DEREGULATION OF THE EUROPEAN AIR TRANSPORT SECTOR: IMPACTS AND SOME IMPLICATIONS FOR IRELAND

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With liberalisation of the internal European air transport between 1987 and 1997, competition has followed on a relatively small proportion of intra-community and domestic routes. However, low-cost carriers have had limited regional impacts and have tended to focus on under-utilised secondary airports near the main urban centres. Capacity constraints at the larger European airports have limited the extent to which new entrants can have a significant impact on incumbent carriers. The Irish air passenger and freight markets have shown substantial growth over the same period. Deregulation of the Dublin-London route in 1986 allowed the oldest of the European low-cost carriers, Ryanair, to take advantage of the new market access. In order for Ireland to continue to benefit from the European liberalisation process, the issues of airport capacity management and pricing and of direct access to the main global air transport networks must be carefully evaluated. In this regard, the advantages remain with concentrating traffic at a single airport in Dublin.

INTRODUCTION

This article will review the recent changes that have taken place in the European air transport sector and assess the main areas where further policy changes need to be focused. The performance and experience of Irish carriers and airports are highlighted throughout the article.

The article begins by tracing the process of liberalisation of air services through the three packages of air transport liberalisation measures introduced between 1987 and 1993. These measures significantly reduced the extent of economic regulation of airline operations in Europe. The distinction between scheduled and non-scheduled (charter) operations was removed and both passenger and freight services were covered. In its review of the impact of liberalisation, the European Commission noted that the European industry had not experienced the dramatic changes in structure and
organisation that had accompanied US airline deregulation in 1977 and 1978. This article presents a brief assessment of that impact.

Airport infrastructure capacity constraints are crucially important in determining the long-term development of the air transport sector. While the airline industry has been liberalised extensively, control over the industry continues to be exercised indirectly or directly by governments through their control of airport capacity allocations. Several key problems arising from shortcomings in infrastructural capacity are outlined in the article. Also discussed is the issue of airport pricing, which is of great significance in affecting economically efficient allocations of existing capacity and in signalling where and when expansion of capacity is necessary and justified. The pricing policy will, among other things, influence the average size of aircraft at airports, the relative importance and emphasis on short- versus medium- or long-haul services and the distribution of all EU traffic across the airports system. These factors in turn have important implications for airline network structures.

THE PROCESS OF LIBERALISING EUROPEAN AIR TRANSPORT

Europe's air transport industry had a long history of heavy economic regulation, with carrier operations governed by a dense network of bilateral agreements between Member State governments. During the 1980s, a limited number of changes were introduced by some European governments (e.g. UK, Dutch & Irish) in an effort to try and introduce competitive elements on intra-state routes. This was prompted in large measure by the very dramatic impact which airline deregulation had had in the US in 1977 (air cargo) and 1978 (air passenger). In 1986 the Irish and British Governments 'deregulated' the Dublin-London route, permitting entry and pricing freedom. This outcome was very successful in terms of output/service and price effects.[1]

In 1987 the Council of Ministers agreed a package of measures to introduce competition and reduce barriers in the internal European air transport sector. This followed a successful legal action in the European Court of Justice by French travel agents that, for the first time, applied articles 85 and 86 of the Treaty of Rome (relating to antitrust-type restrictions) to air transport.[2] This 'First Package' of air transport liberalisation measures of 1987 and the 'Second Package' of 1989 represented modest moves in the liberalisation process. These first two packages related only to scheduled passenger services and freight. The Second Package contained limited liberalisation of passenger fares and capacity restrictions, full cargo pricing freedom and some fifth freedom rights.

[2] For a review of the legal and political progress towards the Third Package, see Button and Swann (1992), McGowan (1994)
and public service obligations.

The EU took substantial steps towards liberalising the internal European air transport market in July 1992 with the adoption of Council Regulations No. L240, the so-called ‘Third Package’. This related to several key aspects of the industry's operation including access for community air carriers to intra-community air routes, licensing and fares. The adoption of the Third Package came at a time of crisis for the airline industry, with the sector in Europe and elsewhere coming to terms with the effects of the Gulf war and subsequent recession. The 17 countries now covered by these regulations account for about 20% of the global scheduled air transport passenger market in terms of revenue passenger kilometres (RPKs) and 33% of global scheduled air freight revenue tonne kilometres (RTKs).

