capital projects be met.

$Trigger_{2011}$ = the sum of

€0.89 if annual passenger numbers at Dublin airport in 2010 exceed 23.5 million (*the runway trigger*), or €0.00 otherwise; plus

€0.07 if there is a week in 2010 when demand for aircraft stands was greater than 74 (*the apron development trigger*), or €0.00 otherwise; plus

€0.07 if legislation requires the DAA to upgrade its Dublin airport baggage security equipment prior to the end of 2011 (*the HBS trigger*), or €0.00 otherwise.

CPI_{2010} is the percentage change (whether of a positive or negative value) in the consumer price index between that published in October 2009 and October 2010.

k_{2009} is a correction per passenger to be made in the regulatory year 2011 on account of any over or under collection by the DAA in the regulatory year 2009. It is derived from the following formula:

$$k_{2009} = (€7.39 - Y_{2009}) * (Pax_{2009}/22{,}947{,}301) * 1.0101 * (1+ I_{2010})$$

where Y_{2009} is the actual average revenue per passenger collected from airport charges levied at Dublin airport in 2009, Pax_{2009} is the number of passengers using Dublin airport during 2009, and I_{2010} is the average daily three-month interest rate between 1 November 2009 and 1 November 2010 using the Euribor rate or some other suitable measure.

w_{2009} is a correction per passenger to be made in the regulatory year 2011 on account of any difference for the year 2009 between the Commission's actual costs and expenses and budgeted costs and expenses that are recoverable through airport charges levied at Dublin airport. It is derived from the following formula:

$$w_{2009} = €0.0200 * (1+ I_{2010})$$

QS_{2011} represents a *Quality of Service* adjustment that takes a value between 0.955 and 1 depending on how many service quality targets the DAA manages to achieve. It equals 1 if the DAA achieves all the targets. If the DAA failed to meet any target, it would equal 0.955 and the level of permitted revenues would be 4.5% lower.

QS_{2011} = one minus the sum of

0.0005 * number of days in 2011 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2011 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2011 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.7 in the '*ease of way-finding through airport'* category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*flight information screens*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.6 in the '*cleanliness of airport terminal*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.3 in the '*cleanliness of washrooms*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.0 in the '*comfort of waiting/gate area*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the 'c*ourtesy/helpfulness of security staff*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.5 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.1 in the '*communications/ telecommunications/e-facilities*' category of the ACI survey in the last two quarters of 2010 and first two quarters of 2011, such that the value never exceeds 0.0025 (0.25%).

Regulatory period 1 January 2012 to 31 December 2012^

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2012 shall be equal to:

$P_{2012} = [(€7.98 + T2_{2012} + Trigger_{2012}) * (1 + CPI_{2011}) + k_{2010} + w_{2010}] * QS_{2012}$

Where:

$T2_{2012}$ is an increase in the maximum permitted revenue per passenger allowed if T2 becomes operationally ready before end of 2011 or during 2012.

$T2_{2012}$ = €2.33 * (*Number of days in 2012 T2 operationally ready) / 366*

$Trigger_{2012}$ is an increase in the maximum permitted revenue per passenger arising should triggers for additional capital projects be met.

$Trigger_{2012}$ = the sum of

€0.89 if annual passenger numbers at Dublin airport in a 12-month period prior to the end of 2011 exceed 23.5 million (*the runway trigger*), or €0.00 otherwise; plus

€0.07 if there is a week in 2010 or 2011 when demand for aircraft stands is greater than 74 (*the apron development trigger*), or €0.00 otherwise; plus

€0.07 if legislation requires the DAA to upgrade its Dublin airport baggage security equipment prior to the end of 2012 (*the HBS trigger*), or €0.00 otherwise.

