Maximum Levels of Airport Charges
at Dublin Airport

Commission Paper CP1/2007

PUBLIC CONSULTATION ON DUBLIN AIRPORT CHARGES FOLLOWING THE CAPITAL INVESTMENT PROGRAMME 2006

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1. INTRODUCTION

This document seeks to engage interested parties in giving thought to whether and how the revised capital investment programme (CIP2006) that Dublin Airport Authority (DAA) released in October 2006 might be funded.

Such considerations matter not just for the interim review of the 2005 Determination that the Commission for Aviation Regulation (CAR) is currently undertaking, but also for the price caps that the CAR might set for the 2009 Determination and subsequent determinations. Indeed, given the likely lifetime of the new assets, the CAR expects that the DAA will recover the overwhelming majority of the costs associated with the projects (should they proceed) after the current Determination ends in 2009.

Given the lifetime of the assets, one idea explored in this paper, for which views are sought, relates to how the costs of any capital expenditure might be recovered over time.

- What share of the total costs should current users pay?

The paper also seeks to understand whether the costs are in some sense attributable to a subset of users and, if so, whether the charges might be structured to reflect this.

- What share of the costs of expanding capacity at the airport should peak-hour users pay?
- What share of any costs associated with improving the service quality Dublin Airport provides should users who value these improvements pay?

A major concern for the CAR is that all parties understand the risks associated with a major capital project, such as CIP2006. In setting the level and structure of price caps, the CAR will be making decisions that affect the financial risks different parties assume should a new capital expenditure programme proceed. In making these decisions, the CAR is keen to create the right incentives so that the DAA is not encouraged either to under-invest or to over-invest.

Under-investment may arise if the DAA has to bear the risks of being left with a stranded asset for which it cannot recover the costs. If current and (or) prospective users indicate that they want new assets provided at the costs that

the DAA has proposed, the CAR would welcome evidence that users are financially committed to the investment program that the DAA is about to undertake. Are users and prospective users willing to pay the charges necessary to fund CIP2006, and what assurances can they provide that they will use Dublin Airport (and therefore pay such charges) in the future?

To avoid incentives for over-investment, the CAR cannot guarantee that the DAA will recover the costs of new capital investment programmes for which the CAR has reasonable doubts that there is sufficient demand (for example, if users and prospective users have indicated before the investment takes place that they do not want the new facilities). Yet the CAR does not want to constrain unnecessarily the DAA's managerial discretion. In the event that the DAA's forecasts underpinning an investment plan seem optimistic to the CAR, the CAR would be willing to consider allowing a price cap consistent with the DAA assuming the risks of actual demand out-turns for the service the assets provide being lower than the DAA forecast. For CIP2006, how willing is the DAA to commit to a price path based on the traffic forecasts it has used in developing its investment plan?

This document in part seeks to understand whether there is a structure and level of charges, with the implicit allocation of risks, that would be acceptable to all parties and be consistent with the CAR's statutory objectives.

- The next section provides some background on how the capital investment programme has evolved since the 2005 Determination.
- Section 3 describes the envisaged timeline for the investment program and how charges might be linked to this timing.

The last three sections focus on the costs and possible charges for Terminal 2 (T2), which is the largest single component of CIP2006. The CAR would invite comments from parties on whether and how the ideas in these sections are relevant for the other components of the CIP2006.

- The costs, capacity and service levels associated with T2 are discussed in Section 4.
- Sections 5 and 6 discuss charging regimes – peak-load pricing and differential pricing – that might be used to fund T2.

Illustrative computations of charging margins under peak-load and differential pricing are reported in Sections 5 and 6 of this report. Readers of this document need to be clear that these numbers, being illustrative, should not be relied upon as quantitative guides to the actual charges or caps that might in fact be computed in future by the Commission.

To facilitate debate, this document makes use of traffic forecasts and costing information contained within CIP2006. This does not mean that the CAR has necessarily accepted these numbers are appropriate when setting a price cap. At this stage, the CAR has not reached a final conclusion on any aspect of CIP2006. All comments interested parties have concerning CIP2006 are welcome.

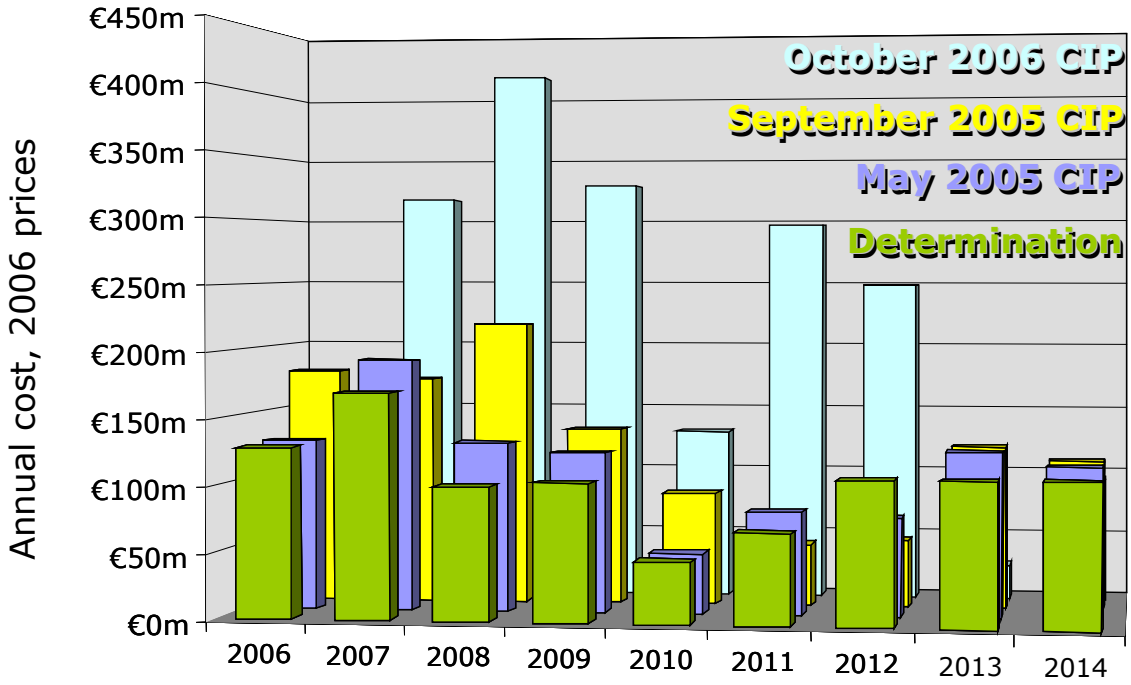
The CAR has commissioned outside consultants to produce reports that touch on some of the issues raised in this document. These consultants' reports are now, or shortly will be, in the public domain. Interested parties may find them helpful when considering their response to this document, although the views expressed in those papers do not necessarily reflect those of the CAR.