The Third Package, which was implemented between January 1993 and April 1997, removed the distinction between scheduled and non-scheduled operations. This distinction was becoming less significant in many instances as charter carriers had been offering scheduled services on a limited number of North-South intra-European routes in the early 1990s. At the same time, the scheduled carriers had been offering an increasing number of charter services or setting up subsidiary charter companies. Europe's charter industry accounted for over 50% of all intra-European passengers and about 66% of total intra-European RPKs in the 10 years from 1983 to 1993.\[3]\ In the Third Package (Council Regulations No 2407/92 through 2411/92) a wide range of issues in the scheduled and non-scheduled passenger and cargo markets are covered, the principal of which are as follows:

- common licensing arrangements and operational requirements for community registered carriers to operate aircraft owned anywhere in the Community; licensed carriers are not required to own their own aircraft, but they must have at least one at their disposal; access to intra-community air routes, including the abolition of capacity restrictions between Member States and the removal of restrictions concerning fifth-freedom\[4]\ and multiple designation\[5]\ rights along with a gradual phasing-in of cabotage\[6]\ rights; full cabotage was required by April 1997;

- provision for the imposition of public service obligations and development of new regional routes;\[7]\}

\[3\] Avmark Aviation Economist, April 1994; Doganis, 1994
\[4\] A fifth freedom right is the right to carry passengers and/or freight between two foreign countries on a route originating or destined for the country of registration or ownership of the carrier.
\[5\] Multiple designation is where multiple carriers are permitted to offer air services on an international route.
\[6\] Cabotage is the right of a carrier of one state to carry traffic exclusively between two points within another state. Consecutive cabotage occurs when a carrier flies between two points within another state as a preliminary or continuation of a service to the home state.
\[7\] Public Service Obligation routes are state designated routes, subsidised if necessary, that are deemed essential for the purposes of regional economic development or for social or political purposes. This regulation also permits entry to be restricted on new routes between regional airports. These aspects are discussed in detail in Reynolds-Faigian, 1995a; 1995b.
• provision for Member States to establish non-discriminatory rules for distributing air traffic between airports within an airport-system (e.g. the London or Paris airport systems);

• freedom for Community carriers to set air fares and rates for services, except in specific limited circumstances;

• formal extension of Community competition rules to the air transport sector with amendments to certain categories of agreements and concerted practices.

These regulations permit carriers to significantly extend their market areas and offer substantial opportunities for greater efficiency for airlines through economies of scale and scope. On the demand side, greater product differentiation has a significant effect on traffic volumes. These regulations have impacted on the pattern of consumer demand, on carrier profitability and on airline industry structure. The Public Service Obligation (PSO) Route regulation has been applied in Ireland to several routes between the regional airports and Dublin, in order to guarantee continuity of air services in cyclical economic and seasonal downturns.\(^8\) PSOs have also been applied in the UK, France, Sweden, Portugal and Norway.

**IMPACT OF LIBERALISATION IN IRELAND AND EUROPE**

Two of the most significant developments in Europe since liberalisation have been the development of low-cost carrier services and the increasing congestion at European airports. A limited number of comprehensive assessments of the impact of liberalisation in Europe have been made so far. The key trends highlighted in studies undertaken by the UK Civil Aviation Authority (CAA) in 1998, the Association of European Airlines (AEA) in 1997/8 and by the European Commission in 1995 are presented below and are very much related to these two developments.

• Low-cost carriers have had limited regional impacts and have tended to focus on under-utilised secondary airports located close to major hubs. Since full liberalisation in April 1997 a new wave of low-cost entrants has commenced services. These carriers are expected to have a significant impact on frequency and costs, given that there has been no general increase in competition for intra-European traffic between the main national carriers. Ryanair, Easyjet and Virgin Express have modelled their operations on the structure of the American airline, Southwest, by offering 'no-frills', low-cost, point-to-point operations.

\(^8\) See Reynolds-Feighan, 1995a, for a detailed review of the Irish PSOs
• National carriers' share of output on all EU scheduled routes has declined from over 80% in 1992 to well under 70% by the end of 1997, though it remains at over 80% on most international (non-EU) routes.\[9\]

• A substantial increase has taken place in the number of alliances (broadly defined) between national carriers and small or medium-sized carriers. For the largest carriers, the main strategic focus has been on forming or joining global alliance groups. They have consolidated their activities at their main EU hub or hubs and have focused more on expanding their long-haul operations than on developing new internal European services or fifth-freedom routes.\[10\] The AEA reports that traffic growth among its members (generally the 'national' carriers) has been greatest in long-haul markets, particularly on the North Atlantic.\[11\]

• The overall number of multi-carrier (three or more carriers) international routes within the EU has shown a modest increase from 4% in December 1992 to just over 7% in December 1997. The number of domestic routes with two or more carriers has increased from 10% to almost 20% in the same period.\[12\] Between 1992 and 1997, the number of intra-community routes had risen by 66. The Republic of Ireland has seen a rise from 4% in 1992 to 10% in 1997 in the number of its intra-community routes that have three or more competitors.

