



Proposed Maximum Levels of Airport Charges

Draft Determination and Explanatory Memorandum

Commission Paper CP6/2001

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1. Executive Summary

Since its establishment on 27 February 2001, the Commission has devoted much of its attention and resources to preparing a draft determination and explanatory memorandum with respect to maximum levels of airport charges. The Commission is now in a position to do so, and as a result, it wishes to commence the period of statutory consultation provided for in Section 32 of the Aviation Regulation Act, 2001 ('the Act').

The Commission has been greatly assisted by the submissions and comments of interested parties as well as the public. Accordingly, the Commission wishes to acknowledge the efforts of the many contributors, and looks forward to their continued involvement in the consultation process.

In accordance with CP1/2001, one purpose of this paper is to allow interested parties and the public to ascertain in general terms the impact or effect of the proposed determination. A further purpose is to inform interested parties and the public of the Commission's degree of reliance on each of the statutory factors. That analysis is set out in Section 3, followed by Section 4, which details the proposed maxima, which in turn are explained in Section 5. By way of further assistance to interested parties and the public, the Commission has also published, in Section 6, and elsewhere in this paper, details of significant figures and other inputs relied upon by the Commission in making the proposed determination.

The Commission wishes to draw the attention of interested parties and the public to the steps leading to the determination. During the period in which the Commission will accept written representations in respect of its proposed determination, the Commission will hold a meeting so as to facilitate the making of all representations by interested parties and the public. The arrangements for that public meeting are set out in Section 7 and Annex III in particular. Finally, the attention of interested parties and the public is also

drawn to Annex II of the paper, which sets out the strict conditions which will apply to the receipt of statutory representations.

The proposals contained herein by the Commission are preliminary in nature, and based, inter alia, on the information that the Commission has received and accepted to date. The Commission has made no final conclusions, and none will be made until the Commission has considered any and all representations, which it receives, and has decided to either accept or reject them.

William Prasifka
Commissioner

2. Consultation Process to-date

CP1/2001 announced the process that would be used by the Commission in connection with the making of its determination on maximum levels of airport charges for Dublin, Shannon and Cork Airports. It also announced the Commission's intention to give notice of its proposed determination by publishing a draft determination and explanatory memorandum. The portions of CP1/2001 detailing what form the draft determination and explanatory memorandum would take are set out in Annex I to this Paper.

In CP2/2001, the accompanying paper to CP1/2001, the Commission discussed a number of approaches to economic regulation of airport charges, as well as the range of factors which the Commission must have due regard to under Section 33 of the Act. In response to CP2/2001, the Commission accepted and published 12 submissions from interested parties, which was augmented by 7 sets of comments on the submissions. All of these submissions and comments may be accessed on the Commission's website www.aviationreg.ie. Submissions were accepted and published from: Aer Lingus; Aer Rianta; Servisair; Ryanair; Department of Tourism, Sport and Recreation; Irish Association of International Express Carriers; Irish Hotels Federation; International Air Transport Association; Mid-Western Regional Authority; Portmarnock Community Association; Rural Resource Development Association; and the Competition Authority.

Comments on submissions were accepted and published from Aer Lingus, Aer Rianta, Ryanair, CityJet, Bord Failte, Irish Association of International Express Carriers and The Irish Hotels Federation.

3. Proposed Degree of Reliance on Statutory Factors

Statutory Objective

Under Section 33 of the Act, in making its determination, the Commission is obliged to “aim to facilitate the development and operation of cost effective airports which meet the requirements of users”. The term ‘users’ is not defined in the Act, and accordingly, the Commission will attribute the common sense meaning to this term, namely all users of the airports, such as passengers, cargo shippers, airlines and ground handlers.

In aiming to facilitate the development and operation of cost effective airports, the Commission must have due regard to each of the 10 specified factors contained in Section 33 of the Act. The extent to which reliance on any one of the factors contributes to the achievement of the statutory objective is a matter for the Commission to determine.

In CP2/2001, the Commission proposed that in order to assess the extent to which reliance on the statutory factors contributes to achieving the statutory objective, the Commission would attempt to judge the extent to which economic welfare was enhanced by reliance on each of the factors. As such, the test as to economic welfare, namely whether productive, dynamic or allocative efficiency is encouraged or promoted is simply a regulatory tool, designed to act as a test for whether the statutory objective is being furthered.

Statutory Factors

1. *“the level of investment in airport facilities at an airport to which the determination relates, in line with safety requirements and commercial operations in order to meet current and prospective needs of those on whom the airport charges may be levied¹”*

An assessment of the required capital expenditure (CAPEX) at Dublin, Shannon and Cork airports is a necessary prerequisite in order to have any due regard of this factor. The Commission proposes that by allowing the maximum charges to recover the cost of a CAPEX programme, which is designed to meet the current and prospective needs of users, both productive and dynamic efficiency are enhanced and encouraged, and to that extent, the statutory objective is furthered.

The Commission has prepared its best estimate of a CAPEX programme for Dublin, Shannon and Cork airports based on the information and the documentation it has gathered and its own forecasts. Further information on that programme, referred to as the Recoverable CAPEX Programme, is set out in Annex IV. It should be noted, that consistent with the Commission’s obligation to have due regard to ‘safety requirements,’ the Recoverable CAPEX Programme incorporates, without modification, projects which Aer Rianta has identified to the Commission as being necessary for safety/compliance reasons.

Separately, the Commission has been supplied with details of Aer Rianta’s planned CAPEX programme for the period of the first determination as well as 5 years beyond. In addition, Aer Rianta has been asked to justify that programme by reference to financial analysis and other information. With the exception of projects justified by reason of safety, Aer Rianta has not

¹ Section 33(a)

adequately justified its planned CAPEX programme. As such, the Commission proposes that the Recoverable CAPEX Programme described in the previous paragraph is a more appropriate programme in terms of the investment required in the airport facilities, in line with safety requirements and commercial operations, in order to meet the current and prospective needs of users.

2. *“a reasonable rate of return on capital employed in the investment, in the context of the sustainable and profitable operation of the airport”²*

In order to have due regard to this factor, it is necessary for the Commission to focus on four critical factors, namely: the assets (that are used to provide services, the charges for which are regulated) to be included in the regulatory asset base (RAB); the value of that RAB; Aer Rianta’s cost of capital; and the appropriate rate of return to be allowed to Aer Rianta. Bearing in mind the statutory objective, the Commission must consider the extent to which its treatment of these four factors contributes to the maximisation of economic welfare. In general terms, the Commission proposes that due regard to this factor and reliance thereon significantly assists in the achievement of the statutory objective. In the regulatory context, a reasonable rate of return appropriately rewards the regulated firm for its investments, thereby supporting the company’s ability to meet the future requirements of users. In this manner, the development and operation of cost effective airports that meet the requirements of users is facilitated.