2. EVOLUTION OF THE CAPITAL INVESTMENT PROGRAMME

The Determination the CAR issued in September 2005 included an allowance for capital expenditure relating to developing airport infrastructure. This allowance was based on an independent assessment of the DAA's CIP in May 2005. A revised CIP in September 2005 was submitted too late to permit the CAR the necessary time to analyse the plan against the statutory objective of economic efficiency. The total expenditure envisaged under the May 2005 CIP was €476 million over the period 2006-2009; the total was somewhat higher in the September 2005 CIP although the time profile of charges was broadly similar.

CIP2006 entails approximately double the expenditure envisaged in either of the earlier CIPs, even after allowing for inflation. The estimated total cost of CIP2006 for the period 2006-2009 is €1,178 million. The timings of expenditure for the various plans, along with the allowance for new capital expenditure included in the 2005 Determination, are shown in Chart 2.1.

Chart 2.1: Evolution of the CIP



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The Aviation Action Plan of May 2005 requires the DAA to build a new pier available from 2007 and a second terminal by the end of 2009. This Action Plan

affects the timetabling for the DAA's investment programme, and is one reason that has been offered for the change in the profile (and not just the level) of the costs in CIP2006 compared to the CIP provided to the CAR in May 2005.

The CAR seeks to understand how the costs in CIP2006 differ to those in 2005. Direct comparison of costs between the plans is not always possible, but with this caveat in mind Table 2.2 provides an indicative breakdown of why the costs differ between the May 2005 CIP and CIP2006. Changes in the estimated cost of building a second terminal and associated programmes appear to account for most of the increase in the investment plan.

Table 2.2: Components Accounting for Increases in CIP

September 2006 vs. May 2006 construction	*Increase*	*CIP totals, 2006-* *2006 CIP*	*May '05 CIP inflated*	*May '05 CIP (Dec 04*
	€m	*€m*	*€m*	*€m*
T2 and related				
T2 & Pier E (Pier E not in	372.0	606.7	234.8	222.2
Temporary Forward	6.0	6.0	0.0	0.0
Utilities	25.8	48.3	22.5	21.3
Multi-storey car	24.2	27.5	3.3	3.1
Roads	12.1	25.9	13.8	13.1
Customs & Border	30.0	30.0	0.0	0.0
Programme	12.8	12.8	0.0	0.0
Subtotal	482.8	757.2	274.4	259.8
T1 and other projects				
Long-term car	9.7	9.7	0.0	0.0
Pier D	33.0	119.7	86.7	82.0
T1 extension	22.0	54.8	32.8	31.0
Other T1	24.9	30.5	5.6	5.3
Other	33.2	206.6	173.3	164.1
Subtotal	122.8	421.2	298.3	282.4
Total	605.6	1,178.3	572.7	542.1

Source: IMR Solutions

Investment programmes should evolve over time to reflect changing circumstances, including changes in costs and changes in the needs of users and prospective users. The CAR is keen for feedback from users on the extent to which the DAA's revised investment plans represents an improvement on the programme and associated costs contained in the May 2005 CIP.

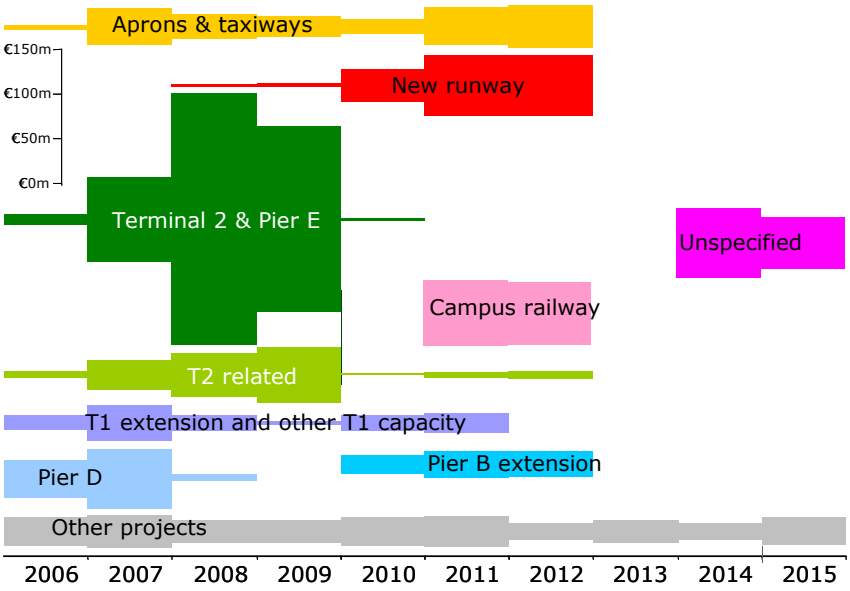
Q1 Please comment on how the DAA's investment plan has evolved since the Determination in September 2005. Does it represent an improvement on earlier plans? Are the changes in costs justified?

3. TIMING OF COSTS AND CHARGES

3.1 Timetable for the Capital Investment Program

The following chart illustrates the timelines for the projects covering the period 2006-15. The costs of T2, Pier E and related projects account for a large share of the costs included in CIP2006.