CPI_{2011} is the percentage change (whether of a positive or negative value) in the consumer price index between that published in October 2009 and October 2011.

k_{2010} is a correction per passenger to be made in the regulatory year 2012 on account of any under collection (capped at 5%) by the DAA in the regulatory year 2010. It is derived from the following formula:

$$k_{2010} = \text{minimum}[(P_{2010} - P_{2010,\ outturn}),(0.05 * P_{2010})] * (1+ I_{2010}) * (1+I_{2011}) * (Pax_{2010} / Pax_{2012})$$

where $P_{2010,\ outturn}$ is the outturn revenue per passenger in 2010; Pax_{2010} and Pax_{2012} are Commission forecasts for total annual passengers at Dublin airport in 2010 and 2012 respectively, as set out in this Determination; I_{2010} is the average daily three-month interest rate between 1 November 2009 and 1 November 2010 using the Euribor rate or some other suitable measure, and I_{2011} is the average daily three-month interest rate between 1 November 2010 and 1 November 2011 using the Euribor rate or some other suitable measure.

w_{2010} is a correction per passenger to be made in the regulatory year 2012 on account of any difference for the year 2010 between the Commission's actual costs

and expenses and budgeted costs and expenses that are recoverable through airport charges levied at Dublin airport. It is derived from the following formula:

$$w_{2010} = (WA_{2010} - WF_{2010} * (1+CPI_{2010})) * (1+ I_{2010}) * (1+I_{2011}) / Pax_{2012}$$

where WA_{2010} is the Commission's actual costs and expenses in 2010 that are recoverable from airport charges levied at Dublin airport, and WF_{2010} is the Commission's budgeted costs and expenses for 2010 that are recoverable from airport charges levied at Dublin airport.

QS_{2012} represents a *Quality of Service* adjustment that takes a value between 0.955 and 1 depending on how many service quality targets the DAA manages to achieve. It equals 1 if the DAA achieves all the targets. If the DAA failed to meet any target, it would equal 0.955 and the level of permitted revenues would be 4.5% lower.

QS_{2012} = one minus the sum of

> 0.0005 * number of days in 2012 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus
>
> 0.00025 * number of days in 2012 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus
>
> 0.000625 * number of quarters in 2012 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus
>
> 0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.7 in the '*ease of way-finding through airport'* category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus
>
> 0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*flight information screens*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus
>
> 0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.6 in the '*cleanliness of airport terminal*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus
>
> 0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.3 in the '*cleanliness of washrooms*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus
>
> 0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.0 in the '*comfort of waiting/gate area*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of security staff*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.5 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.1 in the '*communications/ telecommunications/e-facilities*' category of the ACI survey in the last two quarters of 2011 and first two quarters of 2012, such that the value never exceeds 0.0025 (0.25%).

^ In updating the formula for the regulatory period 1 January 2012 to 31 December 2012, the Commission has identified and corrected errors relating to the expressions for k_{2010} and w_{2010}.

<u>Regulatory period 1 January 2013 to 31 December 2013</u>

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2013 shall be equal to:

P_{2013} = [(€7.76 + $T2_{2013}$ + $Trigger_{2013}$) * (1 + CPI_{2012}) + k_{2011} + w_{2011}] * QS_{2013}

Where:

$T2_{2013}$ is an increase in the maximum permitted revenue per passenger allowed if T2 becomes operationally ready before end of 2012 or during 2013.

$T2_{2013}$ = €2.33 * (*Number of days in 2013 T2 operationally ready) / 365*

$Trigger_{2013}$ is an increase in the maximum permitted revenue per passenger arising should triggers for additional capital projects be met.

$Trigger_{2013}$ = the sum of

€0.89 if annual passenger numbers at Dublin airport in a 12-month period prior to the end of 2012 exceed 23.5 million (*the runway trigger*), or €0.00 otherwise; plus

€0.07 if there is a week in 2010, 2011 or 2012 when demand for aircraft stands is greater than 74 (*the apron development trigger*), or €0.00 otherwise; plus

€0.07 if legislation requires the DAA to upgrade its Dublin airport baggage security equipment prior to the end of 2013 (*the HBS trigger*), or €0.00 otherwise.