Implicit in the above is the requirement for an examination of the assets that are necessary for the sustainable provision of airport

² Section 33(b)

services and that, therefore, will require replacement in the future. It is these assets that should be included in the RAB. A bottom-up examination would require the Commission to determine the RAB on the basis of new and efficiently constructed airports that have the same capability as the existing facilities. A top-down approach, on the other hand, takes as its starting point the assets contained in the existing facility, and excludes those assets the future replacement of which would not be required for the sustainable operation of the business.

For the purposes of the draft determination, the Commission has, within the limited time available, taken a top-down approach and attempted to define the RAB on the basis of existing assets, excluding those assets, the replacement of which in the future is not critical to the sustainable operation of Aer Rianta's airports.

In relation to the value of the assets, the Commission, for the purposes of the draft determination, has used historic cost net book value of assets reported in Aer Rianta's annual financial accounts, appropriately adjusted to take account of differences between the RAB and Aer Rianta's existing stock of assets. This is the best available information capable of verification by the Commission at this point in time. The Commission recognises that alternative approaches are available, such as a replacement cost calculation, the use of which might be preferred.³ In addition, the Commission is mindful that a historic cost approach might, with appropriate adjustments for inflation and technological changes, better serve to maximise welfare. Interested parties and the public are requested to give special consideration to these issues in their representations.

³ For the purposes of the draft determination the Commission has used the adjusted historic net book value of the assets, in the amount of £333,653,601. If an alternative figure is used, such as one based on the net book value of replacement costs, the impact on the proposed maxima may be significant.

Turning to the cost of capital, the Commission has reviewed recent decisions concerning the cost of capital by other Irish economic regulators and also decisions of a similar nature elsewhere. A careful examination of these decisions, and the extent to which the circumstances of Aer Rianta's business corresponds to those of other regulated companies and other regulated airport operators, has led the Commission to a preliminary view that Aer Rianta's cost of capital lies somewhere in the range of 8% and 9% (exclusive).

Finally, in relation to the rate of return, economic analysis suggests that the reasonableness of a rate of return is best judged by comparing the rate of return with a company's cost of capital. The cost of capital is a measure of the cost to a company of obtaining investible funds. The return is some measure of the profit earned on the company's investments. Over the medium term, unless the rate of return at least matches the cost of capital, the company will not be producing added value, thereby jeopardising the sustainability of the company's future operations. By contrast, if the rate of return of a business consistently exceeded the cost of capital then, in a competitive industry, new firms would be attracted into the industry by the profits to be earned there. This increased competition would serve to lower prices and lower returns nearer to the cost of capital. This reasoning, as well as a desire to provide incentives to the firm to grow the business in the future, would suggest that a regulator should allow a rate of return slightly greater, over the medium term, than the company's cost of capital. This is what the Commission proposes to do. Accordingly, the Commission proposes that the allowable rate of return on capital employed be set at approximately 9%.

3. *“the efficient and effective use of all resources by the airport authority”⁴*

Given its wording, the Commission suggests that due regard to, and reliance upon this factor, promotes the achievement of the statutory objective. Accordingly, the Commission has considered a variety of information to evaluate the efficiency and the effectiveness of the use of all of the airport authority’s resources. Many of the submissions provided assistance to the Commission in regard to the assessment of the efficiency and the effectiveness of the airports, either directly or by reference to a series of reports. Consultants to the Commission prepared a study of Aer Rianta’s operational efficiency and also a detailed review of Aer Rianta’s investment plans. These are discussed more fully in connection with statutory factors 1 (investment) and 8 (international cost competitiveness).

The Commission proposes, in order to have due regard to this factor, to provide for annual operational efficiency improvements at Dublin and Shannon airports and for an appropriate programme for investment in accordance with the Commission’s Recoverable CAPEX programme. Accordingly, the Commission has based its computation of the allowable yield, both now and into the future, on these efficiencies in the airports’ operational and capital budgets.

4. *“the contribution of the airport to the region in which it is located”⁵*

In order to have due regard to Section 33(d) it has been necessary for the Commission to assess the current contribution

⁴ Section 33(c)

⁵ Section 33 (d)

of the airports to the regions in which they are located. As a preliminary remark, the Commission notes that this factor is concerned with the regional contribution, not of one or two of the Aer Rianta airports, but rather with all three.

The Commission has been greatly assisted in its assessment of the contribution of the airports to the regions in which they are located by the submissions of interested parties. The Commission has also been referred to a series of reports, which attempt to quantify, in broad social and economic terms, the contribution of the airports on a regional basis⁶. By necessity, all of that information is historic, but taking account of the uninterrupted growth in traffic at each of the airports, it is fair to assume that the significant social and economic benefits disclosed by these studies and reports have been further enhanced.

In making a proposed determination, the Commission must be mindful of the need to read this factor in the context of determining the extent to which reliance thereon will contribute to achieving the statutory objective, which is concerned with encouraging the development and operation of cost-effective airports that meet the requirements of users. In having due regard to the contribution of the airports to the regions in which they are located, and assuming that relying on this factor furthers the statutory objective, the only tool available to the Commission is the setting of maximum levels of airport charges.

Therefore, if the Commission felt that there was an economic case for a regional subsidy to Airport A, the only power it has to

⁶ See the Aer Rianta submission of 27 March 2001, at Section 4. The Social and Economic Impact Of Dublin Airport by Aidan Meyler, August 1995; The Role of Cork Airport in Regional Development: Strategic Opportunities by Ella Kavanagh, Dr. Eoin O'Leary and Dr. Edward Shinnick, February 2001; Shannon Airport Impact Study by Alistair Tucker in association with Halcrow Fox, Frank L. Benson & Partners and Halcrow Airports Group (commissioned September 1996).

achieve this is by raising the price maximum at Airport B which would allow Aer Rianta to use some of the revenues at Airport B to subsidize charges at Airport A. However, the surcharge at Airport B will be harmful to the region in which that airport is located, even if the subsidy to Airport A is beneficial to its region.

Accordingly, the Commission views that any reliance on Section 33(d) that would have the effect of requiring subsidies would only serve to frustrate the achievement of the statutory objective. In any event, the Commission does not believe that in order to have due regard to Section 33(d) such a stipulation is required. Instead, the Commission notes the significant economic and social benefits that accrue to each of the regions in which the airports are located, and further notes that in setting maximum charges, the Commission is simply doing that. Subject to relevant legal obligations and the wishes of the shareholder and its legal obligations, Aer Rianta is free to price below the maxima, or to use allowable revenues to fund investments which are not strictly necessary in order to meet current or prospective needs, if either Aer Rianta or its shareholder believes that there are compelling reasons to do so connected with the development of particular regions.

5. *“the level of income of the airport authority from airport charges at the airport and other revenue earned by the authority at the regulated airports or elsewhere”⁷*

In respect of this factor, the Commission must assess what are the appropriate revenues to be taken into account in determining maximum levels of airport charges so that economic welfare is enhanced. The airport operator must be given the correct incentives in relation to the future development of the airport and

⁷ Section 33(e)

users should benefit from economic activity, which they, in part, generate at the airports. In that way, the statutory objective will be furthered.