Chart 3.1: CIP2006 Timeline



Data source: DAA

The Pier D project is currently under construction and work is also underway in the airfield in preparation for new apron space. Works are also under way within the existing terminal, notably the creation of the new check-in 'Area 14'. The main extension project for the existing terminal is due to be completed in 2008 but other T1 capacity projects will follow.

T2 is projected to be open in late 2009. Construction work on the new runway is planned to commence once T2 is completed. An extension to Pier B is also projected to start in 2010 for completion in 2013. Other major projects outlined for the period after 2009 include a new campus railway.

CIP2006 does not explicitly include costs for any further extension to T2 or any costs associated with linking the metro system to the airport. There is also no

discussion of any capital projects that the Irish Aviation Authority may need to undertake should CIP2006 proceed, and the likely costs of such projects.

3.2 Start Date for Charges to Fund New Investment

In previous determinations, when considering what capital expenditures to include in the regulatory asset base (RAB), an underlying principle that has guided the CAR, consistent with its statutory objective, is that of 'user pays':

- Only those users that actually benefit from a service should pay for it; and
- The charges users pay should only include the costs of services that they are currently able to use.

This concept of user pays has relevance when thinking about the timing of any charges to recover any costs associated CIP2006, including when the costs might be included in the DAA's RAB.

3.2.1 'Trigger Pricing'

Trigger prices might be included within a price cap to realise the dual goals of:

- encouraging the regulated company to complete capital projects in a timely manner; and
- aligning the date when users start paying for a service with the date when it becomes available.

Price-cap regimes inevitably involve assigning financial risks to various parties. Where possible, these risks should be assigned to the parties best able to manage the risk. For major investment projects, there can be significant uncertainty about the timing of the project's completion. The party managing the project can, to an extent, control this risk; other parties will typically have considerably less control over the time the project takes to complete. This would suggest that price caps should be structured so that the DAA, rather than users, bears the timing risks of the DAA's investment projects overrunning.

Another regulatory concern is to ensure that users receive the correct price signals when they are considering whether or not to use the services the airport provides. If the price cap is set to allow recovery of (some) investment costs prior to the project becoming operational, current users are arguably funding services from which only future users will benefit.

A positive price trigger would increase the price cap once a service is operational, allowing the regulated company to start charging users more only after it has completed the capital improvement for which the extra funds are allowed. A contrasting approach with similar incentive properties would be to introduce negative triggers: these would reduce the price cap from a specified date until such time as the service becomes operational.

Trigger prices can have some undesirable incentive properties if not carefully designed. There may be incentives for the regulated company to bring forward investment. To prevent this, the CAR might need to specify an earliest date at which a positive trigger can be exercised unless users indicate a willingness to start paying for the service earlier. Trigger prices may also encourage the regulated firm to complete projects even after the changing market environment means that there is no longer any need for the project.

It would normally only be practical to include triggers in a price cap for major projects. For example, the building of T2 or a second runway might be candidate projects for the use of trigger-pricing principles.

In the case of T2, the DAA might be allowed to start collecting a higher airport charge from September 2009, provided that T2 is operational by that date. A further possibility might be to have a series of triggers relating to the T2 project, allowing the DAA to start levying larger charges as and when various milestones in the project are reached, e.g. planning permission granted.

3.2.2 Financeability

One possible concern with trigger pricing is that some investment programmes that will provide a clear benefit to future users nevertheless compromise the sustainability and financial viability (SFV) of the DAA. In such an instance, the CAR must consider the conflicting interests of current and prospective users and decide whether there is a case for deviating from the 'user pays' principle and revising the price cap to allow the DAA to recover some of the costs of an investment programme from current airport users.

The 2005 Determination allowed some recovery of costs associated with the current capital investment programme, even though current users of the airport are not receiving the services envisaged in the CIP. Since that decision the

forecast costs of the CIP has increased substantially, as outlined earlier in this report. The DAA's balance sheet has also changed.

For CIP2006, the CAR first needs to consider whether and the extent to which the DAA would encounter financing difficulties if the price cap was not amended in advance of completion. If the CAR concludes that SFV is an issue, then it will have to consider whether the benefits to future users of the investment outweigh the costs to current users.

Q2: What are the advantages and disadvantages of using trigger-pricing principles when setting price caps for airport charges at Dublin Airport?

Q3: For what projects in CIP2006, if any, should the CAR incorporate the principle of trigger pricing when making future determinations? To what key milestones and dates should the triggers relate?

Q4: Are there any reasons for allowing the DAA to start levying higher charges to allow it to fund CIP2006 in advance of the projects being completed?

3.3 Profile of Charges Over Time

3.3.1 Flat, front and back-loaded charges

Allowing charges to recover the costs of an investment before the assets are built is an extreme example of front-loading charges. Even if there are no immediate concerns about the financial viability of DAA if CIP2006 proceeds, there is nevertheless the need to think about how the costs of the project will be recovered over time.

The costs of a project such as CIP2006 will provide benefits to users for more than the normal length of a price-cap determination. Most of the users who will benefit from the investments planned in CIP2006 will not be paying charges during the current Determination, a period when the DAA envisages making significant investments.

Traffic at Dublin Airport is forecast to grow. Over time the DAA forecasts increased utilization of the assets proposed in CIP2006. It is not unusual for major capital investment projects to be built with some spare capacity designed

to serve future growth in later years. It may be more cost efficient to undertake a project in a single stage, rather than expanding capacity in a modular manner. However, there is a need to give careful thought to how charges to recover these costs might be set.

The simplest approach is to relate charges in each price-cap period to the costs implied if straight-line depreciation of the assets is used. An objection to this approach is that if demand is expected to increase over time, users in the early years will pay more on a per-user basis than users in later periods. The charges imposed to recover the assets' depreciation will be the same in both periods, but they will be spread across more people in 2026 than in 2010.