CPI_{2012} is the percentage change (whether of a positive or negative value) in the consumer price index between that published in October 2009 and October 2012.

k_{2011} is a correction per passenger to be made in the regulatory year 2013 on account of any under collection (capped at 5%) by the DAA in the regulatory year 2011. It is derived from the following formula:

$$k_{2011} = \text{minimum}[(P_{2011} - P_{2011,\ outturn}),(0.05 * P_{2011})] * (1+I_{2011}) * (1+I_{2012}) * (Pax_{2011} / Pax_{2013})$$

where $P_{2011,\ outturn}$ is the outturn revenue per passenger in 2011; Pax_{2011} and Pax_{2013} are Commission forecasts for total annual passengers at Dublin airport in 2011 and 2013 respectively, as set out in this Determination; I_{2011} is the average daily three-month interest rate between 1 November 2010 and 1 November 2011 using the Euribor rate or some other suitable measure, and I_{2012} is the average daily three-month interest rate between 1 November 2011 and 1 November 2012 using the Euribor rate or some other suitable measure.

w_{2011} is a correction per passenger to be made in the regulatory year 2013 on account of any difference for the year 2011 between the Commission's actual costs

and expenses and budgeted costs and expenses that are recoverable through airport charges levied at Dublin airport. It is derived from the following formula:

$$w_{2011} = (WA_{2011} - WF_{2011} * (1+CPI_{2012})) * (1+I_{2011}) * (1+I_{2012}) / Pax_{2013}$$

where WA_{2011} is the Commission's actual costs and expenses in 2011 that are recoverable from airport charges levied at Dublin airport, and WF_{2011} is the forecast Commission's budgeted costs and expenses for 2011 that are recoverable from airport charges levied at Dublin airport.

QS_{2013} represents a *Quality of Service* adjustment that takes a value between 0.955 and 1 depending on how many service quality targets the DAA manages to achieve. It equals 1 if the DAA achieves all the targets. If the DAA failed to meet any target, it would equal 0.955 and the level of permitted revenues would be 4.5% lower.

QS_{2013} = one minus the sum of

0.0005 * number of days in 2013 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2013 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2013 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.7 in the '*ease of way-finding through airport'* category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*flight information screens*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.6 in the '*cleanliness of airport terminal*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.3 in the '*cleanliness of washrooms*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.0 in the '*comfort of waiting/gate area*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the 'c*ourtesy/helpfulness of security staff*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.5 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.1 in the '*communications/ telecommunications/e-facilities*' category of the ACI survey in the last two quarters of 2012 and first two quarters of 2013, such that the value never exceeds 0.0025 (0.25%).

Regulatory period 1 January 2014 to 31 December 2014

The maximum permitted revenue per passenger for the regulatory period 1 January to 31 December 2014 shall be equal to:

$P_{2014} = [(€7.56 + T2_{2014} + Trigger_{2014}) * (1 + CPI_{2013}) + k_{2012} + w_{2012}] * QS_{2014}$

Where:

$T2_{2014}$ is an increase in the maximum permitted revenue per passenger allowed if T2 becomes operationally ready before end of 2012 or during 2013.

$T2_{2014}$ = €2.33 * (*Number of days in 2013 T2 operationally ready) / 365*

$Trigger_{2014}$ is an increase in the maximum permitted revenue per passenger arising should triggers for additional capital projects be met.

$Trigger_{2014}$ = the sum of

€0.89 if annual passenger numbers at Dublin airport in a 12-month period prior to the end of 2013 exceed 23.5 million (*the runway trigger*), or €0.00 otherwise; plus

€0.07 if there is a week in 2010, 2011, 2012 or 2013 when demand for aircraft stands is greater than 74 (*the apron development trigger*), or €0.00 otherwise; plus

€0.07 if legislation requires the DAA to upgrade its Dublin airport baggage security equipment prior to the end of 2014 (*the HBS trigger*), or €0.00 otherwise.

CPI_{2013} is the percentage change (whether of a positive or negative value) in the consumer price index between that published in October 2009 and October 2013.

k_{2012} is a correction per passenger to be made in the regulatory year 2014 on account of any under collection (capped at 5%) by the DAA in the regulatory year 2012. It is derived from the following formula:

$$k_{2012} = \text{minimum}[(P_{2012} - P_{2012,\ outturn}),(0.05 * P_{2012})] * (1+I_{2012}) * (1+I_{2013}) * (Pax_{2012} / Pax_{2014})$$

where $P_{2012,\ outturn}$ is the outturn revenue per passenger in 2012; Pax_{2012} and Pax_{2014} are Commission forecasts for total annual passengers at Dublin airport in 2012 and 2014 respectively, as set out in this Determination; I_{2012} is the average daily three-month interest rate between 1 November 2011 and 1 November 2012 using the Euribor rate or some other suitable measure, and I_{2013} is the average daily three-month interest rate between 1 November 2012 and 1 November 2013 using the Euribor rate or some other suitable measure.

