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Issues for the Next Regulatory Review

Draft Report for Dublin Airport Authority

NERA

Economic Consulting

Project Team

Stuart Holder Helen Webb

NERA Economic Consulting 15 Stratford Place London W1C 1BE United Kingdom Tel: +44 20 7659 8500 Fax: +44 20 7659 8501

www.nera.com

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Executive Summary

This report, prepared by NERA Economic Consulting for Dublin Airport Authority (DAA), discusses some of the issues that the Commission for Aviation Regulation (CAR) will need to address during its forthcoming price review. It is intended to aid CAR's thinking while it prepares its Issues Paper and also during the early stages of the review itself.

We welcome CAR's view that its statutory objectives require it to promote economic efficiency. Within this overall approach, however, we would encourage CAR to focus its activities on areas where economic efficiency problems are most likely to arise, and to explain more clearly (and in practical rather than theoretical terms) how its proposals contribute to the objective of promoting economic efficiency.

Price cap regulation itself can be a powerful tool in helping to promote economic efficiency. But it achieves this by placing strong incentives on regulated firms, and it is important that firms are provided with sufficient operational freedom that they can respond to these incentives. This is also consistent with the statutory factor that states that CAR should impose on DAA the minimum requirements consistent with its functions. CAR's role is not to "second guess" DAA on detailed operational issues unless there is a clear reason to believe that DAA is attempting to take advantage of a lack of competition.

A further effective way in which CAR can promote economic efficiency is by taking actions that are likely to reduce regulatory risk. There are a number of specific measures that CAR can take that will contribute to reducing regulatory risk. These include:

- § ensuring that, if it decides to use projections or forecasts that are materially different from DAA's, this decision is based on detailed and robust evidence rather than, for example, high level benchmarks or consultancy studies that have been hampered by a lack of time or resources. Where there appears to be a difference of opinions between DAA and CAR's consultants (for example, over the appropriate size of Terminal 2), CAR should make strenuous efforts to resolve 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 (such as unitised depreciation) that have significant implications for future control periods. A clear description will reduce the amount of regulatory discretion required in future price reviews, and clarify DAA's likely exposure to different types of risk;
- § as part of this process, ensuring that it has fully examined the practical implications of its proposals (for example, for trigger pricing or differential pricing), 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;
- § ensuring that the different decisions that it takes during each review are internally consistent, and also that it adopts a more consistent approach to regulation over time.

CAR should also adopt realistic expectations about the role of consultation. DAA's consultations with airlines cannot necessarily be expected to produce agreement. CAR

should not base any regulatory process, therefore, on the assumption or requirement that there is agreement between DAA and airlines. Moreover, it should take care to ensure that its own statements (for example about how it will respond to the outcome of the consultation process) do not provide further encouragement for airlines to behave strategically.

For both DAA's consultations with airlines and CAR's own consultations on regulatory issues, therefore, we believe CAR should view these as useful for information gathering purposes rather than consensus building. CAR's decisions should be based on the promotion of economic efficiency and its statutory objectives and factors, rather than whether or not particular proposals are supported by certain stakeholders. Nevertheless, it will be important to review the outcomes of consultation processes carefully, as important arguments and useful evidence may be provided.

1. Introduction

This report, prepared by NERA Economic Consulting for Dublin Airport Authority (DAA), discusses some of the issues that the Commission for Aviation Regulation (CAR) will need to address during its forthcoming price review. CAR is required to set the maximum level of airport charges that will apply from 2010 onwards, and has indicated that it intends to publish an Issues Paper in October 2008. The aim of this NERA report is to aid CAR's thinking while it prepares its Issues Paper and also during the early stages of the review itself.

We address two main types of issue:

- § how CAR can carry out its analysis and reach its provisional conclusions in a way that is likely to promote economic efficiency. Here we consider how best CAR can harness the powerful incentives that properly applied price cap regulation can provide. These incentives are the main reason why price cap regulation has been preferred to other approaches in many regulated industries, including airports, around the world. Common themes include the need for CAR to focus its activities on those areas most likely to be affected by a lack of competition, plus the need to reduce regulatory risk and provide greater certainty. These issues are discussed in Section 2;
- § a number of specific proposals that CAR has discussed in recent documents (notably CP1/2007, CP5/2007, CP6/2007 and CP8/2007). These relate in particular to the way that future capital expenditure (capex), including expenditure on Terminal 2 (T2), will be remunerated, and the structure of DAA's airport charges. These are discussed in Sections 3 and 4.

While we make a number of comments in Section 2 on the general approach that CAR might adopt, we do not address in detail the more standard tasks associated with price cap reviews, such as setting the cost of capital, making forecasts of operating expenditure (opex), capex and commercial revenues, carrying out financial modelling, or assessing DAA's sustainability and financial viability. Neither do we comment directly on two further issues – service quality and rolling incentive mechanisms – on which CAR issued consultation documents in June 2008.

2. Promoting Economic Efficiency

2.1. Context

CAR has three statutory objectives under the State Airports Act 2004:

- § to facilitate the efficient and economic development and operation of Dublin Airport which meet the requirements of current and prospective users of Dublin Airport;
- § to protect the reasonable interests of current and prospective users of Dublin Airport in relation to Dublin Airport; and
- § to enable Dublin Airport to operate and develop Dublin Airport in a sustainable and financially viable manner.

CAR's view is that "the essence of its statutory mandate is to promote economic efficiency", and that equal weight should be given to all three objectives - one does not have precedence over the others. It interprets economic efficiency as covering productive efficiency, dynamic efficiency and allocative efficiency. Its view that it is required to promote economic efficiency was strengthened by the changes introduced by the State Airports Act.

In addition to these statutory objectives, there are nine statutory factors to which CAR must have due regard in making a determination. Importantly, one of these statutory factors is "imposing the minimum restrictions on Dublin Airport Authority consistent with the functions of the Commission".²

We welcome CAR's emphasis on promoting economic efficiency., This emphasis could be reinforced if CAR were to adopt a more rigorous approach to demonstrating that its actions or proposals are consistent with this objective. Especially where the initial justification for a particular course of action is a theoretical one, this should include evidence of the tangible benefits that CAR's proposals are likely to deliver in practice, and that these benefits are sufficient to outweigh the disadvantages (such as higher regulatory risk, increased administration costs, reduced flexibility and the risk that CAR's decisions on operational matters may be wrong) that might accompany its proposals.