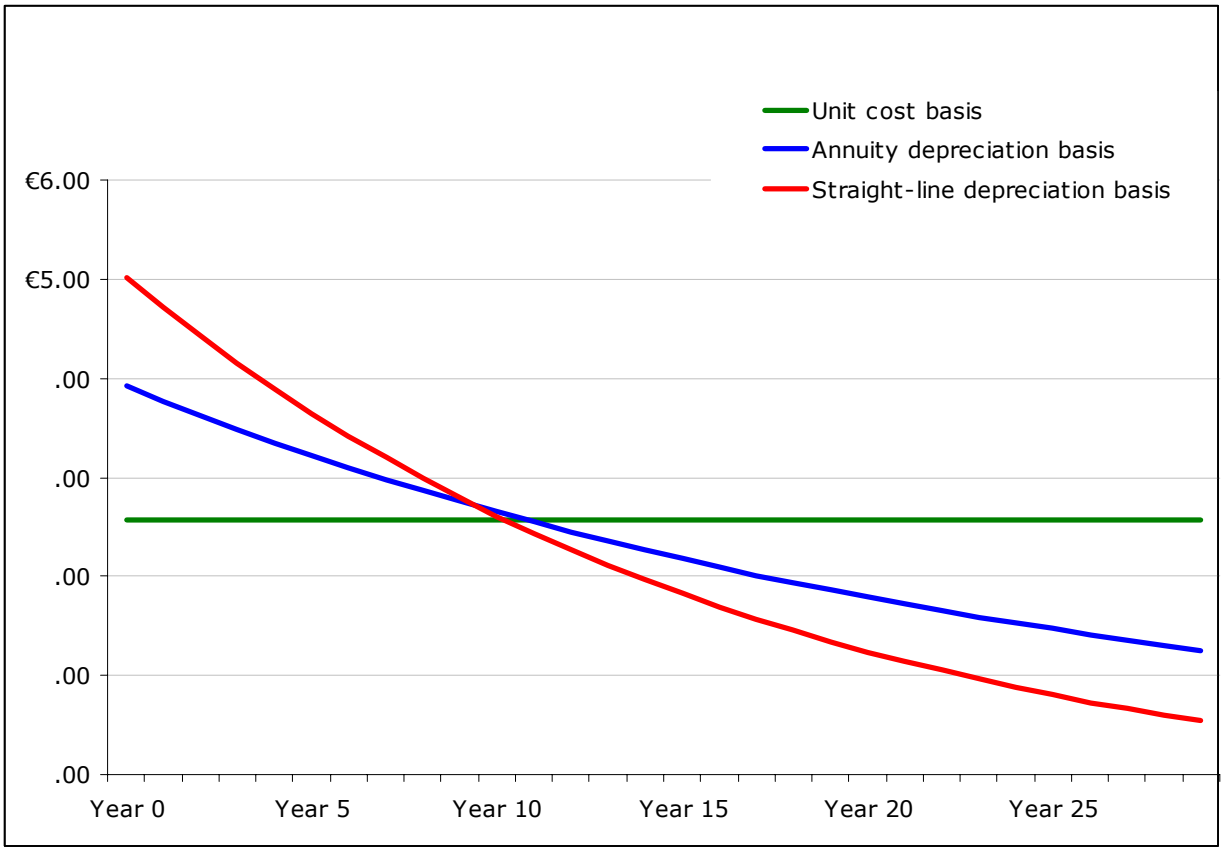
Regulatory solutions addressing this concern have tended to focus on changing the cost base, 'back-loading' the charges. For example, the depreciation charge that can be recovered in the early years will be lower than implied by straight-line depreciation and higher in later years to reflect the greater utilization of assets over time.

Efficient use of the assets may be encouraged if prices are set below long-term average cost when utilisation is low and above long-term average cost when utilisation is high. At the margins, the charges facing prospective airport users will be lower in periods when the airport's capacity is least utilised.

A simple example illustrates the different time profiles of charges that might arise if different approaches were taken. Chart 3.2 shows the extra per passenger charges that might apply from each year to recover the cost of a €1,200m capital project. The calculations assume an asset life of 30 years and passenger numbers growing at 5% per annum from current levels. The calculations look at the price path that would arise if the charges were set to recover costs:

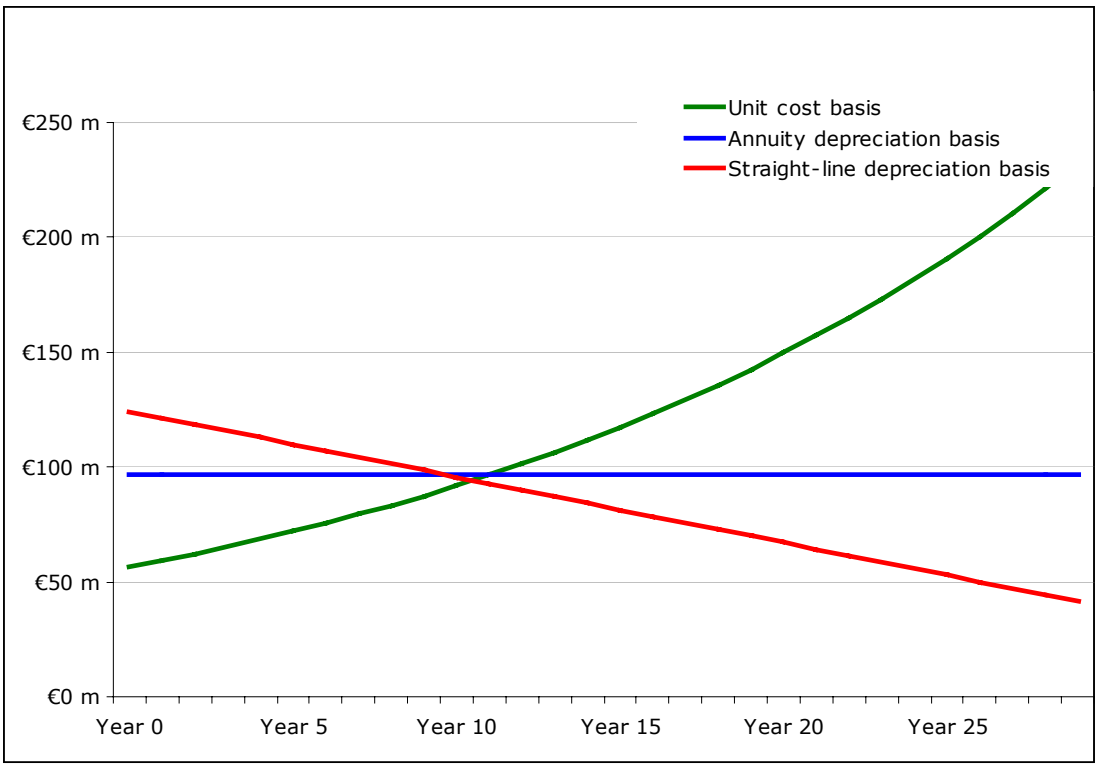
- Using a standard accounting approach of applying straight-line depreciation;
- Equally across time (annuity depreciation); or
- Equally across all forecast airport users (unit cost basis).