At present, Aer Rianta earns revenues from airport charges, and revenues from other sources, which for ease of reference, the Commission will refer to as commercial revenues. Behaviour in competitive markets may give some guidance in framing regulatory objectives, since airports are not unique in producing a dual income stream (airport charges related revenue and commercial revenue) for the operator. For example, newspapers or other periodicals produce a dual income stream: the cover price and the sale of advertising. It is a rational, profit maximising strategy for a newspaper to seek to lower its cover price to increase circulation to sell additional advertising. Such behaviour is common in competitive markets.

Section 33(h) refers to "other revenues earned by the authority at the regulated airports or elsewhere." This includes, at a minimum, both revenues derived from airport charges and commercial revenues earned by the airport authority at Dublin, Shannon and Cork airports, and therefore both streams of income will be included in the regulatory tills for the three airports.

Aer Rianta also earns income from international investments and other international activities (Aer Rianta International) and its group of hotels (Great Southern Hotels). Such activities and income streams have not been included in the regulatory tills, as they do not have a sufficient nexus to the regulated activities.

The Commission has considered the potentially adverse incentive effects that a regulatory till, as outlined above, might have on operations at airports reaching the limits of physical capacity. In

these circumstances, the net commercial revenues will have the effect of pushing down charges in circumstances where there is congestion. This would have the effect of encouraging the inefficient use of airport infrastructure, as well as introducing or accentuating any existing allocative inefficiencies, and would, therefore, be contrary to the objective in the Act of maximising economic welfare. In addition, such a regulatory till would also provide Aer Rianta with poor incentives to develop its commercial activities if it knew that the profits from these were always to be used to reduce airport charges, and thus, its revenues from this source. At present, the three Irish airports that are subject to economic regulation do not, in general, have such capacity constraints, although currently there are periods of time when such constraints become evident.

However, the Commission has noted that Dublin airport is showing preliminary signs of some limits on its ability to add to capacity in a cost effective manner. Therefore, for the future, so that charges do not continue to be subject to downward pressures as capacity becomes constrained, and in order to provide Aer Rianta with incentives to make appropriate commercial investments at Dublin airport, the Commission is considering whether both income and capital and operating expenditures arising from new commercial investments at Dublin airport should be excluded from the Dublin regulatory till. Interested parties and the public are requested to give special consideration to these issues in their representations.

6. *“the operating and other costs incurred by the airport authority at the airport”⁸*

⁸ Section 33(f)

In making its Draft Determination, the Commission is proposing a maximum level of airport charges so as to cover all necessary operating and capital costs, while giving a reasonable return on investment to the airport authority. In order to further the statutory objective, the Commission attempted to ensure that operating costs are minimised for a given level and quality of service (productive efficiency) and that planned investment expenditures are consistent with cost minimisation (productive efficiency) and are appropriate to the requirements of airport users (dynamic efficiency).

Consequently, the Commission has incorporated into its calculations, adjustments to the cost data it obtained from Aer Rianta, so as to take account of efficiency improvements, which the Commission considers to be both possible and feasible⁹. These proposals are set out in the discussion of statutory factors 1 and 8. So as to further the statutory objective, the Commission sought to ensure that costs are minimised for a given level and quality of service (productive efficiency) for the purposes of realising its statutory objective.

7. *“the level and quality of services offered at the airport by the airport authority and the reasonable interests of the users of these services”*¹⁰

Each Airport’s price cap is set with reference to: (i) IATA Service Standard B for passenger terminal buildings in accordance with, Aer Rianta’s submission to the CAR, of March, 2001 and (ii) ICAO recommendations and customary industry standards for other facilities.

⁹ See discussion of 33(h).

¹⁰ Section 33(g)

The Commission has noted that different airport users make different demands on the infrastructure at the airport and may find that facilities of a lower standard adequately meet both their needs, and the needs of their customers. In a competitive market, with ease of entry, it would be expected that lower cost facilities would be available to users at a lower price. The Commission is considering the feasibility of addressing this issue in the context of sub-caps within the overall price cap on particular services/facilities at Dublin Airport. The Commission requests all interested parties to address this point in their representations.

8. *“the cost competitiveness and operational efficiency of airport services at the airport with respect to international practice”¹¹*

As a preliminary remark, the Commission acknowledges that benchmarking must be approached with considerable caution, particularly in relation to: the identification of comparator airports; the need to use objective metrics; and, in the interpretation of results. However, due regard to and reliance upon this factor does assist in assessing the comparative efficiency of the regulated firm, while also allowing the regulator to estimate the potential for efficiency gains in the event that there are inefficiencies. In that way, if, as the Commission is proposing, a price cap based on a CPI-X formula is used, then appropriate comparative efficiency analysis will contribute to the Commission's proposals on what the X factor should be for the duration of the determination. As such, due regard to and reliance upon this factor assists in furthering the statutory objective.

In order to have due regard to the cost competitiveness and operational efficiency of the provision of airport services by Aer Rianta with respect to international practice, the Commission has engaged in a benchmarking exercise. Based among other things, on the analysis contained in Annex V, the Commission considers that there is room for Aer Rianta's operational efficiency to be improved. For Dublin Airport, the scope for such improvement has been provisionally evaluated at 15% over 5 years on the basis of the margin between operating expenditure per Work Load Unit (WLU) at the airports mentioned in Annex V¹².

¹¹ Section 33(h)

¹² For a definition of WLU, see Section 5 subsection 3.

Measured on the basis of operating costs per Work Load Unit, Cork Airport appears to be operating efficiently by comparison with its peer group. However, Shannon Airport's operating costs per WLU are considerably out of line with those of the peer group. For example, Shannon Airport's operating costs per Workload Unit are more than two times those of Cork Airport. Accordingly, for Shannon Airport, the scope for improvement in operational efficiency has been provisionally evaluated at 25% over 5 years.¹³

9. *"imposing the minimum restrictions on the airport authority consistent with the functions of the Commission"*¹⁴

Under Section 32(6) the determination may *"operate to restrict increases in any such charges, or to require reductions in them, whether by reference to any formula or otherwise"*. By proposing a revenue cap based on a Workload Unit, (WLU) with the possibility of one other sub-cap in respect of Dublin airport, and none in respect of Shannon and Cork, the Commission will be affording a large measure of discretion to Aer Rianta. Aer Rianta will be free to adopt a completely new charging structure if it wishes, subject to applicable legal obligations, which include both Irish and European competition law.

Accordingly, the Commission has sought to minimise restrictions on Aer Rianta, consistent with its own functions. The Commission views this minimisation as being entirely consistent with the furtherance of the statutory objective.

¹³ The Commission notes the relatively high percentage of transit passengers at Shannon and the significance of commercial revenues at that airport.