• The range of fares available to consumers has increased significantly since 1992. However, contrary to the US experience, wide-spread 'across-the-board' fare reductions have not materialised. Instead, European carriers have selectively introduced new promotional and special fares rather than reduce existing (flexible) fares.\[13\] Flexible fares have generally increased. Competition has played a role in promoting fare reductions only on intra-community routes operated by more than two carriers or on domestic routes operated by more than one carrier.

• Line-haul operators\[14\] traditionally dominated European air freight markets and carried most of their freight on long-haul routes. Since the early 1990s, express operators have come to dominate the intra-European air freight market, with many of the larger line-haul carriers withdrawing (e.g. Aer Lingus ceased intra-European freight services in 1996) and focusing exclusively on long-haul external (i.e. non-EU) markets. 'Air-trucking'\[15\] has grown very rapidly and is expected to continue to increase its share of intra-European air freight.\[16\] Over 20% of Irish air freight is 'air trucked'.

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\[9\] UK CAA, 1998  
\[10\] op cit  
\[11\] AEA, 1997, 1998  
\[12\] UK CAA, 1998  
\[13\] op cit; CEC, 1996  
\[14\] Air freight is carried by line-haul carriers (all-cargo, combination passenger-freight, or passenger carriers), express operators (e.g. DHL, Federal Express, TNT etc., who offer integrated transport services along with optional tracking, distribution and warehousing functions) or by niche operators specialising in filling extraordinary requirements.  
\[15\] Air trucking involves moving freight between airport bonded warehouses by truck under air waybill (e.g. moving freight from Dublin airport to London Heathrow by truck, with the freight then being line hauled from London by air).  
\[16\] Boeing 1998; Reynolds-Feighan & Durkan, 1997
Europe experienced relatively high levels of traffic delay during the late 1980s, followed by improvements up until 1994. Since then, there has been a gradual rise in delays at departure airports. In 1996, air traffic flow management (ATFM) over Europe was centralised within EUROCONTROL, which the AEA suggests has resulted in a wider distribution of delay. This helped to alleviate delays in the worst affected sectors but introduced delays in sectors which had previously operated with minimal delay. Airport traffic levels have the greatest association with overall delay (i.e. departure plus arrival delays), with no statistical association between traffic growth rates and average delay per movement. The congested airports which experience the greatest delays can allow increases in their passenger throughput by encouraging the utilisation of larger aircraft or, in some cases, by introducing new rules concerning flow management in peak periods. Analysis of European data shows that 60% of all delays are related to difficulties with airport and air traffic control.

THE ROLE OF AIRPORT INFRASTRUCTURE

Liberalisation has encouraged the growth of air passenger and freight traffic, but a lack of capacity – particularly at many of the larger airports – has acted as a barrier to entry for carriers wishing to develop new routes or to expand existing services. In its 1998 report, the UK’s CAA showed that all of the top 10 densest traffic routes in Europe in 1995 (routes with over 400,000 passengers) involved one or more of the four most severely constrained airports (London-Heathrow, London-Gatwick, Frankfurt and Dusseldorf). In fact 27 of the 44 densest routes also involved these four airports. These 27 capacity-constrained routes accounted for 70% of all traffic on the 44 densest routes. Control of airport capacity and services is a key issue in determining the long-term competitive outcome of Europe’s air transport sector.

Aer Rianta is expected to undergo considerable restructuring and possible privatisation in the near future. In this event, the Government must decide whether to sell off the three airports as a single entity, separately or split up the infrastructure and ‘passenger/freight services’ roles and permit competition in the case of the latter from other providers. Airside infrastructure – including runway, apron and aircraft parking – should not be allowed to constrain the continued growth of traffic through Dublin airport. In this regard, the plan for a second runway at Dublin is a most welcome development. Long-term management of and investment in infrastructure in situations where

[17] The ATFM restrictions were put in place to protect congested airports, which faced problems associated with lack of capacity, parking difficulties, low visibility procedures etc. Airports particularly affected by these restrictions include London Heathrow, Athens, Barcelona, Milan and Amsterdam (CODA, 1996).
[19] Reynolds-Feighan and Button, 1999
significant volumes of traffic may be diverted from airports that face permanent capacity constraints could further enhance Ireland’s accessibility in a European and global context.