Chart 3.2: Time Profiles of Average Charge Extra Per Passenger to Fund a €1,200m Capital Expenditure Project



The next chart demonstrates the timing of the revenue that the DAA would receive. In net present value terms, all three charging regimes would generate the same total revenue assuming passenger forecasts are correct.

Chart 3.3: Time Profiles of Annual Revenues DAA Receives to Fund a €1,200m Capital Expenditure Project



3.3.2 Risks and time credibility

The time profile of the charges discussed above does not discuss the uncertainty that is inherent in any demand forecast. The CAR is keen to understand how parties think the charging regime might handle these risks. At the time of a future determination, should the CAR revise the traffic forecast it uses to calculate the price cap if actual demand to that point has not corresponded to the original expectation?

For example, suppose at the next determination the CAR concludes that the charges to recover the costs of CIP2006 should be back-loaded to reflect the fact that demand for T2 will increase to 11.5 million. If in 2014 this forecast looks optimistic (pessimistic), then the original charging profile envisaged in 2009 would result in the DAA under-recovering (over-recovering) the costs of CIP2006.

One possibility would be for the CAR to arrive at a traffic forecast that extends forward to cover the lifetime of the proposed assets. This forecast would be used when determining how much of the capital costs, including depreciation charges, should be recovered in the forthcoming determination. At subsequent determinations, the traffic forecast would be updated. The DAA would not be

recompensed or penalised should demand during the initial price cap period not correspond to forecast; but the original price path envisaged in 2009 would be revised for dates from 2014 on, meaning that airport users would bear the risks of demand after 2014 deviating from the levels forecast in 2009.

The approach outlined above requires the CAR to form a view on future demand for Dublin Airport. The CAR's forecast may not necessarily correspond to the forecasts the DAA has made in developing CIP2006. If the CAR concluded that the DAA's demand forecasts are overly optimistic, it would be poor regulatory practice to set charges that allowed the DAA to recover costs using an assumed demand profile that the CAR does not believe warrant the expense of CIP2006.

An alternative approach is for the CAR to accept the DAA's traffic forecast and to commit to a price path that corresponds to this forecast. The DAA would assume all the risks of demand deviating from its forecast. So if the demand for Dublin Airport was less (more) than DAA currently anticipates, it would suffer a windfall loss (receive a windfall gain). An attraction of this option is it avoids the CAR having to second-guess the DAA management's traffic forecasts.

A concern is whether it is credible to announce a price path for charges relating to CIP2006 that extends forward over many years. One possibility would be to lengthen the duration for which the next determination will last (extending the current determination, due to end in 2009, is not possible). However, even if this does address satisfactorily concerns about the credibility of committing to a price path, CIP2006 is not the only relevant factor when considering the appropriate length of any price-cap period.

Another possible objection to committing to a price path today is that it leaves the DAA bearing the risk of being left with a stranded asset, having made investments based on demand users have indicated. The CAR would be interested to learn of any financial commitments users might be willing to make to offset this risk (and whether the DAA thinks such assurances are necessary).

Q5: Should charges to recover the costs of CIP2006 be front or back loaded?

Q6: What traffic forecast should be used when setting the price cap? Who should bear the risks if demand out-turns does not correspond to the initial traffic forecast?

Q7: What actions, if any, should the CAR take to strengthen regulatory commitment and credibility with respect to the level of charges it will allow in future determinations for the funding of CIP2006? Should the length of the price cap be increased?

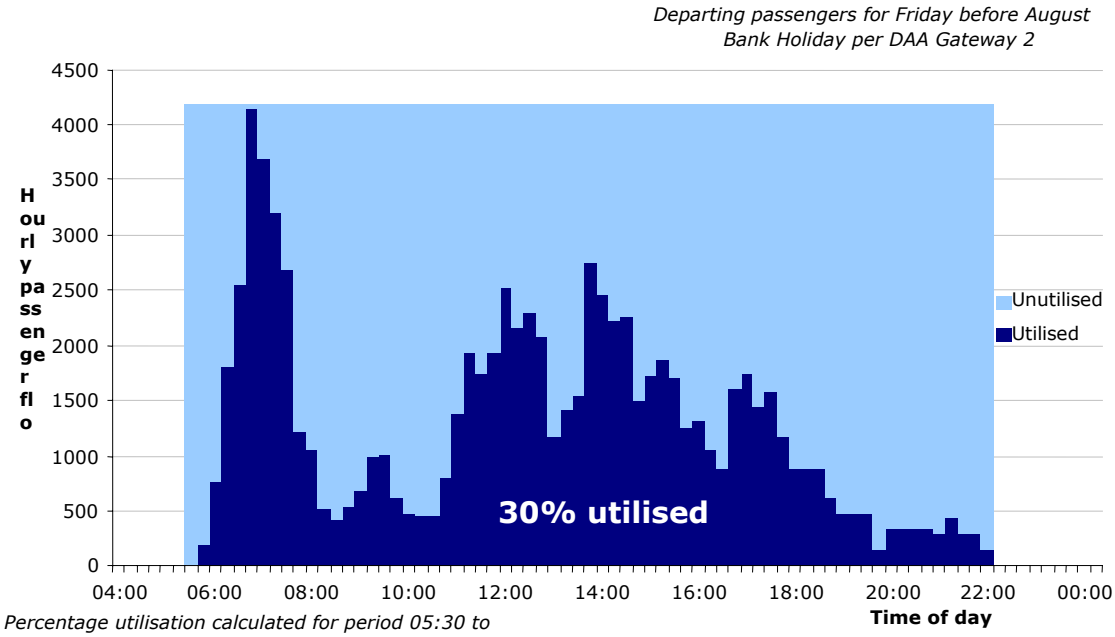
4 TERMINAL 2

4.1 The Proposed Capacity and Service Quality of T2

T2 has been designed to serve 4,200 passengers in the peak hour at a service standard equating to IATA level C. This peak hour traffic forecast is the main driver in arriving at an area for the terminal of 75,000 square metres. The DAA envisages that 11.5 million passengers per annum will use the terminal.

