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**DAA Response to CP6/2008  
Maximum Levels of Airport Charges at Dublin Airport  
Issues Paper**

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# 1. Executive Summary

This document is DAA's response to the publication of the Commission's Issues Paper for the next regulatory review. As noted by the Commission, the publication of CP6/2008 begins the process of engagement with its stakeholders towards the making of a new determination on airport charges at Dublin Airport.

DAA's remains committed to its vision of Dublin Airport as a key driver of economic development and to providing airport facilities and services that meet the needs of current and prospective users. Given the Interim Review decision to defer increases in charges to 2010 - by which stage DAA will have invested €1.2 billion in 4 years - compounded by the downturn in the economy, the next determination will be fundamental to DAA's financial stability, and its ability to manage and develop Dublin Airport in a sustainable and financially viable manner.

There are three core principles that should be recognised by the Commission in developing the new price cap.

## 1. **DAA is committed to responding to users requirements.**

DAA actively seeks input from users with regard to the services and facilities it provides at Dublin Airport. Feedback from customers and stakeholders through direct day-to-day interaction, customer surveys and other research and through reports in the media shows they expect the best international standards to apply at their capital city airport.

DAA is currently focussed on delivering the stated requirements of all interested stakeholders – airlines, business and tourism sectors and passengers - for additional terminal and associated passenger processing and airfield capacity at Dublin Airport. This is not only necessary to meet present and future infrastructural needs, but was also mandated in the Government's Aviation Action Plan of May 2005 (which indicated a clear break from the past "too little too late" approach to the development of airport infrastructure). The design and specification of T2 emerged from a very detailed and thorough consultation process with users and the process and costs were confirmed by the Government appointed Independent Verifier.

The facilities under construction will create a vibrant modern airport that will be an efficient gateway to the Ireland of the 21st century. Delivery of T2, Pier E and associated infrastructure will provide the capacity to facilitate competition in air services thereby benefitting the consumer. These developments will also allow Dublin Airport to continue developing as the single most important engine of economic activity in the State and as the most important generator of employment and income for the Fingal region. DAA proceeded with this investment on the basis of an undertaking from the Commission that the expenditure would be remunerated in the forthcoming price cap decision. This regulatory commitment must be upheld if Dublin Airport is to be incentivised to undertake further investment as and when it is needed by airlines and passengers.

Post 2009, DAA's objective is to continue to implement a capital programme that is aligned with the interests of all users and fulfils its statutory duty to develop Dublin Airport. Due to the constrained financial climate and having reflected on recent communications from airline users, it is likely that the programme will place emphasis on a "baseline" spend which will address the basic investment requirement for care and maintenance of the existing infrastructure, for compliance with specific regulatory requirements, and for preliminary planning and design work to prepare for key investments in the future.

DAA will also be proposing that further important infrastructural projects which are essential to optimise airport capacity, including the North runway, should be approved in principle by the Commission in the course of this review. This would enable DAA to proceed without further delay or the need for further protracted review processes once certain agreed conditions that reflect a renewed confidence about traffic growth are met. This is a very important issue, given the complexity of construction at major airports and the fact that the process from decision to build to completion of large projects (environmental impact assessment, planning permission, procurement and construction) can take up to five years. In this context, timely commitment of capital expenditure, based on regulatory incentives to invest at the appropriate time is critical if infrastructure deficits are not to recur.

Given its commitment to providing a quality passenger experience, DAA fully supports the Commission's proposals regarding the publication of service quality metrics for Dublin Airport. DAA strongly recommends that CAR should broaden the spectrum of proposed metrics to include information on airline/handler performance, as the quality of the service offerings from these industry partners has a significant impact on the airport operation and users experience of it.

However, DAA does not believe the empirical evidence supports the Commission's proposed introduction of a specific service quality term in the price cap at this time. DAA has improved its performance over time without the introduction of financial incentives. Introducing regulation where there is no need for it always carries unnecessary cost and the risk of unintended distortions to behaviour. Given the pressures facing the industry, DAA believes there are more significant issues to address than the likely highly bureaucratic and time-consuming process that would emerge for the purpose of implementing a complicated regulatory mechanism, particularly when the evidence does not support the requirement.

## **2. DAA is an efficient, commercially focussed organisation**

A range of analyses has confirmed that DAA's prevailing levels of airport charges are amongst the lowest of comparable European airports. Despite this, and the requirement for higher charges, DAA has been mandated to invest €1.2 billion to develop the infrastructure at Dublin Airport and is currently delivering services to meet the needs of over 23 million passengers per annum.

This achievement could not be delivered by DAA without a keen focus on the efficiency of its operations at Dublin Airport. Total operating costs per passenger declined by 21% in real terms between 2002 and 2007, with payroll costs per passenger reducing by 17% in the same period. Furthermore, both the bottom up and top down assessments of Dublin Airport's operating costs undertaken for the Commission at the last price control review, concluded that existing operations were efficiently managed. Since the last Determination DAA has invested in manpower to address customer service issues in a very congested terminal and to deal with significant changes in security requirements. The introduction of T2 in 2010 will inevitably result in a step increase in fixed costs and an increase in unit variable costs in the early years after opening. This development together with the impact of the relatively low traffic growth that is anticipated for the forthcoming regulatory period will only serve to intensify DAA's commitment to the pursuit of best practice and overall efficiency.

DAA's historic ability to deliver infrastructure and run its business efficiently on comparatively low levels of airport charges is due in no small measure to its success in generating commercial revenues. Airport retailing is one of DAA's core businesses, which together with other commercial activities such as car parks and property, contributes a substantially higher proportion of Dublin Airport's revenues than other airports and effectively cross subsidises the level of airport charges through the operation of the single till. The high quality and price

competitive service offered to an increasingly sophisticated and well-travelled passenger is reflected in the very strong performance achieved by retail business during recent years.

However, after sixteen consecutive years of growth in passenger numbers at Dublin Airport, traffic in 2008 is slowing and the prospects for 2009 are for a decline. The prevailing and forecast economic conditions suggest it is likely that some time will pass in the next regulatory period before the airport benefits from renewed traffic growth. While airlines, in these circumstances, can take such immediate measures as grounding aircraft, reducing frequency or closing routes to address the impact on their cost base, such short term options are not available to airports where fixed costs are significantly higher. In addition to lower passenger throughput, Dublin Airport's commercial revenues will also be negatively impacted by intensified competition and by the general crisis in consumer confidence leading to a reduced propensity to spend. This environment poses a major challenge for DAA to maintain its focus on cost control and its track record of pursuing innovative commercial revenue opportunities. The company is committed to meeting this challenge.

DAA welcomes the fact the Commission has pointed out in CP6/2008 that the company's approach to traffic and revenue forecasts has followed best practice and the outputs have proved reliable. Against this background we urge the Commission to commence its review by utilising DAA capex, opex and passenger forecasts as an appropriate base unless it finds compelling reason to vary them. Given the substantial increase in debt and rapidly changing economic environment, the risks involved in forecasting are far higher, and margin for error far lower - as a consequence, any material deviation from DAA's forecasts should be fully and objectively justified. In reviewing operating costs and commercial revenues, DAA believes that bottom up analysis is more likely to lead to a greater understanding of the issues and to a more accurate outcome than high level benchmark comparisons.

### **3. The Risks to DAA in the Current Environment need to be recognised by CAR**

Against the background of an increase in debt (from net cash at end 2007 to net debt of over €1bn by 2010), the current level of uncertainty regarding traffic forecasts over the next few years represents a significant risk for the DAA and needs to be a key consideration for CAR in preparing the next price cap. DAA is currently in the midst of a period of unprecedented market volatility and the speed and scale of change is both sudden and dramatic. For example:

- Passenger traffic levels at Dublin have changed from growth of 2% in August to a reduction of 9% in November.
- This mirrors a more general economic contraction which saw ESRI centreline forecasts for 2009 swing from an anticipated growth level of +3.1% in May 2008 to -0.7% more recently; an overall variance of almost 4% in just six months. Indeed a recent Dáil statement by the Minister for Finance was even more pessimistic - *“all the indications are that economic activity in 2009 will contract by significantly more than the forecast in the recent Budget with an overall contraction of perhaps somewhere in the region of 3% to 4%”*.
- IATA estimates that worldwide passenger traffic will decline by at least 3% next year, following growth of 2% in 2008. This will be the first decline in annual passenger numbers since the 2.7% drop in 2001.
- DAA estimates that passenger growth at Dublin could decline by circa 3-4% next year, following growth of 15% in 2006 and 10% in 2007. This will be the first decline in annual passenger numbers since the drop in 1991 following First Gulf War.

Passenger numbers for 2009 at Dublin will be over half a million below previous forecasts used by the Commission for the Interim review. These market conditions heighten risk for DAA as both aeronautical and commercial revenues are under pressure. Furthermore, the take over bid for Aer Lingus recently launched by Ryanair, could, if successful, significantly alter the competitive landscape for air services at Dublin Airport, though it remains to be seen what the precise implications of this might be. For example, consideration must be given in the event of such a take-over to the potential for route consolidation and Ryanair's previously stated position that it would not allow Aer Lingus move into the new T2 facility. The impact of such developments on DAA's risk profile - already heightened by the substantial increase in debt and the deferral of increases in the Interim Review - needs to be considered by the Commission in reaching its decision.

In the course of its deliberations on the forthcoming Determination, DAA expects the Commission to demonstrate that it adopts a balanced approach to risk, and incorporates possible downsides as well as upsides in its analysis of outcomes. To date the company has been forced to rely on the sale of assets amounting to circa €0.6 billion external to the regulated business to enable delivery of the Government's mandate to deliver the necessary infrastructure at DAP. To the extent these assets sales have been factored into the Commission's financial viability assessment this would be wholly inappropriate; they have no effect on DAA's return on investment at Dublin Airport, hence do not serve to enable DAA to operate and develop Dublin Airport in a sustainable and financially viable manner or to allow income deferral through the regulatory formula. In the forthcoming period, it will clearly not be sustainable to continue to rely upon asset disposals from outside the regulated entity to maintain healthy financial ratios.

Moreover given the state of the financial markets and the ever more critical importance of the quality of DAA's credit rating to those markets, it is clear that the approach to financeability adopted by the Commission at the last review would not have delivered Dublin Airport's infrastructural programme in isolation. These matters need to be addressed in the future for the Commission to comply with its statutory obligation to enable DAA to operate and develop Dublin Airport in a sustainable and financially viable manner.

The Commission should specifically reflect current uncertainty in its cost of capital assessment. The CAA in the UK has accepted that the welfare loss from underinvestment and the resultant low service and reduced competition if charges are set too low is potentially much greater than the welfare loss if charges are set a few cents too high. DAA remains strongly of the view that the Commission needs to make its assessment on the basis that the company can retain a credit rating of 'A' with a minimum FFO:Debt ratio of 15% throughout, and a positively increasing profile through, the regulatory period. If the Commission does not adopt this approach it risks

- Significantly restricting DAA's ability to access the financial markets and refinance its debt, thereby endangering the company's sustainability and financial viability:
- Diverting the management from the task of running the business optimally to spending disproportionate effort on short term cash and credit management, as appears to have happened in the UK.
- Preventing DAA from developing necessary airport capacity in a timely manner. This is an important national consideration given that the timely availability of infrastructure has been identified as one of the keys to economic recovery and was specifically mentioned by Minister for Finance Brian Lenihan as recently as October 2008:

*“These projects (capital investment priorities) will help provide the foundations for future economic expansion and substantial job creation. Direct Government capital investment will be complimented by the extensive capital investment programme of the commercial state bodies such as the highly visible progress being made by DAA on T2 in Dublin Airport”*

It is notable that the Government has remained committed to implementing the National Development Plan despite the current constrained economic conditions. In fact any alternative approach has been identified by nearly all economic commentators as short-sighted and one which leads to significant long term structural disadvantages and the inhibition of growth. In this context, it should also be noted that lack of investment in airport infrastructure and facilities with appropriate service levels creates a significant barrier to entry for new airlines and future growth at airports. Lack of appropriate capacity and facilities is the most significant factor in inhibiting the development of new routes and services. If capacity is constrained, as it has been at Dublin Airport in the recent past, then the ultimate loser will be the consumer, who will suffer reduced choice, increased costs, more congestion and a poorer service.

For the next review the Commission can also promote economic efficiency and fulfil its statutory objective by taking actions that are likely to reduce regulatory risk. Specific recommendations include:

- ensuring that, if it decides to use projections or forecasts that are materially different from those of DAA, this decision is based on detailed and robust evidence. Where there appears to be a difference of opinions between DAA and the Commission or its consultants, the Commission should make strenuous efforts to resolve or explain these differences during the course of its work, where possible before publishing either its proposals or the consultants’ final report;
- providing as much specific detail as possible about its proposals, and especially those that have significant implications for future control periods. Such a clear delineation of its objectives and proposed methodologies will reduce the level of regulatory discretion required in future price reviews, and clarify DAA’s likely exposure to different types of risk;
- ensuring that it has fully examined the practical implications of its proposals (for example, for trigger pricing), and taken full account of the impact of increased complexity. The Commission should have confidence that its proposals can be implemented in practice without causing undue difficulties or giving rise to unintended consequences, and that they will have a material and positive impact on economic efficiency; and
- ensuring that the different decisions that it takes during each review are internally consistent, and also that it adopts a consistent approach to regulation over time.

DAA looks forward to a constructive and transparent dialogue with the Commission as it embarks on its work.

## **2. Introductory Comments**

DAA's response document follows the structure of the Commission's Issues Paper. The broad position in respect of each of the building blocks is summarised at the start of each chapter.

Though the Commission points out in Paragraph 1.10 that some specific questions that parties might consider important when developing their response are listed at the end of each section, these represent only a very small selection of the total number of queries posed and invitation to comment issued by the Commission throughout the paper, on a very broad range of issues. In this context, it is important to note that while DAA has made every effort to respond to CP6/2008 in as comprehensive a manner as possible, lack of comment on a specific point should not be viewed as agreement with or endorsement of it. In addition, given the current economic turbulence and uncertainty, DAA would suggest that this may not be the optimal regulatory period to introduce the complete scale of new issues and incentives being proposed, regardless of their theoretical justification.

### **Approach to Consultation**

DAA welcomes and endorses consultation as a necessary part of the Commission's function in arriving at determinations. The process is more robust and the Commission's desire to fulfil its statutory objectives better facilitated; if the need for consistency and evidence based responses is highlighted from the outset. Unfortunately DAA believes that this issue has not been given sufficient emphasis in CP6/2008.

The Commission has a difficult task to adjudicate on issues, including charge levels, which cannot readily be agreed by the parties involved. Delivering on its responsibility in this area would not be facilitated by giving an impression that it may be swayed by "voting patterns" on specific questions rather than the strength of the evidence presented by the parties or by pressing for a consensus on matters where one will be almost impossible to achieve.

In this context, it is not helpful that an impression, intentional or otherwise, could be taken from CP6/2008 that respondents can simply "pick and choose" between a range of different options or approaches, each of which is self contained. This is particularly evident in the Cost of Capital section, in which the Commission produced a range of regulatory outcomes for each WACC element, and invites respondents to comment without stressing that the variables are interdependent. Views must be critically evaluated rather than relying simply on the weight of opinion if the outcome is to be recognised as valid and well considered.

The Commission must demonstrate an internal consistency in its deliberations on the various building blocks so that the Determination that emerges from this process is balanced and coherent. If it approaches its task in a manner that best delivers economic efficiency and demonstrates that the outcome of its deliberations meets this aim, this will facilitate it in meeting its statutory objectives.

### **Further Interaction**

DAA would welcome the opportunity to provide clarification to CAR on any matter set out in this submission. DAA is keen to ensure that CAR has a good understanding of its positions and the factual circumstances prior to preparing the draft determination, as this is most likely to lead to an efficient and constructive process and the most commercially rational outcome. Discussion and clarification would also assist in meeting the Statutory Objectives and procedure in that they help make the statutory consultation procedure as efficient as



possible. If the draft determination to be published by the CAR is as accurate as possible, this will make the statutory consultation period more useful for all parties.

DAA is of the opinion that if CAR is minded to probe into the values derived from DAA forecasts, it should be done in the context of a critical evaluation of all evidence in pursuit of a properly reasoned decision. DAA's forecasts have been shown to be consistently credible, with a strong underlying methodology. CAR is not being asked to accept DAA forecasts uncritically, but rather not to dismiss them out of hand. In this context DAA wishes to state its willingness to work with and to engage constructively with CAR or indeed any external consultants CAR may appoint. DAA would request that CAR also allow sufficient time for this process to take place. An important element of this would be to ensure that the consultants that CAR expects to engage with would be confirmed as early as possible.

In accordance with the Commission's published timetable DAA will provide details of the proposed capital investment programme for the period 2010-2014 at the end of February<sup>1</sup> and its financial plans and associated explanatory documentation in March 2009.

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<sup>1</sup> DAA is open to further discussions with the Commission regarding the timing of the CIP submission if the capex consultation process starts to operate effectively.

### 3. The Commission's Approach to Regulation

Summary of DAA's Position on the Approach to Regulation:

- DAA recommends that the existing CPI +/- X price cap model based on the single till be retained by the Commission for the next review.
- DAA welcomes the Commission's approach to rolling incentives for opex as it believes that this will assist in reducing the effects of the acknowledged distortions associated with the implementation of this model.
- Notwithstanding the current market uncertainty, DAA is opposed to the implementation of a volume term in the next price cap.
- However, the high level of economic and volume risk needs to be reflected in CAR's financial analyses and its approach to setting the cost of capital.
- DAA recognises the trade-offs involved in determining the optimal length of the regulatory determination period, and would urge CAR to strike the appropriate balance between avoiding deferring necessary regulatory decisions, and highlighting issues which could potentially require an Interim Review.

#### Price Cap Regulation

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is - should the Commission continue with a CPI+/-X approach, using a single till when setting the price cap?***

Under the current regulatory regime airport charges are regulated on the basis of the CPI +/- X price cap model applied to an average revenue yield per passenger. This is the regulatory model commonly applied in the UK and Ireland. This price cap model has certain incentivising properties, as it places an onus on the regulated firm to achieve productive efficiencies thereby potentially leading to increased economic efficiency.

The CPI +/- X price cap model has a number of acknowledged theoretical strengths

- The price cap is perceived as being simpler and more cost effective to implement than alternative regulatory approaches.
- It allows the benefits of increased efficiency to be shared with airport users when the price cap is reviewed.
- It provides a degree of certainty in planning for DAA and its airport users through defining an inflation-adjusted average level of prices for a period of years.

However DAA believes that the current price cap regulatory model has certain shortcomings

- This regulatory regime allows for the operating cost base to be redefined at the start of each new regulatory period to incorporate any efficiencies made in the preceding period. Under this model, the regulated company has stronger incentives to outperform a particular operating expenditure target at the beginning rather than the end of a regulatory period as the timing of a particular efficiency measure is highly significant in determining the level of cost savings which will accrue to the regulated firm. While it is the company's policy to seek to achieve cost efficiencies where possible and

irrespective of the timing nevertheless DAA welcomes the Commission's proposal to introduce a rolling incentive scheme for operating expenditure. This measure could potentially alleviate any possible distortions arising from the timing of cost saving measures.

- Under the CPI+/- X model, over time it becomes increasingly difficult for the regulated company to continue to make significant efficiency or productivity savings from one period to the next, as the regulator re-sets X at each review to incorporate efficiencies made in the previous period. This raises the standards for the company for the following period without conveying any ongoing financial benefit. Therefore, it becomes harder for the company to 'beat X' and its incentive to continue searching for efficiency savings is eroded. This "ratchet effect" can reduce the incentive for innovation and new product development, since the regulated company is no longer rewarded reasonably for making progress in these areas. This potentially results in a loss of dynamic efficiency over time. Therefore it is essential that the Commission ensures that its application of this price cap regulatory model retains its incentivising properties in the medium to longer term if the Commission is to continue to pursue the goal of economic efficiency. The high level of gains which the regulator can assume when companies are first regulated at inside the efficiency frontier, become progressively lower over time as CPI – x brings the company closer to the frontier. Therefore it is normal, and to be expected, that the efficiency assumption built into the formula should erode over successive price control periods

In order to increase the level of incentives for the regulated firm within the existing regulatory model the Commission could also consider the approach to efficiency adopted by UK water regulator Ofwat<sup>2</sup>. Under this proposed mechanism the Commission would carry out its estimation of the scope for efficiency improvements at Dublin Airport over the next regulatory period and then this efficiency target would be divided into two elements. One portion of the potential efficiency would not be built into the price cap estimation on the basis that the company would get to keep this cost saving during the regulatory period as a incentive reward while the remaining portion would be built into the price cap as an assumed efficiency gain.

DAA believes that the existing price cap model can be a powerful tool in helping to promote economic efficiency, however this can only be achieved by providing strong incentives and allowing the regulated company sufficient operational freedom to respond to these incentives. It is also essential that within the price cap model the Commission attempts to minimise regulatory risk by ensuring its regulatory projections are as accurate as possible, that adequate detail is provided in relation to its proposals and that its overall regulated decision is internally consistent.

In its recent regulatory review of Stansted Airport, the UK Competition Commission (CC) looked at possible alternatives to the use of the current standard price cap model based on the RAB approach. A number of options such as an augmented RAB, a legacy price cap, market-led and precautionary price caps and default price cap were considered. The standard building blocks approach has been retained with the Competition Commission repeatedly emphasising regulatory stability and the need to avoid changing the existing RAB/WACC regime without good reason. Significantly it stated that:

*"We are mindful that the past use of a RAB based approach had created a regulatory contract with regard to past investment and an implicit*

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<sup>2</sup> Ofwat, *Future Water and Sewerage Charges 2005-2010*, Final Determinations December 2004.

*commitment to future investment. Therefore any change to the regulatory regime should only be taken with good reason*<sup>3</sup>

In the course of the 2007 Interim Review DAA stated that it would be in the interest of users for the Commission to affirm its commitment to reducing regulatory risk, as this would improve financeability. Specifically the company sought confirmation that the Commission did not intend to divert away from the building-blocks mechanism. In response CAR indicated

*“The building-blocks approach remains the Commission’s preferred method for setting a price cap”*<sup>4</sup>.

In regard to the application of the single till, DAA believes that the Commission should retain its precedent of excluding at a minimum all assets from the RAB relating to activities with ‘insufficient nexus’ to Dublin Airport together with their associated revenues. For the future, DAA believes that the Commission should re-examine the degree of competition DAA faces in its commercial activities, with a view to reducing the scope of the regulated till.

To conclude, price cap regulation is widely used because it provides an appropriate compromise between providing strong incentives for firms to take short term and long term actions that will improve efficiency; and ensuring that prices remain aligned with costs in the medium to long term. DAA therefore recommends that the existing CPI +/- X price cap model be retained.

Effective economic regulators recognise the fundamental trade-offs inherent in price cap regulation. In particular, regulated firms must be given freedom in relation to their operational decisions so that they can respond effectively to the incentives provided; and they must be given temporary opportunities to make above or below normal profits, in order for these incentives to be meaningful. DAA commends this approach to the Commission for the purposes of the next review.

## **Approach to Volume Risk**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is – how should risk be treated; if and under what conditions the Commission should deviate from its approach through some form of risk sharing?***

In its Issues Paper CP6/2008, the Commission acknowledges that under the current regulatory framework DAA bears all the risks that costs and/or volume outturns may not be consistent with the Commission’s regulatory projections. Therefore if DAA out-performs the Commission’s forecasts it retains all the extra profits while if it under-performs against the Commission’s forecasts it incurs all the losses. This in effect allows for a volume risk sharing across regulatory periods. To date the Commission has not clawed back any additional profits derived from higher than expected volumes nor has it compensated DAA for demand shocks.

Forecast traffic volumes are a key determinant of the price cap through their impact on operating expenditure, commercial revenues, capital expenditure and the subsequent revenue yield calculation. The Commission has demonstrated the potential impact on the price cap of volume changes in Figure 1 of CP8/2006. It is clear that a change in passenger numbers has the most significant impact of all the building blocks with a 10% decrease in

<sup>3</sup> Para 4.10, Competition Commission (2008), “Stansted Airport Ltd: Q5 Price Control Review” para 4.10

<sup>4</sup> Pg 43, CP6/2007

passenger volumes resulting in a 14% increase in the average price cap for 2006-2009, and a 10% increase in passenger numbers generating a 12% reduction in the price cap.

The issue of volume risk and potential methods of dealing with this risk is a matter of some significance in the current market climate given the sharp downturn in the Irish economy, the recent volatility in fuel prices and the imposition by the Irish Government of a new tax on air travel. For example, a key driver for passenger traffic is economic growth. The volatility in the market is evidenced from the variations in forecasts of economic growth from the ESRI in recent months - centreline forecasts for 2009 swung from an anticipated growth level of +3.1% in May 2008 to -0.7% more recently, an overall variance of almost 4% in just six months. The Minister for Finance has indicated that he expects an overall contraction of “*somewhere in the region of 3-4%*”. Given the ongoing instability these estimates are subject to continuous review and are likely to change further before the Commission makes its final decision on the price cap.

GDP	ESRI Medium Term Review May 2008		Latest ESRI Numbers	Variance
	Centreline	Low		
2008	1.8	1.8	-1.3	-3.1
2009	3.1	3.1	-0.7	-3.8
2010	4.6	2.9		
2011	3.7	2.8		
2012	3.7	2.8		
2013	3.6	2.8		
2014	3.5	2.8		

The economic slowdown and other factors listed above are likely to have a significant negative impact on demand in the aviation market and are also likely to increase DAA’s exposure to risk due to the higher degree of uncertainty surrounding passenger traffic forecasts.

There are a number of measures which the Commission could consider within the existing regulatory framework as a means of mitigating the volume risk faced by the regulated company during the forthcoming determination period.

- Automatic adjustment mechanisms- a volume term could be introduced into the price cap formula which would allow for a retrospective adjustment to the price cap to adjust future revenues to take account of any previous differentials between forecast and actual traffic volumes over the course of a particular regulatory determination period. Within this volume term a dead band could be used where adjustments to the price cap would only come into effect where traffic volume variations exceed an upper and lower limit.
- Interim Review- the possibility of holding an interim review of a Determination as a means of addressing a substantial deviation of actual traffic volumes from projected regulatory forecasts.
- Exceptional Clause - the Commission could agree in advance a clause that would be written into the Determination which would allow for a reopening of the regulatory

determination on a limited basis to exclusively address a deviation of actual traffic volumes from projected regulatory forecasts over the course of the regulatory period.

Notwithstanding the current high level of uncertainty surrounding future traffic forecasts, DAA is, in general, opposed to the use of a volume term within the price cap.

The inclusion of a volume term in the price cap would allow for maximum prices to increase where actual traffic volumes are lower than forecast traffic volumes and for a reduction in maximum prices where actual traffic volumes exceed forecast traffic volumes thereby maintaining constant revenue from regulated airport charges. A strict application of a volume term could result in the price cap evolving into a revenue cap and the subsequent reduction in the incentive properties of the price cap regulatory model.

DAA is also concerned that if a volume term were instituted, the price cap would be required to rise when demand was below forecast and as a consequence DAA would be asking airlines to pay higher charges when market conditions were unexpectedly weak. This would not be welcomed by the industry, prove difficult to implement and therefore a volume term could deliver an asymmetric result for DAA in practice.

DAA suggests as an alternative that the Commission considers the potential inclusion of volume based price triggers whereby different levels of allowable capital expenditure would be linked to a number of different potential indications of likely future traffic volumes. This would ensure that both higher allowable capital expenditure and the associated higher price cap would only ensue where appropriate higher traffic volumes are likely to be achieved. This proposal would, in effect, result in a potential sharing of the volume risk between DAA and its airline customers.

DAA accepts that in general terms the airport operator is probably best placed to deal with non-systematic volume risk. However since much of the current volume risk is systematic and as such cannot be managed by the airports or airlines, there is therefore an onus on the Commission to take account of this increased volume risk if it is to adequately fulfil its statutory objective to enable DAA to operate and develop Dublin Airport in a sustainable and financially viable manner.

DAA believes that the company's current exposure to volume related risk will, in turn, add considerably to the overall level of potential risk faced by the regulated company in the next Determination period and that this should be reflected in the company's regulated cost of capital.

## **Duration of the Next Determination**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is – what should be the duration of the next determination?***

In general, regulatory determinations need to be of significant length to provide an element of regulatory certainty and to establish a degree of price stability. DAA believes that there is a trade off involved in determining the optimal duration for a price cap decision. If the price cap period is too short then this undermines the incentive properties implicit in the model and it adds to the risk and uncertainty for the regulated firm given the frequency of regulatory reviews. However, if the price cap period is too long in duration then this can also add significantly to risk since the regulated company does not have the possibility of the

Commission revising its regulatory assumptions and readdressing issues that might emerge in the intervening periods between determinations.

In deciding the timescale for the next review it is important that an appropriate balance be struck. For example, setting a shorter time period, should not result in important future developments remaining unremarked upon or decisions being deferred. On the other hand, a longer review period would require clarity regarding issues arising that might require the Commission to undertake an Interim Review. For example, the Commission has proposed a number of new regulatory initiatives that may become a feature of the outcome of the next Determination e.g. unitisation, triggers for T2, service quality terms etc. - any issues arising as a result of the implementation of these new initiatives would need to be resolved in a timely fashion.

## 4. Service Quality

### Summary of DAA's Position on Service Quality:

- DAA is focussed on customer service and has been improving its performance over recent years without a formal service quality term.
- The company offers its assistance to CAR in assessing the combination of price and quality that users require as this is a complex issue with often diverging views.
- DAA supports the Commission's proposal to publish information relating to certain service quality metrics and urges it to broaden the scope to include measures relating to airline/handler performance as these have a significant impact on the passenger experience.
- Flexibility to adjust to changes in the environment to avoid downturns in performance must be provided for in DAA's opex budget at regulatory reviews if it is to have the resources to ensure that quality of service is maintained.
- The empirical evidence does not support the Commission's contention that a link between service quality and the price cap is required and the proposal should therefore be withdrawn.
- By avoiding reference to rebates, the sector also avoids the growth of a "cottage industry" based around the pursuit of quasi-contractual compensation and this enables the correct focus to be placed on resolving the causes of service quality difficulties.
- If a scheme is implemented by the Commission it should be a symmetric one with an allowance for bonuses as well as penalties; continuous improvement would be the optimal approach to target setting; if ASQ targets are to be set with reference to the industry average this should be on the basis of comparison with the 15-25mppa European Airport group; SLA targets should not be subject to unilateral changes; more extensive consultation on the detail will be required prior to implementation.
- If a continuous improvement approach is adopted for target setting, CAR should review the process at the end of the first price control period of its implementation to establish if targets remain appropriate.
- If establishing service quality targets that reflect a better result than currently, then CAR must also signal the need for DAA to move towards the levels of opex/capex and airport charges at other high quality airport facilities.
- The most cost effective approach to the collection of service quality information is to rely on the data already gathered by DAA and ACI relating to the metrics proposed. DAA agrees in principle that external validation measures, if cost effective, may be appropriate.



***The issue posed by CAR in CP6/2008 that DAA seeks to address in this section is – how should service quality be addressed in the Determination?***

DAA welcomes CAR's focus on service quality issues. In a number of previous submissions, the company stated that it would be happy to work with the Commission in developing an objective system to monitor service standards in the future.

## **User Requirements**

DAA made a strong case to the Commission regarding the need to put passenger needs at the centre of service quality analyses. CAR observes at paragraph 3.16 that

*“it should be for users, and not the DAA, to identify the combination of price and quality of service that they would like to receive when using Dublin Airport”*

CAR has not set out how it intends to obtain this information - for example does it propose to survey passengers to offer them price/service choices? Neither does it clarify how it will assess the specific requirements of prospective users as required under the Act. Given the scope and range of the company's quantitative and qualitative research material, DAA offers its assistance to the Commission in undertaking this assessment<sup>5</sup>.

DAA is surprised that the Commission appears to have assumed that there is a single spot level of service that passengers want and that they would attach no more value to higher service levels. Normally one would expect to see a curve of indifference showing how much customers would choose to pay to receive better service and vice versa. DAA has previously provided the Commission with the empirical evidence to support the fact that passengers are indeed prepared to pay for service quality improvements. Thus a bonus may be entirely justified.

DAA agrees that it is the customer's definition of what is important and what 'quality' means that matters. The passenger is a 'shared' customer of airlines, ground handlers, transport companies etc. and the interests of all are served by ensuring the passenger is satisfied with the level of service received. In this context, focussing on delivering a quality travel experience to passengers yields benefits for all DAA's customers. This view is becoming widely espoused and supported by the airport and regulatory policy communities

- Harry Bush, head of the CAA, in a recent presentation to the Global Airports Development conference noted that the interests of airlines are protected by focussing on the end user
- The interim report from the UK Government review of airports regulation has prompted the view that *“putting passengers to the fore has to be one of the best ways of making sure that we get the most efficient and competitive aviation sector possible”*<sup>6</sup>
- A heightened concern for end users has also been expressed in Ireland

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<sup>5</sup> In its response to CP3/2008, DAA provided evidence of the extent of the research it undertakes in an effort to establish passenger needs and address them and we have previously provided the Commission with the results of passenger research indicating the extent to which passengers would be prepared to pay more for better quality of airport facilities.

<sup>6</sup> UK Secretary of State's speech to the Airport Operators Association Conference and Exhibition 2008, November 2008, available from the UK Department for Transport's website: [www.dft.gov.uk](http://www.dft.gov.uk).

*“there is an urgent need for the regulatory agencies to take a greater account of the needs, expectations and requirements of those who are the ultimate beneficiaries of regulatory intervention – in some instances this might manifest itself in the establishment of customer liaison panels for each regulatory agency, so that there is a formal process whereby the agencies can continually assess their own operations against the immediate concerns of their “customers”. In particular no impression should be created that certain regulatory agencies prioritise the needs of larger business enterprises, rather than smaller businesses or consumer interests”.*<sup>7</sup>

However, it has been DAA’s experience to date that there is little consensus on this issue and indeed a significant divergence between the stated needs of airlines and passengers on many service quality elements. It is important therefore that the Commission should treat responses from airlines on the question of service quality indices with caution as their interests are often not aligned with those of end users. This was recently recognised by the UK airports regulatory agency the CAA when it stated

*“The views of the airport and of incumbent airlines may not be aligned with those of passengers. [This] reduces the weight which can be placed on those views”*<sup>8</sup>

In forming a view on the combination of price and service that it believes users require, it would facilitate delivery of CAR’s statutory objectives if it demonstrated the basis for this assessment. In particular it must ensure that it bases its views on facts and empirical evidence if it is to satisfactorily comply with its statutory obligations towards the broad range of current and prospective users.

## **DAA Service Quality Performance**

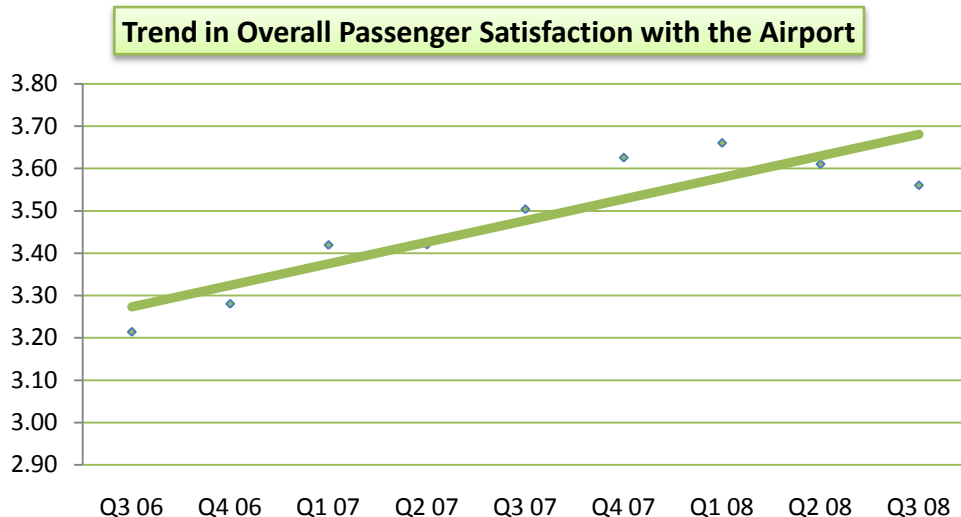
A fundamental principle of regulation is only to intervene where there are demonstrable failures in the working of the competitive market. DAA challenges whether such failures can be demonstrated in the area of service quality at Dublin Airport and whether any shortfalls can be attributed to any alleged desire on the part of the company to obtain higher profits by consciously acting to reduce quality of service levels. DAA has done everything possible to maintain service quality at an adequate level at Dublin Airport, and such service shortfalls as have occurred have largely been due to delays to the provision of facilities creating congestion and operational disruption.