2.2. Allowing Incentives To Work

The State Airports Act requires CAR to set the maximum level of airport charges at Dublin Airport.³ This is consistent with the main role of economic regulators - to prevent the abuse of monopoly power by companies charging excessive prices. It is also consistent with CAR's

Section 4 of CP9/2004.

In summary, the other factors are the restructuring of DAA; the level of investment at Dublin Airport; DAA's operational income; DAA's costs and liabilities; the level and quality of DAA's services at Dublin Airport and the reasonable interests of current/prospective users; Government or Ministerial policy statements; the cost competitiveness of airport services at Dublin Airport; and relevant national and international obligations.

This may be an overall limit on the level of airport charges, and/or limits that apply to particular categories of airport charges.

emphasis on economic efficiency, since prices may be excessive either because they are out of line with costs or because costs themselves are too high.

It is important, however, that CAR views its objective of promoting economic efficiency in this context. Economic regulation is designed to promote economic efficiency by preventing firms from exploiting monopoly power. Regulators are not intended to be bodies that try to promote economic efficiency by overruling the operational decisions of regulated firms where there is little or no risk of them exploiting monopoly power.

Price cap regulation is widely used because it provides an appropriate compromise between (a) providing strong incentives for firms to take short term and long term actions that will improve efficiency; and (b) ensuring that prices remain aligned with costs in the medium to long term. 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.

Therefore, if regulators become unnecessarily involved in operational decisions, or appear to behave opportunitistically in order to keep charges low, this will significantly reduce the effectiveness of price cap regulation in promoting economic efficiency.

Applying these principles to Dublin Airport, there are some cases where regulatory scrutiny of DAA's activities is entirely appropriate. In broad terms, this covers areas where there is a genuine and material risk that DAA's behaviour (because of a lack of competitive pressure) might lead to excessive prices or other distortions. Thus, for example, it is legitimate for CAR to review DAA's projections of the overall level of opex or capex – though as discussed in the next section it is important that CAR only changes these projections when there is robust evidence to justify this.

In other cases, however, if CAR becomes involved in detailed operational issues or parts of DAA's business where there are no obvious grounds to suspect that its decisions will be distorted by a lack of competition, then it is harder to see how such regulation is consistent with promoting economic efficiency.

This is consistent with the Aviation Appeal Panel's comments on the way that, during its 2005 determination, CAR reduced DAA's capex allowance for Pier D:

"the details of design and configuration, including pier width, are not essentially a matter for the Commission as regulator to adjudicate on. These details are a matter principally for DAA, subject to consultation and discussion with its owners and customers."

⁴ Paragraph 6.3.4 of the Decision of the Aviation Appeal Panel, 4 April 2006.

CAR's decision had been based on its consultants' assertion that the design of the pier (for which DAA had already obtained planning permission) was too wide. However, CAR did not appear to put forward any argument about why it thought DAA was planning to construct a Pier that was "too big". By constructing such a Pier, DAA would simply earn the cost of capital allowed by CAR on this investment. Especially since DAA believed that the weighted average cost of capital used by CAR was too low,⁵ then there was no clear gain to DAA from building too big a facility.⁶

This is an example, therefore, of a case where CAR's approach to regulation strayed into detailed operational matters that are more appropriate for DAA (taking account of users' interests) to decide. By intervening in such cases, CAR:

- § may prevent DAA from responding effectively to the incentives created by price cap regulation; and
- **§** does not appear to be acting in a way that imposes the minimum restrictions on DAA consistent with its functions.

CAR is most likely to promote economic efficiency if its involvement is focused on the overall level of expenditure (or commercial revenues), and on areas where there is a material risk that DAA's decisions may be affected by a lack of competition. As noted above and discussed in the next section, it is important that any efficiency assessment is objective and based on robust evidence. It is difficult to see the economic efficiency rationale, however, for CAR to intervene in detailed operational aspects of these expenditure projections. This is likely to increase regulatory risk, reduce DAA's ability to respond to efficiency incentives, and may result in the wrong decisions being made.

A further reason for CAR to focus its attention on the overall level of expenditure is that the aviation industry is significantly more volatile than many other regulated industries. Capacity is heterogeneous and often provided most efficiently in "lumpy" increments, and traffic growth can be unpredictable (reflecting both macroeconomic cycles and specific shocks). DAA's freedom to respond to unexpected changes will therefore be constrained if a regulatory determination is based on a specific and detailed investment programme, rather than an overall allowance for (efficient) expenditure.

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In 2005 DAA argued, based on NERA analysis, that its real pre-tax WACC was 8.5 per cent, rather than the 7.4 per cent allowed by CAR in its September 2005 determination.

The only significant gain would come if CAR allowed the cost of a 29m wide Pier and then DAA went ahead and constructed a much narrower Pier. But such a blatant example of regulatory gaming would be easy to detect and ultimately self-defeating for DAA.

We would encourage CAR to continue to promote economic efficiency. But this should be focused on areas where intervention is necessary because of a lack of competition. Economic efficiency should not be used as a justification for CAR to "second guess" DAA's detailed operational and commercial decisions, especially where DAA has nothing to gain from making inappropriate decisions.

Price cap regulation provides powerful efficiency incentives, but it is important that firms are given sufficient operational freedom to respond both to these incentives and also to any material changes in circumstances.

We would encourage CAR to articulate its commitment to promoting economic efficiency in more detail, and to give further guidance on its plans to implement this approach in practice.

2.3. Reducing Regulatory Risk

While CAR has stated explicitly that none of its statutory objectives takes precedence over the others, in practice a large number of its decisions have had the effect of lowering DAA's charges. These include, for example:

- **§** decisions to exclude from DAA's regulatory asset base (RAB) investments that were carried out (and approved) under a previous regulatory regime;
- **§** the imposition of unrealistic opex efficiency targets in CAR's first determination, based on a simplistic benchmarking study;
- § continuing downward adjustments to DAA's capex projections and upward adjustments to its commercial revenues projections, based on high level consultancy studies; and
- § apparently inconsistent treatment of similar circumstances, for example focusing on upside events that improve DAA's financial position, while ignoring similar downside events.⁷

In addition, CAR's decision to adopt the "unitisation" principle for the remuneration of T2 is based on questionable logic (see Section 3.3) and, like the decisions noted above, has the impact of reducing DAA's charges in the short term.