¹⁴ Section 33(i)

10. *“such national and international obligations as are relevant to its functions”¹⁵*

The Commission notes that it is only obliged to have due regard to national and international obligations, as are relevant to the functions of the Commission. To the extent that Aer Rianta has safety or compliance obligations under national law, including the Air Navigation and Transport Acts, as well as legislation constituting, and relating to the Irish Aviation Authority, the Commission has had due regard to them in formulating its proposed determination.

In relation to international obligations, Ireland is a signatory to the Chicago Convention, which has been incorporated into domestic law by the Air Navigation and Transport Act, 1964. To the extent that this Treaty creates international and national obligations, the Commission has had due regard to it.

Separately, Ireland as a Member of the EU, is bound by its laws, and in particular the competition rules. Accordingly, Articles 10, 12, 81, 82, 86 and 87 of the Treaty may be generally relevant¹⁶. However, only Article 86 is a directly relevant international obligation. In that regard, the Commission is only proposing maximum permissible WLU yields, which will leave Aer Rianta free to convert those maximum permissible Workload Unit yields into a corresponding price structure for charges. In doing so, Aer Rianta will be bound by Articles 81 and 82 in particular.

¹⁵ Section 33(j)

¹⁶ Under the European Communities Acts, these obligations are also part of the domestic law of the state.

4. Draft Determination

Dublin Airport - conditions

The maximum permitted revenue per workload unit is proposed to be IR£4.96 (6.30) approximately, from the date of entry into force of the determination, subject to an annual CPI adjustment.

Shannon Airport

The maximum permitted revenue per workload unit is proposed to be IR£6.05 (7.68) approximately, from the date of entry into force of the determination, subject to an annual CPI adjustment.

Cork Airport

The maximum permitted revenue per workload unit is proposed to be IR£7.15 (9.08) approximately, from the date of entry into force of the determination, subject to an annual CPI adjustment.

5. Explanatory Memorandum

1. The Commission proposes a price cap on an individual basis for the Aer Rianta airports at Dublin, Shannon and Cork.
2. For all of the airports, the regulatory tills will exclude Aer Rianta International and Great Southern Hotels. For Cork and Shannon Airports, the regulatory tills will include all airport charges revenues and all commercial revenues. For Dublin Airport, the regulatory till will include all airport charge revenues together with all current commercial revenues. For the future, in order to provide Aer Rianta with incentives for appropriate commercial investment and to take account of the fact that Dublin Airport will in time begin to approach capacity limits, the Commission is considering whether or not income and costs from new commercial investments should be excluded from the Dublin regulatory till.
3. The Commission proposes applying a price cap to an airport's average revenues per Work Load Unit (WLU). The WLU is a standard measure of airport output, which combines both passengers and freight. The Commission has adopted the relationship used by the International Civil Aviation Organisation (ICAO) of 1000 passengers equals 100 tonnes of cargo. One passenger equals one Workload Unit (WLU) and 0.1 tonnes of cargo equals one WLU. By proposing to set maximum charges by reference to this formula, both the passenger and cargo dimensions of Aer Rianta's business are reflected in the formula.

In addition, the Commission wishes to invite suggestions, by way of representations, in relation to the feasibility of a tariff basket of

revenues, given Aer Rianta's stated intention to substantially restructure its charges.¹⁷

4. Off-Peak Runway Charges: For Dublin Airport the Commission is considering a sub-cap for off-peak use of the runway, computed by reference to an estimate of the short-run marginal costs of an additional flight using the runway during off-peak hours. Interested parties and the public are requested to give special consideration to these issues in their representations.
5. For the purposes of the draft determination, the Commission has used a top-down approach to the determination of the RAB and a historic cost approach to its valuation.¹⁸ In adopting these approaches, the Commission has used the historic cost net book value of assets reported in Aer Rianta's annual financial accounts, appropriately adjusted, in the case of Dublin airport, to reflect the value of a hypothetically efficient equivalent to pier C, the value of which has been downwardly adjusted by IRE20,968,000. For Shannon Airport the value of the most recent terminal building has been downwardly adjusted by IRE7,242,000.
6. At Dublin Airport, the Commission estimates the scope for improvements in operational efficiency at 15% over 5 years. The Commission estimates that scope exists for improvements in the operational efficiency of Shannon at 25% over 5 years. These figures have contributed to the calculation of the X factor as appropriate.
7. In terms of CAPEX, the Commission is proposing that Aer Rianta be allowed to recover, by way of airport charges, the costs of the

¹⁷ See Aer Rianta submission of 27th March, 2001 at Section 12

¹⁸ Readers are referred to Section 3, Part 2, to the Commissions discussion of Section 33(b) in relation to this issue.

Recoverable CAPEX Programme, the details of which are set out in Annex IV.

8. Reasonable Rate of Return: For the purposes of allowing a reasonable rate of return, the Commission proposes that the allowed rate of return be approximately 9%.

6. Information Relied on to Calculate Maximum Charges

In preparing the draft determination and explanatory memorandum, the Commission has had due regard to all of the information which it received in response to requests for information. Details of statutory requests for information are accessible on the Commission's website, www.aviationreg.ie. In addition, the Commission has had due regard to the annual reports and accounts of Aer Rianta, as well as those of the airport authorities for the airports listed in Annex V.

7. Remaining Elements of Consultation Process

In accordance with Section 32(7) of the Act, the Commission must allow a period, not being less than one month from the date of publication of notice of its draft determination, within which representations with respect to the proposed determination may be made by interested parties or the public. That period will run until 26 July 2001, and the conditions that apply in respect of receipt of statutory representations are set out in Annex II. These conditions will be strictly applied without exception.

The Commission wishes to announce its intention to hold a public meeting on the Tuesday 17th and Wednesday 18th day of July, 2001, at The Great Southern Hotel, Dublin Airport, to allow any interested parties or the public to make all representations with respect to its proposed determination on airport charges. The conditions that apply to that public meeting are set out in Annex III. These conditions will be strictly applied without exception.

Annex I – Extracts from CP1/2001

i) *Supplementing the Statutory Consultation*

Clearly, interested parties as well as the public may wish to make observations not just on the approach, but also on the Commission's use of that approach in arriving at a formula, or series of formulae, from which charges may be calculated. In addition, interested parties may wish to comment on the figures or other inputs, which will be used by the Commission to calculate maximum charges. Based on this analysis, the Commission is of the view that interested parties and the public should be consulted not only on the approach to be adopted by the Commission, but also on the Commission's interpretation of the statutory requirements in order to arrive at a formula or series of formulae.

ii) *Notice by way of draft Determination*

The Act requires the Commission to receive and consider representations with respect to the proposed determination. It would be possible for the Commission to make an announcement, without more, of its intention to make a determination. However, the Commission is of the view that the representation process should be meaningful. Therefore it will publish a notice of its intention to make a determination that contains an appropriate level of detail. This will enable interested parties and the public to ascertain in general terms the impact or effect of the proposed determination. Otherwise, the rights of interested parties as well as the public to make representations could be rendered nugatory.