DAA has demonstrated in its response to CP3/2008 that the company has a clear commitment to service quality. Furthermore, in Appendix 1 DAA presents clear evidence that it’s performance on service quality has improved over time and in the case of the ASQ metrics, compares favourably with the levels achieved by comparable European airports, many of which have higher charges and have invested more heavily in infrastructure and facilities than has been allowed at Dublin.

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<sup>7</sup> Senator Paul Coghlan, Economic Regulatory Affairs Committee, PAI Journal, Issue No.52, November 2008

<sup>8</sup> CAA 2008, “*The Competition Commission’s Quinquennial Review of Stansted: the CAA Response to the Issues Statement*”, June, para 2.14



Source ASQ

DAA is therefore surprised and perturbed that CAR has stated that it has already

*“decided that there is a case for providing both clearer and sharper incentives for the DAA to deliver an appropriate quality of service at Dublin Airport”.*<sup>9</sup> (emphasis added)

Section 5(4) of the Aviation Regulation Act 2001 requires CAR to ensure that all Determinations and conditions attaching thereto be objectively justified. As CAR has stated that it has made a decision in principle on this issue which will ultimately impinge on the Determination, it is obliged to set out its rationale before moving forward and it has failed to do so.

Though the Commission has stated that it has arrived at its position following “reflection on the responses to the consultation”, it has not provided details of its rationale. Submissions from various parties on the Quality of Service consultation process undertaken during the summer are summarised in Annex 1 to CP6/2008, however, CAR does not indicate why it chose to accept or reject the arguments put forward by the various parties or evaluated the sometimes conflicting positions presented by respondents. Furthermore we note that no empirical evidence was provided by respondents to underpin CAR’s decision that there is a case for providing “clearer and sharper incentives”.

DAA is focussed on passenger service and has been improving its performance over recent years. Maintaining this focus does not require a formal link between service quality and the price cap. The empirical evidence provided does not support the Commission’s contention that an explicit link between service quality and the price cap is required and the proposal should therefore be withdrawn.

## Publication of Information

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – are parties content to rely on the indicators for quality of service described in Table 1? If not what changes would parties propose?***

<sup>9</sup> Paragraph 3.4, CP6/2008

Notwithstanding the views above, DAA is supportive of the Commission’s stated intention to publish information about quality standards at Dublin Airport. In a number of previous submissions, the company stated that it would be happy to work with the Commission in developing an objective system to monitor service standards in the future.

Results from the monitoring programme are being used and could be built upon for the future to establish a consistent ongoing approach to recognising the interests of passengers and other users as well as airlines. This approach would also be consistent with the CAR’s statutory requirement to have regard to placing the minimum restrictions on Dublin Airport consistent with its duties and with the requirement for it to keep its own costs to a minimum.

DAA wishes to comment on the two sets of metrics from which CAR proposes to select for the purposes of publishing information on service quality performance – the SLA’s currently in place between DAA and airline users and the ACI Airport Service Quality (ASQ) survey.

## SLA Metrics

DAA supports the inclusion of the existing SLA measures for which DAA has responsibility in any published reports on service quality at Dublin Airport. Indeed, DAA already shares this information with carriers on a regular basis.

However, the baggage handling area is particularly complex. DAA believes that the initial focus of any service quality analysis for baggage should be the incoming element of the system as it is reasonably straight forward to measure given that it is essentially a point to point process. DAA would be happy to work with the users to further improve the robustness of the data for the more complex outgoing system. Any underperformance due to contributory negligence or misuse of the system by a handler or airline must be excluded for the purposes of assessing DAA’s performance on this measure. Indeed, proposals to include this metric in a service quality term (particularly one involving financial penalties) must reflect the fact that the actions of handling agents and their contracting parties (all of which are licensed by CAR under S.I. 505) have a significant impact on the availability of the baggage system. Any system of financial penalties or incentives contemplated by the Commission should therefore be applied to all relevant parties, not DAA in isolation.

SLA measures also exist for airline/handler activities (see table below), which have a significant impact on the passenger experience at the airport and DAA believes that it would be important to publish performance against these metrics also.

Service/System	AOC Commitment	
Check-in	Check in desks open STD – 2 hours, must be achieved for 95% of each airlines/handling agents’ flights each day. For all flights check in desks must open no later STD – 1 hr 40min. No queue outside the defined area, 95% of operating hours. Manage passenger queues within demarked areas. Queuing time, no more than 15 minutes for all flights, except 20 minutes for transatlantic flight, 95% of the time. Compliance with DAA check-in plan. Variance to be agreed by DAA Terminal Services. For Common check in, queue to be contained within demarked area. 95% of operating hours.	
Baggage Delivery (Contact Stand)	First Bag	Last Bag
Small Aircraft	15 minutes	25 minutes
Medium Aircraft	15 minutes	35 minutes
Large Aircraft	15 minutes	45 minutes
Baggage Deliver (Remote Stand)	First Bag	Last Bag
Small Aircraft	20 minutes	30 minutes
Medium Aircraft	20 minutes	40 minutes
Large Aircraft	20 minutes	50 minutes

General	100% compliance with correct use of "first bag, last bag" system, when installed.
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This approach has been endorsed by the CAA and the CC in the UK.

*"The Commission saw advantages in the CAA's proposal to encourage publication of performance measures of airlines, with any such publication ideally under the auspices of the CAA."*<sup>10</sup>

It is widely acknowledged that airports should be viewed as a system and the various parties must work in harmony to deliver the best outcomes. Passengers ultimately care about the combination of airport and airline services delivered to them<sup>11</sup>. The publication of information for all parties to SLAs would be a balanced approach and lead to greater transparency for the travelling public. Indeed the knowledge that such data will be published often acts as a motivator to improving performance. Better understanding of performance against these SLAs by passengers might inform their choice of airline and could generally make their travel through the airport more comprehensible. CAR as the licensing authority for ground handlers who are responsible for key passenger processing functions such as check in and baggage delivery, also has a regulatory role in respect of their actions. Publication of airline/handler performance would give CAR the database to inform any subsequent intervention required to address the level of service standards being delivered.

The service level agreements that DAA has in place with airlines ensure that the airport authority strives to deliver good quality of service, subject to budget constraints. Given that the existing SLAs have been agreed with carriers they represent what the airlines consider to be an appropriate service standard, and hence they should only be amended following negotiation and agreement with all sides. DAA is engaged in discussions with the AOC at present to review the status of the existing SLA's, taking into account new procedures, automated and self service check in, etc. Any amendments need to reflect technological development, before being costed and jointly agreed.

Any changes to the existing standards are likely to have implications for operating costs, which should ultimately be reflected in airport charges. We note that this has been acknowledged in the CAA's recent proposals for Stansted Airport where it is stated

*"It makes sense for the service standards on which the scheme is set to be consistent with the implicit standards assumed in the projections of capital and operating costs underpinning the final price control determination"*<sup>12</sup>

In contrast, the DACC has indicated in its response to CP3/2008 that the service levels implemented should not be used to

*"further increase costs to users nor should it be used to justify further capital expenditure, unless agreed with users"*.<sup>13</sup>

Clearly, it is in airlines' interests to press for the highest standards possible where there are no consequent costs<sup>14</sup>. However it is a completely inconsistent for airlines or any other party to simultaneously demand increasingly high standards of services, lower investment and reducing airport charges.

<sup>10</sup> Heathrow and Gatwick Airports- CAA Price Control Proposals, November 2007

<sup>11</sup> This is also reflected in the ASQ's "overall satisfaction with the airport metric"

<sup>12</sup> Appendix D, paragraph D.5 p.152 "Stansted Airport CAA price control proposals" Dec. 2008

<sup>13</sup> DACC Response to CP3/2008

<sup>14</sup> This was also acknowledged by the CAA in Appendix D, paragraph D.10, p.154 "Stansted Airport CAA price control proposals" Dec. 2008

## ASQ Metrics

DAA accepts as valid the majority of the ASQ metrics proposed by CAR in CP6/2008, but would make two specific points in relation to them as follows:

- The terrorist attacks of 11 September 2001 and recent international conflicts have had a significant impact on the global air travel industry. As a result DAA proposes that the ASQ metric which captures the extent to which passengers “feel safe and secure” in the airport be reflected in the published performance. In the current climate this is an important aspect to the passenger experience.
- DAA contends that one of the metrics included in CAR’s list – availability of parking facilities - should not be included. This is due to the fact that Dublin Airport users now have a number of car park options available to them that are not owned or managed by DAA. These include the Quickpark facility on the Swords Road and a variety of other competitive offerings. There is no way to evaluate from the survey results whether the score recorded for this measure is based on a DAA product or one from another operator and it would be inappropriate to judge DAA’s performance on the basis of such a metric. It is also a condition of the T2 planning permission that the combined number of short-term and long-term parking spaces provided at Dublin Airport by all operators, including DAA, shall not exceed 4,000 and 26,800 respectively, unless otherwise authorised by a further grant of planning permission. If any such further permission were applied for and were withheld or if a variation of planning is not received, DAA’s ability to meet future car parking capacity demands at Dublin Airport will be restricted and this would have implications for its ability to meet the “availability of parking facilities” metric.

## Administrative Issues

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – what are the most appropriate arrangements for collecting quality of service data; what contingency plans, if any, should be implemented by CAR in the event that a third party ceased gathering the data?***

The most cost effective approach to the collection of service quality information is to rely on the data already gathered by DAA and ACI relating to the metrics proposed. It must be noted that this is subject to ongoing availability of resources. Some internal monitoring of performance against SLAs is carried out by DAA customer service agents at present and these costs must be sanctioned in DAA’s allowed opex.

In general, regulators have tended to regard the data generated by the regulated entity to be more reliable than that which they would be able to produce and DAA also believes this to be the case. However, in some cases (e.g. OFTEL in the UK) regulators have reserved the right to engage in some limited confirming research of their own. As already indicated in its response to CP3/2008, DAA agrees in principle that external validation measures, if cost effective, may be appropriate.

We recommend that information on CAR’s chosen service quality metrics be published quarterly on the Commission’s website. This timeframe will accord with the frequency of release of ACI survey results - though there is a time lag of a couple of weeks between the end of the quarter and the date on which survey results are made available to survey participants. Performance on SLA metrics could be published contemporaneously with the ACI results.

We note CAR's request for comments from parties regarding the need for any contingency plans in the event that a third party such as ACI ceased collecting the data in the format assumed when setting the service quality target. In DAA's experience the ACI survey has been growing in stature over recent years and the range of airports taking part has also increased significantly. In this context, the chances of the survey being abandoned appear remote and it would be inefficient for the Commission to engage in any costly contingency planning. In the unlikely event that there was to be a hiatus in the production of the data by an external source, any gap could be addressed by, for example, averaging results over the missing period once a new system was implemented.

## **Quality of Service Term in Price Cap Formula**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is – how should the Commission set quality of service target levels; how should it determine the structure and scale of any financial incentives it incorporates into the price cap; what circumstances should be deemed outside DAA's control when designing incentives?***

DAA does not believe that a move to a direct link with the price cap is required or appropriate at this point in time. There is at present no financial penalty on airports but equally importantly no penalty on other service providers e.g. airlines, handling agents etc. who can also be responsible for service failures. This approach has merit, as by avoiding reference to rebates, the sector also avoids the growth of a "cottage industry" based around the pursuit of quasi-contractual compensation and has enabled the correct focus to be placed on resolving the causes of service quality difficulties.

## **Important Issues Have Not Been Addressed**

DAA has urged CAR to ensure that prior to implementing new initiatives it has fully examined the practical implications of its proposals and taken full account of the impact of increased complexity. CAR should have confidence both that its proposals can be implemented in practice without causing unexpected difficulties or giving rise to unintended consequences, and also that they will have a material and positive impact on economic efficiency. It is not apparent from the Issues paper that CAR has paid due regard to these points.

Before proceeding the Commission should explain how it anticipates that this initiative will increase economic efficiency, and specifically demonstrate how the benefits arising from its proposed approach will outweigh the substantial costs to the Commission, DAA - and ultimately to users - which would be associated with fulfilling the information requirements required to move to a more prescriptive form of quality regulation. These are likely to include the costs associated with:

- Measuring the quality of service
- Setting standards which reflect the preferences of different users and the underlying incremental costs of quality and delivery
- Administering any system of penalty or reward for subsequent performance.

Though CAR has stated that its position has been arrived at following "*reflection on the responses to the consultation*" CAR does not appear to have addressed any of the points

raised by DAA in the company's response to CAR's consultation paper on service quality<sup>15</sup> in proposing to institute a formal link between service quality and the price cap.

Specific points raised by DAA in this context were as follows:

- there is no evidence of a specific quality of service “problem” to be addressed<sup>16</sup>;
- there is not even any consensus at present on how quality of service should be defined, or how the different requirements of passengers, cargo users, groundhandlers and individual airlines should be reconciled;
- even if there were to be a “problem” with quality of service, CAR has not considered whether this problem is related to the lack of adequate physical facilities or is best addressed through measures other than a link with DAA's price cap;
- there has been no testing of the measurement systems necessary to implement a formal service quality incentive mechanism<sup>17</sup> and this should be done in advance of any such mechanism being introduced;
- in addition, CAR has not provided evidence, in the Issues Paper or elsewhere, that it has properly assessed the trade offs between capex, opex and service quality before making its decision that a formal mechanism is warranted.

The Commission must address these significant points before it moves forward.

Finally, as the Commission is aware, the Government will be overseeing the procurement of an operator for T2. There will be a significant discontinuity with the opening of T2 early in the next price control period. Details of the operating model are not yet available and therefore the manner in which the new process will affect the operation is not yet known. Against this background it would be more reasonable to commit to publication of information and the development of a solid database of information on which to judge the requirement for a specific link between service quality and the price cap before progressing to the implementation of such a significant measure.

### **Important Considerations for a Service Quality Term**

Even if it were deemed necessary to include a service quality term, placing 6% of revenue at risk is a disproportionate level from which to commence the process. In the UK, the maximum level of rebates set by the CAA for all elements of the service quality schemes at Heathrow and Gatwick were initially set at 2% of revenues (rising to 3% after two years) and the system was given time to bed down before the level of risk was gradually increased to 6%. The move to a higher level of revenues at risk at those airports was counterbalanced by a system of bonuses amounting to 2.25% of revenues – an approach that CAR has proposed not to adopt.

If, ultimately the Commission decides to proceed with this initiative, DAA recommends that it adopts the following approach:

- An explicit linkage between proposed service measures and standards and a consistent set of capital and operating expenditure projections must be made. Otherwise CAR will be instituting an asymmetric approach to regulation which will not deliver economic

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<sup>15</sup> DAA Response to CP3/2008, August 2008

<sup>16</sup> See Appendix 1

<sup>17</sup> For example many of the ASQ measures are based on perception rather than quantitative analysis and can be very subjective as a result.



efficiency. As conceded by CAR at paragraph 3.11 of CP6/2008, DAA's airport charges were only 61-80% of those at the other airports it incorporated in its industry benchmark. DAA has also come through a period of restricted capex. These characteristics of CAR's approach to regulation will need to be reassessed in advance of instituting a formal link between service quality and the price cap to reduce the impact of regulatory risk.

- Flexibility to adjust to downturns in performance due to changes in the environment must be built into DAA's opex budget at regulatory reviews if it is to have the resources to ensure that quality of service is maintained.
- The increased risk to revenues as a result of the implementation of the asymmetric scheme proposed by CAR (rebates but no bonuses) must be reflected in the allowed cost of capital. DAA will be considering the impact as part of its submission on the cost of capital which will be provided to the Commission along with the company's financial model in March 2009.
- The level of airport charges revenues at risk should be set at 2%, similar to the approach adopted initially at Heathrow and Gatwick Airports. An initial scheme of this scale will be effective in focussing management attention on the relevant quality elements without imposing undue financeability concerns at a time when the economic circumstances are deteriorating.
- A symmetrical approach should be adopted, with DAA being incentivised to improve standards that directly bear on the passenger experience. This approach was adopted by the CAA at Heathrow and Gatwick airports at the last price review because it recognised the benefits to passengers of encouraging higher performance and noted that the implementation of the bonus scheme would enable it to meet its duties<sup>18</sup> (which are very similar to the Commission's statutory obligations<sup>19</sup>). It also believed that the implementation of a symmetrical term would encourage the delivery of the specified standard across all airport terminals, a consideration that the Commission should be mindful of given that T2 will be operational at the start of the next price control period. The most suitable candidates for a bonus element would appear to be the passenger-related elements measured by the ASQ, i.e. cleanliness, wayfinding and flight information. Similar to the approach adopted for Heathrow and Gatwick airports, the incentive should be based at a level that is ~40% of the proposed rebate level i.e. if a rebate of 2% was imposed at Dublin then a bonus of 0.8% should be allowed to reward any over performance on the passenger facing metrics.
- Rebates should be structured such that the maximum levels would only be reached if the standards were not attained after a sustained period of a minimum of twelve months of below standard performance.
- The Commission should not make changes to SLA targets unless agreed between the parties.

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<sup>18</sup> CAA, 2008, "Economic Regulation of Heathrow and Gatwick Airports 2008-2013 CAA Decision", March, paragraph 12.87

<sup>19</sup> The CAA is required by section 39 of the Act to perform its functions under Part IV of the Airports Act in the manner which it considers is best calculated:

- to further the reasonable interest of users of airports within the UK (with users defined to encompass both airlines and passengers);
- to promote the efficient, economic and profitable operation of such airports;
- to encourage investment in new facilities at airports in time to satisfy anticipated demands by the users of such airports; and
- to impose the minimum restrictions that are consistent with the performance by the CAA of those functions.

- If an industry average is to be used as the target for service quality levels then it should be computed on the basis of the results from the 15-25mppa European airports incorporated in the ACI ASQ survey<sup>20</sup>. It should be noted that in some cases DAA is already very close to the industry average. In such instances the target should be for the company to retain its relativity to the industry average rather than to exceed the current position, particularly given the low level of airport charges currently pertaining at Dublin.
- The industry average can change continuously – both upwards and downwards depending on events in the market, the airports position in the investment cycle, number of airports in the sample size etc. DAA submits that a pursuit of continuous improvement would be a more beneficial approach to target setting. If establishing service quality targets that reflect a better result than currently, then CAR must also signal the need for DAA to move towards the levels of opex/capex and airport charges at other high quality airport facilities.
- Any continuous improvement targets should be discussed and agreed with DAA in advance to ensure that they are appropriate and the metrics to which targets are attached should reflect the points made by DAA earlier in this response i.e. focus on inbound baggage, exclusion of parking availability measure, addition of metric related to feeling safe and secure. It should also be noted that there will potentially be differing targets across the various measures. The targets should be subject to review after the next price control period. This would be in line with the approach of leading companies such as Motorola, General Electric and the top automobile companies, who tend to review their continuous improvement goals on a three year basis.
- The extent of the revenue linkages ascribed to each metric should reflect the extent of DAA's direct control of the measure. No financial penalty should be imposed for any service where there are elements of combined or dual responsibility e.g. overall customer satisfaction; courtesy and helpfulness of staff. DAA has no direct control over the airlines and handling agents as, unlike the approach at other European airports, their licenses are awarded by CAR. Also ratings for 'comfort of waiting/gate areas' is heavily influenced by where passengers depart from and which airline they are travelling with so this metric should be weighted less heavily.
- The scheme should enable exclusions in particular circumstances relating to security or safety, circumstances where performance is clearly outside the control of the airport, and circumstances where equipment has been taken out of service to enable investment or refurbishment work to take place following consultation with users. Exclusions should be the subject of further discussion and evaluation prior to the implementation of any rebate/bonus scheme.

Further consultation and analysis would be required to work out the fine detail of any scheme prior to its implementation.

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<sup>20</sup> It should be noted that there are significant issues with comparator group of airports used by CAR for the purposes of deriving the industry average metric - They are selected, not because they represent appropriate comparators for service quality aspirations at Dublin Airport, but because they are airports "for which CAR also has airport charges data"; the data is two years old and does not reflect the latest position of Dublin Airport vis a vis other comparable European airports.

## 5. Passenger Forecasts

### Summary of DAA's Position on Passenger Forecasts:

- The current market is extremely volatile, which means that developing the next traffic forecast is extremely challenging.
- DAA's past forecasts have been found to be methodologically sound and realistic, therefore CAR should start its review from this base.
- DAA recognises that CAR is obliged to form a view on these forecasts and it may wish to take account of the views held by other stakeholders.
- However views must be critically evaluated and decisions taken on the basis of compelling evidence, rather than simply relying on the weight of opinion. The views which CAR derives from this evidence must also be properly reasoned.

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are - What do parties think are the key drivers of traffic growth trends at Dublin Airport? Are parties able to provide robust empirical evidence on the strength of the relationship between passenger numbers and any specific drivers? If not, can they suggest information that the Commission might collect in order to quantify possible relationships? What forecasts might the Commission use to project values for other drivers thought to influence passenger trends?***

CAR has asked interested parties to respond on a range of issues related to passenger forecasts, including eliciting their views of drivers of passenger growth, and possible future values for exogenous parameters.

### The Commission's Approach

The issues raised by the Commission concerning passenger forecasts are somewhat surprising as, by its own admission, the forecast methodology used by the DAA has, over the course of the two regulated periods so far, been accurate to within 100,000 passengers per annum. This level of accuracy, which is significantly less than 10% of the general annual increase in passengers over the last 10 years, is rendered even more reasonable in the context of several significant and unanticipated changes to the underlying drivers during this period, including the 9/11 terrorist attack and consequential traffic decline; the Foot and Mouth problems of 2002/3; and the trebling of capacity by a major airline over a two year period (2006/7). Furthermore, CAR has itself had the DAA methodology reviewed in detail by Mott MacDonald, which concluded that the DAA approach was reasonable<sup>21</sup>, in line with the conclusions of previous external reviewers<sup>22</sup>.

In the context of CAR's own acknowledgement that the traffic forecasts to date have been satisfactory for its purposes, we recommend that the Commission commence its review from DAA's traffic forecasts. We do not believe that it is desirable to have change for the sake of

<sup>21</sup>"The methodology used by the Dublin Airport Authority (DAA) to produce their air passenger traffic and commercial aircraft movement forecasts was considered to be appropriate for the purposes for which it is intended and represent the application of 'best practice'. The knowledge and experience of DAA's internal forecasting group was evident from our meeting with representatives of the group during the course of this study.", "Mott MacDonald: Preparation and Evaluation of Dublin Airport Traffic Statistics, May 2005"

<sup>22</sup> Other reviews of the forecast were undertaken by Arup (2006), Stanley for FCC (2006), WDR for DoT (2004)

change, as this would not be consistent with the requirement that the Commission should impose the minimum restrictions on DAA. The consequences of introduction of an alternative forecasting methodology for the purposes of regulation will not be limited to the regulatory interaction, as the DAA will have to constantly seek to correlate and compare the outcome of the CAR methodology with its own projections, which would add further to the administrative burden associated with regulation.

Specifically, it would be important to ensure that, if the Commission decided to alter the methodology used to develop regulatory forecasts, any proposed alternative methodology would be demonstrably and incontrovertibly superior, with a sufficiently extensive body of historical evidence being produced to ensure such a judgement could be made, as alternatively the DAA would be exposed to an unnecessary level of risk.

In relation to this specific issue, it is important in obtaining views of other stakeholders that CAR submits views to scrutiny and looks for evidence to support any assertions made. It is not necessarily evident to the DAA that the best approach to making future GDP or oil price assumptions is simply to ask all interested parties for views on such values, as the most popular outcome may not necessarily be the most reliable forecast. In this regard, the general appeal by CAR to all interested parties on such questions may not be particularly helpful.

In the event that CAR decided to use an alternative methodology to that used by DAA, it would be critical to ensure that the DAA was not disadvantaged by such a decision. Specifically it would be important that the full impact of any different forecast in terms of opex, capex etc was fully explored with DAA at a detailed level to guard against any distortions which might arise because of the shift to an alternative methodology.

## **The DAA Process**

The DAA has been actively working with the DACC in a forecasting sub-group to attempt to develop a joint scenario or scenarios for the purposes of providing assistance to CAR in its price determination. DAA has contributed a significant level of resources and time in providing information to the airlines so as to allow them to understand the methodology used by the DAA. The DAA has also requested that the DACC provide some information to feed into this process. At this stage, the amount of additional and material information which has been made available to the DAA as a consequence of its involvement in this process over and above what it would have developed in the course of its standard forecasting process is rather limited. Despite assurance about confidentiality from DAA, one key reason for this appears to be airline concern that information may be passed, perhaps inadvertently, to one of their competitors. A further reason may be that there is a high degree of uncertainty about the scale of the impact of the current global economic recession, which means that even where airlines are willing to make information available, they are not as confident as they would usually expect to be about the robustness of their current plans.

This can be illustrated by reference to the requests for slots for the current winter season. At the time of initial slot requests, the proposed winter capacity was projected to be 13% higher this winter than the previous winter. Based on operations to date, the actual outcome shows a 7.5% reduction in aircraft movements and a 6.6% reduction in passenger traffic against the equivalent period last year. Similarly, at this stage, slot requests for summer 2009 are running some 20% ahead of summer 2008, which is a larger increase than experienced in the last two years. However, there is a general consensus that the level of traffic is not in fact likely to be substantially above that in 2008.

The DAA is anxious to engage in a constructive dialogue with its customer airlines. The company will be very satisfied if the process results in the development of a traffic outcome which all parties believe best represents the likely traffic outcome over the next regulatory period and beyond. However, if it does not, the efforts which have been made on the part of the DAA to try to deliver such an outcome must be acknowledged by CAR, which has been party to the process from the beginning. Furthermore, it is important that CAR does not seek to simply “split the difference” in the event of a divergence of views between DACC and the DAA, but considers ab initio the robustness of the scenarios, based on the points made in the previous section.

Since 2001, the DAA has provided a range of reports and presentations to CAR on the topic of traffic growth drivers at Dublin Airport, which have articulated not only the DAA’s views on these drivers, but commented in detail on the specific values used, their sources and their incorporation in the forecast. Furthermore as part of the DACC process, the DAA has discussed the forecast material and developed additional material on the relative impact of the key drivers. To avoid overloading CAR with duplicate information, the attached table illustrates the dates on which much of the relevant information was supplied. DAA would be happy to provide additional copies of such information if and as required.

Date	Given to CAR
15/08/2003	Forecast information
10/12/2003	2003 traffic numbers
09/11/2004	Meeting with CAR on Forecast
09/11/2004	Forecast 2003, elasticity analysis, calibration workbook etc
19/11/2004	Forecast information
07/04/2005	Meeting with Matt McDonald and CAR on Traffic Forecast
14/04/2005	Forecast 2004 scenarios; 2000 vs 2004 profile
20/04/2005	Traffic forecast split to Chris Whittle - copied to CAR
26/04/2005	June 2004 Business Plan forecast model
02/06/2005	Meeting with Matt McDonald and CAR on traffic forecast
05/10/2006	Presentation to CAR
06/03/2007	T2 gateway 2 traffic forecast
06/06/2008	DAA presentation on Pier DX and passenger forecasts
01/08/2008	DACC Forecast Subgroup Meeting presentation of DAPF 08/01
08/08/2008	Airfare elasticities; Presentation of DAA Aviation Research/Surveys; Traffic by Route and Operator since 2000
20/08/2008	2 <sup>nd</sup> DACC Forecast Subgroup Meeting
20/08/2008	3 <sup>rd</sup> DACC Forecast Subgroup Meeting
16/10/2008	Sent results of calibration exercise
24/10/2008	4 <sup>th</sup> DACC Forecast Subgroup Meeting
24/10/2008	5 <sup>th</sup> DACC Forecast Subgroup Meeting
30/10/2008	Sent info on Air Fare surveys through Dublin and historic GDP
12/11/2008	4 <sup>th</sup> DACC Forecast Subgroup Meeting
12/11/2008	5 <sup>th</sup> DACC Forecast Subgroup Meeting
08/12/2008	Sent Forecast output by Route group to York Aviation

DAA will be supplying CAR with an updated forecast as part of the submission of its financial plans in March 2009. DAA hopes that this data will be at least partially based on the work undertaken with the DACC forecasting sub-group. The DAA hopes to provide data on several scenarios, with supporting information on the exogenous parameters as usually supplied to CAR. The DAA would welcome an opportunity to meet with CAR to discuss any aspects of the forecast.

## 6. Operating Expenditure

### Summary of DAA's position on Operating Costs

- A bottom-up assessment of Dublin Airport would provide a preferable basis for assessing the company's cost efficiency.
- Top-down analyses such as direct and indirect benchmarking are useful techniques for establishing an overall reference point and in highlighting specific areas for further bottom-up consideration but they should not be used in isolation for setting efficiency targets.
- The Commission should not forecast operating expenditure based purely on a historically observed relationship between operating expenditure and passenger volumes as this would not reflect the complexity of the situation and would generate inaccurate results.
- An appropriate method of forecasting operating expenditure would be to initially establish a baseline assessment of the operating cost base. This should be followed by an assessment of the passenger volume effect on the specific passenger related operating costs over the future period. A further adjustment for any known step increases or other atypical increases to non passenger related operating costs plus an adjustment for any possible cost efficiencies.
- CAR must take account of the step increase anticipated in DAA's baseline operating costs attributable to the operation of T2
- Any potential application of an operating expenditure rolling incentive scheme should only be applied to operating costs within the company's control.
- The tendered costs for the provision of PRM services should be accepted and allowed as a pass through in the price cap.
- The Commission provided an analysis of regulatory forecast versus outturn operating expenditure for the period 2001-2007 but DAA believes that this incorporated an inappropriate data comparison

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are what relationship exists between passenger numbers and opex? How significant are economies of scale? What approaches should CAR take to forecasting the DAA's opex needs? What weight should the Commission give to evidence on productivity from other airports or other sectors of the economy?***

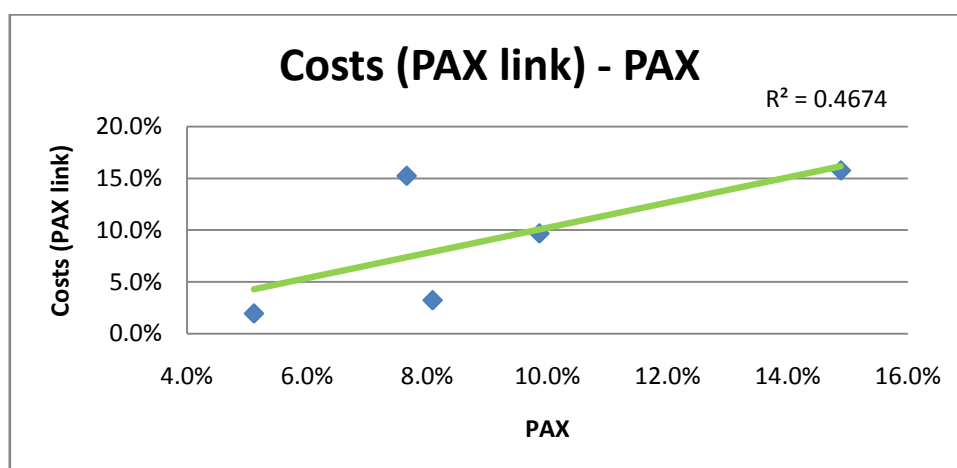
### **Analysis of Operating Expenditure 2001-2009**

In its Issues paper, the Commission provides an analysis of regulatory forecast versus outturn operating expenditure for the period 2001-2007. DAA is concerned that this analysis could be based on an inappropriate comparison of the data provided. This highlights the need for broader discussions between DAA and CAR regarding the interpretation and use of operating expenditure data. DAA would welcome all opportunities to work with CAR to ensure appropriate interpretation of data and to assist in developing forecasts which are as accurate as possible.

## Relationship between Volumes and Operating Expenditure

The Commission has questioned the relationship between operating costs and passenger growth. DAA has always maintained that the majority of operating cost categories are not in fact strongly correlated with passenger growth, but are linked to other cost drivers determined by factors relating to regulation/economy, physical infrastructure, external factors (e.g. energy cost increases) and the company's business model, with only some categories of costs driven by passenger growth. This is illustrated in Table 4 of the Commission's Issues paper CP6/2008, which demonstrates varying increases (and in some cases reductions) in operating cost categories.

DAA has examined the relationship between operating costs and passenger growth for the period 2002-2007 (2001 excluded to reduce 9/11 impact). In its analysis, DAA considered total operating costs and its relationship with passenger volumes, it also subdivided operating costs into two broad sub categories-costs linked to passenger volumes and non passenger related costs and examined the relationship with passenger numbers. The outcome of this analysis is presented below:

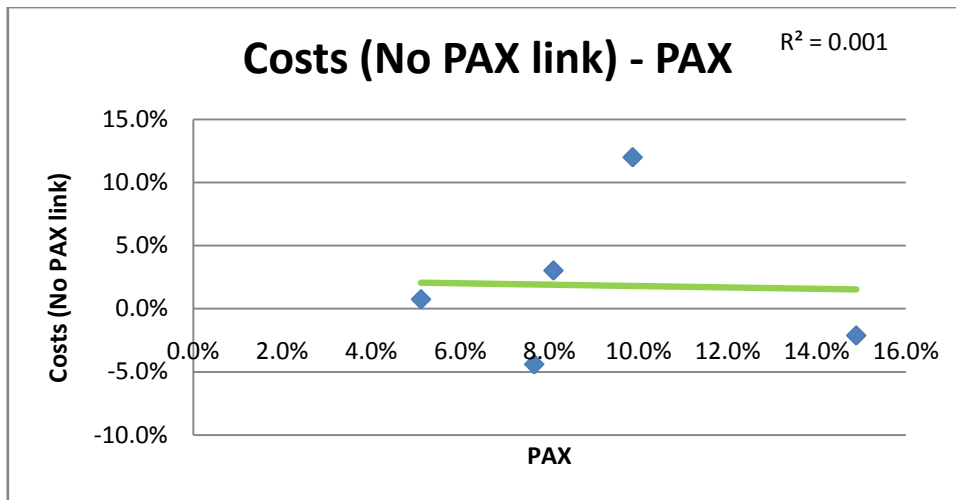


- There is a good correlation between operating costs and passenger volumes for the sub-category of costs linked to passenger traffic with an estimated  $R^2$  of 0.4674.<sup>23</sup> DAA's analysis shows an operating expenditure passenger volume elasticity of approximately 1.09 in relation to the operating costs linked to passenger growth. This is higher than normally would be expected but is influenced by specific factors relating to the time period 2002-2007 such as changes in airport security requirements and additional passenger related congestion costs reflecting diseconomies of scale due to lack of terminal capacity at that time. Going forward, with the introduction of T2 and falling marginal costs, DAA would expect this number to drop to less than one<sup>24</sup>.