In order to justify making such adjustments to DAA's projections, and consistent with the role of economic regulators as described in Section 2.2 above, it is important that CAR provides clear and reliable evidence to support its decisions.

Commenting on the adjustments that CAR made to DAA's capex projections during its Sepectember 2005 Determination, for example, the Aviation Appeal Panel stated that "the benchmarking exercise relied upon by the Commission is insufficiently robust to warrant a

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The Aviation Appeal Panel, for example noted (in paragraph 6.4.10 of its Decision) that CAR's retrospective consideration focused on investment that did not take place, but not commercial revenues that had not materialised. It expressed a concern that this would signal "a negative regulatory attitude" to the investment community in relation to capex.

substantial adjustment to the DAA CAPEX plans"⁸ and expressed a concern that CAR would always make downwards adjustments to DAA's projections "no matter how limited the available evidence on the magnitude of the perceived bias in estimation."⁹

The Panel also commented on the likely impact if CAR continues to make such adjustments, noting that "This necessarily implies a disincentive for good faith conduct by DAA and is out of line with best practice incentive regulation A more appropriate regulatory response to the information problem would be to seek more vigorously to verify the information provided, discuss and consult on alternatives and only substitute the Commission's own reasoned alternative when there is very clear evidence of assessment bias."¹⁰

The Appeal Panel's comments on the need for CAR to produce stronger evidence to justify any adjustments to DAA's projections are important.¹¹ If CAR disallows projected expenditure on the basis of superficial evidence, there is a serious risk that it will establish a reputation for negative behaviour from which it will be increasingly difficult to extricate itself in future.

In order to reduce regulatory risk, therefore, it would be helpful for CAR:

- § to commit to providing robust evidence to justify its assumptions, especially where it adopts a projection that is materially different from DAA's;
- § as part of this, to state what it believes the characteristics of robust evidence might be, and to discuss this with DAA and other stakeholders.

As well as the underlying quality or accuracy of any evidence, robustness also refers to any processes that CAR has used to establish the reliability of its evidence. Among other things, this might include a more transparent process for CAR to review and comment on the accuracy of its previous projections. And allowing DAA and other stakeholders where relevant to review and comment on evidence, and to feed in additional information of their own, can also play a valuable role in establishing its robustness. But this engagement must be constructive and take place at a suitably early stage, so that the evidence can be revised without any risk that this revision will appear as either a "climbdown" by CAR or an admission of error by its consultants (each of which could encourage them to reject any comments on the evidence and thereby reduce the usefulness of having it reviewed).

A further way that CAR can take positive action to reduce regulatory risk is by providing greater certainty about the way in which it intends to regulate DAA in future. There are a

⁸ Paragraph 6.3.6 of the Decision of the Aviation Appeal Panel, 4 April 2006.

Paragraph 6.3.7 of the Decision of the Aviation Appeal Panel, 4 April 2006.

Paragraph 6.3.8 of the Decision of the Aviation Appeal Panel, 4 April 2006. The Panel made similar points in relation to commercial revenues, and noted that CAR did not appear to have considered the possible reasons why it had overestimated commercial revenue in the previous review (see paragraph 6.6.4 of the Decision). It also described some of CAR's decisions as "arbitrary", "illogical", "unreasoned" and similar.

In its Decision in response to the Appeal Panel's findings, CAR portrayed the Panel's view as being that "the Commission's approach to Capex should be based on an uncritical assumption of good faith on the part of the regulated entity in relation to its Capex forecasts" (Section 4.1.3 of CP5/2006). This is an inaccurate characterisation of the Panel's views. As stated above, rather than arguing that CAR must accept DAA's projections, the Panel encouraged CAR "to seek more vigorously to verify the information provided".

number of areas where CAR has referred to general principles, but still retained considerable discretion about how its implements these principles in practice. This "wriggle room" creates regulatory risk, which is crystallised in cases where CAR adopts an approach that may be more aggressive than that expected on the basis of previous statements by either DAA or the investment community.

As discussed in Section 3 in particular, CAR has recently proposed a number of measures that, when compared with the outcome of a "conventional" price cap review, may have the effect of postponing some of DAA's revenues to future price control periods. It will be especially important for CAR to spell out in as much detail as possible how these mechanisms will work, so as to reduce the risk that the Commission or its successors will interpret and implement these measures in different ways from those expected by DAA or investors.

We would encourage CAR to provide robust evidence (rather than, for example, high level benchmarks) in any cases where it adopts projections that are materially different from DAA's. It should also demonstrate that it has examined, and taken relevant lessons from, the reasons why previous projections (for example of commercial revenues) were inaccurate in practice. And it should provide as much certainty as possible where it introduces new regulatory mechanisms that will operate across several price control periods.

2.4. A Consistent Approach

Finally, we note that it is important that CAR adopts an approach to regulation that is internally consistent. There are two aspects of this:

- § when confronted with similar situations, it should adopt a consistent approach regardless of whether it is dealing with a matter that works to DAA's advantage or to its disadvantage;
- § CAR's projections should fully recognise the interdependencies between airport revenues and costs. For example, if CAR were to "disallow" an investment on the basis that expected traffic volumes will not justify it, ¹² then it should ensure that the traffic forecasts used for other aspects of the determination are similarly pessimistic.

These requirements are closely related to the danger of increased regulatory risk, as noted in Section 2.3. If CAR's approach to regulation appears inconsistent, and especially if it appears opportunistic or biased, then this will significantly reduce the confidence that the investment community will place in CAR's decisions.

This could be CAR's own view, or it could be the reason given by airlines during capex consultation for failing to support the proposed investment.

We would encourage CAR to ensure that its approach to regulation and individual assumptions are internally consistent.

3. Remuneration of Capital Expenditure

3.1. Context

There are two different aspects to the remuneration of capex for regulated firms:

- § the capex forecast that the regulator adopts in its forward looking projections at the time of each price cap review; and
- § the figures that are used, retrospectively, to update the RAB at the next price cap review these could be the regulator's original forecasts, the firm's actual expenditure, or some combination of the two.