The appropriate scale of T2 depends on the passenger throughput at the busiest time of the day. The DAA has concluded, based on its traffic forecasts, that T2 should have a busy hour capacity of 4,200. The chart below suggests that this forecast capacity need arises because of the traffic volumes in the morning. For much of the day, a smaller terminal would suffice.

Chart 4.1: Projected Capacity Utilisation for Terminal 2 in 2016



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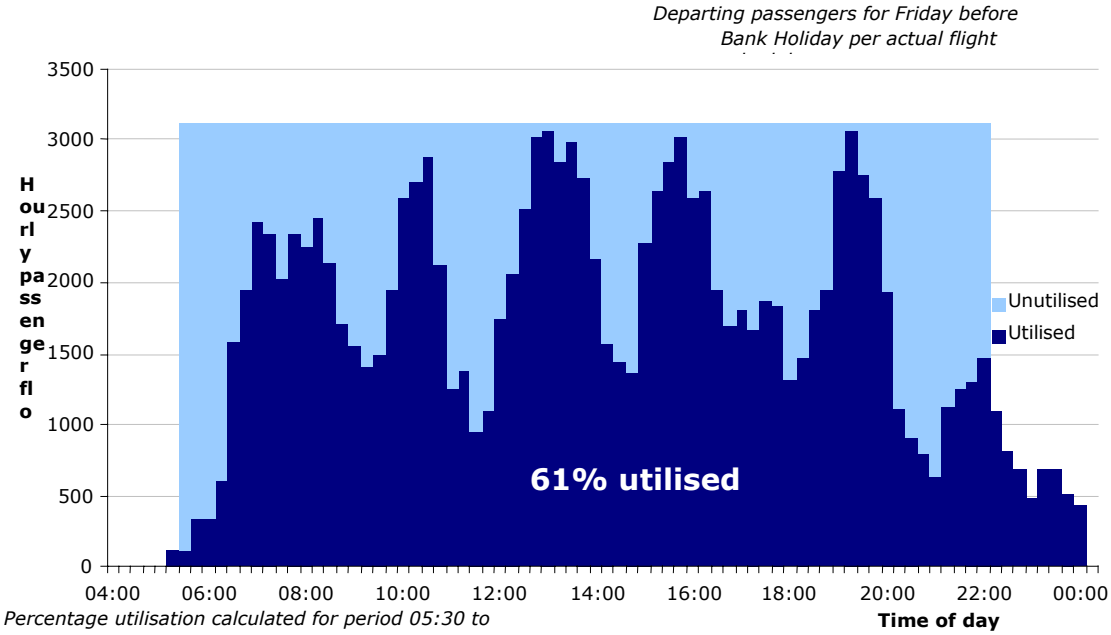
The capacity utilisation at Terminal 1 (T1) in 2004 is shown in chart 4.2. T1 currently can serve about 20 million passengers per year.[1] The hourly passenger

[1] William Hynes & Associates Ltd (2005) "Assessment of Current Handling Capacity of Dublin Airport", www.aviationreg.ie.

throughput is considerably less peaked than the DAA forecasts will be the case for T2 in 2016. The peak hour capacity throughput at T1 for an IATA level C service standard is currently 3,250 (it currently exceeds this capacity some hours of the day). The terminal is 56,900 square metres.[2]

Chart 4.2: Capacity Utilisation at Terminal 1 in 2004



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4.2 Costs of T2

The DAA has provided materials suggesting that an appropriate benchmark to use when assessing the costs of T2 and Pier E is €3,500 per square metre. This is the figure for Dublin Airport listed in a benchmark study comparing costs of terminal buildings at a variety of British airports with those envisaged for Dublin Airport.[3] The airports included in the benchmarking study are Bristol, Edinburgh, Gatwick, Glasgow, Heathrow, Liverpool, Luton, Manchester, Newcastle, Southampton and Stansted.

The total proposed area of T2 and Pier E is some 100,000 square metres. Using the benchmark that the DAA has proposed, this would suggest a total cost for the

[2] Page 14, Ian Rowson and William Hynes & Associates Ltd (2005) "Review of Airport Charges at Dublin Airport", www.aviationreg.ie.
[3] Slide presented at DAA's 4th consultation event with airlines and handlers, Great Southern Hotel, Dublin Airport, Dublin, 23 June 2006.

terminal and pier of €350 million. This is €259 million less than envisaged in CIP2006.

This need not necessarily mean that the cost projections of the DAA are unreasonably large. The difference may reflect a shortcoming with benchmarking, or it may reflect the fact that the DAA plans to build a terminal that provides a better overall level of service than T1 (although the DAA intends that the two terminals both provide service standards at IATA level C, it is possible that T2 will provide a higher overall quality experience using metrics the IATA classification scheme does not capture). The following extract from the CIP2006 is consistent with the latter explanation:

"In the context of user comments, and DAA's ambition to achieve an appropriate degree of consistency between the service level propositions for Terminals 1 and 2, in addition to the above developments, DAA proposes to provide appropriate funding for upgrades to Terminal 1, post 2009, when terminal 2 comes on line."[4]

This quote suggests that the DAA expects T2 to offer a better service-level proposition than T1 when it first opens. The CAR has assumed solely for the purposes of this Paper that a new terminal built to provide the same standards of service as T1 would cost €350 million, and that the additional €259 million is to provide users of T2 with a higher standard of service. (Debates about whether the DAA should be able to increase charges to fund a programme of improvements to T1 are deferred to a later date; the CAR's decisions on how to set charges given CIP2006 do not imply any consequential decisions relating to future capital expenditure plans the DAA may have.)