w_{2012} is a correction per passenger to be made in the regulatory year 2014 on account of any difference for the year 2012 between the Commission's actual costs

and expenses and budgeted costs and expenses that are recoverable through airport charges levied at Dublin airport. It is derived from the following formula:

$$w_{2012} = (WA_{2012} - WF_{2012} * (1+CPI_{2013})) * (1+I_{2012}) * (1+I_{2013}) / Pax_{2014}$$

where WA_{2012} is the Commission's actual costs and expenses in 2012 that are recoverable from airport charges levied at Dublin airport, and WF_{2012} is the Commission's budgeted costs and expenses for 2012 that are recoverable from airport charges levied at Dublin airport.

QS_{2014} represents a *Quality of Service* adjustment that takes a value between 0.955 and 1 depending on how many service quality targets the DAA manages to achieve. It equals 1 if the DAA achieves all the targets. If the DAA failed to meet any target, it would equal 0.955 and the level of permitted revenues would be 4.5% lower.

QS_{2014} = one minus the sum of

0.0005 * number of days in 2014 when passengers in a terminal that is open have to queue for more than thirty minutes to pass through passenger security, subject to this sum never exceeding 0.015 (1.5%); plus

0.00025 * number of days in 2014 when access to the outbound element of the baggage handling system is denied to an airline or airlines for more than thirty consecutive minutes due to a single event system failure, subject to this sum never exceeding 0.0075 (0.75%); plus

0.000625 * number of quarters in 2014 when the incoming element of the baggage handling system is available for less than 99% of operational hours, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.7 in the '*ease of way-finding through airport'* category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*flight information screens*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.6 in the '*cleanliness of airport terminal*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.3 in the '*cleanliness of washrooms*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.0 in the '*comfort of waiting/gate area*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.00025 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the '*courtesy/helpfulness of airport staff (excluding check-in & security)*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.001 (0.10%); plus

0.000375 * number of quarters that Dublin airport does not receive a score of at least 3.8 in the 'c*ourtesy/helpfulness of security staff*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0015 (0.15%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.5 in the '*all passengers' overall satisfaction with the airport*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%); plus

0.000625 * number of quarters that Dublin airport does not receive a score of at least 3.1 in the '*communications/ telecommunications/e-facilities*' category of the ACI survey in the last two quarters of 2013 and first two quarters of 2014, such that the value never exceeds 0.0025 (0.25%).

ANNEX 2: Econometric Results

Econometric analysis of retail revenues: testing for T1X effect

ARIMA (p;d;q) = (1,2;1;0)	coefficient	std. error
First lag of dependent variable	-0.51	0.10***
Second lag of dependent variable	-0.19	0.10***
Dummy variable for period when T1X is open: April – October 2009	0.07	0.05

Dependent variable	First difference of the log of retail revenues per passenger, monthly data
Sample	Jan 2001 – October 2009
Model includes monthly dummies	Yes
Mean, std. dev dependent variable	-0.004, 0.106
AIC	-291.00

Dynamic Forecast
log of retail revenues per passenger, sample for estimation Jan 01-May 08

	Outturn	Forecast	St. Err		Outturn	Forecast	St. Err
Apr-09	0.87	0.82	0.05	*Aug-09*	0.91	0.82	0.08
May-09	0.96	0.88	0.06	*Sep-09*	1.04	0.91	0.09
Jun-09	0.98	0.86	0.07	*Oct-09*	1.00	0.91	0.09
Jul-09	0.91	0.83	0.07				