An airport is a multi-service network of activities, many of which are not specifically related to aeronautical uses (e.g. shopping, accommodation etc.). Because so many services are ‘bundled together’ and because airports have been viewed as natural monopolies, the approach in Europe and elsewhere has been to maintain public ownership and to regulate charges. Charging mechanisms vary enormously and tend to take account of the overall financial requirements of the airport, or system of airports, rather than reflect the costs of provision of specific services.

Most of the European airports are government-owned, although there has been a limited number of privatisations of larger facilities in the UK, Germany and Italy. The approach to privatisation has varied considerably, from the sale of individual airports to the privatisation of a group of airports in the case of the British Airport Authority (BAA) airports in the UK. The main concern is whether users benefit and efficiency is improved if some airport services are competitively provided. It may be argued that larger airports enjoy a monopoly position in relation to terminal or originating traffic (hinterland traffic) but face competition from other airports for connecting or transferring traffic. As the provision of airports involves significant investment, concerns in the US about privatisation have focused on the feasibility of long-term funding for maintenance and capacity expansion programmes; also on the issue of access for all classes of users, particularly in situations where capacity constraints exist or are likely to develop in the future.

The World Bank conducted an extensive study in 1995.[21] This examined privatisation of airports and airport services and assessed the impact which the limited number of private-sector participation experiments have had to date. The following developments were noted in general.

(i) Airside charges are not lower, nor have they increased more substantially than under the previous public ownership, but pricing mechanisms have become more complex.

(ii) Airside charges are subject to price-cap economic regulations.

(iii) There has been intensive development of high-yield, non-aeronautical revenue activities. Non-aeronautical users of airport facilities have alternatives in terms of locational choice and property fees.

One case which has not received much attention in the literature involves the splitting-up of the airport suite of services into basic infrastructure and passenger/freight handling service components. This scenario has received attention in the literature on rail transport.[22] The argument is that there is a strong case for managing the two elements separately and introducing competition in the case of service provision but without duplicating the costly infrastructure facilities. This should promote greater transparency of infrastructure costs. In terms of services, airside facilities would be provided by an airport infrastructure agency while several terminal operators would compete to offer passenger and freight services (aeronautical and non-aeronautical) to airlines, passengers and other users once they have access to the runways and aprons.

Splitting the airport services in this way would allow the infrastructural elements to remain in public ownership if necessary, while terminal and groundside services could be privatised and supplied by more than one firm. Runway and airside infrastructure provision typically requires excess capacity or facilities of a higher technical standard than are actually required to meet current demand with current technology. Charging mechanisms should generate fees to cover replacement costs but should also allow for rationing when there is excess demand and should help to signal the appropriate timing for additional investment.

As European airports generally experience increasing delays, some airports will be in a position to expand their facilities while others will not because of land availability, planning or environmental restrictions. The distribution of traffic under this scenario requires a regional or supra-national approach to management of the flows, as the managers of congested airports seek to divert or substitute traffic in an effort to optimise the efficient use of facilities. Other airports that are not capacity-constrained can attract the diverted traffic and improve the utilisation of their fixed capacity in the short run and plan for growth once pricing signals indicate such a necessity.

Airport pricing policy is of great significance in affecting economically efficient allocations of existing capacity and in signalling where and when expansion of capacity is necessary and justified. Among other things, the pricing policy will influence the average size of aircraft at airports, the relative importance and emphasis on short-versus medium- or long-haul services and the distribution of traffic across the airport system. These factors in turn have important implications for airline network structures, a key competitive tool for carriers.

[22] Nash, 1997; Hylen, 1997
The European Commission issued a draft directive on airport charges in 1997\[23\] which proposed that airport charging systems should be cost-related, transparent and non-discriminatory. Airport charges are to bear a reasonable relation to the overall cost of the services and facilities that the charges are intended to cover. Where groups of airports are managed as a system, the “principle of cost-relatedness does not exclude such a system of solidarity and the proposal does not question its functioning providing that the subsidies coming from the major airports are drawn from commercial revenue or reasonable benefit margins”.