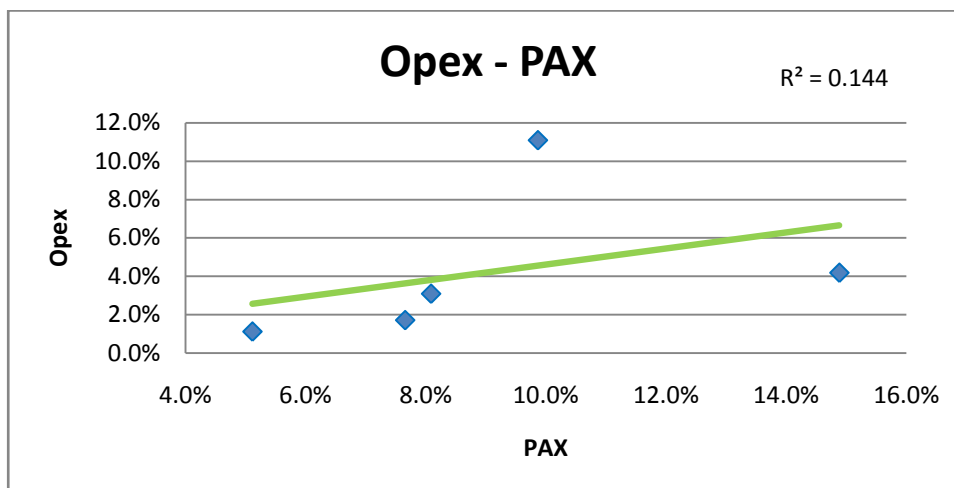
<sup>23</sup>  $R^2$  measures correlation with a value of zero equivalent to no correlation and one equal to perfect correlation.

<sup>24</sup> The opening of a second terminal (T2) is likely to cause a break in the relationship between costs and passenger numbers. The additional capacity is likely to create some additional fixed costs and allow Dublin Airport to grow by having lower marginal costs per passenger. This may mean that in the short term, the average cost per passenger increases but will fall as utilisation of the terminal increases over time.





- There does not appear to be any relationship between passenger volumes and non passenger related costs with a  $R^2$  value of 0.001. This is as expected as these specific costs tend to be fixed in the short term and are largely independent of traffic numbers.



- In overall terms there is an estimated operating expenditure passenger volume elasticity of 0.46 but given the weak correlation ( $R^2 = 0.144$ ) and the fact that this number has been driven by a portion of costs that are virtually independent of passenger volumes DAA does not believe this is a robust number for projecting forward operating expenditure for Dublin Airport.

It would be inappropriate for the Commission to forecast operating expenditure based purely on a historically observed relationship between operating expenditure and passenger volumes. DAA believes that in overall terms there are a number of factors driving the operating cost base and changes in expenditure are not exclusively determined by passenger volumes. DAA will endeavour to develop this analysis further and will be happy to discuss this with the Commission in the context of the company's operating expenditure forecasts for the next regulatory period.

DAA recommends that in forecasting operating costs it is appropriate to initially establish a baseline assessment of the operating cost base, followed by an assessment of the

passenger volume effect on the specific passenger related operating costs over the future period adjusting for any possible cost efficiencies. This should then be followed by a final comprehensive series of adjustments for changes in specific non passenger related costs. This could include items such as energy costs, rates, insurance plus allowances for any likely step increases in the cost base, for example, in this instance, cost increases attributable to T2.

## **Operating Expenditure and Scale Economies**

DAA concurs that in broad terms there are some opportunities within the airport sector for reaping the benefits of economies of scale given that there is less than full correlation between operating expenditure and passenger volumes. Economies of scale will be determined largely by the fact that a certain portion of Dublin Airport's operating cost base is fixed in the short term and therefore other things being equal the average fixed cost element of operating expenditure falls over a higher passenger base. However in order for an airport to capture the benefits of scale economies it is essential that there is adequate spare capacity in the critical areas such as terminal, runway and airfield. When an airport experiences capacity shortages in its key infrastructural areas this will put upward pressure on operating costs as expenditure is incurred in dealing with congestion and its associated costs, reducing the opportunities for scale economies and potentially leading to diseconomies of scale.

In the case of Dublin Airport over the period 2002-2007 annual passenger growth reached unprecedented levels and there were recognised severe shortages in terminal capacity. As demonstrated above Dublin Airport incurred additional expenditure in dealing with congestion and additional terminal costs but this was combined with certain cost benefits arising from the scale effects of spreading fixed costs over a larger passenger base plus the achievement of certain cost efficiencies. This combination of factors must be taken account in assessing the likely contributing factors to the opex/passenger gains over this period.

It should be noted however that given that Dublin Airport has achieved notable productivity gains over the period 2002-2007, this will undoubtedly impact on the airport's ability to reap efficiencies over the forthcoming regulatory period. It will make it increasingly difficult to generate further productivity gains over time.

With regard to scale economies, Dublin Airport is about to experience a step increase in its operating cost base due to the introduction of T2. While this will lead to notable step increases in the various operating cost categories it will also result in available terminal capacity going forward in T1 and T2 which will open up opportunities for scale economies in the medium to longer term when additional passenger traffic is generated.

## **Forecasting DAA's Opex Needs**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is –how should the operation of T2 affect how the Commission assesses opex needs for the rest of the airport?***

CAR's Issues Paper highlights at paragraph 5.13 that the operation of T2 will have an impact on the baseline operating expenditure allowance set by CAR. T2 will remove capacity restrictions at Dublin Airport, allowing the airport to grow in passenger numbers in the future; however, this additional capacity will require new operating costs to cover the running and operation of the terminal on a day-to-day basis.

While the marginal cost of getting an extra passenger through the airport will decrease, there is an increase in the short term fixed operating costs when running two terminals. Adding capacity to any business, such as the opening of a new terminal, is likely to cause a break in the relationship between costs and volume as the organisation moves from a constrained environment to one with additional capacity.

While DAA aims to provide an efficient and high quality service to its customers, there are a number of areas where the costs of a second terminal are either required for safe operation or mandated. These include:

- security staff;
- energy and utility costs;
- running and maintenance of the IT infrastructure;
- cleaning and maintenance costs.
- Property rates and insurance costs

In addition to these short-term fixed costs there are the costs which relate to the expected number of passengers to pass through T2, the costs which ensure the airport meets future quality targets, and that ensure it is competitive with other services offered by its rivals.

## **Approaches to Efficiency Analysis**

The Commission has requested views from interested parties on the top down analyses that it might incorporate into its assessment of DAA's operating efficiency.

### **Direct Benchmarking**

The DAA has outlined to the Commission on several previous occasions its reservations about the use of partial productivity measures as definitive indicators of an organisation's efficiency.

- This form of analysis looks at a single comparative measure and does not take account of differences between comparator airports such as the proportionate use of capital and labour resources, the range of activities carried out by the airport, passenger mixes, the airport's stage in its investment life cycle, capacity availability, service quality, peakiness of traffic and levels of airport charges.
- A failure to 'normalise' data used in deriving partial productivity measures can have a considerable impact on the emerging results. For example, where partial productivity measures are derived from data for the different airports which has not been fully adjusted to reflect the fact that certain activities such as security, car parking, cleaning, trolley provision may be carried out directly by certain airports but outsourced by other airports, this will impact on the benchmark results. This failure to normalise the comparative data can result in airports which carry out a broader range of activities appearing more inefficient when compared with comparator airports that have outsourced certain activities.

Unfortunately, despite the limitations set out above the Commission has used such measures in the past to estimate the company's operational efficiency. The DAA believes that such measures can best be used when considering the development of such indices for

the business in question over time, and any cross-comparisons between companies should be limited to companies with well-established similarities in their business models, and where there is good supporting data to permit the analysis of any anomalous results which may arise. In any event, such metrics should not of themselves be considered to be “proof of inefficiency”. CAR should acknowledge the noise/errors in such studies, as well as the need to provide outperformance incentives when setting Opex allowances. Due to their limited nature, at best they should be considered to highlight areas which require a more detailed review using a more robust approach such as process benchmarking.

CAR has in the past used a range of partial productivity reports to draw conclusions about the efficiency of the DAA. In some cases, the reports themselves have not employed the most robust of data collection processes, with consequential deficiencies in the output data. Appendix 2 provides information on DAA’s interaction with one such group relied on by CAR at previous determinations – ATRS<sup>25</sup>.

### **ACI-KPI project**

Like most commercial companies, the DAA uses various benchmarking techniques internally as a management tool to assess and improve the efficiency of its business. DAA’s participation in the ACI ASQ service quality monitor has already been referred to in this paper.

The view that partial productivity benchmarking may assist in identifying areas for further analysis is the context within which the DAA participates in an ACI partial productivity exercise on an annual basis. In this exercise, a range of airports in Europe, together look at historical information, to try to understand the business drivers, and obtain information which may be of use to developing the business. The advantage of this group is that because it is on a strictly confidential, and mutual exchange basis, there is a confidence in the input data which is absent from many of the commercially produced studies of this kind, and when specific issue or anomalies are identified, it is often possible to go directly to the source and obtain the answer.

However, it must be borne in mind that even with such a transparent approach to participation, there are still anomalies due to the range of airport sizes, and the variety of business models which participate, the differing economic and regulatory environments in which we operate, and the development phases of the airports involved. While the group seeks to minimise these differences by considering airports on the basis of size ranges, it is nonetheless true that there are still some areas where data comparison is difficult. This is particularly true where some of this information relates to airport companies and some to individual airports.

Bearing in mind the limitations of the approach, the DAA develops such metrics to assist in identifying areas where there may be possibilities for improving its business model and operation. As part of the regulatory submission, the DAA is willing to provide access to CAR to such indicators, on a confidential basis, for information purposes. DAA continues, however, to caution about over-interpretation of such measures as “proof” of efficiency or inefficiency.

### **Indirect Benchmarking**

When assessing the efficiency of a regulated company, it is normally preferable to look at direct evidence of its performance relative to a benchmark.

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<sup>25</sup> DAA has provided this information on a confidential basis.

However an operator such as DAA does not have any similar direct comparators in the same way that regional monopolies such as electricity distribution companies and the water companies in England and Wales have. This makes analysis of the operator's efficiency performance more difficult, but not impossible. In some instances, it might be possible to undertake international comparisons. However, as stated above, such comparisons are complicated by the increased difficulty of ensuring consistency across countries with different financial reporting standards and differing scopes of operations.

Indirect benchmarking—considered in the Issues Paper by CAR—does not rely on identifying direct comparators (ie, other airport operators) but instead seeks to make comparisons with other sectors of the economy and with the rates of productivity gains from companies operating in similar industries. Such methods can provide a means of setting efficiency targets.

The two indirect benchmarking methods highlighted by CAR in the Issues Paper which may be appropriate for establishing future productivity targets for DAA are examined below. These are:

- total factor productivity (TFP) estimates for various sectors of the economy (consisting of industries undertaking comparable activities to DAA and using similar inputs); and
- examining the labour productivity of industries undertaking similar activities to DAA.

### **Total Factor Productivity**

TFP growth is a commonly used method of assessing productivity improvements over time within the economy. Unlike other partial methods of productivity growth, TFP measures include all input factors in the production process—namely, labour, capital and intermediate inputs (usually related to materials)—as well as all outputs. It therefore controls for input substitution (eg, capital for labour), avoiding the potential problem of biased productivity estimates. In general, productivity growth can be decomposed into two main components:

- **catch-up to best practice**—improvements achieved by inefficient companies catching-up to the most efficient companies through adopting best-practice technology or working practices;
- **frontier shift or long-term cost reductions**—improvements likely to be achieved in the future by adopting new technology or working practices.

The benchmarks derived from a TFP growth analysis may include the effects of both catch-up and frontier shift, and thus represent a measure of the scope of total productivity improvement. As these estimates come from firms operating in competitive markets over long time horizons, theory would suggest that their performance represents that of an efficient firm (i.e. they do not include an element of catch-up). However, this assumes that all firms are operating efficiently and productivity growth comes from advances in new technology and management practice. In reality, there may be transition costs and structural inefficiencies that mean this estimate contains an element of catch-up. A conservative view based on academic evidence, is that, on average, 75% of economy-wide productivity gains are the result of pure frontier shift.<sup>26</sup>

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<sup>26</sup> Färe, R., Grosskopf, S., Norris, M. and Zhang, Z. (1994), 'Productivity Growth, Technical Progress, and Efficiency Change in Industrialized Countries', *The American Economic Review*, 84:1, March, pp. 66–83.

Rather than forecasting DAA's future operating cost needs based on the performance of the whole economy, evidence on DAA's potential for cost reductions could be based on TFP growth in sectors of the economy comparable to DAA. These sectors may be more or less efficient than the economy as a whole. This approach is based on the assumption that the productivity performance of the airport industry can be represented by the TFP performance of a number of other industries. As suggested by CAR, these industries could be identified based on evidence from 'nature of work comparisons', which identify sectors undertaking similar activities to DAA. A 'virtual benchmark' may then be generated by weighting the estimated contribution of each comparator sector by its proportion of the airport industry's activities. For example, if Financial Intermediation makes up 10% of the costs of an airport then the TFP for the Financial Intermediation sector would get a 10% weight in the composite benchmark. This type of analysis has been undertaken recently for the ORR's efficiency assessment of Network Rail. As highlighted by CAR, it has also been used in studies for Ofwat, Ofgem and Postcomm. Care should be taken if using this approach as the results can be sensitive to the weightings chosen and comparator sectors used, and may result in a negative benchmark.

### **Labour productivity**

As noted by CAR in the Issues paper, labour costs comprise 64% of DAA's operating costs and this figure is expected to increase. Furthermore, there is evidence that labour productivity growth has exceeded TFP growth. Examining labour productivity separately from TFP may therefore act as an additional means of assessing DAA's long-term productivity growth target. The benefit of such partial productivity analysis is that the productivity growth of one input at a time may be analysed, unlike TFP where the productivity of all inputs is assessed jointly. However, labour productivity data does not directly control for capital-labour substitution, potentially leading to an excessively harsh or soft efficiency target.

For example, over time, an industry may substitute its labour for capital (eg, machinery) and consequently increase its output. This will result in an increase in output per worker, although productivity may have fallen when both inputs are considered. Unless this substitution is explicitly accounted for, estimated labour productivity growth will be higher than otherwise.

Labour productivity may be examined on a similar basis to TFP, using the data available from the EU KLEMS project. However, additional care should be taken when selecting comparator industries to ensure these have similar rates of labour intensity and labour-capital substitution, thereby preventing potentially biased estimates of labour productivity. Where possible, the TFP data should be explicitly adjusted for capital-labour substitution prior to examining labour productivity growth.

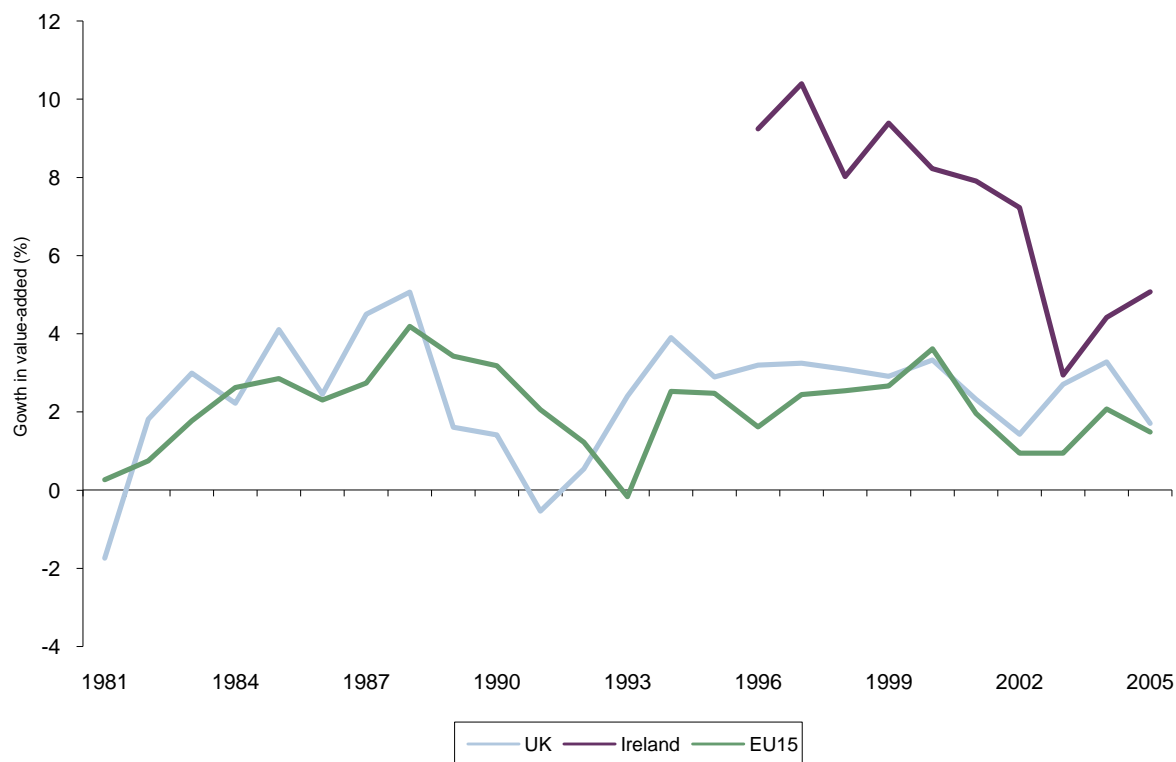
### **Estimating TFP and labour productivity targets**

In order to assess the feasibility of undertaking TFP and labour productivity growth analysis, economy-wide data provided by EU KLEMS for Ireland, the UK and the EU15 economies is examined in the Issues Paper. This dataset contains information on productivity growth estimates for a large number of industries from 1970 to 2005.<sup>27</sup> However, data for the productivity of Irish industries is available only from 1995 to 2005. In light of this potential deficiency, it may be necessary to use data for the UK and EU15. This data is available for the period 1980-2005, which would allow growth in value-added to be evaluated across

<sup>27</sup> See EU KLEMS (2007), 'EU KLEMS Growth And Productivity Accounts Version 1.0: Part I Methodology', March, [http://www.euklems.net/data/EUKLEMS\\_Growth\\_and\\_Productivity\\_Accounts\\_Part\\_I\\_Methodology.pdf](http://www.euklems.net/data/EUKLEMS_Growth_and_Productivity_Accounts_Part_I_Methodology.pdf)

countries and over two complete business cycles, offering some mitigation of the impact of atypical performance (see below).

### Real value-added growth in Ireland, UK and EU15



Source: Own analysis, EU KLEMS.

The graph shows that the UK and EU15 data covers two full business cycles: one spanning 1981–92, and the latest covering 1992–2002 or possibly up to 2004. Data for the productivity of Irish industries is available only from 1995 to 2005 and the growth in value-added during this period is steadily declining but always positive, indicating that the data does not contain a full business cycle.

The graph shows that value added growth in Ireland is significantly higher than that of the UK and EU15 economies during the period 1995–2005. However, concerns have been raised about the quality of productivity data on the Irish economy. Economies such as Ireland—with low labour shares, high productivity per worker and low corporation tax rates—are also often heavily influenced by multinational corporations. These corporations have been found to register profits on goods there, even though the goods may be developed outside the country (eg, through R&D). This type of activity adds substantial value to the country’s accounts, leading to high measures of output and, thus, productivity may not reflect the underlying activity.<sup>28</sup>

<sup>28</sup> Conroy, C., Honohan, P. and Matie, B. (1998), 'Invisible Entrêpot Activity in Irish Manufacturing', *Irish Banking Review*, Summer, pp. 22–38; Honohan, P. and Walsch, B. (2002), 'Catching up with the Leaders: The Irish Hare', *Brookings Papers on Economic Activity*, 1, pp. 1–57).

## Adjustments for target setting

Prior to using the TFP and labour productivity growth data to assess the scope for efficiency gains by DAA, a number of adjustments need to be made to the data to ensure like-for-like comparisons and suitability for target setting. These are outlined below

- **Removing Economy wide productivity.** The CPI term in CPI – X regulation includes not only the inflation in consumer goods but also the economy-wide productivity growth, which leads to lower prices in competitive markets. Given that this economy-wide productivity is already captured in CPI it needs to be removed from the efficiency estimate to avoid double counting.
- **The rate of technical progress.** When comparing productivity performance between industries it is important to recognise that some industries have the potential to achieve large productivity growth through rapid technological development (eg, the telecommunications industry), while in other sectors (eg, electricity, gas and water supply), the rate of technological change is slower, and therefore productivity gains relating to technological development are expected to be less significant in the short to medium term. If selecting comparators based solely on the similarity between their activities and DAA's activities and using a 'virtual benchmark', this problem can be mitigated.
- **The impact of atypical performance and exogenous factors.** Focusing on short time periods or only one company can result in extreme (high or low) estimates of efficiency improvement due to atypical conditions. For example, TFP growth tends to be lower during recessionary periods (as companies tend, for example, not to shed labour immediately in order to maintain capacity at the expense of reductions in productivity), and higher during growth periods as this excess capacity is used. Therefore, efficiency performances over reasonably long time periods should be examined focusing on the average performance of several industries, or where data is available, over complete business cycles. Where shorter time periods are examined, averages over companies and industries should be used to mitigate this impact.
- **The comparability of volume growth and the impact of economies of scale.** Volume effects arise in areas where there are variable returns to scale in the production process. Increasing returns to scale imply that, as the scale of production increases, output increases by proportionally more than the corresponding increase in the inputs. If the extent of the economies of scale is known, this effect is reasonably straightforward to extract from the total movement in productivity; however, reliable evidence is not always available.
- **Starting efficiency assumption.** Indirect productivity growth analysis cannot assess the relative inefficiency DAA. An assumption or assessment using direct benchmarking must therefore be made as to the relative efficiency of DAA before estimating the scope for catch-up and frontier shift using TFP and labour productivity analysis.
- **The comparability of input price growth (eg, wages).** Different industries use different input mixes and therefore face different price effects. Productivity estimates should be derived after adjusting for input price effects using industry-specific historical input price growth indices, thereby ensuring like-for-like comparisons.
- **Aggregated data.** Productivity growth analysis of the different sectors of the economy tends not to be undertaken at a particularly detailed sectoral level—usually the first level of the SIC code is used—or, if more disaggregated, tends to focus on the manufacturing sector. Thus, very close matches of sectoral productivity growth to DAA are not



possible. Even if greater disaggregation were available, there would be an endogeneity issue since the results could be highly influenced by DAA's own performance. However, it would still be possible to examine some sectoral estimates.

- **Labour substitution.** As discussed above, a further issue relating to labour productivity analysis only is that increases in the partial measure cannot be identified solely as efficiency improvements, since *changes in the choice of input mix* will have an influence. For example, if a firm replaces much of its workforce with an improved information technology system, output per person will increase significantly, although productive efficiency could fall when both inputs are considered. A similar problem arises from outsourcing, in that the labour productivity measure could increase substantially, concealing the growth in input costs. As such, an adjustment for capital substitution effects could be appropriate.
- **Incentives.** Setting a target of 100% of the estimated efficiency savings does not leave the company an incentive to outperform the target. Most regulators set an efficiency target which is below the total scope for efficiency savings estimated to give the firm an incentive to find future efficiency gains. This can either be explicit (as Ofwat does in England and Wales water) or implicit in acknowledging the uncertainty around setting efficiency targets.

**Advantages and disadvantages of direct and indirect benchmarking approaches**

Advantages and disadvantages of indirect benchmarking relative to direct benchmarking approaches are illustrated below

Advantages	Disadvantages
Provides a high-level sense check	Relevance less clear as comparisons made with different industries
Can be used when there are no obvious comparators	Cannot measure the relative efficiency
Data publicly available and easy to collect	Difficult to disentangle catch-up and frontier shift
Intuitive method and easily understood	Concerns regarding quality of data
	Assumptions required for conversion to a target

While indirect benchmarking methods can offer a means of assessing DAA's future OPEX needs in the absence of suitable direct comparators, and can provide a high-level sense check to support any direct benchmarking or bottom up analysis, the required Irish productivity data available from EU KLEMS does not cover a full business cycle. Therefore, any atypical performance caused by the economic conditions may bias the productivity growth estimates. Furthermore, the value added estimates for Ireland are significantly higher than those for the UK and EU15 economies, raising questions about the data's reflection of actual activities and again, potentially leading to bias in the productivity growth estimates. Any results from analysis must be treated with caution.

## Process or Bottom –Up Analysis

In its 2005 Determination, the Commission applied a bottom up approach to assessing DAA's operating expenditure efficiency. Process or bottom-up approaches tend to be preferable when there is only one regulated company, such that comparative analysis is difficult.

At its simplest, the bottom-up approach offers an alternative or complementary view to the top-down approach of comparative efficiency analysis, but it can also provide additional insightful information regarding the process management of the company.

A bottom –up analysis disaggregates the company into its component business processes. A process is defined as a sequence of activities with inputs and outputs. The activities themselves can then be disaggregated into lower levels of detail. The processes can then be benchmarked for performance and cost.

A process model can provide the following benefits for discussions between a regulator and a regulated company

- The model can help to identify the most appropriate cost drivers for use in any top-down efficiency modelling. A process model also provides a means of identifying company specific factors and assessing their impact at both the company and sub-company level
- The model identifies major activities so that the cost dynamics of each activity can be considered separately. Thus, instead of broad classifications of costs as being fixed or variable, controllable or non-controllable, the cost drivers for individual activities can be identified, along with any non-linear, step fixed-cost dynamics
- The model provides a framework to link performance in particular activities to the financial performance of the company as a whole. Thus, where performance in a significant area of activity is best-in-class and cannot be radically improved, the impact of this on overall financial performance can be demonstrated
- The model allows for increases in costs to be identified, either because of changes in cost drivers or because of the addition of specific new activities
- The model allows previous successes in cost reduction to be disaggregated into individual initiatives affecting specific activities. This can inform experience-curve arguments that past rates of cost improvement can be expected to continue into the future.

DAA believes that a bottom –up assessment of Dublin Airport would provide a preferable basis for assessing the company's cost efficiency. DAA believes that top-down analyses such as direct and indirect benchmarking are useful techniques for establishing an overall reference point and in highlighting specific areas for further bottom-up consideration but that they should not be used in isolation for setting efficiency targets.

## Operating Expenditure Categories in Rolling Incentive Scheme

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is - what categories of opex should be included in a rolling incentive scheme?***

DAA welcomes the decision made by the Commission to introduce a proposed rolling incentive scheme in relation to operating expenditure outperformance over the regulatory determination period. DAA believes that in principle a rolling incentive scheme applied to operating expenditure could benefit both the regulated firm and add to overall economic efficiency. However DAA would like to discuss further with the Commission the practical application of such a scheme.

DAA set out in detail its views in regard to rolling incentive mechanisms in response to the Commission's consultation document CP4/2008. DAA agreed with the Commission that from a theoretical perspective under the current price cap regime, there are stronger incentives to outperform a particular operating expenditure target at the beginning rather than the end of a regulatory period as the timing of a particular efficiency measure is highly significant in determining the level of cost savings which will accrue to the regulatory firm. DAA accepts in principle that the introduction of a rolling incentive mechanism could potentially strengthen efficiency incentives for a regulatory firm given that a rolling incentive scheme will allow for any potential benefits from a particular cost saving to be accrued evenly for a set period such as five years regardless of the timing of the measure within the regulatory determination period. It will therefore potentially eliminate any possible distortions arising from the timing of any cost saving measures.

However DAA is concerned that in order for such a scheme to prove beneficial it will require an accurate assessment of the company's forecast operating expenditure including a realistic projection of likely future efficiencies. The regulated firm will only have an incentive to achieve greater cost efficiencies where the relevant expenditure forecasts are recognised as achievable by the company.

DAA believes that any potential application of an operating expenditure rolling incentive scheme should only be applied to operating costs within the company's control. In 2006, non-payroll costs accounted for 40% of the company's operating costs and 40% of non-payroll costs (energy costs, insurance, rates and regulatory levy) were externally determined and therefore non-controllable (as defined by CAR's consultants BAH in the 2005 Determination). The company is of the view that it would be inappropriate for the regulated firm to either benefit from or be penalised for over/under performance in relation to costs beyond its direct control e.g. an increase in energy costs. There is a concern that the application of a rolling incentive scheme to non-controllable operating expenditure would potentially increase the regulatory burden for the airport operator and could possibly distort the regulated market.

## Approach to PRMs

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is - how should the Commission assess PRM related costs in the context of economic regulation?***

CAR notes in Paragraph 5.32 that it is currently minded to regard charges imposed by DAA to cover the costs associated with providing assistance to Passenger with Reduced Mobility (PRM services) as an "airport charge" which should fall within the airport charges price cap.

DAA has a legitimate expectation that it be remunerated for providing these new assistance services and indeed the regulation specifically allows for this - Article 8(3) stipulates

*“the managing body of an airport may, on a non discriminatory basis levy a specific charge on airport users for the purpose of funding this assistance”<sup>29</sup>*

DAA would draw to CAR’s attention that at the recent Airport Exchange conference in Berlin, which CAR representatives also attended, Mr. Rodrigo Vila de Benavent, the Head of Unit of Infrastructures and Airports in DG-TREN, confirmed that charges for passengers with reduced mobility did not fall under the auspices of the Airport Charges Directive in line with the current draft Airport Charges Directive text. We believe that this confirmation deals clearly with this issue – PRM charges should not fall within the price cap.

As the designated National Enforcement Body (NEB) for the EC Regulations pertaining to PRMs, CAR is aware that following specification of the required service standards, an open and competitive tender process, in line with the requirements of the PRM Regulation<sup>30</sup> was undertaken. The cost of implementation and of the provision of services by the contracted third party supplier was developed through this tender process. A third party provider (OCS) was subsequently selected to provide the assistance services specified in Annex 1 of the PRM Regulation, in line with the Quality Standards and Service Levels which had been framed in consultation with both the airlines and the representative groups of persons with reduced mobility at DAA airports. Given that CAR is proposing at paragraph 5.31 of the Issues Paper to rely on the competitively tendered price for T2 as the basis on which to estimate the operating costs for that facility, it is consistent that the tendered costs for the provision of the PRM services should be similarly accepted and allowed as a pass through outside the price cap.

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<sup>29</sup> Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5th July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air

<sup>30</sup> Regulation EC 1107 / 2006, Subsection (7) – “... in view of the positive role played in the past by certain operators and air carriers, managing bodies may contract with third parties for the supply of this assistance, without prejudice to the application of relevant rules of Community law, including those on public procurement.”

## 7. Commercial Revenues

Summary of DAA's position on Commercial Revenues:

- The reduction in consumer spend that is impacting on all retail businesses, the impact of reductions in traffic volumes and the increased competition across a range of DAA's commercial activities, means that the likelihood is that DAA will generate less commercial revenues for the forthcoming price control period.
- It is particularly important therefore, that the Commission commences its review of commercial revenues from DAA's forecasts as these have been proved to be reliable over time.
- If CAR wishes to undertake some independent review of DAA's forecasts then a bottom up analysis would be more relevant than a high level comparison.
- DAA does not believe that macroeconomic indicators are particularly helpful for the purposes of forecasting commercial revenues as the data is historic. Such analyses can, however, provide some guidance on trends and if used by the Commission in this context then sector specific rather than general indices are likely to be more relevant.
- DAA has a fully commercial mandate. It is inappropriate for the Commission to contemplate that there might be commercial activities where the company would not be aiming to maximise its revenues.
- T1X is self funding. The Commission must either accept that the investment is worthwhile and include both the capital expenditure and the commercial revenue earned from T1X in the single till; or exclude the T1X capital expenditure from the Regulated Asset Base and similarly do not include the commercial revenue earned in T1X in the single till.
- CAR's proposal for ATI fees would amount to a widening of the ambit of airport charges regulation to commercial activities, which is inconsistent with the obligation of the regulator to impose minimum restrictions on the airport authority in keeping with its statutory functions.

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are - should the Commission continue with the same formula for forecasting commercial revenues, in particular the link between passenger numbers and revenues? Comment upon the elasticity assumptions the Commission uses in forecasting commercial revenue.***

### **The Commission's Forecasts**

To date the Commission has based its commercial revenue projections for DAA on a combination of high level benchmarking against other airports and bottom-up exercises/ high level assumptions. The Commission's projections over the regulatory period 2001-2007 have proved extremely unrealistic and inaccurate with a continuous over estimation by CAR

of the potential per passenger revenue yields likely to be achieved by DAA from its commercial activities. This is best illustrated by the Commission's own diagram contained in CP6/2008, on which DAA has also overlaid CAR's assumptions from the 2004 determination (represented by the green line).

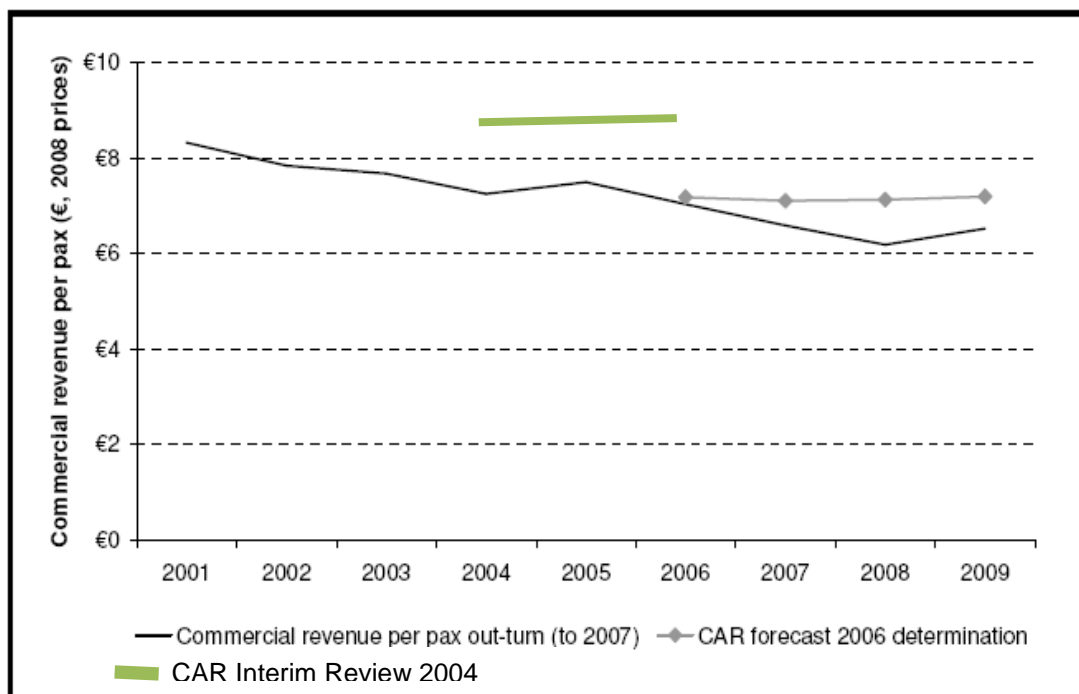


Figure 7 Per passenger commercial revenues 2001-2009 and forecast 2005-2009  
 Source: DAA out-turn for 2001-2007, DAA estimate for 2008 and forecast for 2009

In 2005 the Commission's inappropriately factored into its decision higher rates of growth in commercial revenues than DAA's projections. Actual revenues earned have demonstrated that this approach was incorrect - there is a significant gap, which has increased year on year and which is not likely to narrow in the immediate future.

The Commission has noted at paragraph 6.5 of CP6/2008 that on the basis of the information provided to it by DAA in September 2008, a recovery is envisaged for commercial revenue performance in 2009. As the Commission is aware, the projections to 2009 which it cites were based on traffic forecasts finalised in late 2007. DAA is currently reviewing the traffic forecasts for the remainder of the regulatory period and beyond in conjunction with users and in light of the current economic downturn and economic factors impacting the aviation industry worldwide, with a view to complying with CAR's request for an updated financial model for the regulated business in March 2009. It is also examining its retail and commercial performance more generally. Given the current economic climate and the prospect of reductions in traffic volumes the likelihood is that the downward trajectory in the graph above will continue into the period of the next price cap.