Accordingly, the Commission will publish a draft determination and explanatory memorandum.

iii) Confidential Information

"The Commission acknowledges that circumstances may arise where the disclosure of highly sensitive confidential information may cause damage to the party supplying the information. Clearly, the Commission will have access to and will analyse all information, but it is also desirable that interested parties as well as the public can see information that is relied upon by the Commission for the purpose of its determination. The Commission has a statutory obligation to give reasons for its determination. Consequently, as a general rule, unless the Commission is able to put all of the information that it is relying on into the public domain, it will be reluctant to rely on that information for the purpose of making its determination. Nonetheless, the Commission is of the view that even where information is regarded as highly sensitive by the disclosing party, it may be possible, whether by means of aggregation or otherwise, to disclose the information in a modified manner. Where justified, the process of aggregation or restatement will be performed by the disclosing party in consultation with the Commission, after the Commission has seen all of the information in original form".

Annex II - Deadline for Receipt of Representations

In paragraph 5.3.2 of Commission Paper CP1/2001 the Commission set out the meaning of deadlines imposed by the Commission in the context of its process leading to a determination on airport charges. That paragraph states that where a date is expressly or impliedly stipulated as a deadline, the closing time for receipt of submissions is 5:00pm on the date in question. In order to ensure that the Commission acts at all times in a fair, transparent and non-discriminatory manner, the Commission is concerned to ensure that all parties making representations in respect of the proposed determination are clear about the meaning of the deadline set for receipt of such representations and the consequences of failing to meet the deadline. The deadline for receipt of representations with respect to the proposed determination on the maximum level of airport charges is 5:00pm on the 26th of July 2001 (the "deadline").

Any party intending to make representations to the Commission on the proposed determination should note the follow conditions, which the Commission will apply with respect to the receipt of representations and the meeting of the deadline. These conditions are supplemental to Commission Paper CP1/2001 and to the extent that anything contained in CP1/2001 conflicts with these conditions, these conditions shall prevail.

1. Subject where applicable to the specific rules set out in subsection 6 below, the time of receipt of representations by the Commission whether in electronic form or otherwise shall be the time when the representations are actually received at or in the offices of the Commission whether sent by post, courier, hand delivery, fax, e-mail or otherwise and all references to "received by the Commission" shall be construed accordingly.

2. The onus will be on the party making representations to the Commission to ensure that the representations are received by the Commission on or before the deadline.
3. The Commission accepts no responsibility and will make no allowances for delays or technical faults, which arise otherwise than as a direct result of an act or omission of the Commission, howsoever caused, and which result in representations being received by the Commission after the deadline or which result in part only of the representations being received by the Commission on or before the deadline.
4. Representations which are received by the Commission after the deadline will be deemed not to have been received by the Commission and they will not be taken into account by the Commission. If a portion of representations are received by the Commission on or before the deadline and the remaining portion received after the deadline, then only that part received by the Commission on or before the deadline will be taken into account by the Commission. The remaining part will be deemed not to have been received by the Commission.
5. In determining the time at which representations are actually received by the Commission, in accordance with the rules set out in this Annex, the Commission shall use the clock settings, time and date stamps in use in the offices of the Commission for Aviation Regulation, on its fax machine and on its information systems, as appropriate.
6. Without prejudice to the generality of the foregoing the following specific rules shall apply to the following situations: -
 - (a) Post
Representations sent to the Commission by post shall be deemed to have been received by the Commission at the time when they were delivered by An Post to the offices of the Commission for Aviation

Regulation at 36 Upper Mount Street, Dublin 2. In the event of any disagreement as to this time, the time at which the Commission received the representations will be deemed to be the time at which they were delivered by An Post unless the party sending the representations can prove otherwise.

(b) Courier or Hand Delivery

Representations sent to the Commission by courier or hand delivery shall be deemed to have been received by the Commission at the time when they were delivered by the courier company or the person effecting hand delivery to the offices of the Commission for Aviation Regulation at 36 Upper Mount Street, Dublin 2. In the event of any disagreement as to this time, the time at which the Commission received the representations will be deemed to be the time at which they were delivered by the courier company or the person effecting hand delivery unless the party sending the representations can prove otherwise.

(c) Fax

The Commission will be deemed to have received representations sent by fax at the time of receipt by the Commission of the last page of the fax transmission containing the representations. In the event that the Commission starts to receive a fax transmission prior to the deadline and the fax transmission is not completed until after the deadline, the Commission will only be deemed to have received that portion of the transmission sent on or before the deadline. By way of example, fax sheets bearing a time stamp of 5:01p.m. on the 26th of July or later will be deemed not to have been received by the Commission.

(d) Electronic Mail

The Commission will be deemed to have received representations sent by electronic mail at the time when the electronic mail containing the representations enters the information system, which the Commission

has designated for the purpose of receiving electronic communications. In this case the information system represented by the electronic mailing address info@aviationreg.ie is the information system that the Commission has designated for the purpose of receiving electronic communications. No other address of the Commission or its staff should be used.

Annex III – Conditions of Meeting

1. A public meeting will be held on Tuesday 17th and Wednesday 18th July 2001 at The Great Southern Hotel, Dublin. The meeting will commence at 10.00 a.m. It is envisaged that the meeting will last for two days however, the Commission reserves the right to shorten or lengthen the duration of the meeting depending on the number of parties who express an interest in making representations at the meeting. A maximum of 7 hours per day will be devoted to the meeting.
2. Any interested parties or members of the public may make representations at the public meeting.
3. Any interested party or member of the public wishing to make a representation to the Commission at this public meeting must notify the Commission in writing of their intention to do so, such notification to be received by the Commission no later than 5.00 p.m. on Tuesday 10th of July 2001. The Commission will not accept any notification of intentions to make representations at the meeting after this deadline. Therefore failure to notify the Commission in advance of this deadline of an intention to make representations at the meeting will mean that such parties can make written representations only. The receipt of notification under this paragraph shall be governed as if it were a deadline specified in Annex II.
4. There is no requirement to notify the Commission of an intention merely to attend the public meeting if you do not intend making representations at the meeting.
5. Subsequent to receipt by the Commission of notifications from interested parties or members of the public in accordance with paragraph 3, the Commission will allocate a specific time during the meeting for each party to make their representations. Time for

making representations at the meeting will be allocated on an equal basis between all interested parties and members of the public who have furnished the Commission with notification of their intention to make representations.