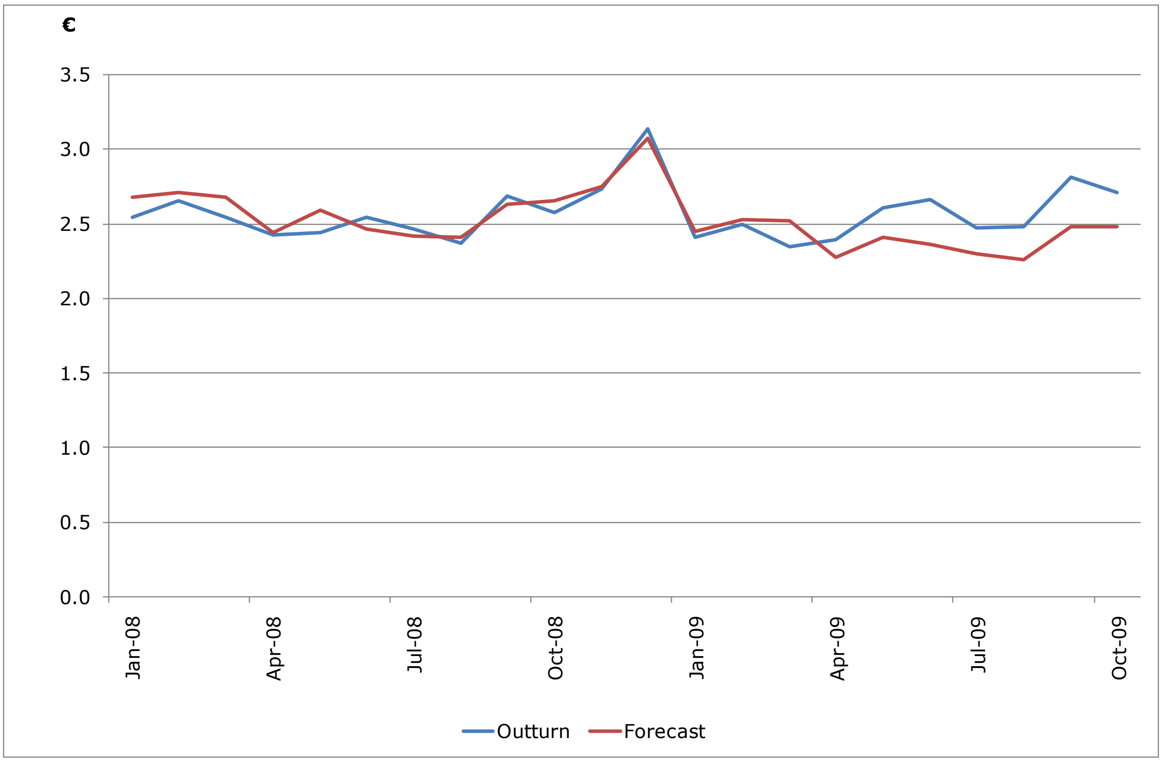

Figure A2.1: Forecast retail revenues if T1X had not opened

Econometric analysis of retail revenues: testing for Pier C effect

ARIMA (p;d;q) = (1,2;1;0)	coefficient	std. error
First lag of dependent variable	-0.51	0.10***
Second lag of dependent variable	-0.18	0.10***
Dummy variable for period when Pier C gates close to opening of T1X: June 2008 – March 2009	0.03	0.04

Dependent variable	First difference of the log of retail revenues per passenger, monthly data
Sample	Jan 2001 – March 2009
Model includes monthly dummies	Yes
Mean, std. dev dependent variable	-0.004, 0.106
AIC	-265.50

Dynamic Forecast
log of retail revenues per passenger, sample for estimation Jan 01-May 08

	Outturn	Forecast	St. Err		Outturn	Forecast	St. Err
Jun-08	0.93	0.90	0.06	*Mar-09*	0.85	0.92	0.11
Jul-08	0.90	0.86	0.06	*Apr-09*	0.87	0.85	0.12
Aug-08	0.86	0.85	0.07	*May-09*	0.96	0.91	0.12
Sep-08	0.99	0.94	0.08	*Jun-09*	0.98	0.89	0.13
Oct-08	0.94	0.94	0.08	*Jul-09*	0.91	0.86	0.13
Nov-08	1.01	0.99	0.09	*Aug-09*	0.91	0.85	0.13
Dec-08	1.14	1.10	0.10	*Sep-09*	1.04	0.94	0.14
Jan-09	0.88	0.87	0.10	*Oct-09*	1.00	0.94	0.14
Feb-09	0.91	0.91	0.11		0.85	0.92	0.11