Q8: Should Terminal 2 be built to satisfy a busy-hour capacity of 4,200 and provide a level of service equating to IATA level C?

Q9: Is €609 million a reasonable estimate of the cost to build the proposed new terminal and pier?

Q10: Is €3,500 per square metre a reasonable estimate of the costs of building a terminal that provides service standards equating to IATA level C? Is the metric of cost per square metre appropriate, or should some other

[4] Page 42, Dublin Airport Authority (2006) "Capital Investment Programme 2006 – 2009"

metric be used, e.g. cost per passenger, cost per peak-hour passenger? Are the comparator airports cited relevant when thinking about the costs for T2? Is it appropriate to use benchmarks?

5 PEAK-LOAD PRICING

5.1 Funding the Extra Capacity

Airport charges that incorporate a peak-load pricing element would mean that the costs of expanding Dublin airport's capacity were recovered from users who benefited from the expansion. The costs of building a terminal of the size envisaged for T2 arise because of the assumed demands of passengers to fly in the morning. Referring back to chart 4.1, except in the early morning, a capacity of 3,000 passengers per hour would suffice based on the traffic flow forecast for T2 in 2016 (ignoring for now the possibility that there will be spare capacity at these times in T1 after T2 is built.)

There are efficiency arguments to support the introduction of peak-load pricing for airport charges. The pricing regime would send the correct signals to airport users, encouraging them to use existing facilities more efficiently, and would provide the DAA with information about the willingness of users in the busiest hours to pay for expanded capacity rather than change the timing of their flights. By charging more to fly during the busy hours, the DAA would create incentives for users to consider flying instead in less busy periods of the day. There might be greater utilisation of the terminal throughout the day. Those airlines that continue to demand terminal facilities in the peak periods would be paying charges that allow the DAA to fund the capacity expansion that is necessary to meet the demands of these airlines.

A shift to a charging structure that recovered more of the costs associated with capacity from those users in the peak hour would be consistent with the recent Economic and Social Research Institute (ESRI) study that advocated use of a pricing policy framework to complement the public investment envisaged in the latest National Development Plan.[5]

[5] Page 124, Edgar Morgenroth and John Fitzgerald (eds.) (2006) "Ex-Ante Evaluation of the Investment Priorities for the National Development Plan 2007 – 2013" ESRI, Dublin.

5.2 Examples of Peak-Load Pricing

Peak-load pricing is not just an abstract idea; there are numerous examples of its use in practice. In Ireland, recent examples include the LUAS, which now charges 10 per cent more for single fares during peak times; and the Dublin Port Tunnel, which charges a higher €12 rate for cars going southbound between 6am and 10am and northbound between 4pm and 7pm.

The aviation industry makes use of peak-load pricing principles. Airlines routinely vary the fares they charges depending on the time of day, week or year that a passenger wishes to fly.

The CAR is also aware of examples of peak-load pricing by airports:

- Peak landing charges at Helsinki-Vantaa Airport;
- In the UK, passenger charges at Luton airport are higher during the summer months; and
- In the US, New York airports charge more for flights taking off between 3pm and 10pm.

At Dublin Airport, the 2001-2005 price cap also imposed off-peak landing and take off charges for use of the runway.

5.2 Possible Implications for the Price Cap on Airport Charges

One option the CAR is considering is whether all users should pay higher charges to fund T2, or only those users who will benefit from its construction. If the CAR concludes that only those benefiting should pay, it might revise the price cap such that the DAA could not increase the charges paid by users for whom the capacity at T1 suffices. Instead, the DAA would only be allowed to recoup the costs of T2 by charging more to airlines using the airport at peak times.

To provide an indication of what this might mean for airport charges that the DAA could levy, the CAR has made a simple calculation that suggests allowing the DAA to collect an additional €1.19 per passenger from those airport users operating in the busy hours. The calculation, which assumes a 'back-loaded' recovery of costs, as described in Section 3.3.1 above, also assumes that it will cost the DAA €350 million to build a new terminal with a busy-hour capacity of 4,200 and providing service standards equating to IATA level C. The charges would be

recovered from airport users operating at times when passenger throughput at the airport exceeds 4,000 in an hour (T1's assumed hourly capacity if it is extended). Passenger numbers at the airport are assumed to grow at 5% per annum, with the relative volumes of passengers at different times of the day and year unchanged.

Q11: What are the merits of using peak-load pricing for airport charges at Dublin Airport to fund Terminal 2?

Q12: What calculations should the CAR make if it decides to set a price cap that encourages the DAA to recover the costs of expanding Dublin airport by means of peak-load pricing?

6 DIFFERENTIAL PRICING BETWEEN THE TERMINALS

6.1 Choosing the Appropriate Quality of Service at a Terminal

As discussed in Section 4, CIP2006 appears to be predicated on the idea that T2 should provide a better user experience than T1 currently does. A priori, there does not appear to be a compelling economic reason why a new terminal should necessarily provide a similar quality of service as the existing terminal does.

In submissions to the CAR in the past, the DAA has indicated that airlines hold conflicting views on the appropriate quality of service that Dublin Airport should provide.[6] Building a second terminal affords the DAA an opportunity to allow airlines some choice over the quality of service provided by the terminal that they use at Dublin Airport, rather than having to settle on a single terminal quality standard for all. Airlines will presumably decide with reference to the needs of their potential passengers.

One influencing factor in that decision will be the airport charges associated with using the respective terminals. Where airlines and passengers are agreed on which terminal is better (because there are so many factors affecting the overall experience at a terminal, there may not always be agreement), all airlines will favour using the same terminal unless there are different prices. Where the airport charges different prices, airlines will have to decide whether it is worth paying the higher charges to use the better terminal: will passengers be willing to pay more to fly with an airline using a more expensive terminal?