## Passenger Volumes and Commercial Revenues

In the past the Commission has relied upon unrealistic assumptions about the relationship between changes in passenger volumes growth and commercial revenue growth, i.e. the elasticity of commercial revenues. The table below reviews the period 2002 to 2007 (2001 is excluded to reduce the 9/11 impact) and compares the elasticities to those used by the Commission in 2005. Analysing the period 2002 to 2007 also has the advantage that there

were no major infrastructural projects delivered in the period 2002 to 2007 that would have a significant impact on commercial revenues.

Commercial revenue category	Commission – 2005	Actual 2002-2007
<b>Retail</b>	1.00	0.82
<b>Car park revenue</b>	1.00	0.34
<b>Property revenue</b>	0.50	0.32
<i>Property Rents</i>		0.05
<i>Property Concessions</i>		0.55
<b>Total<sup>31</sup></b>	1.00	0.56

As can be seen from the table, the relationship between passenger numbers and revenue is substantially weaker than CAR's estimation to date and is very tenuous for certain commercial activities, with property rents being a prime example.

DAA forecasts growth in commercial revenues based on the factors pertaining in Dublin Airport and its extensive commercial experience at airports in Ireland and abroad. To that end its forecasts of commercial revenues are linked to passenger numbers to varying degrees depending on the revenue category. Below is a brief summary of how the different elements of commercial revenue are forecasted.

#### Car Parking:

Given increased competition and the continuing introduction of additional car park capacity to service airport users by third parties, improved coach and bus services, taxi deregulation and increased use of mobile telephony by family and friends to arrange pick up of passengers without any need to enter the car parks, the link between passenger numbers and the car park revenues is quite weak. Any forecasting of the car park revenues has to factor in the above influences on the correlation between number of passengers and such revenues. It should also be noted that car park revenues are subject to the restrictions of other agencies, with the specific aim of impacting upon both supply and price so as to encourage the use of other modes of transport.

#### Property:

It is quite obvious from the table above that there is no correlation between passenger numbers and property rents over the short and medium term. Revenue from property leases does not vary in line with passenger activity at the airport. Scheduled rent reviews refer to movements in market indices over the review period. Rents achieved on new or vacant lettings are dictated by market conditions locally and in Dublin city centre, and there are strong indications that property yields are likely to fall over the short to medium term. Additionally there has been significant increase in the number of commercial buildings in proximity to Dublin Airport, with competition driving yields down. As such, DAA forecasts its property rents having regard to anticipated levels of increase based on movement in market indices, trends in prices achieved in the office market in Ireland and forthcoming lease review dates. This is a more reliable approach than one based on an assumed correlation between traffic and total property revenues.

#### Property Concessions:

Revenue from the airport's banking and foreign exchange outlets is being adversely affected by passengers' increasing use of credit cards, debit cards and cash points. There are also an increasing number of competing banking outlets close to the airport campus. When forecasting banking revenue, cognisance is taken of that factor. The concession fee earned

<sup>31</sup> Does not include miscellaneous other commercial revenues which represent less than 5% of total commercial revenues

from car hire operators is based on their turnover, which is driven by passenger numbers - however again this can be impacted by the origin of passenger. At Dublin Airport the percentage of Irish originating passengers has been on the increase, thereby reducing the correlation between passengers and the car hire revenue.

#### Retail:

Retail performance is influenced by passenger numbers with a strong, although not perfect, correlation between passenger growth and revenue growth. However, the impact of repeat passengers can reduce this correlation, as the more frequently people travel the less inclined they are to spend on each journey. At present the average number of trips per passenger per year at Dublin Airport is 7.44; however the equivalent figure for 'true shoppers' who spend on items other than incidental purchases of food and non-alcoholic beverages is 6.66, clearly showing that increased number of trips reduces the propensity to spend. In addition, the increasing practice of carriers in calling passengers to departure gates well in advance of boarding and/or restricting the pieces of hand luggage that can be carried on-board has a detrimental effect on the correlation between passenger growth and retail revenue growth.

It is also important to note that even when a relationship between specific commercial revenue elements and passenger traffic is evident, it is often a more complex association than an analogy with total passenger numbers. For example,

- Car hire revenues are primarily related to the performance of the inbound tourist segment;
- Retail revenues from long haul passengers travelling to destinations outside the EU are significantly more valuable than those generated from domestic or short haul intra EU segments; and
- Car parking revenues are linked most to the level of Irish originating traffic and are influenced by substitute products and competition.

It is demonstrated from the above evidence that while there is a degree of correlation between passenger numbers and certain commercial activities, this relationship has been continuously overestimated by the Commission in its regulatory projections to date and care should be taken to ensure that this does not re-occur for the future.

## **Forecasting Future Commercial Revenues**

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are - Should general macroeconomic data be used to inform future commercial revenue forecasts (e.g. Irish retail sales index)? What weight should be given? Parties should identify any data sources that might assist the Commission to assess the scope for DAA to generate commercial revenues at Dublin Airport.***

The Commission is considering whether general macroeconomic data might inform future commercial revenue forecasts. In general, DAA is of the view that such comparisons would be of very little value for forecasting purposes as, though there is some correlation between the outcomes, the data is historic.

Though the Commission might usefully review the output from some macroeconomic measures/indices to inform its views when forecasting commercial revenues, weights should



not be assigned to the data. Measures that could be used to varying extents to inform CAR might include:

- For property revenue - CPI measures can be used to assist in forecasting future increments in lease income for occupied property whilst property occupancy indices could inform the possible rent, if any, for vacant property.
- For retail revenue - the index for the key product ranges that airport retailers sell within the CPI can be used to help in forecasting retail revenues.

Industry specific indices such as the European travel retail indices could provide a basis for looking at DAA's comparative retail performance as they contain data for comparable product offerings/specific markets which would be more relevant to DAA's performance than more general retail indices in Ireland.

DAA has provided below the latest available 2008 (9 months) index which is showing a decline across most retail categories relative to 2007 despite a small decrease in passengers. This contrasts with the 2007 index showing year on year increases ahead of the rate of growth in passengers in all categories except tobacco<sup>32</sup>.



As already stated in previous DAA submissions to the Commission, extreme care must be taken in undertaking direct benchmarking of commercial activity across airports. Depending on the profile of the airports, the factors that impact on commercial activities can vary substantially. For example,

- retailing income is influenced by factors such as availability and configuration of retail space, passenger mix (especially duty paid and duty free) and origin, traffic type, and geographical location, and in the case of Duty Free, levels of taxation in key origin and destination markets;
- car parking revenue is affected by direct competition, availability of public transport, and availability and pricing of alternatives e.g. taxis, buses; and

<sup>32</sup> <http://www.etc.org/home/home.php>

- property revenues are impacted by elements such as airport location, level of demand for rental property, prevailing market rents, existence of long term lease arrangements, etc.

Accordingly, it is extremely difficult for two separate airports to achieve the same level of commercial performance and also not appropriate to rely on a single benchmarking factor.

DAA is widely acknowledged as an innovative performer with regard to commercial revenue generation and generates a significantly higher proportion of its total income from commercial revenues than other comparable airports. Examples of its innovative approach to boost commercial revenues include:

- On-line booking for car parks
- Introduction of easy-to-use car park payment and gate IT system
- Retail tills configured to accept payment in a range of currencies as well as euro
- Home delivery for retail purchases
- Expansion of product ranges e.g. SmashBox, SurfBox internet access, SIM free phones
- Forthcoming opening of T1X, with fashion outlets and the Ól concept - a new and innovative 'water bar'.

DAA has also been recognised by industry peers e.g. it won the Frontier Award<sup>33</sup> for the Best Marketing campaign in 2006 and the Irish Parking Association Parking Quality Award for the Best Parking System or Service in 2008.

To date, DAA's commercial revenue performance per passenger out-turn has tended to be broadly consistent with DAA's projections. On this basis, DAA recommends that the Commission commences its consideration of commercial revenues for the next review on the basis of DAA's forecasts. DAA accepts that the Commission must take a view on these; however it should make amendments only if there is a clear basis for doing so and following detailed discussions with the regulated entity to understand any relevant market factors that might not be immediately evident. If CAR wishes to undertake some independent review of DAA's forecasts then a bottom up analysis would be more relevant than a high level comparison.

## **Incentives to Maximise Commercial Revenues**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is - should CAR continue to set a price cap that provides the DAA with incentives to maximise revenues from all charges not defined as airport charges.***

DAA has a fully commercial mandate. In this context it is inappropriate for the Commission to contemplate that there might be commercial activities where the company would not be aiming to maximise its revenues.

DAA does not believe that there is any justification for such a policy measure since the majority of DAA's commercial activities are exposed to the rigours of competitive markets and operate within the guidelines of competition law. Furthermore, specific aeronautical

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<sup>33</sup> Frontier is a leading worldwide travel-retail magazine

related revenues, defined as Access to Installations (ATI) fees, are subject to prior approval under the provisions of S.I. 505 of 1998.

It should also be noted that such an initiative, if implemented, could have implications for the level of cross subsidisation of airport charges via the single till and this would need to be compensated for by an increase in airport charges revenues.

DAA believes that if the Commission were to impose such a restriction on the company's commercial activities within the single till this would run contrary to the Commission statutory objective to enable the DAA to operate and develop Dublin Airport in a sustainable and financially viable manner and would represent an inappropriate level of "regulatory creep".

## **Treatment of Variances between Forecasts and OutTurns**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is – are there any categories of commercial revenues for which the Commission should either make a "claw-back" or "compensation" due to variances between revenues forecasts and outturns?***

In principle, DAA does not support the notion of regulatory clawbacks or regulatory compensation in relation to the regulatory building blocks since these measures will, in effect, remove the incentivising properties implicit in the price cap regulatory model. The possibility of implementation of regulatory clawbacks will add to the overall risk and uncertainty faced by the regulated company and will therefore run contrary to the Commission's statutory objective to enable the DAA to operate and develop Dublin Airport in a sustainable and financially viable manner. Such an intervention would also involve the Commission at a very detailed level of the company's business which is inconsistent with the requirement for it to have regard to minimising the restrictions on the regulated entity.

DAA believes that if realistic and appropriate future projections are set for the regulatory building blocks, and provided there is no evidence of regulatory gaming, there will therefore be no justification for the implementation of regulatory clawbacks.

Notwithstanding DAA's view as set out above, if the Commission decides to introduce regulatory clawbacks this policy should be applied in a symmetrically manner across the relevant building blocks. The Commission should therefore also apply regulatory compensation where and when this would be appropriate in relation to capital expenditure or commercial revenues.

## **T1X**

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are - How should T1X affect commercial revenue considerations? How can CAR confirm that TX1 is self-funding?***

The T1X capital expenditure was approved and undertaken on the basis that it was self funding. Despite the slowdown in consumer spend and traffic volumes, DAA's most recent review of the project confirms that this will still be the case. DAA will provide updated information on the project in the CIP submission in February.

In the 2007 interim review CAR indicated that it is minded to include €55 million relating to the T1X project in the Dublin Airport RAB but intends to only offset the costs of T1X with

demonstrated increases in commercial revenues accruing from the project. CAR has two alternative means of dealing with T1X. These two alternatives are:

- Accept that the investment is worthwhile, include both the capital expenditure and the commercial revenue earned in T1X in the single till; or
- Exclude the T1X capital expenditure from the Regulated Asset Base and similarly do not include the commercial revenue earned in T1X in the single till.

If however, CAR effectively excludes the T1X project from the single till going forward this will set a very significant precedent, particularly as the T1X project is intended to generate additional commercial revenues which will fit within the current single till definition of sufficient nexus to the regulated activities.

DAA would therefore like the Commission to clarify whether its proposed treatment of the T1X project is indicative of a departure from the traditional single till model and a move towards a modified single till or a gradual introduction of a dual till, either of which would have significant implications for the determination of airport charges for the future.

## **Access- to –Installation Fees**

***The issue raised by CAR in CP6/2008 that DAA seeks to address in this section is – whether its proposed approach to ATI fees in the price cap is appropriate?***

At paragraph 6.27 of CP6/2008, the Commission has indicated that it is “*minded to seek a commitment from DAA concerning check in desk charges for the duration of the next cap*”. DAA believes that the Commission would be facilitated in meeting its statutory objectives in this area if it were to demonstrate how the course of action proposed will facilitate meeting the delivery of economic efficiency. Though reference is made to the consultation process recently undertaken by CAR on this issue<sup>34</sup>, the extent to which the regulator was influenced by representations made is not clear – certainly CAR’s reasons for not accepting the points made by DAA in its response to the consultation have not been outlined.

DAA already provides the Commission with the company’s best estimate of its likely commercial revenues for the forthcoming regulatory period during each regulatory review. This commercial revenue forecast contains estimates of likely revenues arising from ground handling charges, including ATI fees. These revenue forecasts are used by the Commission in setting its assumptions which underpin its regulatory price cap for Dublin Airport. Therefore under the existing regulatory structure, assumptions regarding future revenues from ATI charges are built into the commercial revenue assumption within the existing regulatory model.

However, to require DAA to commit to a definite price path would prove highly burdensome for the company in the context of the materiality of the revenues involved – less than 1% of total revenues in 2007. Such a commitment would require that the company would be able to provide accurate forecasts for future ATI revenues which in turn would require assumptions in relation to variables such as the airlines likely usage of facilities and their elasticities of demand. It would be inconsistent for the Commission to require DAA to commit to a definite price path, while not requiring users to provide any form of commitment on usage at that confirmed price level. This proposal would also interfere in the efficient management of the Dublin Airport by restricting the ability of the company to react where unexpected

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<sup>34</sup> Commission Notice CN2/2008

developments occur, requiring action on the part of the airport company. DAA needs to be able to retain a degree of price flexibility in this area in order to effectively manage its airport facilities.

A required commitment to a structured price/revenue path for ATI charges would essentially be an example of regulatory creep where regulation is effectively allowed to spread beyond that of airport charges and into commercial activities resulting, in this instance, in a sub cap on ATI charges. This proposed measure would therefore allow for regulation of ATI fees under both the Aviation Regulation Act and S.I. 505 of 1998. It is noteworthy that SI 505 and its EC analogue were not intended to apply a price cap to such ATI charges, and indeed that in all jurisdictions other than Ireland where it currently applies there is no requirement to obtain prior approval of such charges.

This suggested proposal would amount to a widening of the ambit of airport charges regulation, which is inconsistent with the obligation of the regulator to impose minimum restrictions on the airport authority in keeping with its statutory functions.

DAA believes that under current legislation there is no requirement for DAA to provide any specific price path/revenue commitment in relation to ATI fees as suggested in the Issues paper CP6/2008 and that the Commission has no current mandate to impose such a requirement or to seek rectification where DAA is alleged to have failed to provide the required commitment.

## 8. Capital Costs

### Summary of DAA's position on Capital Costs:

- Consistency in the manner in which assets are rolled forward and valued in the RAB is essential in minimising risk and allowing the Commission to fulfil its statutory objectives.
- The Commission should consult with interested parties on the development of a clear set of guidelines to apply in relation to the roll forward of the RAB for future regulatory reviews.
- It is appropriate that the RAB be rolled forward on the basis of actual capital expenditure for the period 2006-2009.
- Pier D and associated infrastructure represents good value for money and should be allowed in full by the Commission.
- The Commission should organise meetings to facilitate the process of capex consultation for the post 2009 period and appoint the preferred candidate agreed by DAA/DACC to chair them.
- In light of the current economic downturn, DAA intends to submit a capital programme for the period 2010-2014 that will place emphasis on a “baseline” spend with triggers for expenditure on additional projects such as the runway. This approach would enable DAA to proceed without further protracted review processes once certain agreed conditions that reflect a renewed confidence about traffic growth are met.
- ‘Practical Completion’ is the most appropriate definition of T2 being ready for operations as it is easily verified, within DAA's control to deliver and does not create perverse incentives for other parties involved with the project.
- DAA believes that CAR should maintain consistency in its approach to depreciation in the roll forward of the RAB.
- DAA believes that a straight line approach to depreciation implies less risk for the company than a unitised approach. The unitisation approach reflects neither the profile of economic consumption of capital, nor the physical deterioration of assets. If CAR retains the unitised methodology for T2 and associated projects it should first address a number of issues raised by DAA.
- Cost of Capital - The WACC should continue to be set on a real pre-tax basis. The CAPM approach should be retained for the estimation of the cost of equity. A “regulatory risk premium” should be incorporated to compensate for DAA-specific asymmetric risks. EU evidence should be the reference capital market for setting the ERP and RFR parameter values, cross-checked against international evidence as appropriate. The cost of debt should be estimated by reference to observed benchmark bond yields in the secondary market and by observing coupon yields on recent bond issues by comparable companies. The use of optimal gearing is appropriate, although CAR should adopt a conservative gearing assumption in the current market climate.

## DAA's Regulatory Asset Base

Establishing the contents of the opening RAB is a critical element for the forthcoming regulatory review, given that the RAB is one of the principal building blocks in the traditional RPI-X regulatory model and is an estimation of the value of Dublin Airport's regulated assets.

The DAA believes that employing an appropriate methodology for the roll forward of the 2006-2009 RAB is essential in contributing towards achieving the Commission's statutory objective of facilitating the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users while also enabling Dublin Airport to operate and develop in a sustainable and financially viable manner. In particular, this will be facilitated by

- A reduction in regulatory risk as both the DAA and Dublin Airport users will have greater clarity as to the likely approach which the Commission will adopt in the treatment of historic investment over future regulatory periods and how it will be remunerated
- Enhanced incentives for the DAA to invest in necessary infrastructure arising from increased regulatory clarity and reduced regulatory risk.

There are a number of elements relating to the composition of the RAB which the Commission must take account of as part of this regulatory review process

- Any differential between the level of recoverable capital expenditure projected for Dublin Airport by the Commission in its regulatory Determination and the actual level of capital expenditure undertaken by the DAA over the regulatory period 2006-2009.
- The level of depreciation projected into the calculation of the RAB by the Commission in its Determination for the regulatory period 2006-2009
- The case for the reintroduction of stranded investment into the RAB – in particular the disallowance by CAR in the Interim Review Decision of €25 million relating to T2 cost contingency, €9 million reduction in the capital expenditure allowance for the Customs and Border Protection and a further €4 million reduction in recoverable expenditure allowed for airfield projects
- The valuation of the assets - the need for a revaluation or an indexation of the RAB to maintain the real value of investment by the DAA at Dublin Airport.

## Roll Forward of the RAB on the Basis of Actual Capital Expenditure

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is - what adjustments if any, it should make to the RAB where the DAA's actual capex has differed from amounts previously allowed by the Commission.***

The Commission raises the treatment of capital expenditure over and under-spend as an issue for consultation.<sup>35</sup> In particular, it asks whether the opening RAB for the upcoming review should be adjusted for deviations of actual capex expenditure from allowed expenditure. This is an important issue since any departure from the use of actual capex will

<sup>35</sup> See Commission for Aviation Regulation (2008) "Maximum Levels of Airport Charges at Dublin Airport: Issues Paper", October 24, pp40-41.

have incentives or disincentive effects, which may have unintended consequences. (For instance, if CAR were to use forecast capex instead of actual capex, DAA would be disincentivised from doing anything other than spending the assumed amount building out the programme assumed by the regulator, even if user preferences and priorities or external circumstances changed).

DAA risks not being able to recover an adequate return on a given investment if the Commission decides to disqualify legitimate expenditure from the RAB on an ad hoc basis. DAA therefore recommends that the Commission carefully review regulatory precedent in this area and adopt a set of principles for rolling forward the RAB which would be in line with precedent. Given the importance of this issue the Commission should consult with interested parties on the establishment of a clear set of guidelines which it could publish and subsequently apply at future price reviews.

In the meantime, the roll forward of the Dublin Airport RAB based on actual capital expenditure would allow for reconciliation between the Dublin Airport RAB and the level of Dublin Airport's capital investment undertaken over the course of the regulatory period 2006-2009. This would reduce the level of uncertainty and risk which tend to be compounded when there are large, lumpy and irreversible capex programmes, and would increase the incentives for long term investment in airport facilities. The approach is consistent with regulatory precedent elsewhere such as in airport regulation in the UK and in other regulated sectors in both Ireland and the UK<sup>36</sup>.

Rolling forward the RAB on this basis will also facilitate the Commission's pursuit of economic efficiency. The purpose of the rolling forward of the RAB is to reflect the level of capital investment that is required by a regulated entity, such as the DAA, in order to sustain a regulated business. The roll forward of the RAB based on the actual level of capital expenditure over the previous regulatory period will ensure that going forward the RAB accurately reflects the underlying capital costs of providing aeronautical facilities, allowing prices to be equated with actual costs and thereby promoting economic efficiency.

Given the complex nature of capital planning and the difficulties associated with forecasting capital expenditure over the course of a regulatory period, it is common for a divergence to emerge between projected and actual capital expenditure at the end of a regulatory period. These differences appear where actual capital investment turns out to have exceeded or to have been lower than the projected capital expenditure over the course of a regulatory period. Where actual capital expenditure exceeds projected expenditure this could be due to factors such as the following

- Projected capital expenditure may have underestimated the regulated firm's investment requirements for the regulatory period
- Market or user demand may have required an acceleration in capital expenditure by the regulated entity
- Unexpected cost increases in the construction sector
- The regulated firm's capital expenditure may have exceeded cost estimates

Likewise where actual capital expenditure falls short of capital expenditure projections, this may be due to factors such as the following

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<sup>36</sup> Commission for Electricity Regulation, *Distribution Price Review Proposals*, CER01/86 July 2001; CAA, *Economic Regulation of Heathrow and Gatwick Airports 2008-2013*, March 2008



- The regulated firm has achieved cost efficiencies in implementing its capital programme
- Market or other conditions have forced the regulated entity to scale back or defer projects within its capital programme
- The regulated firm has underinvested

By applying actual capital expenditure in the roll forward of the DAA's RAB, the Commission will be able to adjust for any differential between the Commission's projected spend incorporated in its Determination and actual spend over the regulatory period 2006-2009. This will ensure that any benefits/costs from a capital underspend or overspend are removed and therefore do not stretch into perpetuity as would be the case if the RAB was rolled forward on the basis of regulatory projections for capital expenditure.

In summary, we recommend that the Commission should consult with interested parties on the development of a clear set of guidelines which it could subsequently apply in relation to the roll forward of the RAB for future regulatory reviews but in the meantime DAA believes that it is appropriate that the RAB should be rolled forward on the basis of actual capital expenditure for the period 2006-2009.

### **Consistency in the Approach to the RAB**

As part of the roll forward process, regulators in many regulated sectors have considered the appropriateness of applying revenue clawbacks or revenue compensation where the regulated firm has either underspent or overspent on capital projections. DAA believes that this is an inappropriate measure with the potential to undermine the incentive properties of the price cap regulatory model.

The DAA supports the view of the CAA in the UK who have stated that revenue clawbacks are undesirable and should only be applied in exceptional circumstances.

*"... the CAA's general policy is that claw-backs are highly undesirable and undermine the incentive properties of price cap regulation<sup>37</sup>".*

DAA strongly supports the view put forward by the UK Competition Commission in its recent recommendations relating to Stansted Airport where it suggested that once an asset has been included in the RAB and a return allowed by the regulator then a form of regulatory contract is created which sets the parameters for valuing the RAB going forward.

*"The regulatory contract is that capex that has been agreed with the regulator will not at a later date be excluded from the RAB by future regulators. It is this contract that provides certainty and creates a context in which there can be incentives to invest".<sup>38</sup>*

Therefore subsequent changes by a regulator in the way a particular asset is included or excluded from the future RAB will in effect break this regulatory contract adding considerably to risk and potentially distort incentives for capital investment.

DAA therefore believes that consistency in the manner in which assets are rolled forward and valued in the RAB is essential in minimising risk and allowing the Commission to fulfil its statutory objectives to enable the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users while also

<sup>37</sup> CAA, *Economic Regulation of Heathrow and Gatwick Airports 2008-2013*, March 2008

<sup>38</sup> Competition Commission Report Stansted Airport Ltd Q5 Price Control Review Appendix D October 2008

allowing Dublin Airport to operate and develop in a sustainable and financially viable manner.

### **Out-turn Capex to Date vs CIP 2006-2009**

As discussed above, the regulatory contract provides certainty and creates a context in which there can be incentives to invest. However, during the course of a four year capital plan the capex programme changes: some projects do not occur, some new projects arise and the scope and costs of many pre-agreed projects change.

The CIP 2006 – 2009 represents the largest phase of the overall Transformation Programme at Dublin Airport and has been managed very successfully to date. The highlights of the Programme so far have been :

- Pier D was delivered on time in October 2007.
- The construction of Terminal 2 and Pier E was started in October 2007 as planned and is progressing well.
- Apron 6 was successfully completed, delivering 180,000 square metres of additional apron for use principally as aircraft stands.

The overall value of CIP 2006 – 2009 was originally estimated at €1,181 million in 2006 prices, which translates to €1.29 billion at out-turn prices. At the most recent DACC meeting held on 1 August 2008 we presented our forecasted CIP 2006 – 2009 out-turn at €1.32 billion, an increase of €30 million or 2.3%.

In a construction programme of €1.2 billion covering over 70 active projects, the cost forecasts are obviously subject to continuous movement as projects progress. The latest forecasted variance remains largely consistent with that reported to the DACC in August of this year. However, in the current difficult economic climate we are continuing to review the appropriate timing of all projects which have not yet commenced construction. Costs continue to be tightly monitored and controlled by DAA and this will remain the case for the duration of the programme.

DAA will submit a detailed CIP 2006 – 2009 reconciliation as part of the CIP submission in February 2009. This will include commentary on any completed projects which were not included in the original CIP 2006 – 2009 but subsequently needed<sup>39</sup>, or any projects which have been subject to material cost variations (positive or negative)<sup>40</sup>

The Commission has specifically referred in paragraph 7.9 to the fact that DAA had spent more on Pier D than had originally been included as a capex allowance at the time of the 2005 decision.

The original Pier D design was completed and ready for tendering in 2003, but DAA was directed by the then Minister for Transport to hold the decision to proceed. It was not until May 2005 that DAA was instructed, by way of the Government's Aviation Action Plan, to proceed with the construction of the Pier, and to have it operational by the end of 2007. Changes to the Pier D design were then required as the original scheme was no longer appropriate in the new traffic, security and regulatory context of 2005 – for example the

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<sup>39</sup> A threshold of €1m has been applied

<sup>40</sup> In excess of €4m

Department of Justice had since stated that the segregation of all arriving and departing passengers was required.

For the reasons alluded to above, plus other scope-related factors including the requirement for an elevated walkway to address heritage concerns relating to the impact on the Old Central Terminal Building, the 2006 cost estimate for the Pier D project increased to €124.1 million from that submitted with the 2005 CIP. A full reconciliation of these changes was provided to the Commission and its consultants as part of the 2006 Determination.

The final out-turn costs for Pier D have since increased to €132.6 million. Full details supporting the Pier D out-turn cost is provided in Appendix 3. DAA has also provided a benchmarking analysis which supports the conclusion that the Pier and associated infrastructure represents good value for money and should be allowed in full by the Commission in rolling forward the RAB.

## **Adjustment for Disallowed Capital Investment**

The DAA recommends that the Commission should also take account of the following reductions in recoverable capital investment contained in its 2006-2009 Determination which are currently the subject of a DAA appeal to the Aviation Appeal Panel.

- T2 Project Cost Contingency - €25 million
- Customs and Border Protection Project - €9 million
- Airfield projects - €4 million

DAA believes that the above reductions in DAA's allowable capital investment programme have not been adequately justified by the Commission. DAA is concerned that continuing disallowance of certain capital costs will potentially reduce economic efficiency. It will allow for the introduction of price caps which do not in fact reflect the actual economic costs of providing aeronautical facilities, potentially resulting in a loss in allocative efficiency. If the Commission continues to disallow legitimate capital costs of investment going forward this may strongly discourage similar investment in the future as potential investors and financiers will be aware of the risk of being unable to earn an adequate return on investment thereby potentially reducing dynamic efficiency.

Finally, DAA is aware that some users have indicated a view that assets which were included in the RAB and which they now believe will not be required by users should be deducted from the opening RAB at the start of the next price control period. We note that similar arguments were recently considered by the CAA and the CC in Stansted and concur and commend to CAR the Competition Commission's conclusions on this issue:

*“this treatment would breach the regulatory contract and create a significant risk that future investment would not be undertaken, due to concerns about a lack of regulatory commitment”<sup>41</sup>*

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<sup>41</sup> Paragraph 44, Appendix D Opening Q5 Regulatory Asset Base, Competition Commission Recommendations Stansted Airport

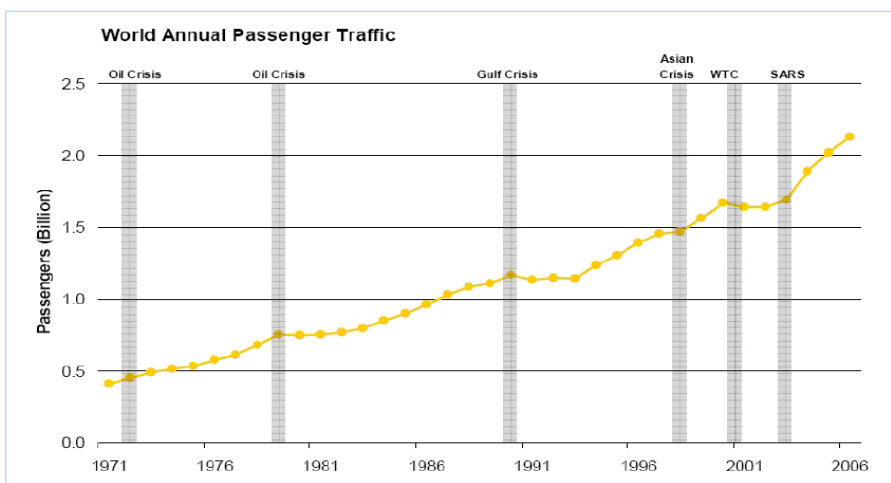
## Post 2009 Capex

DAA's Capital Investment Programme (CIP) submitted in 2006 outlined a €2 billion Programme designed to bring about a step change in the capacity and service levels available at Dublin Airport, following a five-fold increase in passenger numbers over the preceding 15 years. The key elements of this Programme are the construction of Pier D, Terminal 2, Pier E, a new North Runway plus a series of infrastructure and utilities investments required to support the newly enlarged airport.

The first phase of the Programme is being delivered during the 2006 – 2009 regulatory period and represents an investment of circa €1.2 billion. The intention is to submit the balance of the investment (circa €800 million) in the next. The cornerstone project for the next programme is the construction of the new North Runway.

However, over the past 12 months or so it has become increasingly apparent that the anticipated ongoing growth in passenger numbers will not now continue in the short term. The current global and domestic economic downturn has resulted in falling traffic volumes for the airlines that use Dublin Airport, and a reduction in DAA's non-aviation income including retail and car parking.

In light of the above, DAA has been undertaking an extensive review of the level of capital expenditure that is appropriate given the present uncertain economic climate. It is striving to strike the right balance between reflecting the current downturn, while at the same time building in the flexibility required for long term airport infrastructure planning. As can be seen in the graph below, while it is necessary to practice prudence in the event of unfavourable demand shocks or economic climates, excessive cutbacks of any necessary investment will be rapidly exposed as passenger numbers revert to their historic growth levels. CAR should take account of this in considering the next price cap.<sup>42</sup>



Source: ICAO

<sup>42</sup> It is worth noting that the issue of providing adequate investment incentives was at the forefront of ComReg's recent review of Eircom's cost of capital. ComReg recognised that there is an ongoing need for investment in telecoms infrastructure in Ireland. Accordingly the WACC of 10.21% for Eircom allows for an appropriate return of future investment in that infrastructure. Furthermore, ComReg proposed a WACC that took into account the fact that the detrimental effects of setting a cost of capital that is too low could outweigh the financial benefits to Eircom of a cost of capital that is too high. (ComReg decision May 2008)

Therefore the CIP 2010 – 2014 which DAA will submit in February 2009 will present a programme, comprising:

- the minimum “baseline” spend which is needed to maintain the fabric of the infrastructure, to comply with specific regulatory requirements, and to carry out some planning and design work in order to prepare for key investments in future Capital Programmes.
- additional projects, including the new North runway, which we will be seeking to link to agreed triggers. DAA proposes that these projects be assessed and evaluated by CAR, and a commitment made to remunerating them when the trigger points are reached, without the need for an interim determination. It is anticipated that there will be further engagement with the Commission and users on the timing and prioritisation of these projects.

As noted by the Commission at paragraph 7.15 of CP6/2008, following some progress with the airlines during the summer months, the Capex Consultation process is currently suspended. The last formal capex consultation meeting with the DACC was held on 1<sup>st</sup> August 2008; subsequent attempts by DAA to initiate further engagement on specific project proposals have been declined by the airlines. In an effort to move the process forward, the Commission proposed that an Independent Chairperson be appointed. However, despite agreement from both the airlines (via the DACC) and DAA on a candidate and the joint desire, expressed several times and in writing, for the Commission to appoint the agreed candidate, CAR has thus far refused to do so. CAR’s stance on this issue contrasts with that adopted by the CAA in the UK - it has recently agreed to appoint and fund an independent arbiter for the capex consultation process at Stansted Airport<sup>43</sup>.

DAA does not understand the basis for CAR’s position – refusing to appoint an Independent Chair while at the same time offering (at paragraph 7.16 of the Issues Paper) “*to organise and host a series of meetings open to all interested parties to discuss capex needs at the airport*”. It is not sensible to have parallel consultation processes on future capex needs at Dublin Airport i.e. DAA/DACC meetings with an independent chairman and meetings organised by the Commission for all interested parties. It would be an inefficient use of all parties’ time to engage on the same issues in two separate forums. DAA is also concerned that CAR has not indicated how any divergence of views that might emerge from such an approach would be reconciled.

The company therefore urges the Commission to organise the meetings open to all interested parties as proposed and appoint the preferred candidate agreed by DAA/DACC to chair them. This process should commence as soon as possible as the time available for meaningful consultation prior to the submission of the next CIP in February 2009 is fast disappearing. DAA is open to further discussions with the Commission regarding the timing of the CIP submission if the capex consultation process starts to operate effectively.

It should be noted, however, that in all likelihood, and despite DAA’s best efforts to engage with users, it currently appears as though it will be forced to submit the Capital Investment Programme for the next regulatory period in the absence of any consensus with the airlines.

In this context DAA notes the Commission’s comments in its Guidance Paper CP8/2007

*“Where the consultation has resulted in no agreement, the Commission will review whether the parties have consulted in good faith – that is whether the*

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<sup>43</sup> Paragraph 2, Annex C, Stansted Airport CAA price control proposals December 2008

*parties have genuinely sought to find a solution to a given problem. If the Commission concludes that the regulated company attempted to consult constructively, but that a subset of users did not, it will review the costs and rationale for the project with a view to including it in the price cap calculations”*

Given that DAA has shown good faith in its approach to the consultation process from the outset, the Commission must adhere to its stated intentions as set out above. In doing so it must ensure that it has the expertise available and has set aside an appropriate time span to enable it to properly review and analyse the CIP when it is submitted.

When carrying out its own consultation on particular issues or provisional findings, it is important that CAR takes due account of the substance of each response, rather than simply whether or not particular stakeholders support particular proposals. Understandably, most stakeholders will submit consultation responses that are consistent with their own commercial interests. Even if a proposal that would increase airport charges is entirely appropriate (for example, because it promotes economic efficiency), it is likely that airlines will oppose it. Equally, however, where a stakeholder has a genuine and important argument in favour of or against a particular proposal, CAR must not ignore or write off this argument simply because it happens to coincide with that stakeholder’s own interests.