In the 2005 Determination, CAR based its forward looking projections on its consultants' assessment of DAA's May 2005 capex projections, which were about 16 per cent lower than DAA's figures. In addition, CAR rolled forward the RAB from 2001 mainly on the basis of DAA's actual capex, though with adjustments to clawback the income DAA received because expenditure on Pier D had previously been included in its projections.

Subsequent to this Determination, CAR consulted on the treatment of DAA's revised capital investment programme, and during the 2007 Interim Review put forward new proposals for the dealing with capex during the next price control period. Among other things:

- **§** CAR "foresees" unitising depreciation charges for T2 this is discussed in Section 3.3 below; and
- § it will consider introducing trigger prices for major investment projects (including T2 if it is not complete by 2010) this is discussed in Section 3.4.

CAR then published, in November 2007, a discussion paper giving guidance on the approach to capex consultation. This paper referred to the benefits from moving away from the system where CAR carries out a detailed review of capex plans. It describes the information that DAA should supply to CAR, which includes an explanation of any parts of the investment plan that airlines have not been able to comment on or have disagreed with, together with DAA's rationale for proceeding without agreement from the airlines. This is discussed in the next section.

3.2. The Role of Airlines

CAR's clarification of the potential role of airlines in validating proposed capex is welcome, as is CAR's acknowledgement in the discussion paper that "its primary role should be in determining *how* allowed costs are remunerated such that the DAA and the IAA are incentivised to deliver services as efficiently as possible".

It is important, however, that CAR takes a realistic view of the consultation process. In particular:

§ remuneration of capex should not be conditional on DAA securing agreement from airlines about either the need for or the cost of a proposed investment; and

§ CAR's approach to regulation should not provide encouragement to airlines to engage in strategic or unconstructive behaviour during the course of the consultation process.

It would be naïve in the extreme for CAR to expect frequent agreement from consultation with the airlines using Dublin Airport. Indeed, CAR itself issued a press release in May 2008 criticising Ryanair's "wasteful policy of serial litigation" and calling for a change so that regulation is conducted "in a more constructive and less adversarial pattern". In a previous letter, CAR described the substance and tone of Ryanair's correspondence as "intemperate, ill-informed and unconstructive", referred to its "consistent refusal to engage this office in formal consultation", and stated that it had offered the Commission "only stylistic hyperbole rather than substantive and useful comment". 13 CAR cannot realistically expect, therefore, that a sufficient number of airlines will agree to proposed investment that, almost by definition, would lead to an increase in airport charges.

Consultation imposes costs on both DAA and airlines, especially if some airlines adopt an aggressive or uncooperative approach. It also risks delaying much needed investment, especially if CAR insists on extensive efforts being made to try to reach agreement even if airlines are behaving unconstructively. If these costs and any risk to the timing of investment are to be justified, then it is essential that a failure to reach agreement does not lead to either an investment being excluded from the RAB or else CAR simply carrying out the same kind of detailed review of capex that it has during previous price cap reviews.

While we would expect DAA and some airlines to try to reach agreement, CAR must recognise that widespread agreement between all stakeholders may be impossible to achieve. This is especially likely if, as CAR has suggested in CP8/2007, consultation covers the cost as well as the physical characteristics of DAA's proposals. A realistic view of the role of consultation might therefore:

- § describe the requirements of a consultation process that CAR will accept as representing a genuine attempt to engage with users. This should recognise the contributions required from all parties to an effective consultation process;
- **§** require DAA to report on the consultation process, the objections or counterarguments raised by airlines, how it has responded to these, and why it believes the investment should go ahead.

Some investments may be planned with a very long lead time – for example because they form part of an overall masterplan, because they require planning or other approvals which introduce a further risk of delay, or because it is more efficient to undertake this investment in conjunction with other projects. In such cases, it may be unrealistic to expect DAA to demonstrate current user demand for such facilities.

It is especially important, moreover, that CAR's approach does not facilitate or indeed encourage strategic behaviour by those involved in consultation. If, for example, CAR required agreement from the airlines before it would approve a proposed investment, the effect of this approach might be to provide airlines with an effective veto over DAA's

Letter from Bill Prasifka to Michael O'Leary, 28 April 2004.

investment programme.¹⁴ This could be used by an airline that simply wants to disrupt the process, or it could be used by an airline which believes that a failure to invest will hurt its competitors (or its passengers) more than itself. Equally, an airline might decide to "call DAA's bluff", hoping that DAA will carry out some investment in order to avoid major congestion problems even though CAR has not approved any expenditure.

The risk of strategic behaviour applies not only to the outcome of the consultation process, but the way that stakeholders depict the process itself. A case in point arises in the example of a consultation process, and how it might feed into regulatory price cap reviews, that CAR provides towards the end of CP8/2007. The process described in this example includes two strong disincentives for users to agree to proposed investments (in this case by IAA)

- § first, CAR states that if no agreement is reached, but it believes that the regulated company attempted to consult constructively, then it will review the costs and the rationale for the project with a view to including it in the price cap calculations. Given this situation, and especially in view of CAR's track record of making downward adjustments to DAA's expenditure projections, airlines may well see a refusal to agree as a "one way bet" since
 - it is highly unlikely that CAR will adopt an expenditure projection higher than DAA's final position during the consultation, so there is almost no chance of a worse outcome,
 - but CAR's track record suggests that there is a significant probability that it will adopt an expenditure projection somewhat below DAA's own, thus airlines will perceive a significant chance of obtaining a better deal if they refuse to agree with DAA's position, regardless of whether or not it is reasonable,
 - and airlines might be encouraged to prolong a failing consultation process in order to reduce the time available for CAR's own review.¹⁵ It is important that CAR spells out the steps that it will take if no agreement is reached, and the date by which consultation must conclude so that it has sufficient time to carry out these steps;
- § second, CAR states that if it concludes that the regulated company failed to consult constructively, then it is unlikely to include an allowance for the project in the RAB. Such statements may simply encourage airlines to claim, rightly or wrongly, that DAA failed to consult constructively, in the hope that CAR will exclude expenditure from DAA's RAB (thus leading to lower charges than otherwise) because of this.