Differential pricing potentially will provide the DAA with better information about the value different users place on improvements at the airport. Users, by their actual decisions, will indicate to the DAA their willingness to pay for a higher quality of service. Where that willingness to pay exceeds the cost of providing the necessary improvements, there will be a good business case to fund the upgrade.

[6] Page 35, Dublin Airport Authority (2005) "Response to CP2/2005".

6.2 Examples of Differential Pricing

Many airlines already engage in differential pricing, for example offering business and economy class services on flights.

There are also examples of airports setting differential airport charges to users. Examples of differential terminal pricing include airports in Marseilles, Tampere (Finland) and Kuala Lumpur; Schipol Airport in the Netherlands sets differential pier prices.

6.3 Possible Implications for the Price Cap on Airport Charges

Building on the example in subsection 5.3, a simple indicative estimate suggests allowing the DAA to levy a differential charge of up to €1.95 per passenger on users of T2, over and above the charges that the DAA could continue to levy on all airport users (including any possible peak-period charges that were allowed).

The calculation again assumes a 'back-loaded' recovery of costs, as described in Section 3.3.1 above, and that costs of T2 over and above those necessary to provide additional capacity are €259 million. It uses traffic forecasts for T2 provided by the DAA, including its assumptions made about which airlines will move to T2 after it is built. (The CAR is aware that to this point airlines have not had to consider how much extra they are willing to pay to operate out of a new terminal versus staying in T1.)

Q13: How much would users be willing to pay in airport charges for the improved quality experience that they expect T2 to provide?

Q14: What are the merits of using differential pricing when setting airport charges for T1 and T2 users at Dublin Airports?

Q15: What calculations should the CAR make if it decides to set a price cap that encourages the DAA to recover the costs of improved service qualities in T2 by means of differential pricing?

7 RESPONDING TO THIS CONSULTATION PAPER

In order to encourage further debate on the issues set out in this paper and thus to assist in its deliberations concerning the review of the current airport charges determination, the Commission intends to publish any responses to this paper. In that regard, the attention of interest parties is drawn tot Annex 1.

The Commission requests interested parties to submit responses to the questions raised in this paper no later than **5.00 p.m. Friday 10 March 2007.**

8 ANNEX 1: SUBMISSIONS

8.1 Call for Submissions

The Commission requests interested parties to submit responses to the questions raised in this consultation paper no later than **5.00 p.m. Friday 10 March 2007.** Submissions should be addressed to:

Mr. John Spicer
Commission for Aviation Regulation
Floor 3
Alexandra House
Earlsfort Terrace
Dublin 2.

Submissions may be made;

(i) in electronic form either on floppy disk or by e-mail to info@aviationreg.ie and should be either in Microsoft Word (".doc") or portable document format ("PDF")

(ii) by fax to 00-353-1-6611269

(iii) by post to the Commission's offices at the above address.

The Commission requests that all written submissions be typed.

8.2 Publication of Submissions

It is the Commission's intention to place any submissions received on its website. Ordinarily, the Commission does not edit this material. As a result, the content of any submission is solely a matter for the submitting party, and in that regard, interested parties are referred to the declarations below dealing with legal notice and indemnity concerning use of the Commission's website.

It should be noted that the Commission is subject to the provisions of the Freedom of Information legislation.

LEGAL NOTICE

While the Commission at all times uses its best endeavours to ensure that all of the information on its website is up to date and accurate, the Commission accepts no responsibility and expressly excludes any warranty or representations in relation to, the accuracy or completeness of the contents of its website.

INDEMNITY

Any party submitting information to the Commission in response to a document inviting submissions acknowledges that the Commission intends to publish that information on the website of the Commission, in reports of the Commission and elsewhere as required or appropriate. Parties submitting such information to the Commission consent to such publication. Any party submitting information to the Commission shall have sole responsibility for the contents of such information and shall indemnify the Commission in relation to any loss or damage of whatsoever nature and howsoever arising suffered by the Commission as a result of publication or dissemination of such information either on its website, in its reports or elsewhere.

9 ANNEX 2: LIST OF QUESTIONS

Q1: Please comment on how the DAA's investment plan has evolved since the Determination in September 2005. Does it represent an improvement on earlier plans? Are the changes in costs justified?

Q2: What are the advantages and disadvantages of using trigger-pricing principles when setting price caps for airport charges at Dublin Airport?

Q3: For what projects in CIP2006, if any, should the CAR incorporate the principle of trigger pricing when making future determinations? To what key milestones and dates should the triggers relate?

Q4: Are there any reasons for allowing the DAA to start levying higher charges to allow it to fund CIP2006 in advance of the projects being completed?

Q5: Should charges to recover the costs of CIP2006 be front or back loaded?

Q6: What traffic forecast should be used when setting the price cap? Who should bear the risks if demand out-turns does not correspond to the initial traffic forecast?

Q7: What actions, if any, should the CAR take to strengthen regulatory commitment and credibility with respect to the level of charges it will allow in future determinations for the funding of CIP2006? Should the length of the price cap be increased?

Q8: Should Terminal 2 be built to satisfy a busy-hour capacity of 4,200 and provide a level of service equating to IATA level C?

Q9: Is €609 million a reasonable estimate of the cost to build the proposed new terminal and pier?

Q10: Is €3,500 per square metre a reasonable estimate of the costs of building a terminal that provides service standards equating to IATA level C? Is the metric of cost per square metre appropriate, or should some other metric be used, e.g. cost per passenger, cost per peak-hour passenger?

Are the comparator airports cited relevant when thinking about the costs for T2? Is it appropriate to use benchmarks?

Q11: What are the merits of using peak-load pricing for airport charges at Dublin Airport to fund Terminal 2?

Q12: What calculations should the CAR make if it decides to set a price cap that encourages the DAA to recover the costs of expanding Dublin airport by means of peak-load pricing?

Q13: How much would users be willing to pay in airport charges for the improved quality experience that they expect T2 to provide?

Q14: What are the merits of using differential pricing when setting airport charges for T1 and T2 users at Dublin Airports?

Q15: What calculations should the CAR make if it decides to set a price cap that encourages the DAA to recover the costs of improved service qualities in T2 by means of differential pricing?