## **Triggers**

***The issues posed by CAR in CP6/2008 that DAA seeks to address in this section are – the Commission’s invitation to respondents to comment on its use of triggers for T2 related capex and specifically to provide views on what the definition of “T2 ready for operations” should mean.***

### **Unjustified Premise for T2 Triggers**

DAA reiterates its opposition to CAR’s T2 ‘two box’ approach towards the remuneration of the T2 project, on the grounds that its entire premise is based on methodological errors relating to the sizing assessment. The justification given by CAR for the introduction of the two box approach and associated triggers was its assessment that T2 was ‘too large’. As was outlined in both DAA’s response to the Interim draft decision and the company’s current appeal against CAR’s interim review final decision, this assessment was the result of consultancy work which lacked the rigour, expertise and time available to DAA’s consultants.

DAA has identified two significant flaws in CAR’s consultants’ work. These errors in the calculation process have been shown to substantially underestimate the optimal sizing of T2. DAA, with the involvement of experienced international experts, produced robust and solid estimates as to the correct sizing of T2. Given that the two box approach was introduced with the intention of ensuring that DAA take on some of the risk for building a facility that was ‘too big’ and the analysis underpinning this approach has been proven to be inaccurate, no rationale remains to support the implementation of the two box approach and associated triggers. CAR should therefore permit DAA to be remunerated for the cost of providing T2 from the outset. This approach is in line with CAR’s statutory objectives to facilitate the development of Dublin Airport and enable the DAA to operate Dublin Airport in a sustainable and financially viable manner.

## Consideration Points for any Definition of ‘Ready for Operations’

However, if CAR decides to retain the Box 1/Box 2 approach, DAA welcomes the opportunity to submit its views on the appropriate definition of the term ‘T2 ready for operations’. While capex triggers can provide a powerful mechanism to incentivise the right investment, they need to be designed carefully if they are to work reliably. When introducing capex triggers in the regulatory process their impact on performance drivers such as cost of capital and how the triggers interact with supplementary regulatory objectives has to be carefully evaluated.

In responding to CAR’s Interim Draft Review, DAA stated that the risk of regulatory opportunism inherent in trigger mechanisms is especially strong if triggers are poorly or incompletely defined, and alerted CAR to the fact that there was potentially a large timing difference between the completion and the operation of T2, due to a range of variables outside the company’s control.

In deciding which milestone is suitable as an efficient and fair trigger for ‘T2 Box 1’, the following principles must be considered.

- Any triggers must be clearly and unambiguously definable. <sup>44</sup>Such triggers would minimise the possibility of disputes arising as to whether a trigger had in fact occurred, either between CAR and the DAA, or between CAR and a third party.
- The goal of triggers is to mitigate the risk of project overruns, by creating incentives for those who can control the risk to bring in the projects on or before schedule. It is therefore essential that any triggers being considered correspond only to events over which DAA will have reasonable control within the specified timescale. Any event used to define ‘T2 ready for operations’ where DAA lacks reasonable control would distort any incentive, and could lead to inefficient outcomes.
- In particular, prior to passengers passing through T2, it will be necessary to enlist the cooperation of a number of agencies to train staff, assist in operational trials etc. If a trigger is selected which is dependant upon timely cooperation from third parties, a perverse incentive could be created to engage in regulatory gaming. Some parties could have an incentive to stall and delay to ensure that the trigger is not met, so as to benefit from a subsequent lower price cap. If the aim of the trigger mechanism is to create an incentive for the timely delivery of T2, it must be that any specific trigger is not contingent upon the actions of other parties.
- The issues highlighted by the DAA in it’s response to CAR’s 2007 Interim Draft Decision must also be considered. These are as follows:
  - The operation of T2 will be decided by an open tender process. Any delay or appeals could impact upon the timing of T2 becoming operational.
  - The timing of the transition to T2 will need to reflect the requirements of users, for example to suit seasonal route schedules.
  - Any move to T2 could prompt industrial relations issues, as happened in the case of Area 14, which could delay progress.

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<sup>44</sup> As noted by CAR’s consultants CEPA, all triggers should be “*events that an independent auditor can easily and clearly verify*”. Section 5, ‘Developing Capex Incentives for DAA: Triggers’ February 2007

- Aer Lingus has indicated that should differential pricing between terminals be implemented, it would not move to T2 as envisaged.

## **DAA's Proposed Definition of 'Ready for Operations'**

Given these points, DAA considers 'Practical Completion' to be the most appropriate definition of T2 being ready for operations. "Practical Completion" is a well defined milestone in a construction contract whereby the engineer inspects the building and then signs a formal certificate. The effect would be the formal handover of the T2 structure to DAA and the beginning of its availability to users (the T2 operating company that emerges from the Government's tender process, airlines, ground handlers, state agencies, etc.) for systems integration, final fit outs, training and live operational trials. The process of commissioning of key equipment, which will have started prior to the handover of T2 to the DAA, will also be largely complete at the point of "Practical Completion", as it is dependant upon users to ensure adequate testing before certain pieces of infrastructure can be signed off.

It is at the point of "Practical Completion" that full responsibility for the T2 facility will pass to the DAA. From this point DAA assumes the operational responsibilities of the terminal, such as the securing, maintaining and cleaning requirements. The building will be effectively operational, with large numbers of DAA staff being familiarised and trained in the facility, as well as being involved in the assimilation of the key stakeholders into the terminal. From this date, testing on all installed equipment and facilities would commence. The transfer of airlines into new accommodation in the new terminal, plus the installation of airline-specific systems in check-in desks and back offices would all be carried out during this stage.

Achieving all these events will require significant user input and co-operation, which could be outside DAA's control to deliver to some significant degree. Therefore setting a trigger date after the point of "Practical Completion" would make it dependant on the co-operation of others and introduce the possibility of creating perverse incentives as discussed above.

Were this milestone to be accepted by CAR as a trigger, it could be formally recognised by the signing of the Practical Completion Certificate. This is a contractual procedure which could be easily verified, ARUP as the engineer will issue Practical Completion Certificates for each of the trade packages and the Final Certificate the entire facility. Such a milestone fulfils the conditions necessary for an efficient and fair capex trigger, and provides a strong incentive for the timely progress of the T2 project.

## **Precedent for this Approach**

There are financial and regulatory precedents for the adoption of DAA's recommended definition for the T2 operational readiness trigger as "Practical Completion".

Such a definition is consistent with the recommendations of financial reporting standards, specifically FRS 15, which states that "A tangible fixed asset is ready for use when its physical construction is complete"<sup>45</sup>.

The definition is also consistent with the approach adopted by CAR to capex triggers as set out in the price cap Determination for the Irish Aviation Authority (IAA) in 2007<sup>46</sup> which

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<sup>45</sup> 'FRS 15: Tangible Fixed Assets', Accounting Standards Board, February 1999

<sup>46</sup> 'Determination and Report on the Maximum Level of Aviation Terminal Service Charges that may be imposed by the Irish Aviation Authority' Commission for Aviation Regulation, March 2007



defined trigger milestones relating to the provision of new air control towers in Dublin and Cork Airports as

*“the building and completion of the new air traffic control tower at [Cork/Dublin Airport] by the IAA, achieved on its opening date for the purpose of training air traffic controllers in its use for the provision of air terminal services at [Cork/Dublin Airport]”.*

CAR explicitly recognised that such a trigger could be met “*up to a year in advance of that control tower being used for actual operations*”. In the context of the T2 project, any definition of being ‘operationally ready’ consistent with the approach to IAA’s capital programme would preclude the necessary staff training requirements, and would allow for a timing difference between completion of the project and the normal day to day operation of the facility.

DAA’s proposal would also be consistent with the approach adopted by the UK airports regulatory body the CAA, which has some experience in the implementation of capital expenditure triggers, in particular in the Terminal 5 project in Heathrow Airport during the 2003-2008 price cap period<sup>47</sup>. In total five distinct triggers were set, of which two are directly comparable with T2, given that they could be considered ‘completion’ input triggers, similar to the requirement that T2 be ‘operationally ready’.

- The first such trigger related to the completion of ten aircraft stands, necessary to support airport operations prior to T5 opening. CAA defined the trigger as the point at which the project team handed over the 10 stands, plus the associated taxiway, to Heathrow Airport Limited (HAL), for operational use.
- The second trigger related to the completion of the Heathrow Air Traffic Control Tower. As with CAR’s approach to the IAA, CAA determined that, alongside the requirement that the structure be watertight, and the terminal connector substantially complete, the trigger was to be defined as the point at which the project team handed over the structure to the National Air Traffic Services (NATS) to allow a fit out with the necessary NATS equipment. It was also a condition that the buildings mechanical and electrical systems would be operating to a level that would allow the NATS fit out.

The guiding principle behind such definitions was that the key issue would be “the ability of users to have access to output or service”. Were a consistent line by CAR taken towards the T2 trigger, any trigger for ‘operational readiness’ would have to relate to the hand over of the building to whatever organisation(s) will be responsible for its operation, with access available to the airline(s) and other agencies which will be using T2.

## **Allowing for Uncontrollable Risks**

DAA is delivering one of the largest and most complex pieces of infrastructural projects in the country. On completion, it will provide a world-class facility which will serve the country’s economy and future users for many years to come.

Should the two box approach continue to be implemented, DAA should not be penalised for delays that are the result of risks that are inherent in a project of this scale and scope but which are outside of the company’s control. It would be neither fair nor efficient were DAA’s remuneration for T2 to be compromised by random events such as a delay due to an

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<sup>47</sup> ‘Economic Regulation of BAA London Airports (Heathrow, Gatwick and Stansted) 2003-2008: CAA Decision’ Civil Aviation Authority, February 2003

extreme storm, for example. Any resulting lower price cap would not be a reflection of solid regulatory principles, but of random uncontrollable events, and would curtail both DAA's incentive and ability to provide future investment in large capital projects.

In this context DAA should not be penalised for any delay to "Practical Completion" due to events such as severe adverse weather conditions, direct government intervention, any serious accident in DAP which was beyond DAA's control, or the insolvency of any companies contracted in the build.

It must be remembered that the stated aim of the trigger mechanism is to provide incentive to DAA to complete the T2 project in a timely manner, rather than a mechanism for keeping the airport price cap artificially and irrationally low due to random events beyond DAA control.

On this point, CAA's flexible approach towards triggers is more reflective of the incentive-generating purpose of the mechanism. CAA has stated that

*"if the details of the outputs as specified are not met to some minor respect which has no bearing on the timetable of future work then the CAA may use discretion to consider the trigger to be met"*<sup>48</sup>.

It is reasonable that the same attitude should be taken towards the issue of uncontrollable risk. A flexible attitude in this regard from CAR would in no way limit the effectiveness of the two box approach, but would ensure a fair and rational price cap decision is reached.

## **The Box 2 Trigger**

CAR has also proposed that €111m of T2 costs will not receive a return on or of capital if 33mppa throughput is not reached by 2018. However, the Commission is aware that the planning authorities have indicated that the passenger capacity on the current campus should not exceed 32mppa. The Commission has therefore set a hurdle for DAA that, on the basis of the best information available to it, DAA will not achieve without a change in position by another regulatory body. In this context, the Commission's approach to the Box 2 trigger should be reviewed.

## **Future Triggers**

At paragraph 7.8, the Commission has indicated that it would welcome views on the use of triggers for future capex projects beyond 2009. Trigger pricing can be very difficult to apply in practice. In addition, it increases the cost and complexity of regulation, and can restrict the flexibility of regulated firms either to respond effectively to the incentives provided by price cap regulation or to adapt to changed circumstances during the course of a price control period. For this reason we recommend that this approach be limited to very major projects and only a small number of triggers. DAA also refers the Commission to the principles for trigger design set out in the paper prepared for the company by NERA which was published at the same time as CP6/2008<sup>49</sup>.

DAA will be developing some specific proposals relating to the post 2009 capex spend, particularly regarding the approach to allowing remuneration for the North runway and will include these in the CIP submission in February.

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<sup>48</sup> Dr. Harry Bush CB, CAA, 17<sup>th</sup> September 2004

<sup>49</sup> Issues For The Next Regulatory Review, NERA, July 2008

## **Adjusting the RAB for Inflation**

In order to maintain the real value of the DAA's investment in Dublin Airport, it is appropriate that the Commission adjusts the Dublin Airport RAB to take account of the current cost of historic capital investment as part of its roll forward process.

The DAA suggests that as a next best alternative to a replacement cost valuation, the Commission should continue to apply as part of its roll forward process, an indexation to the RAB uplifting for changes in CPI over the regulatory period 2006-2009 in order to reflect the need to maintain the real financial capital of the business and the current cost of regulated assets and in keeping with the Commission's current approach.

## **Depreciation**

*The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – which approach to depreciation should it adopt and why?*

### **Adjustment for Regulatory Depreciation**

Under previous regulatory determinations, the depreciation charged to the RAB was based on the Commission's own projections. The DAA previously recommended that, rather than projected depreciation, the level of actual depreciation which was charged against Dublin Airport's regulatory assets for the previous regulatory period should be subtracted as part of the methodology used in rolling forward the RAB for Dublin Airport.

However, given that the Commission appears to be committed to using projected depreciation in its roll forward of the RAB, DAA recommends that the Commission maintains consistency in its treatment of depreciation in its calculation of the price cap and in its methodology in relation to the RAB. If the Commission decides at this juncture to apply actual depreciation in its roll forward of the RAB, it will be necessary to revise the existing RAB to take account of actual depreciation charged over the period 2001-2005 to allow for a consistent approach.

DAA therefore believes that clarity for the future as to the manner in which assets are to be rolled forward and valued in the RAB is essential in minimising risk and allowing the Commission to fulfil its statutory objectives to enable the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users while also allowing Dublin Airport to operate and develop in a sustainable and financially viable manner.

### **Approach to Depreciation**

At paragraph 7.18 of CP6/2008 the Commission has sought the views of interested parties in relation to

- The assumed asset lives for assets in the RAB
- The approach adopted to depreciating assets e.g. straight-line or an annuity

In regard to the assumed asset lives in the RAB, DAA agrees with the Commission's view that it is appropriate for the Commission to continue to apply the same assumptions as used

by DAA in its company accounts. This policy will ensure that the various assets are depreciated in a timely manner in accordance with their useful lifespan and that there is a degree of connectivity between asset lives in the RAB and DAA's Fixed Asset Register.

As regards the approach adopted to depreciating assets, DAA advocates the traditional straight line method of depreciation which is the methodology employed by the company in its own accounts. The continued application by the Commission of a straight line methodology in calculating the return of capital will allow for connectivity between the regulatory depreciation charge and DAA's accounting depreciation charge and it will also ensure that the regulatory price cap reflects in present value terms capital costs incurred by the regulated company allowing for enhanced allocative and dynamic efficiency.

DAA does not support a unitised approach to depreciation as proposed by CAR for implementation for T2 and associated projects. Unitisation has the effect of backloading DAA's remuneration. The consequence of this for DAA is that (all things being equal), the level of returns that DAA will receive in the short term will potentially be much lower than would have been the case if a straight line depreciation policy continued to be applied by the Commission.

It is recognised that backloading remuneration implies increased risk because it entails a greater proportion of remuneration occurring at future points. Since uncertainty increases with the time horizon, risk increases the further in the future remuneration is expected. Furthermore, the greater the number of regulatory reviews occurring within the asset lifetime the greater the chance of a change in fundamental factors affecting remuneration. These factors include changes in regulatory methods, a change in user type and preferences, and changes in the methodology for calculating key regulatory components.

Where a regulator backloads the remuneration of capital costs, the company must commit to undertaking capital expenditure with a greater degree of uncertainty as to whether it will receive remuneration, how much it will receive and when it will receive it. Notwithstanding DAA's opposition to unitisation, if it is imposed the additional risk associated with the approach should be compensated for in considering the appropriate cost of capital to allow the regulated business.

The implementation of the unitised approach to depreciation also means that two conflicting depreciation policies are operating at the same time over different parts of DAA's asset base. This brings greater complexity to the regulatory model and is not in keeping with the Commission's obligations to impose the minimum restrictions on DAA.

An alternative approach used at a number of other airports, which helps to moderate the initial impact of major investments on airport charges, is to allow a degree of pre-funding. Indeed, ICAO's current policies on airport charges recognise that

*"pre-funding of projects may be accepted in specific circumstances where this is the most appropriate means of financing long-term, large-scale investment, provided that strict safeguards are in place"*<sup>50</sup>

More generally, it seems somewhat counterintuitive that, compared with conventional profile of regulatory depreciation, CAR is proposing to postpone revenues at a time when DAA is financing a major investment project. Regulators in a number of other industries (including air traffic control and electricity distribution in the UK) have used accelerated depreciation in

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<sup>50</sup> See article 24 of International Civil Aviation Organization, *ICAO's Policies on Charges for Airports, and Air Navigation Services, Seventh Edition - 2004* (Doc 9082/7). The safeguards required include effective and transparent regulation, comprehensive and transparent accounting, consultation with users, and application for a limited period of time.

order to advance revenues at times of major investment, whereas CAR's proposal is equivalent to a postponement of revenues.

## **Unitisation, T2 and T2 Associated Projects**

In its interim review decision, the Commission confirmed that it expects to depreciate the costs of T2 and T2 associated projects on a constant unit cost basis from the point at which the associated assets entered the RAB. It suggested that this would allow depreciation costs for T2 to be recovered equally across all forecast airport users thereby ensuring a relatively small increase in charges upon commencement of T2 operations and a smooth progression of airport charges thereafter, though it did not elaborate on how it believes this will promote economic efficiency.

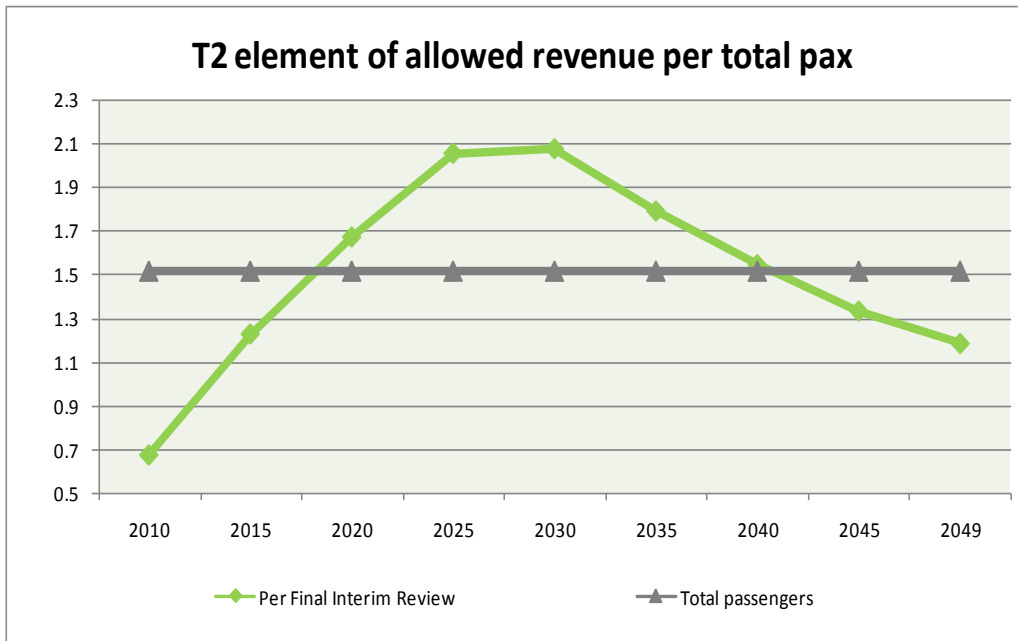
DAA has estimated that the effect of the introduction of the unitisation approach to depreciation in relation to T2 and its associated projects is a reduction of more than €1 in the average per passenger price cap in the period 2010-2014 when compared with the use of conventional depreciation. DAA believes that the introduction of this unitisation approach to depreciation of capital costs will also add considerably to the degree of risk experienced by the company going forward and therefore it believes it runs contrary to the Commission's statutory objective to enable a sustainable and financially viable Dublin Airport.

DAA is currently appealing this proposed approach to the Aviation Appeal Panel. If, however, the Commission decides to retain this approach for the depreciation of T2 it should address a number of issues as follows:

- Given the information available, DAA believes that contrary to the Commission's stated intention<sup>51</sup>, passengers will not pay the same rate for the whole period of the asset life. Because the calculation appears to be based on an estimate of the incremental passengers above the assumed "comfortable capacity" level for T1, costs per total passenger will, in fact, increase over time, to the point where total capacity estimated by the Commission is reached, and reduce thereafter (see graph below). The Commission's proposals produce a peaked charge per passenger rather than a flat profile. The opening of T2 will deliver benefits to all passengers at the airport, providing both additional capacity in T2 and an alleviation of congestion in T1. Notwithstanding its opposition to the adoption of a unitised depreciation, DAA believes that it would be more reasonable, if the Commission retains this approach, to base its calculation on the total passenger numbers at the airport. This approach would deliver a more smoothed effect on the total cap which was the Commission's stated intention. Furthermore, this approach could also reduce the near-term possibility of financial difficulties and regulatory risk, while still applying an unitisation model.

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<sup>51</sup> "Unit cost-basis – whereby allowed investment costs are recovered equally across all forecast airport users" page 105 CP5/2007. Also described in the Commission's presentation to DAA Board on 11 June as "Depreciate T2 on a unit cost basis – Share the costs of T2 equally across all future passengers"



- The unitisation approach to depreciation has been applied by the Commission to two project groupings - T2 Main Projects and T2 Associated Projects. However the Commission is proposing to apply unitised depreciation to projects costing circa €107m which are either not connected to T2 and are required to support the full development programme. DAA believes they should not be incorporated in the unitisation process but depreciated on a straight line basis.
- The Commission stated that it was introducing a unitised approach to depreciation with the intention of avoiding step increases in charges as further capacity expansion occurred and it suggested that a unit-cost approach to depreciation would better align the costs and benefits to passengers of long-lived assets. However this objective does not take account of the fact that current users are now benefitting from the write down of past investment under the existing straight line approach to depreciation. If the T2 project is viewed as part of a cycle of investment over the long term, it is much less clear that conventional RAB-based remuneration would place an unfair cost burden on existing users, indeed current users are favoured over both past and future users.

To summarise, DAA reiterates its opposition to the proposed introduction of a unitised approach to depreciation. DAA believes that if the Commission wishes to persist with its proposals it should clearly set out the potential net benefits which would justify such a policy departure. This assessment should:

- be placed in the context of an existing airport with current users benefitting from past write down of historic investment
- demonstrate the material economic efficiency benefits that would be likely to outweigh the following potential disadvantages of such an approach
  - the increased complexity of regulation as different assets will be remunerated in different ways and the Commission proposed strategy for implementation of this approach

- the increased regulatory risk associated with the postponement of revenues and the implementation of a different form of regulation
- outline the overall potential impact of this proposed policy change and how it is likely to be consistent with the Commission’s statutory objectives.
- take account of the likely increase in perceived risk and the resulting impact on DAA’s cost of capital
- reduce financing<sup>52</sup> and regulatory risk<sup>53</sup> by spelling out in detail the precise way in which regulatory depreciation will be calculated in future price control periods and give as firm a commitment as possible to follow this path even if it means higher airport charges in later years.

Finally, in CP6/2008 the Commission has asked interested parties to comment on whether it would be appropriate to apply alternative depreciation methodologies to different classifications of assets within the RAB. DAA is of the view that such an approach would add considerably to the overall complexity of the regulation model and would not be consistent with the Commission statutory requirement to place minimum restrictions on DAA. Furthermore DAA believes that prior to such a policy change there is an onus on the Commission to demonstrate how such a measure could be justified on the basis of enhancing economic efficiency.

## Cost of Capital

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are - how should the Commission determine a cost of capital for DAA? How should recent events in the capital markets affect its approach? What are the merits or otherwise of using the CAPM for the purposes of estimating a cost of equity? What comparator companies might be used to estimate a beta for DAA? What approach to gearing should be adopted?***

DAA’s detailed response to the technical and methodological issues related to the assessment of the appropriate cost of capital for the business is provided in Appendix 3. Appendix 3 provides the supporting evidence for the summary of our main points as set out in this section and should be read in conjunction with it.

The CAR’s issues paper’s treatment of the various CAPM parameters conveys an impression – perhaps unintended - that the decision relating to each parameter could be selected from the range of regulatory precedent decisions presented. While regulatory precedent is an important input to the CAR’s deliberations, any such ‘menu of choices’ approach would be flawed since the parameters should not be estimated completely in isolation, but by reference to one another and the overall settlement. Further, any ‘menu’ approach could suffer from internal inconsistency in the methodologies used for calculating the various parameter values. The estimates of the cost of capital parameters must be

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<sup>52</sup> This is important because, whereas the conventional treatment of capex under price cap regulation is well-known and understood by the investment community, CAR’s proposals are not.

<sup>53</sup> While CAR cannot fetter the discretion of its successors in future price control reviews, a very clear explanation of its specific proposals will make any attempt to renege on this commitment easier to detect. In contrast, if the commitment to allow higher levels of regulatory depreciation in later years is vague, future regulators may have more “wriggle room” to effectively break the current promise while claiming consistency with their particular interpretation of the current proposal.

based on a robust analysis that takes into account multiple sources of data and recognises uncertainty about individual parameter levels. We encourage the CAR to rigorously consider each parameter based on an assessment of all relevant available data – including recent market evidence – within the overall regulatory framework and particularly the cost of capital deliberations, with regulatory precedent forming a useful input to the process, but not being given undue weight.

### **Pre-Tax WACC**

DAA believes that the WACC should continue to be set on a real pre-tax basis with full allowance for the statutory tax rate.

### **Retain CAPM**

The CAPM approach should be retained for the estimation of the cost of equity because it offers the basic conceptual framework for understanding the determinants of returns on an asset and its use would ensure consistency with CAR's past approaches. Alternatives to the CAPM are not unambiguously 'better' and often have considerable computational and explanatory shortcomings, therefore they should not supplant the CAPM as CAR's preferred methodology.

### **Treatment of Asymmetric Risks**

We note that there are DAA -specific asymmetric risks including potential terrorist attacks, international health warnings (e.g. SARS) and the break-up of DAA., and the potential introduction of a service quality term based on penalties. The appropriate regulatory treatment of this is to increase the allowed return on investment to an amount greater than the systematic cost of capital, by the addition of a "regulatory risk premium". We therefore recommend that the CAR allow a cost of equity above the CAPM-derived estimate.

### **Reference Market**

The highly integrated nature of EU markets means EU evidence should be the reference capital market. Irish regulatory precedent supports this supposition. However, as global markets become more integrated wider European and US data may also be relevant to typical Eurozone investors. Our recommendation is to primarily rely upon evidence from the Eurozone in setting the ERP and RFR parameter values, cross-checked against international evidence as appropriate.

### **Risk Free Rate**

A range of methodologies for estimating the real risk free rate may be appropriate. We note that each of these methods has some drawbacks, particularly during the current period of unusually (extremely) volatile market conditions. We do not believe that it should be simply assumed that the real risk free rate estimate should be based on inflation-protected government bond yields. There is a substantial body of evidence that suggests inflation-protected bonds can be a biased measure of the risk free rate due to pension and accounting regulations introduced over the past decade.<sup>54</sup> Close examination should be given to the liquidity of the markets, and the possible distorting effects of accounting and pension fund regulations on yields.

### **ERP**

Our recommendation is to estimate the forward-looking ERP as an arithmetic average of historical returns for the Eurozone, cross-checked with a Dividend Growth Model (DGM)

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<sup>54</sup> This has also been documented in the academic finance literature: Blanco, Brennan and Marsh note that: "...it is well known that government bonds are no longer an ideal proxy for the unobservable risk free rate". The Journal Of Finance Vol. LX, no. 5 October 2005, p2261. "



based on recent forward-looking evidence, which can provide direct insights in to the expectations of market participants.<sup>55</sup>

### **Beta**

We broadly agree with the CAR's assessment of the possible methodologies and its adoption of the comparator company methodology in the past. We consider that the comparator airports considered by the CAR should be selected on the basis of similar characteristics to DAA, particularly demand and revenue risk; operating leverage; input price risk; differences between regulatory regimes; and relative country risk.

We consider that recent evidence from airports which are currently listed (or very recently de-listed) should be considered as the primary source of market evidence. This is because of the rapidly changing nature of global capital markets generally, and the aviation industry more specifically. For these reasons we agree with the CAR's assertion that evidence from BAA (prior to de-listing) should be afforded less weight than at the last review.

We believe that DAA's risk has increased since 2005, particularly due to the proposed introduction of unitisation, trigger pricing and service quality term in the price cap. Therefore we *prima facie* believe that the CAR's allowance of an asset beta of 0.61 in 2005 represents a minimum level for DAA's current asset beta.

### **Cost of Debt**

The CAR appears to support estimating the cost of debt as the sum of the risk free rate and the debt premium. However, we believe estimating the debt premium as an interim step is unnecessary since the appropriate cost of debt for DAA can be observed directly from market evidence. Our recommendation is to estimate the cost of debt by reference to observed benchmark bond yields<sup>56</sup> in the secondary market and by observing coupon yields on recent bond issues by comparable companies (typically judged by reference to their credit rating). For these purposes, Eurozone evidence may be considered since all corporate debt yields are priced in relation to a single benchmark (the Eurozone mid-swaps rate, which is in-turn typically related to the ECB's benchmark interest rate).

We recommend that for the purposes of calculating DAA's transaction costs for the next review reference should be made to market quotes obtained by DAA, other publicly available evidence (including regulatory precedent) and should reflect latest relevant market evidence.

We further recommend that the allowance should include DAA's reasonable efficient pre-funding costs, whereby liquidity (either through facilities or cash balances) is secured in advance and/or whereby financing (such as of major capex projects) is efficiently undertaken in advance to ensure financing is secured. Recognition of pre-funding costs is increasingly important in this period of market volatility, but is - in any event - justified under "normal" business conditions.

### **Gearing**

We consider that the use of optimal gearing is appropriate since actual/projected gearing can frequently be difficult to estimate and may not represent the capital structure consistent with an efficient level of financing costs (both in terms of the cost of equity and debt), leading to calculation of a sub-optimal price cap.

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<sup>55</sup> A DGM analysis based on analysts' forecast dividends per share for the EuroStoxx 50 (or similar Eurozone index) should provide a useful indication of the anticipated equity risk premium.

<sup>56</sup> ComReg noted in its May 2008 decision for EirCom that the financial crisis had led it to adopt a cost of debt at the upper end of the original range when determining a point estimate of the WACC. Volatility in the market has, in fact, intensified significantly in the intervening period.

In order to determine the optimal level of gearing we recommend the CAR consider the cost of capital DAA would incur if it raised new finance, since the optimal capital structure will enable DAA to raise finance as efficiently as possible (and, therefore, is independent of the cost and level of existing debt and equity). A comparison of the cost of new finance at a range of credit ratings (with commensurate values for the other inputs into the WACC and CAPM formulae) should enable the optimal capital structure to be determined.

### **Other Issues**

The CAR has raised the issue whether the Dublin Airport City development should be included within the single till, and if so, what implications this has for the cost of capital.<sup>57</sup> The inclusion of DAC within the single till would increase the required cost of capital, all else equal, since:

- The DAC development involves a very large capex programme with associated execution risk; and
- The DAC development is for industrial, research and educational purposes; these sectors are higher risk than the existing airport business, which therefore, if included within the single till would increase DAA's risk profile.

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<sup>57</sup> See Commission for Aviation Regulation (2008) "Maximum Levels of Airport Charges at Dublin Airport: Issues Paper", October 24, p52.

## 9. Financial Viability

Summary of DAA's position on Financial Viability:

- DAA welcomes the Commission's acceptance that, notwithstanding its previous review of financial viability in line with SFV statutory objective, that if considered today in prevailing financial markets circumstances its analysis would be different.
- Events have subsequently proven that the Commission's approach to financeability at the last review would not have enabled DAA to fund the required capital investment programme at Dublin Airport.
- Fund raisings of significantly larger and higher profile companies than DAA have failed. Moreover, crystallisation of risk has resulted in major entities failing altogether or experiencing severe financial difficulties in recent times.
- Capacity for DAA to carry out further fundraising is necessary even with constrained capex and as debt matures.
- CAR must revise its approach to SFV and credit rating levels to avoid preventing DAA from financing/re-financing or at least risking constraining its ability to access the financial markets and/or refinance its debt and risk the sustainability and financial viability of Dublin Airport.
- It is critical that the Commission approaches the question of financial viability on the basis that DAA should be in a position to maintain an A rating into the future. This should be underpinned by FFO:Debt ratios of at least 15%, positively profiled, throughout the regulatory period.

***The issue raised by CAR in CP6/2008 that DAA seeks to address in this section is – whether the current approach to assessing the financial viability of the DAA is appropriate.***

The issue of financeability recently came to regulatory prominence when a number of UK regulators made explicit assessments of the financeability of their proposed regulatory decisions only to discover that the traditional building block approach to price setting may not be quite as robust as it had previously been understood. Since then financeability has emerged as a critical element for debate across various regulatory sectors.

Financeability is determined in the regulatory context by examining whether or not the regulatory building block approach yields sufficient revenues to allow regulated entities to cover their operating expenditure, capital expenditure, depreciation and cost of capital while maintaining appropriate financial ratios from the perspective of investors and financial credit rating agencies.

A number of inter-related reasons have been put forward to account for a reduction in financeability where a gap emerges between regulatory yields and financial requirements.

- The financeability gap has been attributed to the recent apparent difference between the regulated company's actual market cost of capital and the allowed regulatory cost of capital in many regulatory sectors. The market cost of capital measures the intrinsic riskiness of the company in terms of the cost of equity and of debt as perceived by the

financial markets while the allowed regulatory cost of capital is traditionally equated to the WACC which is estimated using the CAPM model. The primary reason for this emerging gap appears to be that while the theoretical model is ignoring regulatory risk, the financial markets are demanding an additional risk premium to compensate for the perceived impact of this additional risk.

- Alternatively, it has been suggested that the regulatory financeability gap is attributable to the growing level of indebtedness of regulated firms and the mismatch between the real returns earned by the regulated company on its RAB and the nominal interest which it pays on its debt. There is a common practice among regulators to allow regulated entities to earn a real cost of capital and to be compensated for inflation through an indexation of the RAB. However firms are in general required to remunerate their debt investors through annual nominal interest payments based on ongoing inflation. This can result in a timing effect where in the early years of an asset's life, the level of a regulated company's actual revenue for the assets is lower than the nominal costs of financing it, and vice-versa in later years.
- The emerging gap between revenues generated and debt repayments can have a significant effect on cashflows and resulting financial ratios for the regulated firm particularly where it is heavily reliant on debt<sup>58</sup>. The degree to which a firm is likely to face a financeability issue arising from this intertemporal mismatch between costs and revenues will largely depend on the availability and relative costs of IL debt vis-à-vis nominal debt (implicit in this is the level of inflation which will have a direct impact on the cash flow gap) and the level of new capital investment.<sup>59</sup>
- It is generally accepted that the issue of financeability becomes more acute the higher the gearing of the regulated company and the larger the capital investment requirement. It is acknowledged that potential issues regarding financeability are often linked to the degree of regulatory commitment and perceived level of regulatory risk. This is largely due to the inherent mismatch between the 4/5 year regulatory determination period and the longer timeframe for financing regulated capital investment. The resulting uncertainty about future regulatory decision-making may be perceived as an added risk by the financial markets and therefore potentially increases the risk premium in the market cost of capital<sup>60</sup> thus creating a potential financeability gap.

A number of solutions have been proposed to correct for deteriorating financeability but there appears to be a divergence of views among regulators as to the most appropriate approach

- Provision of a revenue allowance over and above the level of revenues determined by the regulatory building block approach<sup>61</sup> which would directly compensate for a potential financeability gap and which would have the effect of increasing the present value of the regulatory company's revenue returns.
- Introduction of an accelerated depreciation approach so that the regulated company would receive larger depreciation payments in the short term. This approach would be present value neutral in relation to the regulated firm's revenue returns

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<sup>58</sup> First Economics, Financeability: The key Issue in Regulation Today, April 2005.