It is important, therefore, for CAR to assess the impact of that its own statements may have on airlines' incentives to engage constructively with DAA. And it must take a realistic view of the chances of such engagement leading to agreement.

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This could be the effective outcome despite CAR's recent open letter (4 June 2008) to DAA and the Dublin Airport Capex Consultation Committee (DACC) which states that, even though the DACC represents a significant proportion of current (and probably prospective) users, this does not imply that its members have "the final say" on allowed capex.

This could be because they expect that, if only a short time is available, CAR's review will be based on high level benchmarks and more likely, as compared with a detailed study, to lead to a significant downward adjustment to DAA's capex allowance.

When carrying out its own consultation on particular issues or provisional findings, moreover, 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.

We welcome CAR's clarification of the role of airline consultation. In taking this forward, it is vital that CAR takes a realistic view of the likely outcome of consultation.

Approval of a proposed investment should be based on the existence of an effective process, plus due consideration by DAA of reasonable representations from airlines, rather than a requirement that consultation leads to agreement with the majority of users. And CAR should ensure that it does not unwittingly provide further opportunities for airlines to adopt a strategic or unconstructive approach to consultation.

More generally, CAR should regard its own consultations as information-gathering rather than a consensus-building exercise.

3.3. Unitisation

CAR has stated that it foresees unitising the depreciation charge for T2. As described in CP5/2007, this involves:

- **§** depreciating the costs of T2 on a constant unit cost (per passenger) basis, starting from the point that T2 assets are added to the RAB;
- § assuming, initially, that traffic grows in line with DAA's financial model and at 3 per cent a year from 2014, but updating the traffic forecasts and re-estimating depreciation charges at each five-yearly review.

CP6/2007 confirms that CAR expects to apply this approach, but gives no further details of any specific proposals. CAR states that the rationale for this approach is "to seek to have all passengers benefiting making roughly the same contribution towards the necessary capital expenditure". It is not clear whether (and if so, why) CAR believes this will promote economic efficiency.

While CAR's documents do not provide specific details of this proposal, DAA's response to CP5/2007 reveals that the passenger base for CAR's proposed mechanism would be incremental passengers above the assumed "comfortable capacity" of T1, and capped at the estimated total capacity for T2.¹⁶ This produces an uneven pattern of charges per passenger

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See Section 6.2 of DAA, Response to Draft Decision – Interim Review of 2005 Determination on Maximum Levels of Airport Charges at Dublin Airport, 21 June 2007.

in relation to T2 over time, with a sharp peak around 2025. It is far from clear, moreover, why the mechanism is based on incremental passengers and not total passenger volumes, since all passengers will benefit from the provision of additional terminal capacity at Dublin Airport.

Viewed purely in isolation, and ignoring the calculation issues described above, then the objective of aligning the revenue stream with the growth of passenger numbers may not be an unreasonable one, albeit with a number of significant practical problems (including increased regulatory risk) as discussed below. However, in the context of an existing airport previously operating under a conventional RAB-based approach, CAR's justification appears more questionable. Existing airport users benefit from the fact that major investments that DAA (or Aer Rianta) carried out in the past have been written down using a conventional depreciation profile, rather than one that attempts to backload the revenue stream.

If T2 is viewed simply as one component of the many investments over a number of years that have created Dublin Airport, then it is much less clear that (as CAR appears to believe) conventional RAB-based remuneration would place an unfair cost burden on existing users. But to the extent that an exceptional increase in charges might occur, then this simply reflects the scale of investment required in T2 following many years during which the airport has been operating at or close it its terminal capacity. During these years, current and recent users have benefited from that fact that past investments have been written down.

Even if CAR persists with its proposed approach in the case of T2, it would be difficult to justify extending the application of the unitisation approach beyond such exceptional projects. If it were considering such a course of action, it would be important for CAR to set out clearly the justification for treating investment in this way. This justification should, among other things:

- § be placed in the context of an existing airport with current users benefiting from the fact past investments have already been written down, rather than a specific project viewed in isolation. An extension of the unitisation principle would confer a unique advantage on current airport users, as it would involve a switch from a system whereby past users have largely funded the existing assets at Dublin Airport to one where new assets are largely funded by future users;
- § demonstrate the material economic efficiency benefits that would be delivered in practice. This should not be simply a theoretical explanation, as CAR will need to show that these benefits are sufficiently large that they outweigh the likely disadvantages, including
 - the increased complexity of regulation, as different assets will be remunerated in different ways and CAR will need to spell out detailed arrangements that will apply in future price control periods,
 - the increased regulatory risk associated with the postponement of revenues and the implementation of a different form of regulation from that used previously; and
- § explain the overall impact of this proposed approach, and how it is consistent with the requirement for CAR to place the minimum restrictions on DAA consistent with its functions;

§ take account of the likely increase in perceived risk and the resulting impact on DAA's cost of capital.

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". ¹⁷

More generally, it seems somewhat counterintuitive that, compared with a 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 order to advance revenues at times of major investment, whereas CAR's proposal is equivalent to a postponement of depreciation.

If CAR persists with its proposed approach, therefore, it will be especially important for it to ensure that its price cap proposals do not put undue financial pressure on DAA, and that DAA will be able to continue to finance its activities (including necessary investment) under a range of reasonable downside scenarios. As part of this, CAR must take a realistic view of the likely impact on DAA's financial position of introducing new and untested mechanisms that have the effect of delaying revenues.

CAR's unitisation proposals introduce additional regulatory risk, related to both the postponement of revenues and the unfamiliarity of this proposed approach. It will be essential, therefore, for CAR to spell out in detail the precise way in which regulatory depreciation will be calculated in future price control periods, and to give as firm a commitment as possible to follow this path even if it means higher airport charges in later years. A very clear explanation of CAR's specific proposal will help in a number of ways, including:

- § providing greater clarity to DAA, airport users and the investment community about the specific details of this new proposed arrangement, and the impact of these arrangements on DAA's risk profile. This is important because, whereas the conventional treatment of capex under price cap regulation is well-known and understood, CAR's proposals are not. As described above, and especially if depreciation charges are recalculated at each review, the implementation of CAR's proposals could be very complex indeed;
- § reducing regulatory risk, by making CAR's commitment as clear as possible. 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

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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.

effectively break the current promise while claiming consistency with their particular interpretation of the current proposal.