6. Any party may attend the meeting however only those parties who have notified the Commission in advance and have been allocated time for the making of representations, can make representations at the meeting.
7. Any representations made by interested parties or the public must relate to the proposed determination. In this regard the Commission reserves the right to direct parties to refrain from making representations which do not relate to the proposed determination and in the event that such directions are not complied with the Commission reserves the right to direct the party concerned to discontinue their representations.
8. The Commission may ask questions of parties in relation to any aspect of representations which they make at the public meeting and the party making the representations will be given an opportunity at the meeting to respond to such questions.
9. Oral representations may be made with visual aids, however, any such visual aids must be capable of being recorded in some manner and a copy must be given to the Commission at the public meeting or included in a written representation of that party.
10. There is no requirement that oral representations made by interested parties or the public at this meeting must reflect any written submissions made or intended to be made by that party to the Commission during the period for receipt of statutory representations.

Annex IV
DUBLIN - AIRPORT - RECOVERABLE CAPEX PROGRAMME

All figures reported in IEP£

Dublin	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Property</i>	670,000	-	-	-	-	-	-	-	-	-
<i>Commercial</i>	-	-	-	-	-	-	-	-	-	-
<i>Access/Egress/Roads</i>	1,354,000	8,620,000	10,230,000	2,000,000	800,000	-	-	-	-	-
<i>Car Park</i>	-	-	-	-	-	-	-	-	-	-
<i>Terminal Building</i>	20,732,000	9,795,225	28,125,000	46,887,143	46,162,500	2,199,643	2,199,643	9,949,643	2,199,643	2,199,643
<i>North Terminal</i>	-	500,000	2,000,000	-	-	-	-	-	-	-
<i>New Piers</i>	-	3,000,000	15,500,000	15,500,000	-	-	-	-	-	2,000,000
<i>Cargo</i>	-	900,000	4,100,000	4,000,000	-	-	-	-	-	-
<i>Stands & Airfield</i>	12,895,000	4,250,000	20,487,500	16,600,000	31,350,000	45,500,000	16,050,000	1,292,000	3,600,000	-
<i>Rail</i>	350,000	-	-	-	1,000,000	5,000,000	19,000,000	28,500,000	47,500,000	-
Totals	36,001,000	27,065,225	80,442,500	84,987,143	79,312,500	52,699,643	37,249,643	39,741,643	53,299,643	4,199,643

Annex IV – Recoverable Capex Programme

SHANNON - AIRPORT - RECOVERABLE CAPEX PROGRAMME

All figures reported in IEP€

Shannon	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Property</i>	-	500,000	1,293,333	1,000,000	1,000,000	1,443,333	-	-	1,443,333	-
<i>Commercial</i>	-	-	-	-	-	-	-	-	-	-
<i>Access/Egress/Roads</i>	-	-	-	-	-	-	-	-	-	-
<i>Car Park</i>	-	-	-	-	-	-	-	-	-	-
<i>Terminal Building</i>	3,591,238	2,122,500	2,720,000	1,322,500	1,999,033	1,495,500	1,999,033	1,022,500	1,999,033	2,933,000
<i>Cargo</i>	-	-	150,000	-	-	-	-	-	-	-
<i>Stands & Airfield</i>	4,691,500	1,498,500	750,000	2,500,000	7,500,000	7,500,000	18,190,000	7,296,667	1,446,667	4,946,667
Totals	8,282,738	4,121,000	4,913,333	4,822,500	10,499,033	10,438,833	20,189,033	8,319,167	4,889,033	7,879,667

CORK - AIRPORT - RECOVERABLE CAPEX PROGRAMME

All figures reported in IEP£

Cork	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Property</i>	-	-	-	-	-	-	-	-	-	-
<i>Commercial</i>	-	-	-	-	-	-	-	-	-	-
<i>Access/Egress/Roads</i>	2,114,000	2,526,000	1,300,000	-	1,300,000	-	1,300,000	-	1,300,000	-
<i>Car Park</i>	-	-	-	-	-	-	-	-	-	-
<i>Terminal Building</i>	1,187,500	26,096,500	12,325,000	2,071,000	736,000	-	3,711,000	3,525,000	-	736,000
<i>Cargo</i>	-	-	-	-	-	-	-	-	-	-
<i>Stands & Airfield</i>	6,254,900	4,112,100	5,000,000	6,000,000	1,152,000	3,895,000	5,800,000	-	-	8,000,000
Totals	9,556,400	32,734,600	18,625,000	8,071,000	3,188,000	3,895,000	10,811,000	3,525,000	1,300,000	8,736,000

Annex V – Benchmarking

Dublin Peer Group

Baltimore Washington, USA (BWI)
Birmingham, UK (BHX)
Brussels, Belgium (BRU)
Copenhagen, Denmark (CPH)
Dusseldorf, Germany (DUS)
Ft. Lauderdale, USA (FLL)
Glasgow, UK (GLA)
London Stansted, UK (STN)
Manchester, UK (MAN)
Munich, Germany (MUC)
Oslo, Norway (OSL)
Vienna, Austria (VIE)

Leading European Airports Peer Group

London Heathrow, UK (LHR)
London Gatwick, UK (LGW)
Frankfurt, Germany (FRA)
Paris, France (GDG and ORY)
Rome, Italy (FCO)

Shannon/Cork Peer Group

EuroAirport Basel-Mulhouse (BSL), Switzerland/France
Cardiff, UK (CWL)
Leeds-Bradford (LBA)
London Luton (LTN)

BENCHMARKING EXERCISE

IMG reviewed the Commission's (CAR) proposal to base its interim view about the scope for efficiency improvements at Aer Rianta's (ART) airports on results from the benchmarking exercise. Specifically, IMG understands that CAR proposes to focus on differences in Operating Expenses per Work Load Unit (WLU) between Dublin (DUB) and the top performing airports as a point of comparison. CAR would then use these findings to establish performance targets for DUB over the next five years.

As with any benchmarking exercise, there are differences between the target airport (DUB) and the benchmark airports. Benchmarking is not an exact science. While these differences may not necessarily "invalidate" a direct comparison, they should be considered when applying benchmarking results to policy decisions. These differences may offer avenues for others to question the results and related policy decisions.

IMG examined the extent of those differences for airports identified as the top performers for the Operating Expense per Work Load Unit indicator (BRU, CPH, GLA, OSL, and STN). IMG considered where data or operating characteristics present findings that may lead one to question the choice of an airport as a direct comparison. The attached **Exhibit 1** provides a summary of the analysis of these airports as compared to DUB. Discussion of the analysis follows:

General Comparison

- Top performers in Operating Expense per Work Load Unit also perform well in the service efficiency comparison (average WLU/FTE). Each airport performs better than DUB in this category. This finding indicates a correlation between service efficiency and cost efficiency – airports with higher productivity have lower costs.

- Airports that manage costs effectively also perform well in terms of profitability. Each airport with better cost efficiency than DUB (in terms of Operating Expense per Work Load Unit) also has higher levels of profitability (Operating Income per Work Load Unit).
- In sum, top performers in Operating Expense per WLU demonstrate strong performance in service efficiency and profitability.