<sup>59</sup> NERA Cost of Capital for PR09, Final Report for Water UK, June 2008, Chapter 10 page 78.

<sup>60</sup> OFWAT, OFGEM, Financing Networks :A discussion paper, February 2006, section 5

<sup>61</sup> Similarly they could allow for a cost of capital over and above that dictated by the traditional CAPM model

- Switch from a real cost of capital to a nominal cost of capital. There is a concern that this could result in a discontinuity in prices in the short term.
- Provision of regulatory commitment beyond the confines of a single regulatory determination period, which would reduce the requirement for regulatory financeability adjustments. The possibility of extending the duration of the regulatory period beyond the customary 5 years has been suggested.
- Allowance of revenues relating to depreciation and the cost of capital for specific capital intensive projects e.g. T2 beyond a single regulatory determination period in order to reduce regulatory uncertainty and the need for financeability adjustments.

The Commission has previously suggested the use of accelerated depreciation as a means of addressing financeability however DAA believes that this policy would be at odds with the Commission's unitisation approach to depreciation and that it is inappropriate to correct for financial viability with accelerated depreciation rather than tackling the underlying cause of this problem. Accelerated depreciation merely reduces the regulated asset base which results in lower debt capacity in the future and thereby affects financeability today.

In DAA's case, the opening position for this determination already starts from a position where financeability is an issue. Events have proven that the Commission's approach to financeability at the last review would not have enabled DAA to fund deliver the required capital investment programme at Dublin Airport. The Interim Review determination to defer increases in charges to 2010 by which stage DAA will have invested €1.2 billion in 4 years, and the downturn in the economy, means that this determination will be fundamental to DAA's credit rating and sustainable financial viability. The Commission has consistently adopted measures which have variously depressed income and increased risk. These include assuming optimistic and/or inaccurate commercial revenues, taking an asymmetric and approach to upsides/downsides thereby increasing risk; deferring revenue through various regulatory approaches; "utilised" the non-single till; not recognized dividend payouts and consistently and unreasonably reduced elements of capex in the RAB.

## **Need to Retain "A" Rating**

The Commission had previously stated that it seeks to enable the DAA to maintain an investment grade for its debt for the purposes of operating Dublin Airport but believes that the availability of adequate finance to DAA does not depend on the DAA maintaining an "A" rating. In particular the Commission seemed to be satisfied that the volume of investment grade debt with a rating below single A in the international bond (markets) was at the time sufficiently large and that DAA would have adequate access to funds as long as it maintained a rating within investment grade which includes BBB.

DAA is of the view that it is critical that the Commission approaches the question of financial viability on the basis that DAA should be in a position to maintain an A rating for the following reasons:

- Debt markets have now reverted to a more realistic state in terms of capacity and pricing than that which existed in 2005
  - The Commission's previous view on rating was formed at the top of an unprecedented credit boom and this view has now been undermined by the evolution of the debt markets since the Interim Review Determination. The markets during 2008 have been very sporadic due to the unfolding of the banking crisis across the world. The financial turmoil has had a permanent

impact on the pricing of debt and led to structural changes in debt and equity markets. At times availability of finance was very limited even to A rated issuers and access completely prohibited in many cases for issuers rated BBB+. The bond markets are ending the year on a relative high with November experiencing some of the largest weekly issuances in history. However the markets appear to have normalised at a very prudent level in terms of capacity, maturity and pricing and with much more differentiation between credits and sectors. Companies in sectors that are heavily exposed to economic growth (such as property, retail and aviation) now face more scrutiny, less demand, shorter maturities and higher pricing than companies in defensive sectors such as tobacco and utilities. Furthermore in the new world of debt markets there appears to be little or no appetite for highly structured transactions e.g. monoline wrapped project finance or securitisations. Looking ahead to 2009 economies all over the world are likely to experience further stresses which mean that a cyclical upswing in the debt markets is unlikely to happen soon and it is very doubtful that the highs of the 2005-2007 credit boom will ever be reached again.

- Recent debt raising experience by DAA indicates that the A rating was absolutely critical in raising long term source of funding
  - DAA has undertaken over €1.1bn of debt raising in 2007 and 2008 in order to prefund its capital development programme and requires a further over €0.5bn of financing and refinancing over the next 5 years. The single “A” rating has been critical for DAA in its fund raising to date and in particular in accessing the longer term debt markets. The 2008 €600m 10 year bond issue was completed at a cost of mid-swaps + 150bps and reflected the then maximum demand for DAA paper in the Eurobond market.
  - The ability of DAA to raise a €600 million Eurobond in July 2008 was heavily influenced by DAA’s credit rating being taken off “negative outlook” to “stable” and having it’s “A” credit rating re-affirmed. This came about by an improvement in DAA’s finances, principally from the sale of assets in the non-regulated aspects of the business, supported by the perception of the regulatory environment and return on RAB notwithstanding the effective deferral of charges increases until 2010 following the 2009 regulatory determination. The management and timing were also important factors in achieving this funding. The process was well managed and the market was approached at a time when conditions were difficult in an unstable credit environment.
  - The funding market has continued to sharply deteriorate since July such that DAA could not raise these funds at that cost of debt in today’s markets. To illustrate this, Schiphol Airport rated A1/A issued a €700m 5 year Eurobond on 12 November 2008 at a cost of mid-swaps + 300bps and Aeroports De Paris rated AA- issued a €500m 5 year Eurobond on 17 November 2008 at a cost of mid-swaps + 275bps . Both these airports have the advantages of being larger airports and better known names in the financial markets than DAA. Since then very secure, highly rated and large utility credits such as Centrica (A) and Vattenfall (A-) have issued 5 year and 10 year Eurobonds at a cost of mid-swaps + 380bps and 280bps respectively. These transactions demonstrate that it is likely to have proved impossible for DAA to have raised either long term money, or indeed a Eurobond at all given the minimum benchmark transaction is €500m,

and is indicative of market selectivity and the relatively low level of demand or interest.

- General and specific credit concerns increase the importance of a strong rating
  - The requirement to maintain a rating in the “A” range is more critical in light of increased credit concerns of debt investors regarding DAA namely (i) concerns about the Irish economy and the impact on passenger growth (ii) airline financial health - several airlines have gone into bankruptcy e.g XL and Futura (iii) regulatory uncertainty (iv) uncertainty over separation and (v) risks inherent in the capital investment programme.
- Long term funding is the most appropriate funding structure for DAA and in absence of such funding DAA is exposed to significant refinancing risk
  - DAA as a business should be looking to fund primarily in the longer term debt markets given its long term asset base and the nature of its deferred revenue profile. The bond market is the most viable source for long term funding and is ratings driven. In the current debt markets only a company with a rating in the “A” range can ensure continued access to the long term debt markets. A number of large companies have been unable to access the long term bond markets e.g. TNT (A3/BBB+) failed in 2008 in their attempt to raise 10 year financing. The BBB+ market has opened up slightly just recently but only for large established issuers and even so at short maturities and very high margins e.g. British American Tobacco (BBB+) issued 5 year €700m bond at 502bps over mid-swaps while Metro (BBB+) issued 5 year €500m bond at 590bps over mid-swaps.
- Standard and Poor’s state that there is limited headroom in DAA’s key financial metrics (which assume support from the non-regulated business) at the current rating level
  - Standard and Poor’s have indicated in their latest ratings review that there is limited headroom at the A rating level in the key financial metrics (which include FFO: debt of at least at 15% and FFO: interest of at least 3.5x) for underperformance or further debt issuance. The FFO : debt ratio<sup>62</sup> is a key focus of Standard and Poor’s. It should be noted that the achievement of these key financial metrics in the context of CAR’s SFV assessment currently, and in DAA’s view, inappropriately have relied on significant contributions from DAA’s non-regulated businesses. These include the disposal of Birmingham Airport (€304m of proceeds in 2007), sale of Great Southern Hotels (€235m of proceeds in 2006) and ongoing profits from ARI (€29m of profits contributed by ARI in 2007 in comparison with total group profits before exceptionals of €150m in 2007). To the extent these asset sales have been factored into the Commission’s SFV assessment this would be wholly inappropriate; they have no effect on DAA’s return on investment at Dublin Airport, hence do not serve to enable DAA to operate and develop Dublin Airport in a sustainable and financially viable manner and should not facilitate income deferral through the regulatory formula. In any event, these windfalls were one-off, and to the extent they facilitated a lower regulatory price cap they effectively reduced or subsidise the return on investment attributable to the regulated business.

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<sup>62</sup> Defined as Funds from Operations as a percentage of Gross Debt (with a partial allowance for excess cash)

- Comparable critical regulated industries in Ireland benefit from a higher rating
  - Dublin Airport is a critical infrastructure asset to the Irish state. Bord Gais Eireann, a comparable regulated infrastructure asset with a heavy capital investment programme is able to benefit from a rating of A+ which enables optimal access to the debt markets.
- There will be serious financeability risks and implications in current and foreseeable market conditions if DAA were to be downgraded to BBB+.
  - Limited market capacity: we have been advised that at a BBB rating there will not be sufficient demand from the bond markets to launch a benchmark bond issue today given DAA's profile and size. The table below shows the level of bond issues over the course of 2008 – 84% of the corporate Eurobond issues were rated single A or above. The only BBB+ rated corporates that were able to successfully issue were large, 'mega-cap' well known names in defensive sectors, e.g. Deutsche Telekom, British American Tobacco, SABMiller, KPN. Please note that this table has a positive bias as the market has deteriorated significantly through 2008. Traditionally bank markets have usually been open to borrowers rated BBB at shorter maturities (less than 5 years). However given the banking crisis in Europe and the US this capacity is now significantly restricted and is likely to remain so for some time. The 2005 Determination assumed that DAA could access the project finance bond market with the aid of an insurance 'wrap' from a AAA rated monoline insurer – this market is now completely closed following the solvency issues at the monoline insurers and furthermore the securitisation or structured bond markets remain closed following the crisis in the US sub-prime market.

**Table 1. Eurobond issues in 2008 (Source: Bondware)**

Month	Volume (€m)	Number of issues	Number of issues by rating*								
			AA	AA -	A+	A	A -	BBB+	BBB	BBB -	
January	8,993	16	3		1		9	2			
February	6,420	13	2	1	1		2	4	2		
March	5,924	19	3				1	9	3		1
April	16,429	33	1	2	3		8	8	5	3	
May	16,885	25	3	1	3	1	2	6	4	2	2
June	11,589	27	2	5	4		3	5	3	1	1
July	2,640	14	1				3	4	2		
August	5,528	11			3	1	2	2			1
September	7,757	16					6	4	4	1	
October	3,708	10	1		1		2	5			
November	20,896	35	2	2	4	1	11	13	1		
<b>Total</b>		<b>219</b>	<b>18</b>	<b>11</b>	<b>20</b>	<b>3</b>	<b>49</b>	<b>62</b>	<b>24</b>	<b>7</b>	<b>5</b>
<b>Volume (€m)</b>	<b>106,770</b>		<b>12,423</b>	<b>3,350</b>	<b>17,550</b>	<b>1,850</b>	<b>17,470</b>	<b>24,279</b>	<b>13,604</b>	<b>4,189</b>	<b>1,175</b>

Source: Dealogic



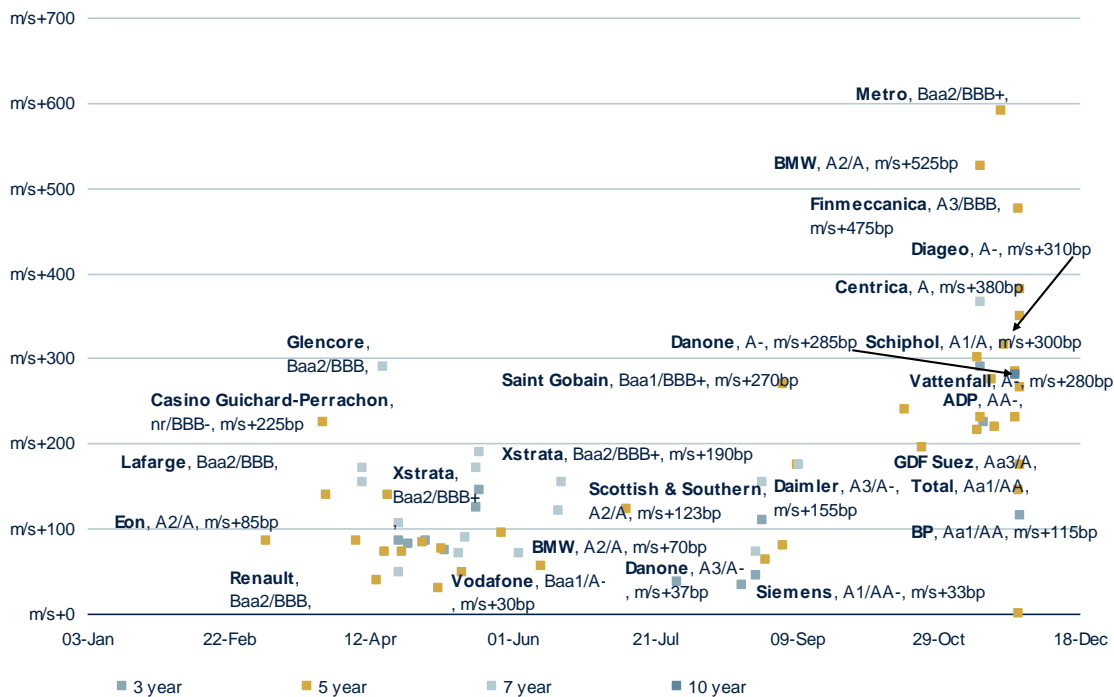
- **Term of debt:** Our advisers estimate that the maximum term available in the bank market for a BBB+ corporate in the current market is 3 years. This is borne out by recent market transactions. Clearly this is not an appropriate horizon over which DAA should be funding itself given the long term nature of the underlying assets.
- **Requirement for onerous financial and operating covenants:** At a BBB+ rating level debt investors would typically require security and/or more onerous covenants, both financial and operational, which would compromise DAA's flexibility. In addition, DAA as a state owned enterprise has to abide by the Department of Finance's Guidelines for State Bodies which prohibits DAA from offering covenants or undertakings of this nature.
- **Cost of debt:** The levels and the difference in spreads between the ratings levels are significantly higher than the assumed cost of debt in the 2005 Determination. The charts below sets out the secondary market yield in the Eurobond market which suggests a spread differential of c.150bps today between the A rated and the BBB+ rated category across the two maturity buckets. Table 2 shows that new issuances in the primary market now have to command a significant premium (c.150bps) to the secondary trading spreads which indicate new issue spreads of 300-350bps for A rated issuers and 450-500bps for BBB+ rated issuers. The spreads shown in Table 3 arguably represent a minimum requirement, given that unsuccessful issuances cannot be observed. We are advised that DAA as a BBB rated borrower would only be able to raise finance in bank markets at a margin of c.300-350bps over the interbank rate (assuming a maximum term of 3 years) which implies a margin of c.400bps over the risk free rate. An A rated borrower would be able to access the bank market at the same maturity bucket for 200bps over the inter-bank rate or c.250bps over the risk free rate.

**Table 2. Eurobond secondary market yields per rating category**



Source: Bloomberg

**Table 3. Spreads on recent Eurobond issuances**



When deciding upon an appropriate credit rating target for DAA, the Commission should be mindful of the recent decisions of both CAA and the UK Competition Commission, to allow Stansted Airport to aim for a credit rating of A3/A, rather than the Baa1/BBB+ target allowed for Gatwick and Heathrow.<sup>63</sup> This decision was explicitly based upon two factors in particular; both of which are relevant to the position of DAA in the forthcoming Determination.

- Firstly, as outlined above, the current credit market conditions seriously limit the ability of BBB+ rated companies to raise new finance.
- Secondly, Stansted was considered to be subject to greater risk than Heathrow and Gatwick, as it experiences greater volatility in traffic levels, similar to CAR’s decision in 2005 that DAA was approximately 20% riskier than BAA. As outlined in Appendix 4, it is reasonable to argue that DAA’s risk profile has in fact increased relative to BAA’s in the last few years.

The parallels between Stansted and Dublin Airports are a strong argument for a similar regulatory approach when determining the efficient credit rating target.

## FFO:Debt Ratio

<sup>63</sup> Appendix L, para.24, ‘Stansted Price Control Review’, Competition Commission, November 2008  
 Para 3.86, ‘Stansted Airport CAA Price Control Proposals’, Dec 2008

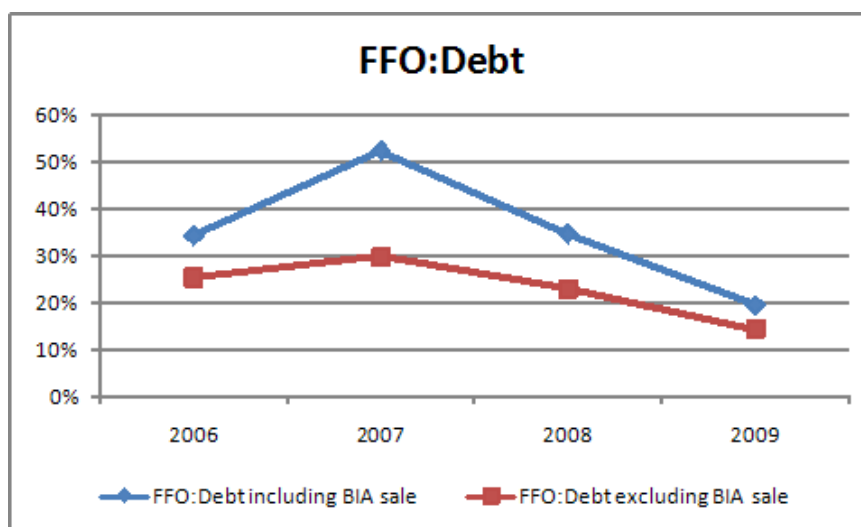
The FFO : Debt ratio is the single most important financial metric that S&P looks at when assessing the financial ratios of DAA.

However, in stating this, it is important to note that the rating is a function of the combination of the commercial **and** business profile and the financial profile (the latter measured inter alia by FFO : Debt) rather than simply reflecting one or other of these individual measures.

The Commission has included at Figure 10 of CP6/2008 a representation of the trend in DAA's FFO:Debt ratios over the period 2003 to 2009 and indicates that in 2007 the ratio of 52% stood well in excess of the 15% level identified by DAA as the minimum ratio necessary to maintain investment grade status. DAA regrets that the Commission has engaged in such a disingenuous approach.

CAR is fully aware that DAA's improved FFO:Debt ratio and the subsequent decision by S&P to take DAA off negative outlook came about following the improvement in DAA's finances that resulted principally from the reduction in group debt levels arising from the sale of DAA's holding in Birmingham Airport, an asset which was never part of the regulated till. Without the sale, the FFO:debt ratio would almost have breached the S&P guideline boundary. This development cannot be viewed as a product of regulatory decisions or the level of airport charges currently pertaining at Dublin Airport.

The graph below illustrates the FFO:Debt ratios that would be pertinent in the absence of the asset sale and illustrate that without it DAA's ratios would currently be below the level required by the rating agencies.



Furthermore, the projections to 2009 cited by the Commission are based on traffic forecasts finalised in late 2007. The Commission is aware that DAA is currently reviewing the traffic forecasts for the remainder of the regulatory period and beyond in conjunction with users in light of the current economic downturn and economic factors impacting the aviation industry worldwide with a view to complying with its request for an updated financial model for the regulated business in March 2009. Appendix 5, attached, is a Regulatory News Service (RNS) release update that DAA issued to the market on 17<sup>th</sup> December 2008 through the Irish Stock Exchange which highlights these issues. Given the current climate the downward trajectory in the graph above is likely to continue unless action is taken by CAR to address financeability concerns in the next review. The potential for both upside and downside risks will be reflected within investors expectations and should be appropriately incorporated within the regulatory framework.

The rating agencies view separation as a likely negative credit event and its funding implications are increased due to the uncertainty of its terms and timing. This uncertainty also has an impact on appetite and cost in the bond and bank markets.

In the current economic climate, DAA's shareholder is likely to require the company to have a dividend policy of distributions to shareholders. In such circumstances, the FFO:debt ratio will reduce further as debt will increase by the amount of dividends paid. In the recent past, dividends have not been paid, in a period in which DAA has built up reserves, against the backdrop of the contemplated separation of Cork and Shannon by means of a dividend in specie. However, DAA's shareholder has signalled its expectation of a dividend payment policy which would imply a resumption of dividend payments from 2009. This needs to be factored into any financial forecasts considered by the Commission and the assessment of whether its decision will enable DAA to manage and develop Dublin Airport in a sustainable and financially viable manner.

## 10. Other Issues

### Summary of DAA's Position on Other Issues:

- DAA does not discriminate against cargo or general aviation at Dublin Airport.
- Sub caps restrict the ability of the airport authority to use the structure of airport charges to maximise economic efficiency, therefore DAA opposes the continuation of the cargo sub cap.
- Should the cargo sub cap be retained there are a number of ambiguities that must be addressed by CAR.
- DAA expects that the DAC initiative will fall outside the regulatory till – it will be separately funded and costs associated with it will be ring-fenced from the regulated entity.
- DAA recommends that the adjustment process for over/under recovery on the price cap should continue to be applied in a symmetrical manner in the interests of a proportionate and equitable regulatory mechanism.

## Cargo

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – whether the airport favours passengers aircraft over those carrying cargo? Should the Commission continue with the cargo sub cap? Is the current contribution of cargo carriers to airport costs appropriate?***

The Commission asks at paragraph 9.6 whether DAA tends to favour passenger airlines operators over those carrying cargo. This is not the case. Indeed as over 40% of total flown cargo at Dublin Airport is carried in the hold of passenger aircraft, in reality a significant proportion of cargo operations are under the auspices of passenger airlines. Given that cargo can greatly assist in making passenger routes profitable and therefore in expanding services, the Commission is not correct in suggesting that cargo does “*not add to passenger numbers at the airport*”<sup>64</sup>. Furthermore, dedicated cargo operations principally operate at off-peak times, acting as a counterbalance to the usage patterns of passenger airlines and thereby facilitating the efficient use of airport infrastructure. Given these facts it would be counter-productive for DAA to discriminate against cargo operations.

As the Commission notes in paragraph 9.5 of CP6/2008, dedicated cargo operators are levied the same charges as passenger airlines for runway and parking fees. In addition, various property rental fees are also charged in respect of the use of a range of facilities which contribute to lowering the level of airport charges through the operation of the single till. In DAA's view cargo's current contribution towards the airport's total allowable costs is appropriate.

In recent years some concern has been raised by cargo operators in relation to the impact of the expansion of passenger facilities on stands that have been used by cargo (as well as other operators) in the South Apron. This kind of issue is a natural consequence of an expanding facility and DAA has had extensive consultations with the cargo community to

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<sup>64</sup> Para 9.5, CP6/2008

establish the best means of facilitating the needs of their operation for the future. In the short term, additional stands in Apron Area 6 will compensate for the loss of stands currently used by cargo and others in the South Apron. In the longer term the intention is to develop further stand capacity in the Westlands area, however, of necessity; this proposal will incorporate additional utility and infrastructure costs associated with the development of a wholly new part of the airfield. The future development of stand and airfield capacity for all users will be addressed in more detail in DAA's forthcoming CIP which will be provided to CAR in February 2009, in accordance with the agreed timetable for the review.

## **The Cargo Sub Cap**

DAA is opposed to the application of any sub caps as they restrict the ability of the airport authority to use the structure of airport charges to maximise economic efficiency. The application of sub caps also conflicts with the Commission's stated intention to afford DAA discretion in structuring its airport charges thereby enabling it to comply with Section 33(i) of the 2001 Act (as amended). The ability to adjust pricing structures in response to market dynamics is an essential requirement for any business, and is also fundamental to the principles of competition and the desire of the Commission as expressed in CP2/2001 to reflect as closely as possible through its function a competitive market environment.

DAA believes that the implementation of a cargo sub cap by the Commission in 2001 was prompted by the fact that at the Commission's public hearings during that period, concerns were expressed that cargo charges would increase substantially, and therefore the Commission should set a sub cap for this particular user group. However, the perception that cargo charges would increase appeared to be based on the misconception that the yield per WLU implied a relative pricing structure between passengers and cargo. In contrast, the structure of DAA's prices is based on a cost-reflective principle; therefore, a sub cap for any specific element is not required. On this basis, DAA supports a discontinuation of the cargo sub cap for the next Determination – the Commission should set only an overall cap on airport charges.

Notwithstanding the points made above, should the cargo sub cap be retained there are a number of ambiguities that must be addressed by CAR. DAA has not raised these heretofore because it did not intend to implement a cargo sub cap. If, however, CAR or other users give strong indications that this approach should change, DAA would appreciate clarification in relation to the following issues:

Section 2 of the Air Navigation and Transport (Amendment) Act, 1998 defines airport charges under three broad categories

- a) *charges levied in respect of the landing, parking, or taking off of aircraft at an aerodrome including charges for air-bridge usage but excluding charges in respect of air navigation and aeronautical communications services levied under section 43 of the Act of 1993,*
- b) *charges levied in respect of the arrival at or departure from an airport by air of passengers, or*
- c) *charges levied in respect of the transportation by air of cargo, to or from an airport*

The Commission's definition of cargo services is services supplied in connection with the transportation by air of cargo to or from Dublin Airport and services supplied in connection with the landing, parking, or taking off of cargo aircraft at Dublin Airport including the supply of airbridges (but excluding air navigation and aeronautical communications services as defined by the Irish Aviation Authority Act, 1998).

However, CAR has never provided a full explanation as to precisely what categories of airport charges are covered under the cargo sub-cap. In particular it should clarify whether in its opinion, the cargo cap is inclusive or exclusive of revenue derived from airport charges in respect of cargo aircraft movements and the provision of parking facilities for cargo aircraft.

The Commission has not presented a definition of how non-cargo air services and cargo air services should be classified for the purpose of levying airport charges and implementing the Commission's determination e.g. treatment of passenger aircraft carrying cargo. It is not clear whether the Commission has assumed an industry standard definition of cargo air services for example ICAO or IATA classifications.

There is a lack of clarification in relation to the term CIC - it is not apparent how this term is to be measured. It has been defined in the 2001 determination as the incremental costs associated with the provision of cargo air services at Dublin Airport, however this does not provide the base to be used in determining the incremental cost nor does it provide the unit measure used in the calculation (per passenger, per tonne etc).

There is also a degree of ambiguity in the nature of the term itself, it is further defined in the determination as the additional costs borne by the airport authority in the provision of cargo air services to be notified by the Commission to the airport authority from time to time. It is extremely unclear as to how this will operate in practice. There is no indication as to how and when the Commission will notify the necessary information to DAA.

## **General Aviation (GA)**

***The question posed by CAR in CP6/2008 that DAA seeks to address in this section is – whether the price cap as structured positively or negatively discriminates against General Aviation users and whether action is required in this area.***

The Commission has also raised questions at paragraphs 9.7 in relation to General Aviation at the airport. General Aviation is a term that is applied to a very wide range of operations from executive jets to flying schools. In total the sector accounts for just 7% of overall movements at Dublin Airport. It is useful for the purposes of this response to refer to two separate elements of GA i.e. Business Aviation which relates to the operation of executive jets and General Aviation which principally relates to the operation of pleasure craft.

As is common amongst all international airports, DAA is actively discouraging the growth in General Aviation services at Dublin Airport as such operations are difficult to accommodate in a congested airfield. In contrast, Business Aviation is accommodated as far as practicable, given its importance to the economic development of the country overall. Business Aviation is allocated parking stands in a defined area and rates charged are lower than those for commercial aircraft as the specification for the stands are also lower. DAA should not be required to offer stands for commercial aircraft to business aviation at business aviation rates.

Given the broad range of interests involved in such a small market segment, DAA believes that the airport authority is best placed to manage the business throughput and believes that intervention on the part of regulatory authorities would be disproportionate, unwarranted unlikely to deliver value and would contravene the Commission's obligation to have due regard to Section 33(i) of the 2001 Act (as amended).

## Dublin Airport City (DAC)

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – whether DAC should be included or excluded from the single till? How should costs incurred in the airport city project be addressed? How should CAR treat landbanks being used which are currently part of RAB? How should risks involved be considered when estimating the cost of capital?***

DAA is proposing to develop Dublin Airport City (DAC), which will be a high density development of approximately 700,000m<sup>2</sup> comprising commercial offices, retail, industrial, hotels and car-parking with the capacity to support upwards of 30,000 jobs. The development will avail of a new high speed Metro connection to the city centre with a 15 minute journey time.

The build-out of the development is planned to begin in 2010, with the final phase due for completion in 2025. It may be split into a number of phases which have differing development timetables. Outline planning work has begun in relation to the first phase.

DAA expects that the DAC initiative will fall outside the regulatory till as it is similar in focus to other joint venture property developments that have previously been adjudged by the Commission to have insufficient nexus to the regulated business. Furthermore, as the development will be in competition with other business parks in the North Dublin area, it would be inappropriate for it to be subject to economic regulation.

DAA welcomes the Commission confirmation at paragraph 9.10 that it does not normally exclude assets from the RAB where it includes commercial revenues and vice versa. In this context it is worth noting that users have requested that the costs of DAC would not be recouped via airport charges. It is currently DAA's intention not to incorporate DAC within DAA's Capital Investment Plan for submission to CAR in March 2009. Ultimately, it is expected that a separate company will be set up to develop the venture, initially funded from DAA retained profits and ultimately through joint venture funding.

The development of the project will primarily take place on lands currently in the ownership of DAA. Due to the concept stage of this project the areas that may be subject to future development have been broadly categorised into zones. It may be that some of the land required for the development of Dublin Airport City is currently included in the RAB. DAA will consult with CAR in advance of the extraction of any land from the asset base to conclude the most appropriate grounds under which that should occur. At present it believes that any extractions should be undertaken on the basis of the value currently remunerated in the RAB. This would allow the RAB to continue to reflect the underlying capital costs associated with the provision of the regulated facilities.

The costs associated with the DAC initiative are captured under a specific cost centre, which is separated from Dublin Airport operational costs. Costs in 2007 have already been separately identified to CAR as part of the information provided by DAA in September 2008 to inform the Issues Paper. It is envisaged that as DAA develops the structures for this project the costs would be captured in a separate legal entity. This would provide additional transparency and help to address the concerns CAR has expressed regarding the potential implications for the regulated business of any additional risk incurred by the company in pursuing the DAC initiative. It is intended that the DAC initiative will be ring fenced for financial and development risk such that this risk does not flow back to DAA assets or operations. No costs for this project were envisaged or contained in forecasts provided by DAA in advance of the 2005 determination. As a result, this project has no impact on the current building blocks or the prevailing price cap for Dublin Airport.



## Price Cap Compliance

***The questions posed by CAR in CP6/2008 that DAA seeks to address in this section are – Should DAA be required to adjust individual charges within the year so as to realise per-passenger revenues at or below the annual price cap every year? Should an asymmetric system towards over and under-recovery of revenues be adopted?***

DAA believes that an adjustment within the price cap formula for potential over/under recovery in respect of the annual price cap is an essential element within the regulatory mechanism. Given the unavoidable uncertainty and complexities associated with aeronautical charging system, there is an almost certain outcome of a measure of under or over recovery. This is due in particular to the following

- Airport charges are typically set in October-December for implementation in the following April to coincide with airline schedules. Hence at the time of price setting, there is incomplete information on the outcome for the year and this adds to the inherent difficulties of estimating the future price yield, itself based on a basket of passenger-based and other charges. This is especially the case in the context of any proposed structural changes to the charges themselves. There is, as a result, a high degree of uncertainty about the exact outcome in terms of revenue yield per passenger at the time of setting charges.
- As the timing of the setting of airport charges has traditionally been synchronised with airline schedules it makes sense to allow flexibility rather than redefining the pricing period to bring in new charges mid season to achieve greater convergence between annual cap and achieved yield.

This uncertainty associated with price setting was acknowledged by the Commission in CP11/2006

*“Regulated charges are set in advance of the regulator knowing the actual volume and composition of the business. It is therefore possible that some over-under shooting of the price cap will occur. The price cap formula which anticipates annual adjustments to the price cap is structured to take account of this possibility.”*

DAA is of the view that given the unavoidable complexity involved in price setting and the uncertainties in the current aviation market it is necessary to retain the existing correction factor in the price cap formula to accommodate potential over/under recovery against the annual price cap.

If the Commission were to proceed with its suggested requirement for individual charges to adjust to achieve compliance within the year this would result in an unwarranted regulatory intervention into the pricing policy of the regulated company, it would place a substantial additional administrative burden on DAA and it would create undesirable price instability in an already turbulent aviation market. DAA is concerned that price cap compliance processes should be practical, simple and efficient and the introduction of this proposed policy change would not be in keeping with the Commission statutory obligation to impose the minimum restrictions on the DAA consistent with the functions of the Commission and is not objectively justified.

In relation to the adjustment process for over/under recovery, this should continue to be applied in a symmetrical manner across periods, to avoid tactical pricing, and in the interests

of a proportionate and equitable regulatory mechanism. DAA believes that the current built in correction mechanism has the advantage of allowing a level of flexibility around pricing and timing whilst conveying no net benefit or loss in overall charges levied or collected

## Appendices

1. DAA Service Quality Performance
2. Confidential-Direct Benchmarking Interactions with ATRS
3. Report on Pier D
4. Approach to Cost of Capital
5. DAA Regulatory News Service Update, 17<sup>th</sup> December 2008

## Appendix 1 - DAA Quality of Service Performance

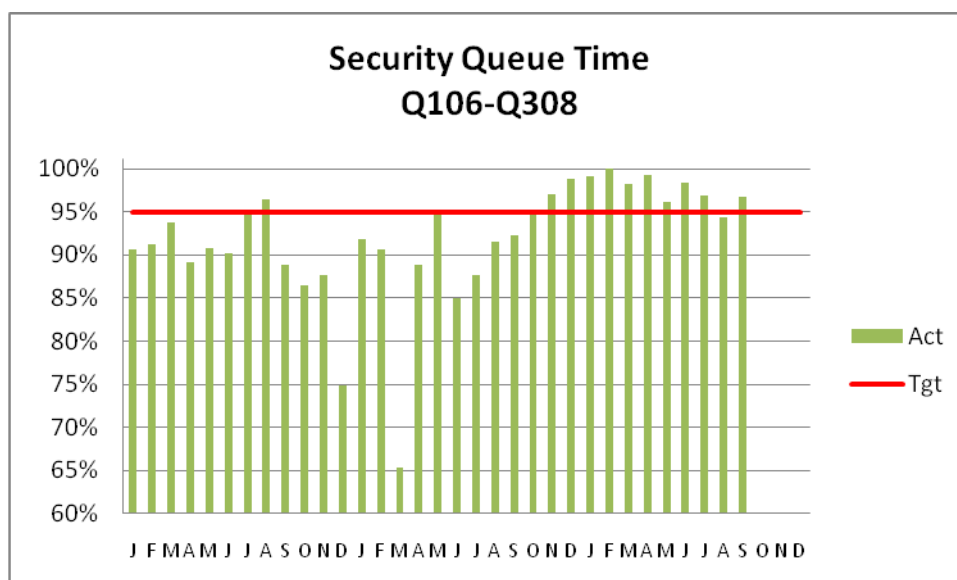
DAA has a clear commitment to service quality. In this document we present clear evidence that DAA's performance on service quality has improved over time and in the case of the ASQ metrics, compares favourably with the levels achieved by comparable European airports, many of which have higher charges and have invested more heavily in infrastructure and facilities than has been the case at Dublin. The empirical evidence provided above does not support the Commission's contention that a link between service quality and the price cap is required and the proposal should therefore be withdrawn.