We would encourage CAR to consider any proposals to adopt unitised depreciation very carefully, both for T2 and for any other major investments in future. CAR should consider the revenue streams as part of the generality of remuneration from users of Dublin Airport, rather than specific payments for T2 or any other specific facility. And it should demonstrate the economic efficiency rationale for any such proposals in the context of existing RAB-based regulation, rather than a specific investment viewed in isolation.

If CAR does proceed with unitised depreciation, it will be especially important for it to ensure that this does not place DAA under financial pressure, including under reasonable downside scenarios, and that the way in which regulatory depreciation will be calculated in future years is described as clearly as possible.

And in the case of T2, we would encourage CAR to consider carefully its proposal to relate the unitised depreciation charge to the number of "incremental" passengers, as this results in a pattern of charges that appears to differ from its stated objective.

3.4. Trigger Pricing

CP1/2007 states that trigger prices might be included in price caps for two main reasons – to encourage firms to complete projects in a timely manner, and to align the date when users start paying for a service with the date that it becomes available. More recently, CAR states in CP6/2007 that it will consider introducing trigger prices for major investment projects, including T2 if it is not complete by 2010. The guiding principle will be that the trigger price "allows DAA to start collecting revenues once T2 achieves operational readiness".

Trigger pricing has a number of attractions in theory. But it 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.

If CAR does use trigger pricing, therefore, it is essential that the triggers are well designed, and that careful thought is given to the amount of revenue that depends on the trigger. As an absolute minimum, CAR should ensure that:

- § any triggers are specified in sufficient detail, so that there is no risk of dispute as to whether or not the requirements of the trigger have been satisfied. A poorly-defined trigger will increase regulatory risk, especially if it gives CAR discretion to decide whether or not the requirements are satisfied, and may give rise to costly, time-consuming and damaging disputes;
- § no triggers are applied that can be materially influenced by airlines or others who might stand to benefit from any delay. If DAA is required to consult with airlines, for example, then triggers should only be defined once this process has been completed;

- § any triggers that are applied relate to the generality of a project, rather than an isolated aspect that can be prioritised even if construction of the rest of the facility is delayed;
- § the additional revenue linked to each trigger is not so large that DAA will be incentivised to make inefficient decisions for example to press ahead with construction in cases where a delay might be more appropriate;
- § the circumstances under which triggers can be suspended are defined in advance, and cover the main circumstances under which DAA might need to suspend construction due to events outside of its control. The circumstances that should be considered range from major traffic shocks to legal challenges (for example, by one or more airlines) that might cause delays or prevent construction from going ahead;
- § if the impact of trigger pricing is to increase DAA's expected costs (for example because of asymmetries in either the mechanism itself or the distribution of risk), then these additional costs should be remunerated through the main price cap. Triggers should not be viewed purely as mechanisms to punish the late delivery of investment; and
- § a process exists whereby DAA can propose variations in the construction schedule that would either improve efficiency or better meet the needs of users, and appropriate adjustments to the triggers are implemented so that DAA is not discouraged from identifying and exploiting such opportunities.

This is not a theoretical "wish list" for the ideal trigger, but rather a list of minimum requirements, all of which must be satisfied. Serious problems are likely to arise in practice, most likely involving an adverse impact on economic efficiency, if CAR applies trigger pricing in a way that does not at least meet, and ideally exceed, the above requirements.

In addition to the general application of trigger pricing, CAR has proposed a "two box" approach to the remuneration of the costs of T2. The motivation for this proposal appears to be a disagreement between DAA and CAR's consultants over the appropriate size of T2. This proposal raises many of the issues already discussed in previous sections of this report, including:

- § internal consistency CAR's proposals will increase DAA's exposure to demand risk. This should be reflected in DAA's cost of capital;
- § regulatory risk it will be important for CAR to make strenuous efforts to reconcile the views of DAA with those of its own consultants. If it ultimately adopts the view of its consultants, this should be based on robust and detailed evidence;
- § postponement of revenues CAR must make as clear as possible the basis on which DAA's future remuneration will be calculated, ¹⁸ and ensure that its proposed price cap allows DAA to withstand a range of reasonable downside scenarios notwithstanding the postponement of revenues;
- § trigger pricing CAR must ensure that the conditions necessary for DAA to receive the Box 2 revenues are clearly defined and cannot be manipulated by airlines, and that it

Among other things, this requires clarification of the way that asset inflation, general price inflation and financing costs in relation to Box 2 costs will be dealt with, along with specific details of when Box 2 costs will be remunerated, how that remuneration will be calculated, and what will happen in the event of exceptional circumstances.

clarifies how its proposals might be applied in exceptional circumstances (such as a major long-term traffic shock or the bankruptcy of a major user).

As part of the process of comparing the views of DAA and its own consultants, it will be important for CAR to take full account of both the size of terminal required at any point in time and also the possible efficiency benefits from a temporary over-provision of capacity, if this leads to lower costs than a series of smaller incremental construction projects. To the extent that some of the differences between DAA and CAR's consultants reflected the limited time that the consultants had available for their work in 2007, the forthcoming review will allow these issues to be investigated in more detail and hopefully resolved.

If, following this detailed analysis, CAR has robust evidence that T2 is "too large" and therefore decides to place additional risk on DAA, then CAR should ensure that this is part of a balanced package. Among other things, this requires additional demand risk to be reflected in DAA's cost of capital, and that DAA has some upside potential (ie it will benefit if its proposed approach leads to more efficient construction costs or if the capacity is indeed required earlier than expected by CAR) as well as the exposure to downside risk that results from the two box approach.

We draw CAR's attention to the serious risks that arise if trigger pricing is applied without taking full account of the numerous practical difficulties and the risk of serious distortions. For this reason, we suggest that trigger pricing is applied, if at all, only to very major projects and to a small number of triggers.

We would encourage CAR to make strenuous efforts to resolve the different views of its consultants and DAA over the size of T2, which may remove the need for a "two box" approach altogether. However, if CAR does retain the two box approach, there are a number of important practical issues that it will need to address.