Individual Airport Comparison

- On an individual basis, BRU could be considered somewhat dissimilar from DUB. BRU carries about 50% more passengers, has a larger terminal complex, and operates under a different regulatory environment. BRU also has more transatlantic services than DUB.
- At the same time, BRU represents what DUB could “aspire to be.” DUB has indicated plans to grow to 20 million passengers, the current levels at BRU, and to expand to 4 piers (terminals), similar to the number at BRU. With this in mind, BRU represents a good comparator airport for DUB’s future performance.
- OSL demonstrates key differences in that it is operating out of a completely new facility. Airports with newer facilities tend to generate higher productivity levels and lower costs due to newer technology and better utilization of space. Still, OSL’s passenger levels and mix are similar to DUB, which discounts some of the facility differences.
- GLA and STN operate in similar regulatory and labour environments as DUB. These airports provide a generally fair comparison to DUB. However, GLA processes fewer passengers than DUB (about 45% each).
- CPH is a strong comparator airport. The airport opened a new terminal in 1999 (similar to DUB) and did not increase rates and charges for several years leading up to 2000. The airport also experienced slight increases in operating costs from 1998 to 1999 due to opening of the new terminal.
- Note that top performers in terms of Operating Expense per WLU in 1999 may not be the same top performers in subsequent years. Circumstances

and operating requirements can change. Thus the mix of airports in the top performers group will differ over a five-year timeframe.

- In sum, CPH and STN provide the strongest direct comparison to DUB. GLA, BRU and OSL could be argued to have differences that may lead to questioning a direct comparison with these airports. Conversely, there are arguments that support their inclusion in the comparison.

Alternative Analysis

- Given that BRU could be considered dissimilar from DUB, it is useful to recalculate Operating Expense per WLU excluding BRU. With these changes, the average Operating Expense per WLU is 7.81 Euros/WLU (see “Average 2 of CPH, GLA, OSL and STN in **Exhibit 2**). This average is about 25% lower than DUB’s Operating Expense per WLU of 10.35 Euros/WLU. This gap is slightly less than the 29% gap identified when BRU is included (see “Average 1” in **Exhibit 2**).
- This alternative analysis still indicates that DUB has significant opportunity to improve performance against the best of peers, even when BRU is excluded.
- Given that BRU presents a strong case of what DUB could be in terms of future performance, it should be included in the “best of the best” analysis.

Summary of Findings

- Results for benchmarking can be used to assess differences in cost efficiencies between DUB and other airports, particularly in regard to Operating Expense per WLU. However, results should recognize where DUB performs well in addition to identifying potential for further improvement.
- For example, DUB performs well against all European/UK and UK peers. Dublin’s operating cost per WLU of 10.4 Euros/WLU is in line with the UK airport average of 10.0 Euros/WLU and the UK/European airport average of 10.3 Euros/WLU.

- Further analysis of the results serves as a guide to what DUB could aspire to achieve, based on how the “best of the best” perform. DUB does not perform as well as the best of its peers (BRU, CPH, GLA, OSL, and STN). Compared to this subset of top performers, DUB’s Operating Expense per WLU is about 29% higher than the peers.
- It appears that DUB could take steps to improve its cost efficiency, as measured by Operating Expense per WLU, as compared against the best of the peers. Accounting for variances in airport operating environments and measurements, it would appear reasonable for DUB to reduce the gap by one-half, or about 15%, over five years.

Exhibit 1 – Analysis of Top Performers: Expense per WLU

Currency amounts are reported in Euros

	Dublin	Brussels		Copenhagen		Glasgow		Oslo		Stansted	
		Data	% Diff from Dublin	Data	% Diff from Dublin	Data	% Diff from Dublin	Data	% Diff from Dublin	Data	% Diff from Dublin
General Characteristics											
Number of Terminals	1	1		3		1		1		1	
# of Gates/Stands (not including remote)	65	32		95		NA		39		39	
Private Company as Operator (Y or N)	Y	Y		Y		Y		Y		Y	
Direct Rail Link (Y or N)	N	N		Y		NA		Y		Y	
Operating Characteristics											
Enplaned Passengers (EPAX)	6,345,781	10,002,561	57.6%	8,701,400	37.1%	3,405,039	-46.3%	7,060,577	11.3%	4,726,453	-25.5%
Percent O&D Passengers	95.23%	NA	NA	50.00%	-47.50%	NA	NA	80.00%	-16.0%	NA	NA
Percent International Passengers	94.10%	NA	NA	81.02%	-13.90%	44.05%	-53.20%	47.00%	-50.1%	NA	NA
Total Airport Passengers (1999 ACI Survey)	12,802,031	20,005,122	56.3%	17,402,800	35.9%	6,810,077	-46.8%	14,121,154	10.3%	9,452,906	-26.2%
Total Aircraft Operations (1999 ACI Survey)	170,421	313,929	84.2%	298,533	75.2%	101,339	-40.5%	220,635	29.5%	155,080	-9.0%
Number of Full Time Equivalent Employees	1,345	715	-46.8%	1,449	7.8%	483	-64.1%	NA	NA	656	-51.2%
Comparator Indices											
<u>Service Efficiency</u>											
Average WLU/FTE	10,248	37,158	262.6%	14,697	43.4%	14,349	40.0%	NA	NA	17,367	69.5%
Average WLU/Aircraft Movement	80.85	84.63	4.7%	71.34	-11.8%	68.39	-15.4%	67.80	-16.1%	73.46	-9.1%
<u>Cost Efficiency</u>											
Operating Exp/WLU	10.35	5.53	-46.6%	4.84	-53.2%	7.91	-23.6%	9.98	-3.6%	8.53	-17.6%
<u>Revenue Efficiency</u>											
Operating Revenue (AR)/WLU	13.43	9.30	-30.7%	11.06	-17.6%	15.81	17.7%	13.99	4.2%	13.84	3.0%
Operating Income/WLU	3.08	3.77	22.6%	6.22	102.1%	7.90	156.9%	4.01	30.3%	5.30	72.5%







 indicates positive performance compared to Dublin
 indicates negative performance compared to Dublin
 indicates neutral performance compared to Dublin

Exhibit 2 - Averages of Top Performers: Operating Expense per WLU

Currency amounts are reported in Euros

		Average 1 (BRU, CPH, GLA, OSL, STN)		Average 2 (CPH, GLA, OSL, STN)	
	Dublin	Data	% Diff from Dublin	Data	% Diff from Dublin
General Characteristics					
Number of Terminals	1				
# of Gates/Stand (not including remote)	65				
Private Company as Operator (Y or N)	Y				
Direct Rail Link (Y or N)	N				
Operating Characteristics					
Enplaned Passengers (EPAX)	6,345,781	6,779,206	6.8%	5,973,367	-5.9%
Percent O&D Passengers	95.23%	65.00%	-31.7%	65.00%	-31.70%
Percent International Passengers	94.10%	57.36%	-39.0%	57.36%	-39.00%
Total Airport Passengers (1999 ACI Survey)	12,802,031	13,558,412	5.9%	11,946,734	-6.7%
Total Aircraft Operations (1999 ACI Survey)	170,421	217,903	27.9%	193,897	13.8%
Number of Full Time Equivalent Employees	1,345	826	-38.6%	863	-35.8%
Comparator Indices					
<u>Service Efficiency</u>					
Average WLU/FTE	10,248	20,893	103.9%	15,471	51.0%
Average WLU/Aircraft Movement	80.85	73.12	-9.6%	70.25	-13.1%
<u>Cost Efficiency</u>					
Operating Exp/WLU	10.35	7.36	-28.9%	7.81	-24.5%
<u>Revenue Efficiency</u>					
Operating Revenue (AR)/WLU	13.43	12.80	-4.7%	13.67	1.8%
Operating Income/WLU	3.08	5.44	76.9%	5.86	90.4%

 indicates positive performance compared to Dublin
 indicates negative performance compared to Dublin
 indicates neutral performance compared to Dublin