### Service Level Agreement (SLA) Measures

As noted in CAR's Issues Paper the SLAs for which Dublin Airport has responsibility are as follows:

Service Quality	Proposed Metric	Current Standards
Security passenger search	Queuing time	No long than 7 minutes 95% of the time
Baggage Handling System	Overall system available during hours of operation	Available 99% of the time
Trolley Availability	Trolleys to be available at identified key areas within/around the terminal	

The following graphs provide details of how DAA has performed in relation to each of these measures for the period Q106-Q308.



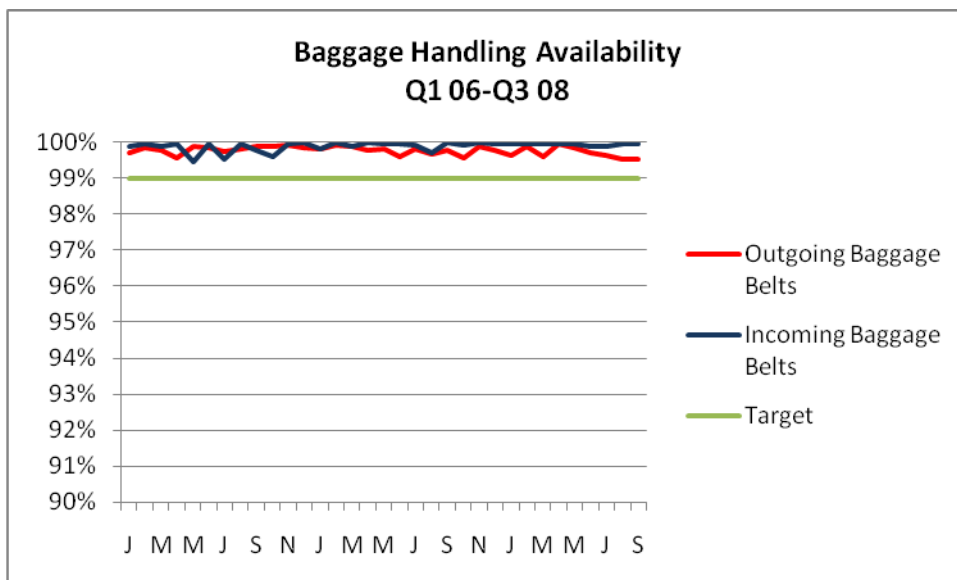
The graph illustrates that the standard set in the SLA has been met consistently during 2008, a stronger performance than 2007. During March 2007, a drop in performance of security screening occurred. This was linked to the introduction of the EU regulations with regard to the carriage of liquids on commercial aircraft. This development created a high level of confusion amongst the travelling public and had a negative impact on the processing time at

Passenger Screening. Such an impact is always likely to occur in the event of a major change in regulation or interpretation of regulation.

DAA had to assess the impact this new regulation would have on our required resources and deploy staff accordingly. Action taken by DAA to address the situation included:

- Additional staff recruited and trained (March 2007)
- New roster arrangements introduced (April 2007)
- Two additional x-ray machines added
- Extended queuing space provided post a review of queue management
- Additional CSAs allocated to pre-security search area to assist passengers

These actions demonstrate that DAA has a continuous focus on areas of key importance to airport users. However it is important to note that flexibility to adjust to changes in the environment to avoid downturns in performance must be provided for in DAA's opex budget at regulatory reviews if it is to have the resources to ensure that quality of service is maintained.



The baggage system is an important component of the airport operation. The outgoing system is extremely complex as it incorporates the hold baggage screening mechanism and must allow for bags to be sent for examination by operators as necessary. The outbound system also depends to a greater extent on the appropriate usage of the system by other performers e.g. airlines, ground handlers, screening company etc.

Due to the nature of the outbound system, belts continuously stop and start during the operation. DAA spent two years with the baggage controls system supplier and various versions of a software package which sorted the MIS data, in an attempt to automate collection of downtime data for the outbound system. This was not successful in that there were too many possible causes for several of the categories of stoppage. As far as DAA is aware, other airports, with similar systems to that in operation at Dublin Airport, experience similar difficulties in trying to estimate and monitor downtime.

Despite the difficulties, DAA monitors baggage handling performance as evidenced by the graph above, with a view to ensuring that the process is as efficient as possible. The information on the various aspects of the baggage system performance is currently manually

collected and collated each month by cross referencing maintenance reports, Baggage Control Manager reports and Terminal Duty Manager reports.

An important point to note is that if there is a trend towards Self Service Baggage Check-in, responsibility for proper loading of bags, tying up straps, addressing soft bags etc. will be shifted to the passenger from the handling agent. We would expect an increase in the stoppages of the outgoing baggage systems if this method of baggage check-in becomes more widely practiced. This could introduce a variable outside the DAA's control, which the handling agent will also say is not their issue.

DAA believes that the initial focus of any service quality analysis for baggage should be the incoming element of the system as it is reasonably straight forward to measure given that it is essentially a point to point process. DAA would be happy to subsequently work with users to further improve the robustness of the data related to the outgoing system. Additional costs to the airport authority associated with such work must be factored into the regulatory decision. Any underperformance due to contributory negligence or misuse of the system by a handler or airline must be excluded for the purposes of assessing DAA's performance on this measure. Indeed, proposals to include this metric in a service quality term (particularly one involving financial penalties) must reflect the fact that the actions of handling agents and their contracting parties (all of which are licensed by CAR under S.I. 505) have a significant impact on the availability of the baggage system. Any system of financial penalties or incentives contemplated by the Commission should therefore be applied to all relevant parties, not DAA in isolation.



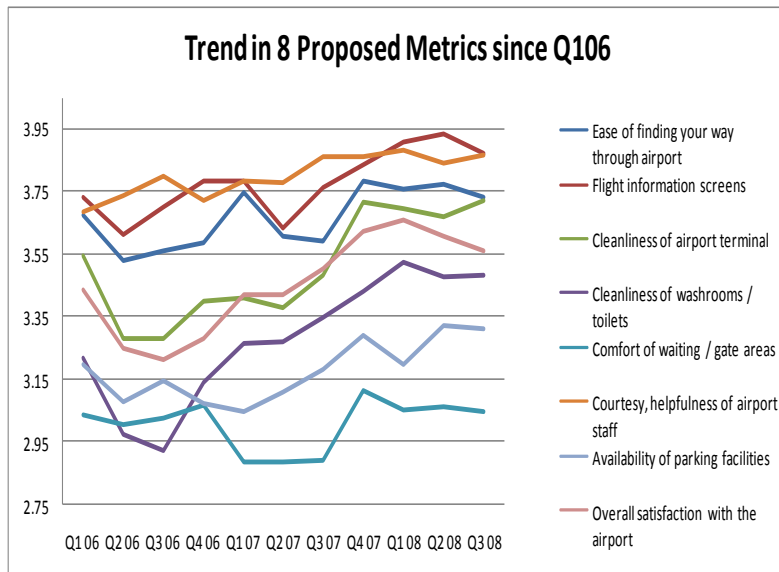
DAA's performance on trolley availability as illustrated above has been exceptionally good with performance consistently above 98%. There is no specific percentage target measure in the SLA. We feel that 95% is a reasonable proposal for this.

### ASQ Measures

DAA has also performed well against the eight ASQ metrics that CAR proposed to use for the purposes of assessing quality of service. As is evident from the graph below performance against all metrics has improved since the beginning of the current price control period in 2006<sup>1</sup>. The sustained improvement across all metrics has been delivered without

<sup>1</sup> This result is in stark contrast to the picture presented in CP6/2008 where CAR compared DAA's performance from two years ago with that of five years ago i.e. 2006 vs 2003. It does not make sense to use information from the first price control period as the base for a decision in the third when more up to date information is available.

the need for an explicit link between service quality and the price cap, therefore DAA does not see the need for the implementation of such a complex mechanism.



Metric	% Improvement in DAA Performance Q106-Q308
Ease of finding your way through the airport	1.5%
Flight information screens	3.6%
Cleanliness of airport terminal	4.8%
Cleanliness of washrooms / toilets	7.5%
Comfort of waiting / gate areas	0.5%
Courtesy, helpfulness of airport staff	4.7%
Availability of parking facilities	3.5%
Overall satisfaction with the airport	3.5%

The rating achieved on many of the metrics depends on the interaction and performance of a range of industry partners. For example,

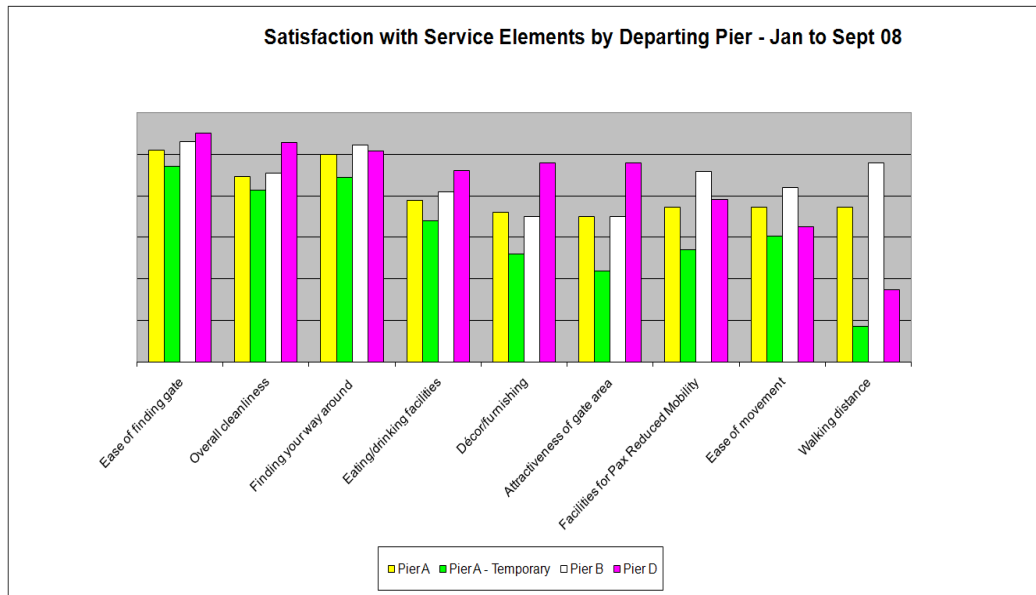
- Customers are asked to rate their overall satisfaction with the airport. This will be impacted by a range of product and service encounters, from ground access to air traffic control and to the quality of service offered by any one of hundreds of staff members across a range of companies operating at the airport. While it is an important and valuable guiding measure of performance, the role of other stakeholders must be recognised.
- When a customer is asked to rate satisfaction with FIDs, a key component is the timeliness and relevance of the information provided. DAA provide the infrastructure, however it is the responsibility of the airline / handling agent to update the information provided.

The metric “ease of finding your way through the airport” records low levels of Improvement over time which reflects the congestion being experienced at the airport as a result of the delay in approvals for DAA to provide the necessary facilities in a timely manner.

It is notable that the metric for which the lowest scores and least improvement is recorded is “comfort of waiting/gate areas”. DAA believes that the operating model pursued by certain

carriers which results in passengers queuing for significant periods in advance of the flight departure has a significant impact on passenger perception of the comfort of waiting and gate areas. This would affect Dublin Airport disproportionately given the high proportion of such traffic at the airport.

The “comfort of waiting/gate areas” metric is also demonstrably affected by the negative passenger perception of the Temporary Boarding Gate area through which circa 3.6 million passengers departed in 2007. As can be seen below, those passengers who were required to use the TBG, were universally less satisfied with Dublin Airport facilities and services than those passengers using other piers.



However, though passengers clearly have a negative perception of the TBG, airline users have unanimously requested that DAA put a case to the planning authorities to retain planning permission for it until Pier E is operational. Airline users did not want DAA to invest in a new Pier D extension that would provide increased capacity and allow for the removal of the TBG on the basis that it would result in an increased charge of circa €0.13 per passenger. DAA has previously provided the Commission with research evidence that passengers would be prepared to pay more for better facilities. This is a clear example of divergence between user preferences and illustrates the complexities and trade offs that must be considered by CAR if it proceeds with formal inclusion of service quality in the price cap.

In CP6/2008, the Commission has compared DAA’s scores on the various metrics against an “industry average” performance. In paragraph 3.10 it indicates that it has developed its average from the results of the 32 airports in the ACI survey on the basis that it also has airport charges data for these airports. DAA notes that the Commission has specified that this does not imply a final decision about which if any of these airports are relevant comparators. In addition, while average data has been presented, the Commission has not indicated whether the average is an appropriate target for DAA and why.

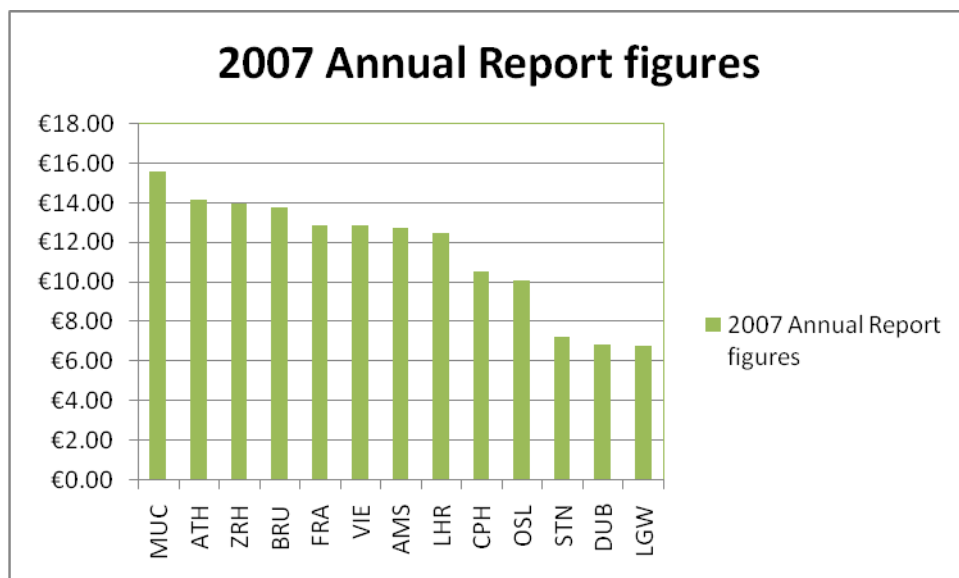
In selecting a comparator sample, the Commission needs to be cognisant of airport size, location, passenger mix etc. DAA does not believe that the “industry average” group presented by CAR in CP6/2008 is an appropriate benchmark for DAA performance on service quality. The data set includes airports of very different sizes from diverse geographic regions. DAA is of the view that the most appropriate group for it to be compared with is the



ASQ survey set of European Airports with passenger traffic of 15-25 million passengers per annum. In 2008 this group comprised 13 airports as follows: Athens, Brussels, Copenhagen, Dublin, London Stansted, Manchester, Milan Malpensa, Moscow Domodevo, Oslo, Palma Majorca, Stockholm, Vienna and Zurich. While cognisant of the dangers and limitations of benchmarking different businesses, at least these airports are of a similar size to DAA and are in the same economic and geographical region. The table below provides details of DAA's Q308 performance against these airports:

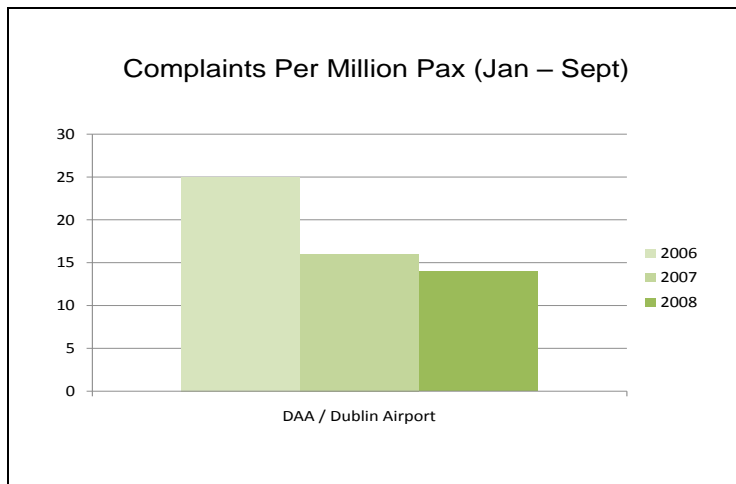
CAR Proposed Metrics	DAA Performance Q3/08	Average European Airports 15-25mppa Performance Q3/08
Ease of finding your way through airport	3.73	3.88
Flight information screens	3.87	3.92
Cleanliness of airport terminal	3.72	3.86
Cleanliness of washrooms / toilets	3.48	3.50
Comfort of waiting / gate areas	3.05	3.38
Courtesy, helpfulness of airport staff	3.86	3.87
Availability of parking facilities	3.31	3.52
Overall satisfaction with the airport	3.56	3.80

As noted in previous submissions, it is important that service quality be correlated against the airport's position in the investment cycle, as increased congestion and older infrastructure will result in a negative perception of the facility. Similarly, as high service quality is not without cost, the level of airport charges must also be a key consideration in any comparison (or subsequent target setting). In this context Dublin's Airport performance in being within 5% of the average of these airports across the bulk of the proposed service quality measures is extremely strong given the stage it is at in its investment cycle and the fact that it has lower airport charges than almost all of them (see below).



### Other Measures

Finally, as noted in DAA's response to CP3/2008, a number of other measures of passenger satisfaction have improved - complaints in 2007 were almost half those in 2006 (see below)



Source: DAA Customer Service & Quality Department

There has also been continuous improvement in Q Mark<sup>2</sup> results, with DAA receiving a score of 78% in 2008, up from 70% in 2006.

It is clear from the foregoing that DAA is focussed on passenger service. Maintaining this focus does not require a formal link between service quality and the price cap. The empirical evidence provided above does not support the Commission's contention that a link between service quality and the price cap is required and the proposal should therefore be withdrawn.

<sup>2</sup> The Q Mark scores participating organisations according to the following criteria:

1. Leadership & Commitment 200 points
2. Employee Engagement 150 points
3. Excellent Business Systems & Processes 200 points
4. Customer Experience 150 points
5. Results 300 points

To gain a level of recognition, an organisation must obtain an overall score of at least 550 points, or 55% of the 1,000 total points available.

## **Appendix 3 - Pier D**

### **Background to the Pier D project**

The requirement for the construction of a new Pier D first became apparent in the mid 1990s. This became particularly acute from circa 2002 when the level of demand from the airlines for pier served contact stands started to exceed supply, particularly at peak times. Furthermore, the existing pier facilities in that part of the airport – namely Pier A and a modified OCTB – were already serving 8 million passengers, were highly congested, had inadequate toilet, circulation and queuing facilities and did not provide for segregation of passengers.

The original Pier D design was completed and the project tendered in late 2003, with a tender recommendation made in April 2004. However, the project was placed on hold in June 2004. It was not until May 2005 that DAA was instructed, by way of the Government's Aviation Action Plan, to proceed with the construction of the Pier, and to have it operational by the end of 2007. A challenging construction programme was developed in order to meet this deadline.

Construction of Pier D finally commenced in May 2006 and the Pier was commissioned and opened for operations in October 2007. Pier D has been very well received by passengers since its opening, and in customer surveys is consistently rated highly in terms of passenger experience.

### **Final Cost of Pier D**

The 2006 cost estimate for the Pier D project showed a significant increase (to €124.1 million) from that submitted with the 2005 CIP. This cost increase was principally due to the requirement for an elevated walkway to address planning and heritage concerns, and also included project contingency and an increase in fees and site supervision costs. A full reconciliation of these changes to the base cost was provided to the Commission and its consultants as part of the 2006 Interim Review.

The actual final outturn cost of Pier D is €132.6 million, which represents a further €8.5 million increase over and above that estimated by DAA in 2006. An outline reconciliation of the project costs and associated commentary is set out below :

	€m
Cost estimate contained in 2006 CIP	124.1
Less contingency	- 11.0
<b>Net 2006 cost estimate</b>	<b>113.1</b>

1. Increase in contact stands from 12 to 14	2.8
2. Amendments to walkway at Pier A to accommodate GNIB requirements	1.8
3. Improved building aesthetics	1.1
4. Life cycle improvements	1.1
5. Retention of TBG	0.5
6. Airport Operations driven changes	3.8
7. Changes to tenant requirements	0.3
8. Value added scope increases	2.5
9. Design Development	5.6

<b>Final Pier D Out-turn cost</b>	<b>132.6</b>
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**1. Increase in number of contact stands from 12 to 14:** Changes to airport regulations meant that a reduction in the mandatory clearance between the wing tips of adjacent airplanes parked on stands is now permitted. This change presented DAA with an opportunity to increase the number of planes that could be parked around the Pier from 12 to 14 (increase from 6 to 7 on each side), without any increase to the Pier dimensions. The contract was tendered on the basis of the original 12 stand design, and this change was made post-award. Relatively modest extra costs were incurred in the construction of the apron and in M&E services due to the increase in the number of parking zones and associated upgrades to the apron slope tolerances.

**2. Amendments to walkway at Pier A:** The original design concept for Pier D provided for dedicated immigration facilities at the end of the arrivals concourse. In the period between the original tendering of Pier D and the final contract award, increased passenger throughput in Pier A, combined with a step up in immigration inspection procedures, compounded by the fact that Pier A does not provide for segregation of CTA and European passengers led to the urgent requirement to increase immigration processing capacity for Pier A.

The solution proposed was to convert the ground floor of the Pier A link into a high capacity integrated immigration processing facility for both Pier A and future Pier D passengers, thereby realizing greater immigration efficiencies. The Pier D design was therefore modified, specifically in the area of the walkway bridge “at the plug”, thus providing a seamless link into the newly constructed immigration facility for arriving passengers from Piers A and D. These changes resulted in extra construction costs.

**3. Improved building aesthetics:** A number of changes to the finishes of the building were incorporated into the final design, including additional metal panel finishes to internal walls, supplying tiling to the washrooms, additional stainless steel cladding to columns (harder wearing) and upgrading of sanitary ware fittings.

**4. Life Cycle Improvements:** Some upgrades were made to the building services in order to reduce the future maintenance costs, including additional insulation to the roof, upgrade of the gas installation to reduce summer heating bills, and variations to the travelators to incorporate self-lubricating chains.

5. **Retention of TBG Facility:** The original scheme planned for the removal of the TBG in time for the completion of the apron works on the south side of the new Pier. However, due to airline requirements for further contact stands (over and above the 14 permanent contact stands being provided by Pier D), construction schedules were modified to facilitate the retention of the TBG, at least until completion of Pier E. This modification resulted in a net increase of a further 5 contact stands. Extra costs were incurred by the contractor due to the requirement to work around the TBG in order to complete the revised apron works.
6. **Airport Operations driven changes:** As passenger numbers continued to grow rapidly during the construction period, pressure from the airlines, and consequently from airport operations for availability of apron area around the Pier D site increased. In order to facilitate this demand, the number of remote stands that could be taken out of service at any one time was restricted to two (stands) from the three or four originally assumed at tender stage. This meant that the apron works were slower and consequently more expensive to complete.
7. **Changes to tenant requirements:** Some of the detailed requirements of the tenants that occupied Pier D retail units were subject to change prior to fit-out.
8. **Value added scope increases:** There were several additions or changes to the scope of the project which resulted in enhanced or additional assets, with an associated increase in costs. Examples are as follows :
  - Provision of flat panel interactive display system (FIDS) for passenger flight information, instead of CRT technology. This upgrade was necessary in order for the new Pier D system to be compatible with the overall airport system.
  - Provision of upgraded non-slip floor finishes in certain areas of the building
  - Modifications and design changes to gate desks
  - Provision of new temporary corridors to TBG in order to keep this facility in service as required by the airlines.

There was also a large scope increase in road realignment, car parking, pavements, lighting and landscaping in area underneath elevated walkway and in front of OCTB to comply with the requirements of the Heritage and planning authorities.
9. **Design Development:** As part of its various submissions to CAR during the Interim Review process, DAA explained the need to include an adequate contingency sum to cover design development. This was deemed necessary for a project that at the time was the largest undertaken by the company (in value terms), involved both airside and landside construction sites and the provision of major underground services. The use of a design development budget is normal in most construction projects, particularly those with a fast-track programme whereby final design of many items is still being carried out while the early phases of actual construction have commenced.

Due to the scale and complexity of the Pier D project, there were in fact hundreds of design development items, mostly small in value. Examples of some of the larger items include :

- Alterations to specification for handrails, balustrade glazing thickness and overall heights for structural reasons.
- Changes to waterproof paint and reinforcement to walkway concrete.
- Changes to deflection heads on internal partitions to allow for structural deflections.
- Future proofing layout of services in apron to facilitate addition of fuel hydrant.
- Amendments to the precast staircases.
- Alterations to roof steelwork to facilitate changes to mechanical services.
- Changes to floor screeding material to allow faster curing (setting) times and thereby facilitate faster project progress.

### 3. Cost Benchmarking

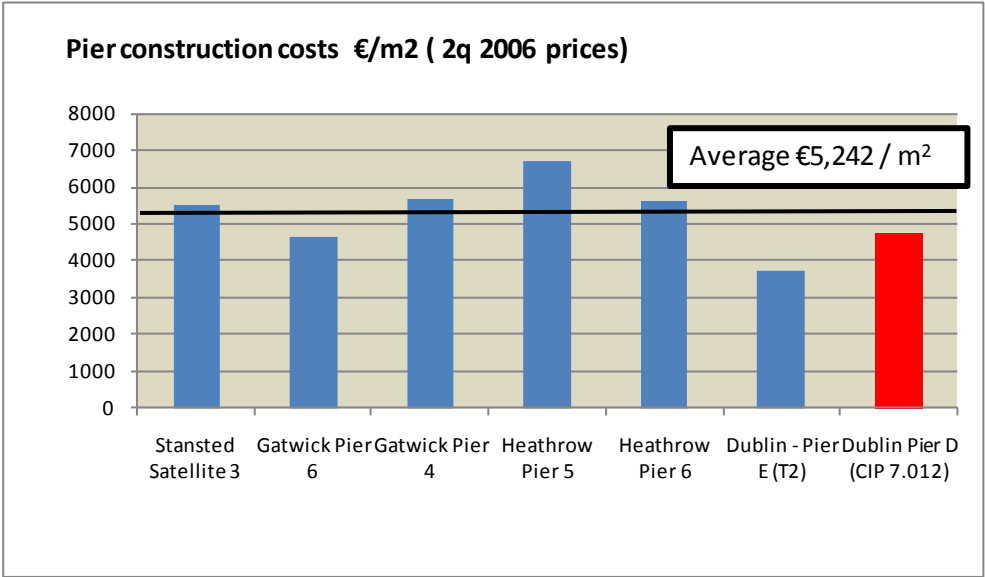
In order to carry out a meaningful cost benchmarking exercise, it is first necessary to split the entire cost of the project into its main elements. This analysis is set out in the table below:

Element	Cost €m
<b>Pier construction</b>	70.1
<b>Link bridge / walkway construction</b>	35.3
<b>Adjustments to existing buildings</b>	5.7
<b>Construction and regrading of aprons</b>	5.0
<b>Design Fees and Project management</b>	13.9
<b>Miscellaneous</b>	0.3
<b>Fingal Co Co levies</b>	2.2
<b>Total</b>	132.6

The key elements that can be benchmarked against industry standard costs are the Pier construction and the design fees and project management. Due to the unique nature and construction environment of the walkway it has not been possible to benchmark this element of the cost.

The average cost of airport Pier construction when benchmarked against comparable piers in other airports is €5,242 per square metre. Pier D construction costs were €4,738, which is 10% lower than the average.

Note that Pier E at Dublin Airport (under construction) is estimated to cost less than Pier D because it is being built in a landside rather than airside environment, it is a three storey design, and also because there are economies of scale to be gained from the overall T2 project.

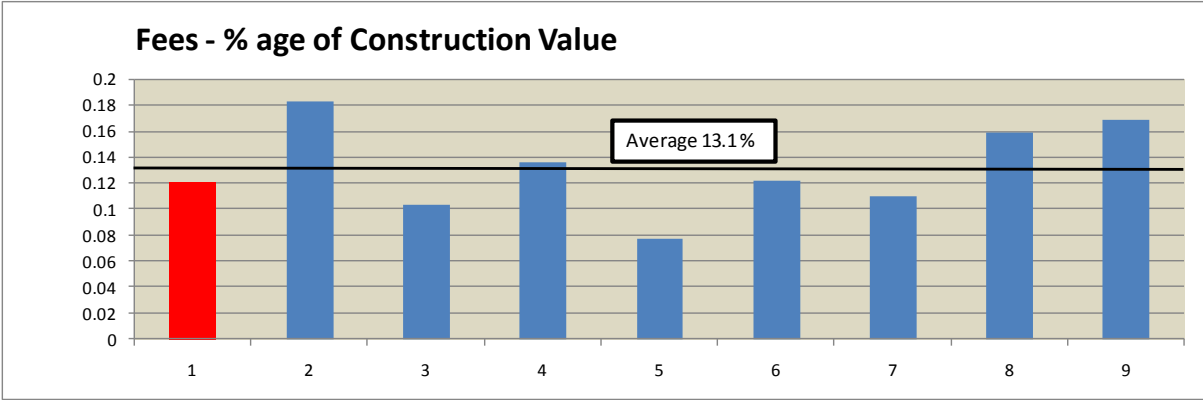


Facility	€/m <sup>2</sup> - 2q 2006
Stansted Satellite 3	5,527
Gatwick Pier 6	4,674
Gatwick Pier 4	5,669
Heathrow Pier 5	6,718
Heathrow Pier 6	5,623
Dublin - Pier E (T2)	3,743
Dublin Pier D (CIP 7.012)	4,738

The Design and Project management fees have also been benchmarked against a range of comparable projects, as set out below. The average spend as a percentage of construction value is 13.1%. Again, Pier D compares favourably at 12.1% of construction value.

Reference	1	2	3	4	5	6	7	8	9
CLIENT	Pier D	MAFF	Oxford	STAL	PACE	KCL	UK Gov.	Imperial College	Treasury Holdings
	Pier	Laboratories	Research Laboratories	Airport Terminal	Offices	Research Laboratory	Various	Various	Commercial office 30,000sqm
Value (Construction only.)	€115m	€66m	€40.8m	€48.4m	€40m	€23.9m	Framework	Framework	€93m
Total Fees	12.1%	18.3%	10.4%	13.6%	7.8%	12.1%	11%	15.92%	16.8%





The conclusion of the benchmarking analysis is that the final out-turn cost for the Pier D project of €132.6 million represents good value for money for the users.

## Appendix 4 Approach to Cost of Capital

The CAR's issues paper considers a range of factors relevant to DAA's cost of capital, including:

- Whether to retain a pre-tax WACC;
- Whether to retain the CAPM framework for the estimation of the cost of equity;
- The appropriate methodologies for estimating the CAPM parameters (risk free rate, equity risk premium and beta);
- The appropriate methodology for estimating DAA's cost of debt;
- The appropriate methodology for calculating the gearing ratio to use in the WACC calculations; and
- Some other related issues.

Each of these points is addressed below.

### 1. Pre-tax WACC

The CAR states:

“The Commission has in the past used a pre-tax cost of capital as the basis for calculating the return on the RAB ... some regulators in the UK and Ireland have used other measures of the WACC, such as a post-tax real rate, a pre-tax nominal rate or a vanilla WACC. Parties are invited to provide thoughts on whether one of these alternative approaches would represent a material improvement on using the pre-tax real cost of capital.”<sup>1</sup>

The WACC should continue to be set on a real pre-tax basis with full allowance for the statutory tax rate, because:

- For any post-tax WACC (or a pre-tax WACC based on an effective tax rate) a forecast of tax liabilities would be required, the accuracy of which may be limited by the complex financial arrangements of the DAA.<sup>2</sup>
- For any post-tax WACC (or a pre-tax WACC based on an effective tax rate) an explicit (or implicit) tax allowance would be required. But, by explicitly making a tax allowance based on DAA's expected tax liabilities the CAR would reduce the DAA's incentive to minimise tax;
- A pre-tax WACC approach is simple to implement and reduces the costs of regulation;

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<sup>1</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p43

<sup>2</sup> For instance, recently the UK Competition Commission stated “any effective tax rate calculation ... would mean modelling tax in some detail, and although, in principle, this should not be an issue given that projections are made for the other building blocks of the price determination ... in practice there is significant uncertainty around BAA's future tax position. ... [G]iven the practical difficulties in forecasting tax, our recommendation to the CAA is that it continues using the statutory corporation tax rate in its calculation of Q5 price caps”: see UK Competition Commission (2007) “BAA Ltd: A report on the economic regulation of the London Airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)”, Appendix F, paragraphs F134-F135.

- A pre-tax WACC approach ensures DAA would benefit from the impact of investment allowances in the same way as other companies;
- A nominal WACC would leave DAA exposed to inflation risk (which is costly to minimise) and would require the CAR to rely on (potentially inaccurate) inflation forecasts, thereby introducing an additional layer of uncertainty into the regulatory settlement. It is also easier to roll-forward the regulatory asset base for actual CPI than to incorporate inflation expectations into a nominal WACC.

The CAR itself recognised the advantages of a pre-tax WACC when it shifted from a post-tax to pre-tax basis following the first determination.

## **2. CAPM**

The CAR states:

“parties are invited to comment on the merits or otherwise of alternatives to CAPM, such as arbitrage pricing theory or multi-factor models, for the purposes of estimating a cost of equity to use for regulatory purposes.”<sup>3</sup>

In previous determinations the CAR has used the CAPM.

We agree that CAPM is the preferred methodology for the estimation of the cost of equity, since the CAPM offers the basic conceptual framework for understanding the determinants of returns on an asset. It is also parsimonious in its data requirements, involving few explanatory variables and parameters, each with a clear economic interpretation. Further, continuing to adopt the CAPM would ensure consistency with CAR’s past approaches.

### **2.1. Alternatives to the CAPM**

We note that there are alternatives, such as Arbitrage Pricing Model (APM) and Fama-French (FF). Some UK regulators have also adopted a “total returns” type methodology, loosely based on the CAPM. We examine each of these alternatives in turn below.

#### **2.1.1. Arbitrage Pricing Model**

The APM is essentially an augmented multi-factor CAPM. Many of the key insights of the CAPM are preserved in the APM. However, while the CAPM focuses on systematic risk as measured by correlation with the stock market (beta), the APM also takes into account other plausible systematic risk elements that affect all stocks, including changes in economic activity, changes in inflationary expenditure and changes in interest rates. However, while the APM has considerable theoretical appeal the APM is not without its drawbacks:

1. Regulators would find it difficult to implement APM and communicate its results to other participants in the regulatory debate, given its great complexity.
2. APM allows for greater regulatory discretion on model specification and input data selection than the CAPM, which would not be in the interest of regulatory transparency.

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<sup>3</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p45.

3. There are insufficient empirical data and studies to judge the stability of APM – or a particular specification of APM – over time and across different regulatory contexts.

Overall, APM is not unambiguously 'better' than CAPM and has considerable computational and explanatory shortcomings, which mean that – at least for the time being – the APM should not supplant the CAPM as CAR's preferred methodology.

### 2.1.2. Fama-French

Fama and French (hereafter FF) (1992, 1996) set up a three factor model that is a specific version of the APT, with the three factors determined *a priori*. FF, among others, identified a 'value' and a 'small-firm' premium in stock returns that are unexplained by the CAPM.<sup>4</sup> However, like APM, FF is also subject to criticisms that mean it is not clearly a 'better' approach than CAPM and – at least for the time being – should also not supplant the CAPM as the CAR's preferred methodology:

1. There is, as yet, no compelling analysis of the relationship between the chosen risk factors and economic fundamentals.
2. Since the additional factors in the FF model are also difficult to interpret in economic terms, non-experts cannot easily scrutinise and challenge FF results.
3. The implementation of the FF three-factor model provides greater scope for regulatory discretion than the CAPM.
4. The model's stability over time is difficult to assess.