4. Structure of Charges

4.1. Context

In CP1/2007, CAR raised the possibility that DAA might:

- **§** introduce differential charges for airlines using T2;
- § introduce peak-load pricing at Dublin Airport in order to fund at least part of T2.

In CP6/2007, CAR states that it does not propose to impose peak or differential pricing on DAA. However it also states that it considers both options have merit, and that "the Commission will not automatically include in the RAB proposed investments agreed between one user and the DAA on the basis that there will be no differential pricing." And it also states that a willingness to pay peak prices would provide evidence that T2 users valued the additional peak capacity provided by T2 sufficiently to justify the additional costs.

In addition, CAR noted in CP5/2007 that some form of differential pricing might allow DAA to recover the "Box 2" costs of T2 earlier than under CAR's current proposals.

4.2. Differential Pricing

CAR has raised the possibility of differential pricing and made a number of different comments about its role. At face value, the statement that it does not envisage introducing sub-caps requiring peak or differential pricing appears consistent with the general role of economic regulators, as described in Section 2.2, and also the requirement that CAR imposes the minimum restrictions on DAA consistent with its functions.

During the forthcoming price cap review, however it will be important for CAR to be clear about its view in relation to differential pricing. As referred to above, there are a number of statements in CP5/2007 and CP6/2007 that at least imply that the use of differential pricing:

- § might allow DAA to receive remuneration for some T2 construction costs earlier than otherwise; or
- § might be taken into account when CAR decides whether or not to add the cost of a project to DAA's RAB.

CAR should clarify its position on these issues and on differential pricing in general. If it either requires or strongly encourages DAA to implement differential pricing, then it should examine the likely economic efficiency impacts in practical rather than theoretical terms. It should also explain how such an approach is consistent with imposing the minimum restrictions on DAA consistent with CAR's functions.

Many of the comments in CP5/2007 and CP6/2007 appear to be based on one of three possible reasons for introducing differential pricing:

- § as some kind of signal of airlines' willingness to bear the cost of the necessary investment; ¹⁹ or
- **§** to promote equity, so that users who do not benefit from new investment do not have to pay higher charges;²⁰
- **§** to allow users to choose between low-cost and high-cost facilities.

It is questionable whether the first two of these objectives for differential pricing are consistent with the promotion of economic efficiency, and there are significant practical problems with the third.

Regarding the first of these possible reasons, CAR does not seem to have addressed the likely conflict between (a) a structure of charges that promotes allocative economic efficiency; and (b) a structure of charges that reveals users' willingness to pay for particular investments. In general, charges that promote allocative economic efficiency should be based on short run marginal cost. While, in practice, it is very likely that charges will need to be higher than short run marginal cost, in order for DAA to cover its total costs and earn a reasonable return, the promotion of allocative economic efficiency suggests that any mark-up over marginal cost should be based on the likely price sensitivity of demand. This will be related to factors such as the availability of substitutes and the profitability of the service in question, rather than whether or not an airline wishes to make use of a particular facility.

While it is true that using the price system to measures users' willingness to pay for particular facilities might in theory contribute to dynamic economic efficiency, in practice this is very questionable as:

- § it is very difficult to make any connection between an airline's response to high charges at a particular point in time (which will depend to a large extent on the nature of the most marginal services) and the benefits that a proposed investment will deliver, over its entire lifetime, to users of that facility (most of whom will be intra-marginal);
- § in any case, CAR already has the benefit of information provided by DAA's consultation with airlines, its consultants' review of DAA's plans, and indeed a cost-benefit study commissioned by CAR. While we believe there are serious problems associated with some of this evidence,²¹ these should be addressed by rectifying the specific problems

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In Section 6.4 of CP5/2007, for example, CAR states that "the Commission does not intend to intervene and mandate differential prices now, although the DAA is welcome to engage in such a pricing policy as a means of ensuring that user demand for the two terminals is consistent with the capacity that the two facilities can provide".

In Section 7.5 of CP5/2007, for example, CAR states that "If DAA can reach agreement with users that benefit from access to a large T2, while protecting other airport users for whom the proposed facility seems unnecessarily large, the Commission would consider alternative pricing structures that allow DAA to start recovering at an earlier date the costs currently envisaged for when airport wide demand exceeds 30 million passengers per annum."

The results of the cost-benefit study, in particular, are presented in an unconventional way which gives a potentially misleading impression of both the potential net benefits of the projects (including whether or not they are positive) and their optimal timing. In addition, the study fails to reflect either the costs of delays, disruption and poor service quality that will be caused if the new runway and terminal are delayed, or the longer term benefits that will be delivered beyond the first year of operation of the new terminal or runway (when traffic volumes and therefore benefits will be greater). See NERA, Review of the Cost Benefit Analysis of Terminal 2 and Runway 2 Undertaken by CEPA on Behalf of the Commission for Aviation Regulation, March 2007.

- with each of the studies, rather than attempting to rely instead on the very imperfect information that might be provided through users' reactions to higher charges;
- **§** the departures required from the set of charges that best promotes allocative economic efficiency could be quite significant.

Similarly, it is far from clear that CAR's apparent desire to protect non-T2 users from any increase in charges is consistent with the promotion of economic efficiency. To date, airport charges at Dublin have been based on the following principles:

- § some discretionary services, where airlines can choose whether or not (or for how long) to use that service, are subject to separately identifiable charges. These include for example the use of airbridges, contact stands, apron parking and CIP lounges;
- § otherwise, users pay a common airport charge that covers all remaining general airport services. Any differences in the costs of facilities used by different airlines are usually relatively minor and, over the longer term, likely to even themselves out.

Unwarranted departures from this approach could lead to an inefficient structure of charges and potentially distort competition between airlines. The use of differential pricing might be more justifiable if it is certain that accommodating the extraordinary requirements of one particular airline has resulted in a material increase in costs. Even in this case, however, it is not clear that differential pricing will promote economic efficiency, as this depends on the trade-off between:

- § dynamic efficiency, which will be promoted by a pricing system that reduces the risk of DAA undertaking either too much or too little investment; and
- § allocative efficiency, which is likely to be frustrated by a pricing structure that imposes higher charges on certain airlines where these do not reflect differences in marginal cost (or the other components of a charging system that promotes allocative efficiency).