Preliminary Results: Key Indicators

All results must be considered within the context of the capabilities and limitations of benchmarking

- The benchmarking analysis was conducted for calendar year 1999, the most recent set of consistent data available when the effort was started. Websites, ACI reports, and individual airport annual reports for FY99 or FY00 were analyzed as appropriate to obtain data
- While annual reports contain fairly standard reporting data, some variances are expected among airports due to different accounting requirements. General conclusions and findings are to be considered in greater detail
- Even when differences in reported performance vary, one must consider individual airport priorities and objectives - higher or lower results do not automatically translate to better or worse - trade-offs and local conditions account for some performance differences

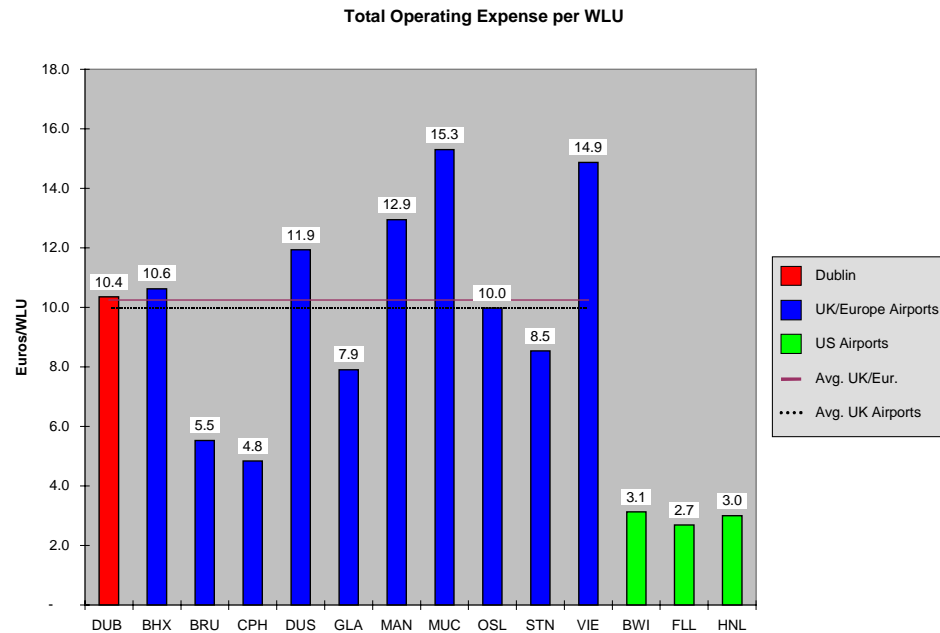
The remainder of the interim report presents the benchmarking results

Results: Dublin Peer Group

Dublin's cost efficiency expressed in total operating expenses per WLU is in-line with peers; some peers are better

Dublin: 10.4 euros
 UK Avg: 10.0 euros
 Eur/UK Avg: 10.3 euros

- Dublin is close to peer average for UK and European airports
- However, Dublin's cost per WLU is 30% higher than the average of the best of peers (e.g., BRU, CPH, GLA, OSL, STN)
- CPH presents strong results through cost containment efforts and high outsourcing

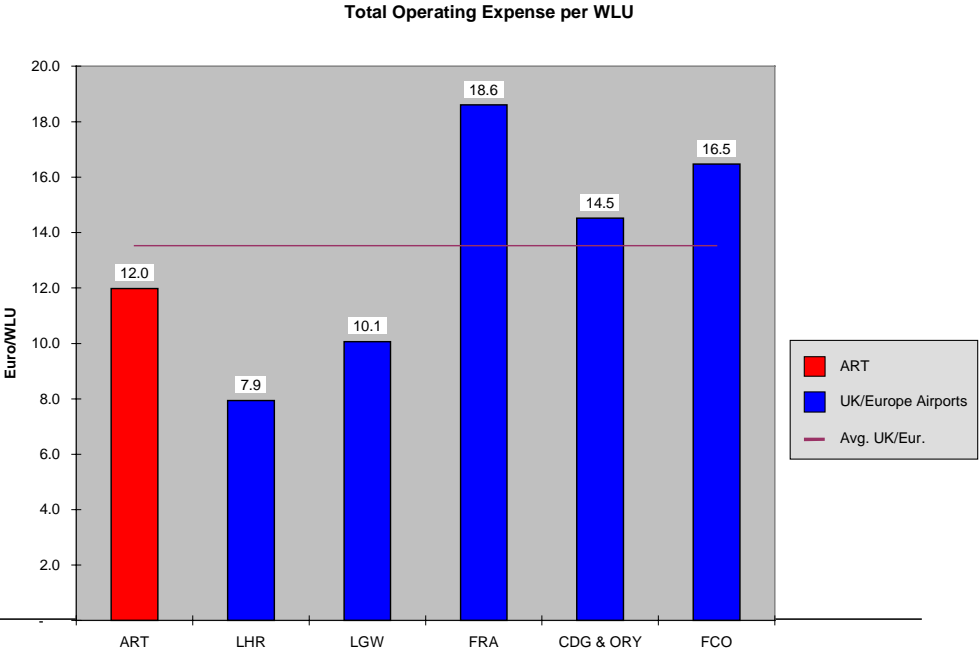


Results: Leading European Airports Group

ART is more *cost efficient* than larger European airports, but less so than the larger UK airports

ART: 12.0 euros
Eur/UK Avg: 13.5 euros

- ART's operating expense per WLU is 38% lower than the average of FRA, Paris, and Rome
- ART's operating expense per WLU is 25% higher than the average of the larger UK airports



Results: Shannon/Cork Airports Group

Cork is more *cost efficient* than peers; Shannon is much less cost efficient than peers (in terms of *operating expense per WLU*)

Cork: 8.2 euros
Shannon: 20.6 euros
UK Avg: 14.8 euros
Peer Avg: 13.6 euros

- Cork is about 44% more cost efficient (in terms of operating cost per WLU) than UK peers
- Shannon's cost per WLU is double that of three of the peers