### 2.1.3. Total Returns

Another possibility - adopted by some UK regulators - is a total returns methodology, whereby the beta parameter is essentially assumed to be one and the cost of equity set equal to the estimated total market return (which should approximately equal the sum of the RFR and ERP).<sup>5</sup> As such, the methodology – while clearly based on the CAPM – is fundamentally different. We do not advocate the CAR adopt this methodology because it would effectively assume that the systematic risk of DAA equals the systematic risk of an "average" company (which would imply an equity beta of one would be appropriate) whereas DAA's systematic risk is patently above average. We further note that there were a series of methodological issues in the Smithers & Co (2003, 2004 and 2006)<sup>6</sup> papers which originally proposed this approach.

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<sup>4</sup> Small-cap stocks have small market values (price times shares outstanding); value stocks have market values that are small relative to the value of assets on the company's balance sheet (i.e. high Book/Market (B/M) ratio). Stocks with higher B/M ratios (value stocks) and stocks with smaller market caps turn out to have higher average returns than stocks with low B/M ratios (growth stocks) and larger market caps

<sup>5</sup> See Ofgem (2004) "Electricity Distribution Price Control Review: Final Proposals"; Ofgem (2006) "Transmission Price Control Review: Final Proposals", December 4; Ofgem (2007) "Gas Distribution Price Control Review: Final Proposals", December 3; Ofgem (2008) "Electricity Distribution Price Control Review: Initial Consultation Document", March 28. See also UK Competition Commission (2008) "Stansted Airport Ltd: Q5 Price Control Review", October 23 where the CC treated the ERP as the difference between total market returns and the RFR.

<sup>6</sup> Wright, Mason, Miles (2003), "A Study into Certain Aspects of the Cost of Capital for Regulated Utilities in the UK", Smithers and Co Ltd; Wright and Smithers & Co (2004) "Beta Estimates for: Scottish Power, Scottish & Southern Energy, Viridian Group, Centrica, International Power, National Grid Transco, United

## 2.2. Asymmetric Risks and the CAPM

A basic tenet of the CAPM is that expected returns are symmetrically distributed. In practice, however, expected returns might be asymmetrically distributed since:<sup>7</sup>

- investments may be disallowed from inclusion in the regulatory asset base (RAB); and
- regulatory claw-back of abnormal returns may occur (e.g. a “windfall tax”).

Under the first scenario if the expected rate of return on an asset is set equal to the cost of capital under the assumption of symmetrical returns, but there is in fact a non-zero risk that a proportion of an asset’s cost will be disallowed from inclusion in the rate base, then the expected return from the investment will be less than the cost of capital. In this circumstance, investors will either demand a premium (above the ‘systematic’ rate) for investing in this asset, or withdraw investment funds. The second scenario focuses on the higher probability that a regulator will use discretionary powers to limit regulated companies’ upside pay-offs than make a corresponding intervention to protect the company against downside payoffs, resulting in an asymmetrical pay-off structure with truncated upside returns.

In addition to these ‘generic’ asymmetric risks, we note DAA-specific asymmetric risks include:

- Downside event risk such as terrorist attacks (e.g. September 11) or international health warnings (e.g. SARS), which would cause a significant reduction in traffic and therefore revenue; and
- The potential break-up of Dublin, Shannon and Cork airports under the State Airports Act 2004.

The proposed introduction of unitisation, trigger pricing and a service quality term in the price cap may also have asymmetrical risk implications.

The appropriate regulatory treatment of this symmetric / asymmetric dichotomy is to increase the allowed return on investment to an amount greater than the systematic cost of capital, by the addition of a “regulatory risk premium”. We therefore recommend that the CAR allow a cost of equity above the CAPM-derived estimate.

## 2.3. Menu of Choices

The CAR’s issues paper’s treatment of the various CAPM parameters conveys an impression – perhaps unintended - that the decision relating to each parameter could be selected from the range of regulatory precedent decisions presented. While regulatory precedent is an important input to the CAR’s deliberations, any such ‘menu of choices’ approach would be flawed since the parameters should not be estimated completely in isolation, but by reference to one another and the overall settlement. Further, any ‘menu’ approach could suffer from internal inconsistency in the methodologies used for calculating the various parameter values. We encourage the CAR to rigorously consider each parameter based on an assessment of all

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Utilities, Kelda Group, Severn Trent, provided to Ofgem”, 15 March 2004; Wright, Mason, Satchell, Hori and Baskaya (2006) “Report on the Cost of Capital: provided to Ofgem”, September 1.

<sup>7</sup> Kolbe, L., W. Tye and S. Myers (1993), *Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and Other Industries*, Boston: Kluwer.

relevant available data – including recent market evidence – within the overall regulatory framework and particularly the cost of capital deliberations, with regulatory precedent forming a useful input to the process, but not being given undue weight.

## **2.4. Choice of Reference Market**

From an investor’s perspective, the cost of capital should be estimated with reference to the financial market that best represents their investment opportunity set, as the cost of capital for any single investment is defined by the entire portfolio of investment opportunities to which an investor has access. The highly integrated nature of EU markets means EU evidence should be the reference capital market. In this regard we note that Irish regulatory precedent supports this supposition (see discussion below). However, as global markets become more integrated wider European and US data may also be relevant to typical Eurozone investors. Our recommendation is to primarily rely upon evidence from the Eurozone in setting the ERP and RFR parameter values, cross-checked against international evidence as appropriate.

## **3. Risk Free Rate**

The CAR state:

“Estimate of the risk free rate may be based on historical data on liquid financial instruments perceived to have minimal default risk, such as US Treasury bonds, German government bonds, UK gilts or Irish Government bonds. An alternative would be to use swap rates.”<sup>8</sup>

We broadly agree with the CAR’s list of suggested data sources for estimating the (real) risk free rate. With respect to the possible choice between US, European, UK or Irish evidence we repeat our earlier assessment that the primary evidential source for CAPM purposes should be Eurozone evidence. Nevertheless, as recognised earlier, evidence from other markets may provide useful corollary evidence to be considered alongside the primary Eurozone evidence.

Additionally, Irish regulatory precedent may provide a useful cross-check against the estimates provided by the above methodologies. We note that the majority of Irish regulatory decisions on the real risk free rate have been between 2.4% and 3.0%. This range was also adopted by Commission for Communications Regulation for its recent review of Eircom (though adjusted into nominal terms).

### **3.1. Inflation-Protected Government Bonds**

Inflation-protected bonds are a natural starting point for estimating the real risk free rate. However, it is well recognised that inflation-protected bonds have been a biased measure of the risk free rate due to pension and accounting regulations introduced over the past decade (or so). For example, in the UK a steep decline in ILG yields from 1997 onwards has been recognised by commentators – including the Bank of England - to be mainly associated with the introduction of the pension fund regulations such as the Minimum Funding Requirement (MFR) and subsequent further pensions’ regulations such as FRS17 and IAS19.<sup>9</sup> Likewise, similar

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<sup>8</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p46.

<sup>9</sup> See for example Bank of England (1999) *Quarterly Bulletin*, May and Bank of England (2008) *Quarterly Bulletin*, May). See also UK Competition Commission: (2000) “Mid Kent Water Plc: A report on the

institutional factors have affected the French (which is the largest and most liquid in the EMU) and US markets. In particular, pension fund demand may have strengthened as international accounting standards, requiring pension funds to state deficits in their financial accounts, approach implementation stage.<sup>10</sup> Further, the OECD observed in early 2006 that undersupply of the bonds demanded by pension funds was a global phenomenon.<sup>11</sup>

Overall, inflation linked bonds should not just be assumed to provide a reliable measure of the risk free rate. Close examination should be given to the liquidity of the markets, and the possible distorting effects of accounting and pension fund regulations on yields.

### 3.2. Deflated Nominal Government Bonds

A range of nominal government bonds are available upon which an estimate of the real risk free rate could be based. We note that within the Eurozone the benchmark government issuer is widely regarded to be Germany. As such, any Eurozone-wide estimate should be based on German bunds, which is consistent with the recommendation of the CAR's consultants in 2005.<sup>12</sup> Nevertheless, we recommend that the CAR have regard to the extent that any of the biases in the inflation-protected bond market have spilt over to the nominal government bond market, potentially rendering the use of deflated bonds biased. We note at this time there does not appear to be strong evidence to suggest that the market for US, German or Irish nominal government bonds has been affected, but there is evidence to suggest that there has been spill-over within the UK market.

#### 3.2.1. Inflation Expectations

The measure of inflation expectations by which nominal interest rates are deflated is an important input to the risk free rate calculation. The measure of inflation expectations chosen must ensure consistency between deflated nominal bonds and inflation-protected bonds based on the measure of inflation that the inflation-protected bonds are linked to. We encourage the CAR to consider a range of data sources, having primary regard to the frequency and horizon of the forecasts.<sup>13</sup>

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references under sections 12 and 14 of the Water Industry Act 1991", p125 (para 8.13) and UK Competition Commission (2003) "Vodafone, O2, Orange and T-Mobile: Reports on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile networks", p188.

- <sup>10</sup> In the US, the Pension Protection Act was enacted in August 2006, mandating stricter funding requirements on defined benefit plans. The influence on yields of pension fund demand in the US has been noted by the Federal Reserve: see Investment Week (11/09/06) "Economic slowdown in US to benefit long-dated bonds"
- <sup>11</sup> The OECD stated: "*Very long-dated and IL bonds seem to be currently undersupplied relative to perceived or expected demand*" as reported in Dow Jones International News (30 January 2006) "*Euro Yield Curve is Unlikely to Invert*". See also "*The increased issuance of long-dated bonds by different European governments is not enough to meet investor demand for these instruments*" and Financial Times (01/02/06) "Financial Times Mandate: News & Analysis: Products and Strategies - Clients call for more long-bonds."
- <sup>12</sup> See Hutson and Kearney (2005), "Dublin Airport Authority's Cost of Capital: Report to the Commission for Aviation Regulation", May, p9. We note that other Irish Regulators have also based their risk free rate analysis upon German bunds. For example, see Commission for Electricity Regulation (2001) "Best New Entrant Price 2002", December, p7, which set the methodology subsequently adopted at each annual review of best new entrant prices.
- <sup>13</sup> For the EU there are a number of potential sources of forecasts of inflation, such as the IMF, the OECD, Consensus Economics, and the ECB's Quarterly Survey of Professional Forecasters. The appropriate measure

### 3.2.2. Inflation Risk Premium

At the previous review the CAR implicitly accepted its consultant's recommendation to adjust the real risk free rate estimate for an inflation risk premium.<sup>14</sup> We do not disagree with the theoretical requirement to adjust for an inflation risk premium, but we note that our analysis of the existing academic literature suggests that the inflation risk premium is somewhat lower than that recommended by Hutson and Kearney (2005).<sup>15</sup> Further, we note that there are theoretical reasons for a negative inflation risk premium if the covariance of consumption growth with inflation is positive.<sup>16</sup> Indeed, the dramatic increase in yields on inflation-protected bonds worldwide since the beginning of October strongly suggests that the inflation risk premium is currently very small (or negative) in most markets. Therefore, we recommend the CAR ensures any adjustment for an inflation risk premium properly reflects the full range of available evidence.

### 3.3. Other Evidence on the Risk Free Rate

We note that the CAR suggest that an alternative methodology for estimating the risk free rate would be to use swap rates.

There is some academic opinion which suggests the risk free rate be based upon swap rates. The reasons include the higher liquidity (i.e. absence of supply constraints) of the swap market and the absence of a 'convenience yield' which ought not to be included in the CAPM risk free rate. A nominal risk-free rate (which can then be deflated as for nominal government bond rates) can be obtained from the swap rate by subtracting some measure of inter-bank credit risk.<sup>17</sup>

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of EU inflation is the HICP since French OATs are linked to EU HICP (notwithstanding that some previously issued bonds are linked to French CPI excluding tobacco).

Likewise, for the US there are also a number of potential sources of inflation expectations including the IMF, the OECD, Consensus Economics, and the Philadelphia Federal Reserve Bank's Quarterly Survey of Professional Forecasters. We encourage the CAR to have regard to each of these data sources, noting that US TIPS are linked to CPI-U inflation (which is the non seasonally-adjusted US City Average All Items Consumer Price Index for All Urban Consumers).

For the UK there is a similarly wide range of potential sources of inflation expectations including the IMF, the OECD, HM Treasury, Consensus Economics, and Oxford Economic Forecasting (OEF). Since ILGs are linked to the Retail Price Index (RPI) the appropriate measure of inflation expectations should relate to the RPI.

<sup>14</sup> See Hutson and Kearney (2005), "Dublin Airport Authority's Cost of Capital: Report to the Commission for Aviation Regulation", May, p9. The consultants concluded on a risk premium equal to 40% of the long-term average yield on government bonds. We note that, somewhat inconsistently, the figure of 40% was based on two studies of UK data, but applied to German bonds data.

<sup>15</sup> See, for example, papers by Hordahl (2008) and Durham (2006) which suggest the inflation risk premium in the US is 20 bps or less. Hordahl (2008) and Garcia and Werner (2008) suggest a slightly higher inflation risk premium in the Eurozone of 25-40 bps. Hordahl (2008) shows a time series of the inflation risk premium for the EU and US at a 10-year maturity: the most recent estimates of the inflation risk premium are close to zero (having been negative) for the US, and around 0.5 (and trending higher) for the EU. See also Evans (2003) "Real Risk, Inflation Risk and the Term Structure", *The Economic Journal*, 113, pp345-389 (p348) which found the inflation risk premium in the UK was actually negative for a 10-year maturity.

<sup>16</sup> See Hordahl (2008) "The inflation risk premium in the term structure of interest rates", *BIS Quarterly Review*, September, p24 for more explanation.

<sup>17</sup> This is because the floating component of the swap is tied to 6-month EURIBOR which is the interest rate at which highly rated Eurozone banks lend to each other.



A measure of inter-bank credit risk can be readily obtained from market data on default insurance premiums, so-called “Credit Default Swap” (CDS) or market indices thereof.

At the current time, however, we note that the CDS market is highly volatile and “backing out” a risk free rate based on swaps is more difficult. Uncertainty about actual default risk has driven much of this volatility, as well as recent increases in perceived counterparty risk largely caused by the failure of Lehman Brothers and the serious financial distress of AIG. There may be therefore be an argument for stripping out the very recent period when examining the underlying swap-based risk free rate.

### **Conclusion**

Overall, we believe a range of methodologies for estimating the real risk free rate may be appropriate. We note that each of these methods has some drawbacks, particularly during the current period of unusually (extremely) volatile market conditions. For the reasons stated above, it should not be assumed that the risk free rate is best proxied by inflation-protected government bond yields. Instead, we recommend the CAR also consider the range of other evidence that exists on the risk free rate including nominal government bonds and swap rates as other important evidence the real risk free rate.

## **4. Equity Risk Premium**

The CAR stated: “In [our] 2005 Determination of airport charges at Dublin airport, [we] estimated that the ERP was 6%. In reaching this estimate, [we] relied mainly on data on historical returns and, to a lesser extent, regulatory precedent”.<sup>18</sup> The CAR’s conclusion of 6% is consistent with the recommendation of its consultants, who considered evidence from Dimson, Marsh and Staunton (2002) for Germany, UK and USA. While the consultants clearly relied on historical time series data, the precise judgment used in settling on 6% is somewhat less clear.<sup>19</sup> Further, the way that regulatory precedent entered into the CAR’s deliberations is unclear. Therefore, because of the somewhat opaque nature of the judgment-process undertaken by the CAR and its consultants in 2005 we urge the CAR to adopt a more transparent methodology for its upcoming decision.

Other Irish regulatory decisions have been similarly opaque. Most Irish decisions have settled on an ERP in the range of 5-6%, but have failed to provide thorough explanations for those conclusions.<sup>20</sup> The most recent Irish regulatory decision set an

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<sup>18</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p46.

<sup>19</sup> See Hutson and Kearney (2005) “Dublin Airport Authority’s Cost of Capital: Report to the Commission for Aviation Regulation”, May, pp10-12.

<sup>20</sup> The CER (2001) set an ERP of 5.3% in 2002 (Best New Entrant Price) “based on ex-post and price-earnings analysis and backed up by ex-ante expectations”: see Commission for Electricity Regulation (2001) “Best New Entrant Price 2002”, December, p7. The CER subsequently revised up its estimate of the ERP to 5.5% (for Best New Entrant price purposes) from 2005 without stating reasons: see Commission for Energy Regulation (2005) “Best New Entrant Price 2006”, July. The CAR set an ERP of 5% in 2007 based on a report by Hutson and Kearney (2007) “The Irish Aviation Authority’s Cost of Capital”, March, (p21), which is available as Appendix 2 of CAR (2007) “Determination and Report on the Maximum Level of Aviation Terminal Service Charges that may be imposed by the Irish Aviation Authority”, March. The report adopted the same methodology as the same authors recommended the CAR in 2005 (i.e. as set out above) updated for more recent evidence.

ERP of 6%.<sup>21</sup> We also note that the CER (2007) stated that the ERP lay in the range of 4-5%. This estimate is lower than previous decisions and was justified by the statement that “in an industry where risk is perceived to be low and a general macro-economic situation that has, at a minimum, stayed constant if not improved, it would seem difficult (or even counter-intuitive) to argue that a higher rate of return is appropriate”.<sup>22</sup> Since – in academic opinion - the ERP is best estimated by reference to long-run historic evidence, this justification does not seem very robust.<sup>23</sup> Further, if one were to apply the logic today, a higher ERP would almost certainly be justified.

Our recommendation is to estimate the forward-looking ERP as an arithmetic average of historical returns for the Eurozone, cross-checked with a Dividend Growth Model (DGM) based on recent forward-looking evidence, which can provide direct insights in to the expectations of market participants.<sup>24</sup> The use of an arithmetic average of long-run historic returns is supported by the majority of academics (discussed above). Potential arguments that long-run evidence is not entirely reflective of current market conditions – perhaps because markets have changed in some fundamental way – may be mitigated by a DGM methodology if it produces similar results. In the event that results from the two approaches diverge this may be indicative of unusual market conditions that should be taken into account in determining the final ERP estimate.

## 5. Beta

The CAR states that “in general, there are two methods available to estimate the equity beta of a firm:

- Direct estimation using a measurement of a firm’s historical returns; or,
- Indirect estimation using comparator firms’ historical returns.

The DAA is not a publicly listed company. Therefore, in the past the Commission has relied on the second approach...<sup>25</sup>

We broadly agree with the CAR’s assessment of the possible methodologies and its adoption of the second – comparator company – methodology in the past. The CAR -rightly – notes that any beta evidence from comparator companies must be adjusted for differences in “systematic risk between [DAA] and comparators”.<sup>26</sup> Since the precise specifics of how such an assessment might be made are not given, we assume the CAR intends to repeat its 2005 analysis which – for the purposes of

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<sup>21</sup> See Commission for Communications Regulation (2008) “Eircom’s Cost of Capital”, May 22.

<sup>22</sup> See Commission for Energy Regulation (2007) “Bord Gais Networks Revenue Review 2007/8-2011/12”, August, p34.

<sup>23</sup> For example, Mehra (2003) states “over the long term, the equity premium is likely to be similar to what it has been in the past”. See also Goyal and Welch (2006). Likewise, Dimson, Marsh and Staunton (2000), Cornell (1999) and Ibbotson and Goetzman (2006) present arguments in favour of arithmetic averages instead of geometric averages.

<sup>24</sup> A DGM analysis based on analysts’ forecast dividends per share for the EuroStoxx 50 (or similar Eurozone index) should provide a useful indication of the anticipated equity risk premium.

<sup>25</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p47.

<sup>26</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p47.

comparing BAA and DAA – mainly appeared to focus upon a comparison of the risk of the UK and Irish economies, augmented by DAA-specific factors such as whether T2 would proceed and the potential break-up of the company.<sup>27</sup>

We consider that the comparator airports considered by the CAR should be selected on the basis of similar characteristics to DAA. In particular, consideration should be given to:

1. demand and revenue risk;
2. operating leverage;
3. input price risk;
4. differences between regulatory regimes; and
5. relative country risk.

Additionally, we do not consider that the comparator airport set should necessarily be constrained to Europe. In this vein we note that the UK Competition Commission recently considered evidence from Macquarie Airports Group and Auckland Airport.<sup>28</sup> We note, however, that there are numerous other listed airports throughout North and South America and in Asia, which the CAR should also consider as potential comparator companies.

Further, we consider that recent evidence from airports which are currently listed (or very recently de-listed) should be considered as the primary source of market evidence. This is because of the rapidly changing nature of global capital markets generally, and the aviation industry more specifically. For these reasons we agree with the CAR's assertion that evidence from BAA (prior to de-listing) should be afforded less weight than at the last review. In particular, we believe little weight should be attached to evidence from BAA since BAA was de-listed in August 2006 (though evidence from 7 February onward should be excluded)<sup>29</sup> which means the evidence will be over 3 years old by the time the CAR sets an asset beta for DAA – an overwhelmingly long period given the changes in both BAA and DAA's risk profiles (addressed below) in that period. For the same reason the recent decisions by the UK CC for Heathrow & Gatwick (2007) and Stansted (2008) on the asset beta parameter are of limited direct relevance to the CAR's assessment of DAA's asset beta.

A similar high level benchmarking analysis based on other sectors such as utilities and airlines could also be considered as a cross-check upon the initial airports based analysis.<sup>30</sup> The approximate point within the range of evidence suggested by the

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<sup>27</sup> See Hutson and Kearney (2005), p17.

<sup>28</sup> See Competition Commission (2007) "BAA Ltd: A Report on the Economic Regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)", Appendix F "Cost of Capital", F30, para 120; Competition Commission (2008) "Stansted Airport Ltd: Q5 Price Control Review", October, Appendix L, paragraph L86. We also note that Hutson and Kearney (2005) (p13ff) considered five (then) listed airports: Auckland, BAA, Florence, Frankfurt and Vienna, but only for the purposes of assessing if betas had increased since 9/11.

<sup>29</sup> See, for example, Competition Commission (2007) "BAA Ltd: A Report on the Economic Regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)", Appendix F "Cost of Capital", F27, para 110.

<sup>30</sup> We note that this type of analysis was considered by the UK Competition Commission (2007) "BAA Ltd – A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)", Appendix F, paragraph 80ff.

other sectors occupied by DAA would need to be considered carefully in a qualitative and quantitative fashion.

The CAR suggests another basis for setting DAA's asset beta:

“parties are invited to consider whether there are any reasons why the riskiness of operating Dublin airport relative to the market has changed significantly since 2005: is there any reason to expect the beta now to be different to the beta used in 2005?”

We believe that DAA's risk has increased since 2005, particularly due to the proposed introduction of unitisation, trigger pricing and a service quality term in the price cap:

- Unitisation of depreciation – as discussed in NERA's (2008) submission to the CAR – which ‘back-loads’ the recovery of capital expenditure (via the depreciation charge) and ensures recovery is dependent on passenger numbers;<sup>31</sup>
- The CAR has proposed to introduce a “service-quality term in the price cap [which] will penalise the DAA if it fails to deliver services to the agreed standards” but which will not make “the DAA eligible for a bonus if it exceeds the quality standards identified in the price cap”.<sup>32</sup> Based on a comparison to BAA's settlement the CAR proposes that 6% of DAA's revenues should be placed at risk. This alteration to the price cap clearly represents an asymmetric risk since it raises the spectre of a significant loss of revenue, but offers no corresponding upside.
- Trigger pricing that ensures DAA may only recover revenues once major capex projects are completed.<sup>33</sup> For example, revenue allowances for T2 are dependent on passenger numbers – 26% of the costs of T2 are only recoverable once passenger numbers exceed 33m p.a.<sup>34</sup>

These changes to methodology have also increased DAA's regulatory risk because they introduce greater uncertainty into the regulatory framework. Further, greater customer concentration since 2005 has also increased risk, while the recent renewed takeover bid by Ryanair for Aer Lingus raises the prospect of a very substantial increase in customer concentration in future.

We further note that the decision by S & P to remove the negative watch on DAA's credit rating in December 2007 is not a sign of reduced risk; a credit rating is not a measure of systematic risk, and as such is not an indicator of shifts in the level of DAA's asset beta. Rather, a credit rating is a measure of an entity's ability to meet its financial obligations. As such, the (minor) improvement in DAA's credit rating is primarily reflective of improvements in the financial strength of the organisation.

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<sup>31</sup> See NERA (2008) “Issues for the Next Regulatory Review”, July, pp12-13.

<sup>32</sup> See Commission for Aviation Regulation (2008) “Maximum Levels of Airport Charges at Dublin Airport: Issues Paper”, October 24, p11.

<sup>33</sup> This issue is discussed in more detail in NERA (2008) “Issues for the Next Regulatory Review”, July, pp15-17.

<sup>34</sup> This risk is explicitly recognised by Standard & Poor's (2008) “Dublin Airport Authority PLC”, January 25, pp6-7.

As such, we *prima facie* believe that the CAR's allowance of an asset beta of 0.61 in 2005 represents a minimum level for DAA's current asset beta. We also note that the CAR's consultants (at least partially) justified their recommendation of an asset beta of 0.61 in 2005 based on an assessment that DAA was 20% riskier than BAA.<sup>35</sup> An alternative formulation of the CAR's consultation questions might, therefore, focus on whether DAA is still 20% riskier than BAA. The CAR's consultant's assessment was based on the relative risk of the Irish and UK economies, uncertainty surrounding the completion date of T2 and the possible break-up of DAA. These factors – with the exception of the T2 completion date - remain equally relevant, while as noted above there are several factors that are likely to have increased DAA's risk since 2005.<sup>36</sup> Further, judging by the allowed asset beta, the UK Competition Commission's opinion is that the risk of BAA has declined over the period. Overall, it appears likely that DAA is more than 20% riskier than BAA currently. Based on the UK Competition Commission's recent assessment that the asset beta of BAA as a whole was 0.52, our assessment indicates that an asset beta for DAA in excess of the 0.61 allowed in 2005 will be appropriate.<sup>37</sup>

## 6. Cost of Debt

The CAR appears to support estimating the cost of debt as the sum of the risk free rate and the debt premium. However, we believe estimating the debt premium as an interim step is unnecessary since the appropriate cost of debt for DAA can be observed directly from market evidence. Our recommendation is to estimate the cost of debt by reference to observed benchmark bond yields in the secondary market and by observing coupon yields on recent bond issues by comparable companies (typically judged by reference to their credit rating). For these purposes, Eurozone evidence may be considered since all corporate debt yields are priced in relation to a single benchmark (the Eurozone mid-swaps rate, which is in-turn typically related to the ECB's benchmark interest rate).

Related issues for the determination of the appropriate cost of debt include:

- The weight to place (if any) upon DAA's existing (or embedded) debt costs;
- The weight to place on current and historic debt costs;
- Historic / current cost of debt should be calculated over what time horizon; and
- Allowances for transaction and pre-funding costs.

We address each of these points below.

### 6.1. Embedded Debt Adjustment

We note that the CAR's consultants' approach in 2005 amounted to an embedded debt adjustment (i.e. an adjustment for the existing cost of DAA's debt) since their estimate of DAA's debt premium depended directly upon yields on DAA's existing debt. While there is some regulatory precedent for the allowance of a cost of debt

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<sup>35</sup> Hutson and Kearney (2005), p16: "In examining the current and medium-term risk of the DAA, we believe it is approximately 20 percent more risky than BAA."

<sup>36</sup> We note that one other factor that increases DAA's risk relative to BAA is the treatment of work in progress: S & P (2008) notes that "unlike the regulatory approach on BAA's Terminal 5, where costs are being recovered during construction, the cost of DAA's Terminal Two (T2) will only be recouped when the terminal is operational" (p6).

<sup>37</sup> See UK Competition Commission (2007) "BAA Ltd – A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)", Appendix F, paragraph 117.

based (in part) on the cost of pre-existing (or embedded) debt, in those situations regulators typically base their allowance for yet-to-be-raised debt upon benchmark bond yields or observed coupons on recently issued bonds.<sup>38</sup>

Our theoretical objections to the use of embedded debt adjustments are:

- If the CAR adopts the same methodology as at 2005 it is effectively assuming that DAA will be – at worst – able to obtain a cost of debt equal to the yield-to-maturity on its existing debt. Such an allowance makes no allowance for a potential deterioration of market conditions. In the current climate this approach may be dramatically erroneous.
- Any embedded debt adjustment essentially removes (or reduces) DAA's incentive to finance itself as efficiently as possible, since it knows that the cost of its existing debt will be factored into future regulatory settlements. The removal of this cost-minimisation incentive is likely to increase DAA's cost of debt and therefore prices for consumers.

For these reasons we favour the use of yields on benchmark bond indexes as a measure of DAA's existing debt costs.

## **6.2. The Weight to Place on Current & Historic Debt Costs**

Given the stark differences between current and (recent) historic market conditions it would not be appropriate to rely solely on either time series or current market evidence to estimate DAA's cost of debt: exclusive reliance on time series evidence would lead to a cost of debt that is too low if DAA faces substantial new financing or re-financing requirements, while on the other hand, ignoring time series evidence altogether could lead to a windfall gain to DAA if its embedded debt costs are substantially cheaper than the prevailing market cost. Therefore, our preferred approach is to weight historic and current measures of the cost of debt according to DAA's new funding and re-financing requirements over the next price control period.

## **6.3. Estimation Periods**

The period (e.g. ten years or three months) over which the CAR calculates the historic and current (or forward-looking) costs of debt should be governed by the following principles:

1. Historic costs should be estimated over a period sufficiently long to comprise a single interest rate cycle. Such a period should provide an estimate of the cost of debt that is an average over the business cycle, which may reasonably be regarded as the likely long-term benchmark cost against which DAA should be assessed;
2. Current, or forward-looking, costs should be calculated over a short period (say three months) to ensure the estimate is reflective of current market conditions.

## **6.4. Allowances for Transaction and Pre-Funding Costs**

While it appears clear that the CAR's consultants intended to include an allowance for transaction costs in 2005 it is unclear whether the CAR did actually make an allowance for DAA's transaction costs (i.e. the costs of raising debt, such as agency and legal fees). Either way, we note that the inclusion of transaction costs within the

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<sup>38</sup> See, for example, CAA (2004) "NATS Price Control Review: 2006-2010: CAA's Initial Proposals", November, p75.

cost of debt is widely made by UK and Australian regulators, such as by the CC (2007, 2008), CAA (2005) and Ofwat (2004).<sup>39</sup>

We recommend that for the purposes of calculating DAA's transaction costs for the next price control period reference should be made to market quotes obtained by DAA, other publicly available evidence (including regulatory precedent) and should reflect latest relevant market evidence.

We further recommend that the allowance should include DAA's reasonable efficient pre-funding costs, whereby liquidity (either through facilities or cash balances) is secured in advance and/or whereby financing (such as of major capex projects) is efficiently undertaken in advance to ensure financing is secured. Recognition of pre-funding costs is increasingly important in this period of market volatility, but is - in any event - justified under "normal" business conditions.

## 7. Gearing

The CAR has raised the prospect of calculating DAA's cost of capital using a notional gearing assumption, rather than an actual gearing projection based on DAA's current (and projected) gearing level (which was the method adopted in 2005).<sup>40</sup> We note that, generally, in estimating an appropriate level of gearing to be used in a forward-looking cost of capital the CAR could use either an optimal gearing assessment or rely on actual/projected gearing. We consider that the use of optimal gearing is appropriate since actual/projected gearing can frequently be difficult to estimate and may not represent the capital structure consistent with an efficient level of financing costs (both in terms of the cost of equity and debt), leading to calculation of a sub-optimal price cap.

In order to determine the optimal level of gearing we recommend the CAR consider the cost of capital DAA would incur if it raised new finance, since the optimal capital structure will enable DAA to raise finance as efficiently as possible (and, therefore, is independent of the cost and level of existing debt and equity). A comparison of the cost of new finance at a range of credit ratings (with commensurate values for the other inputs into the WACC and CAPM formulae) should enable the optimal capital structure to be determined.

We further note that the gearing assumption must be consistent with assumptions used elsewhere, in particular:

- The credit rating assumed (and, in turn, financeability tests and the cost of debt should also be consistent with the gearing ratio and the assumed credit rating); and
- The re-levering of asset beta should be based on the same gearing assumption as the overall WACC calculation.

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<sup>39</sup> Competition Commission (2007) "BAA Ltd: A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)", September, Appendix F, paragraph F43; Competition Commission (2008) "Stansted Airport Ltd: Q5 Price Control Review", October, Appendix L, paragraph L45; CAA (2005) "NATS Price Control Review 2006-10: CAA's Firm Proposals", May, p61; Ofwat (2004) "Future water and sewerage charges 2005-10: Final Determinations", pp224-5. We note that there are also many instances of Australian regulators allowing debt raising costs within the cost of debt.

<sup>40</sup> See Commission for Aviation Regulation (2008) "Maximum Levels of Airport Charges at Dublin Airport: Issues Paper", October 24, p48.

Therefore, provided the CAR consistently applies the same gearing level throughout the cost of capital calculation *and* the gearing level assumed is based on a thorough assessment of DAA's optimal capital structure we support the use of a notional gearing assumption in preference to actual / projected gearing.

## **8. Other Issues**

### **8.1. Dublin Airport City**

The CAR has also raised the issue whether the Dublin Airport City development should be included within the single till, and if so, what implications this has for the cost of capital.<sup>41</sup> The inclusion of DAC within the single till would increase the required cost of capital, all else equal, since:

- The DAC development involves a very large capex programme with associated execution risk; and
- The DAC development is for industrial, research and educational purposes; these sectors are higher risk than the existing airport business, which therefore, if included within the single till would increase DAA's risk profile.

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<sup>41</sup> See Commission for Aviation Regulation (2008) "Maximum Levels of Airport Charges at Dublin Airport: Issues Paper", October 24, p52.



## **DAA FINANCE PLC**

**EUR250,000,000 6.15 per cent. notes due 2011 of DAA Finance plc,  
guaranteed by Dublin Airport Authority plc (ISIN:XS0124714832)**

**EUR600,000,000 6.5872 per cent. notes due 2018 of DAA Finance plc,  
guaranteed by Dublin Airport Authority plc (ISIN:XS0375220588)**

Dublin Airport Authority plc (“DAA”) said today that overall passenger numbers at its three Irish airports (Dublin, Shannon and Cork) for the eleven months to 30 November 2008 are in line with the same period in 2007. DAA expects that passenger numbers at Dublin and Cork airports for the full year 2008 will show modest growth over 2007 levels whilst passenger numbers at Shannon Airport will show a decline on the previous year. Passenger numbers at the three airports have fallen in each of the last three months, reflecting the recent trends in the wider economy.

DAA estimates that the group’s profits for 2008 will be lower than 2007. This reflects lower revenues than anticipated, a slowdown in passenger numbers and an exceptional pension provision in its 2008 results.

Current Irish government estimates for the coming year are that the Irish economy will contract by between 3% and 4% in 2009. DAA currently estimates that passenger volumes will fall across its three Irish airports in 2009 by similar levels and hence that the company is exposed to further falls in underlying earnings in 2009.

The group’s financial position from 2010 onwards will depend to a large extent upon the review to be conducted by the Commission for Aviation Regulation next year and changes in passenger levels which are likely to be reflective of the performance of the wider economy. The regulatory decision will determine airport charges at Dublin Airport for the next regulatory period commencing in 2010.

DAA will be reviewing its proposed capital investment programme for the period from 2010 to 2014, and expects that this will be reduced significantly, reflecting the new, lower growth, forecast of passenger numbers during this period. These reductions, including a possible deferral of the planned new parallel runway at Dublin Airport, will not affect the scheduled completion of Terminal 2 and the associated infrastructure at Dublin Airport. Additionally, DAA plans to implement a cost-savings programme covering operating costs including payroll costs. DAA continues to believe that the long term outlook for passenger growth remains positive.

17 December 2008

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