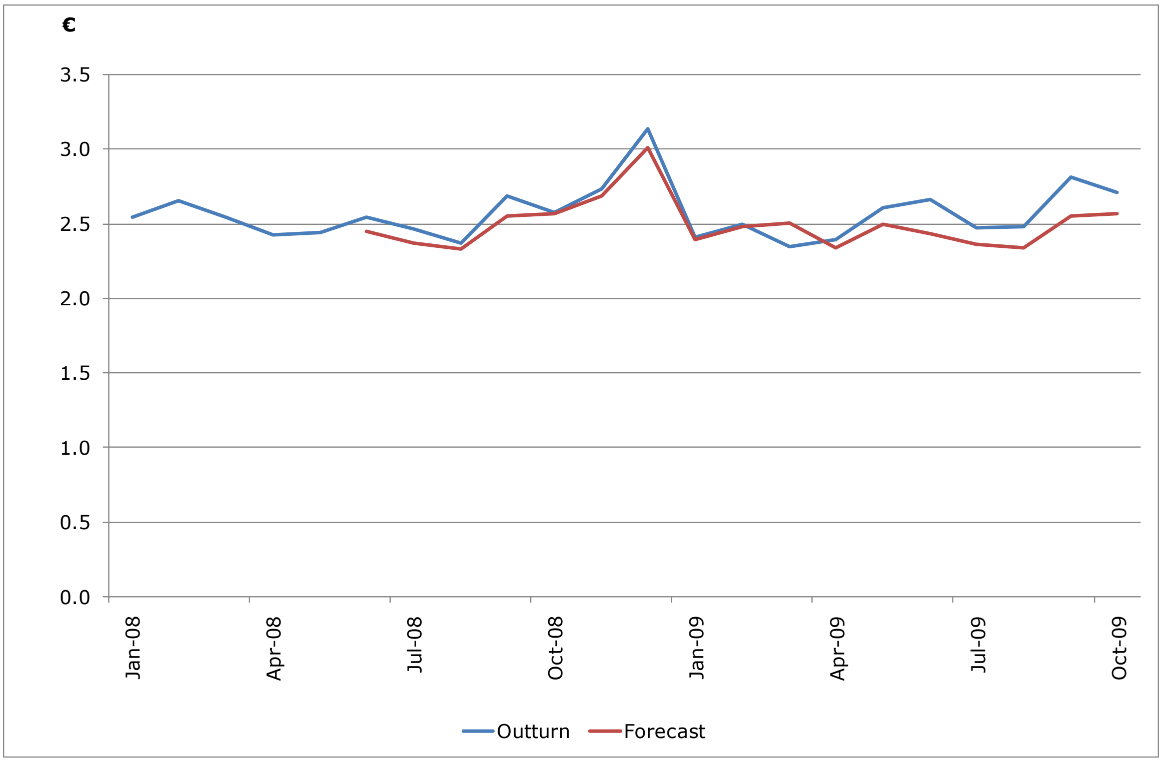

Figure A2.2: Forecast retail revenues if Pier C gates had remained open

Econometric analysis of other commercial revenues, excluding PRM revenues

Long-run model	coefficient	std. error
Constant	2.66	2.31
Passengers (t)	0.75	0.15***

Mean dependent var	14.06
Adjusted R-squared	0.44
F(4, 25)	6.59
Log-likelihood	16.16
Durbin-Watson	1.79
Observations	30
Sample	Quarterly data 2001 Q1–2008 Q2, all data real
	All variables measured in logs, model includes quarterly dummies

	First differences model	coefficient	std. error
	Constant	2.46	2.26
	Change in passengers (t)	0.44	0.16**
[A]	Passengers (t-1)	0.65	0.19***
[B]	Other commercial revs (t-1)	-0.88	0.19***
	Long-run elasicity	A/-B=0.74	

Mean dependent var	0.002
Adjusted R-squared	0.43
F(3, 25)	7.98
Log-likelihood	15.49
Durbin-Watson	2.19
Observations	29
Sample	Quarterly data 2001 Q1–2008 Q2, all data real
	All variables measured in logs.