Furthermore, such differential pricing should only be considered once it has been firmly established, with robust evidence, that this is indeed the case. The potential for DAA to implement differential pricing, as an alternative means of funding a project, should not be used as a justification for CAR to lower the burden of proof that it requires before deciding that a proposed investment should not be funded from the generality of airport charges.

The third justification for differential charges is that they apply in cases where materially different services, with significantly different costs, are provided to users. The theoretical case for differential pricing in such cases is clear. But there are a number of potential problems that will need to be examined before differential pricing is applied in practice. These include:

§ the significance of cost differences, and the overall impact of these differences on airport charges. If CAR adopts the principle of cost-related price differentials between terminals, 22 it will need to examine whether the net impact on airport charges will

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We note that CP5/2007 does not give an entirely clear view as to whether or not price differentials should be costrelated. CAR notes the findings from a Jacobs report that differential charges should be transparent, non-discriminatory and cost-related. Later in the same section (6.4), however, CAR states that "If all users would prefer to be in T2, the

facilitate a sensible structure of charges. Unexpected price signals could arise, for example, if passengers at T2 generate more commercial income than passengers at T1 and this more than offsets any cost difference (especially since the initial cost of T2 will be moderated if CAR implements its proposed unitised depreciation, as discussed in Section 3.3). CAR should thoroughly investigate such practical questions, rather than pressing for differential pricing on mainly theoretical grounds;

- whether airlines will be able to choose, in practice, between the differently priced terminals. Some may be "captive" to one or other, because of the facilities offered there. For other airlines, however, there is a danger that a price differential that is high or low relative to the quality difference will prompt a high proportion of airlines to select one or other terminal. The economic efficiency justification for differential pricing ceases to apply if capacity constraints mean that airlines cannot respond to these price signals. And inappropriate price differentials may also reduce economic efficiency if they lead to congestion an one terminal and excess capacity at the other;
- § a further risk is that price differentials could distort competition between airlines. This is less likely to occur if price differentials are based on cost differences and if airlines have a free choice about which terminal to use. But if some airlines cannot use the lower cost terminal, either because they require facilities that are only available at the higher cost terminal or because there is excess demand for the lower cost terminal, then they may be at a competitive disadvantage compared with those who are able to use the lower cost terminal.

Notwithstanding the theoretical attractions of differential pricing, therefore, it would be very important for CAR to thoroughly examine the practical implications before either imposing such a structure on DAA or making its revenues conditional on the possible use of differential prices. As part of this process, CAR should consider whether its proposals might restrict DAA's flexibility to introduce other changes to the structure of charges that might have an even stronger impact on economic efficiency.

We would encourage CAR to be clear about the specific rationale for any proposed differential pricing and how this helps to promote economic efficiency. CAR should also demonstrate that it has thoroughly examined practical questions such as whether there is genuine user demand for different services, whether the cost differences are both material and permanent, whether airlines will really be able to choose between the differently priced facilities, and whether competition between airlines might be distorted.

This applies equally whether CAR formally requires DAA to implement differential pricing or whether it simply regulates in a way that will reduce DAA's expected income if it does not implement differential pricing.

Commission would expect a lower charge to apply for users operating out of T1 and vice versa", thus suggesting that differential prices should be based on airline demand rather than costs differences.

4.3. Peak Pricing

CAR's approach to the potential introduction of peak pricing is very similar to that it has adopted in relation to differential pricing. Many of the same issues arise.

Peak-load pricing is a well-established methodology which, where applied appropriately, can help to promote economic efficiency. Typically, it aims to reduce the use of a network at times of peak demand, and encourage users to switch their demand to less busy times. However, the form of peak pricing suggested by CAR in CP5/2007 and CP6/2007 is unlikely to promote economic efficiency in this way.

CAR suggests that peak pricing might be applied at T2 only – in other words to a facility which CAR believes will be too large. Rather than managing peak demand, therefore, CAR's rationale for suggesting peak pricing seems to be based around either the first or second justifications discussed above for differential pricing – either to test airlines' willingness to pay for a large T2 or else to avoid the cost of the "excess" capacity being paid by airlines who do not use it. As discussed in Section 4.2, a pricing structure introduced for either of these reasons seems unlikely to promote economic efficiency.

Especially if a peak charge for T2 users was applied for a number of years, it might well harm economic efficiency. The higher charge might render some services unprofitable and therefore lead to their withdrawal, even though they could cover their marginal costs and might be viable in the absence of the peak charge. A peak charge might also encourage airlines to move some services to off-peak times, even though in the absence of congestion at T2 there might be no cost saving to DAA from such a move and considerable disadvantages for passengers who would prefer to travel at peak times. Unnecessary schedule changes, to reduce the number of peak services, might also interfere with airlines' aircraft usage and staff rostering decisions and thus lead to cost increases, again without any corresponding benefit in terms of lower costs for DAA or less congestion at T2 (until such time as, notwithstanding the higher charge, the terminal is busy at peak times).

If CAR is considering proposing peak-pricing more generally, rather than simply for T2, then this may raise a range of other practical issues. It would be important for CAR to address these details, and to thoroughly examine the likely impact of its proposals in practice, to ensure that any practical difficulties or implementation costs do not outweigh the benefits from peak pricing. Otherwise, an appropriate approach would be to allow DAA the freedom to introduce peak pricing (or other changes to the structure of charges), but not to require this either explicitly or implicitly.

We would encourage CAR to be clear about the specific rationale for any proposed peak pricing and how this helps to promote economic efficiency. Peak pricing that is introduced to test airlines' willingness to pay for T2 or for apparent equity reasons is unlikely to promote economic efficiency.

If CAR is considering a more general introduction of peak pricing, it will be important for the many practical questions, and the likely impact of its proposals in practice, to be examined in detail. This applies equally whether CAR formally requires DAA to implement peak pricing or whether it simply regulates in a way that will reduce DAA's expected income if it does not implement peak pricing.

NERA

Economic Consulting

NERA Economic Consulting 15 Stratford Place London W1C 1BE United Kingdom Tel: +44 20 7659 8500

Fax: +44 20 7659 8501 www.nera.com