The difficulty here is that by applying charges globally to the airport suite of services, or indeed to a system of airports’ suite of services, the charges may bear little resemblance to costs of specific services, such as use of runways\[24\]. Where airport capacity cannot be expanded and where the capacity is rationed, significant rents will accrue to the airport owners. If airport capacity is viewed at the system level (or as a series of regional subsystems), funds gathered through congestion charges may be allocated towards new airport projects or extensions at other airports in order to alleviate congestion in the system. In the US this view was proposed as a means of avoiding legal difficulties with the charges\[25\].

The provisions in the 1986 UK Airports Act (which privatised BAA) introduced a system of price regulation, determined by the retail price index minus an x-factor, borrowed from the previous privatisations of state monopolies. The x-factor is assessed by taking account of the profits earned from the airport’s unregulated businesses (i.e. concessionaires). The more that BAA earns on concessions, the more they have to reduce their landing fees to airlines. In 1995 this resulted in a situation where there was a lowering of landing fees at the congested Heathrow airport (stg£550 for a B747) and an increase in fees at the under-utilised Stansted Airport (stg£715 for a B747)\[26\]. The questions of how the overall revenue generated by airports is used and whether rebates or cross-crediting on landing and/or passenger fees is economically justified need to be explored in a European context – given the current capacity constraints and the expected doubling of traffic in the next 10 years. The draft directive does not address these issues, despite the fact that permitting modulations in the charging system (to facilitate a ‘willingness-to-pay’ criterion, for example) could generate significant rents for airports.

\[23\] CEC, 1997
\[24\] See Reynolds-Feighan and Feighan, 1997
\[26\] *Economist* (September 1995)
SOME CONCLUSIONS AND POLICY ISSUES IN PERSPECTIVE

Irish air passenger traffic grew at an average annual rate of 13.9% over the five years from 1993 to 1998. Table 1 gives passenger traffic statistics for the three Aer Rianta airports and for the regional airports collectively for the period 1991-98. Traffic growth at Dublin and Cork has averaged 13.5% and 13.1% per annum over the 93-98 period. In 1997 Irish passenger traffic growth rates were double the average for ECAC members.\(^{[27]}\) The average annual growth rate for Shannon over the same period was 4.8%. In 1998 191,505 tonnes of air freight were carried through Irish airports, representing a 30.5% increase on the 1996 volume and an 143% increase since 1990.

**TABLE 1: PASSENGER TRAFFIC TRENDS AT IRISH AIRPORTS, 1991-98**

<table>
<thead>
<tr>
<th>Year</th>
<th>Dublin (’000)</th>
<th>Cork (’000)</th>
<th>Shannon (’000)</th>
<th>Regional Airports (’000)</th>
<th>Overall Total (’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>4575</td>
<td>471</td>
<td>936</td>
<td>194</td>
<td>6176</td>
</tr>
<tr>
<td>1992</td>
<td>5072</td>
<td>511</td>
<td>1106</td>
<td>140</td>
<td>6829</td>
</tr>
<tr>
<td>1993</td>
<td>5266</td>
<td>553</td>
<td>1157</td>
<td>123</td>
<td>7099</td>
</tr>
<tr>
<td>1994</td>
<td>6395</td>
<td>627</td>
<td>1090</td>
<td>165</td>
<td>8277</td>
</tr>
<tr>
<td>1995</td>
<td>7407</td>
<td>773</td>
<td>1175</td>
<td>205</td>
<td>9560</td>
</tr>
<tr>
<td>1996</td>
<td>8437</td>
<td>915</td>
<td>1291</td>
<td>222</td>
<td>10865</td>
</tr>
<tr>
<td>1997</td>
<td>9570</td>
<td>976</td>
<td>1286</td>
<td>262</td>
<td>12094</td>
</tr>
<tr>
<td>1998</td>
<td>10787</td>
<td>1066</td>
<td>1447</td>
<td>315</td>
<td>13615</td>
</tr>
</tbody>
</table>


The Irish and UK experiences under liberalisation have been more dramatic than in other EU States, mainly because of the industry structure prior to 1993. The UK market had more airlines than any other Member State and a higher proportion of its output handled by carriers other than the national carrier prior to 1993. Furthermore, the UK Government had privatised both the national carrier, British Airways, and the main international gateway airports prior to 1993. The Irish Government had permitted entry to the main international market since 1986. Ryanair is the longest established of the new breed of European low-cost, no-frills carriers. Having built up a significant presence in the Ireland-UK routes prior to 1997, Ryanair began a new phase of expansion from London’s Stansted airport, which was facilitated by the introduction of full cabotage in

\(^{[27]}\) European Civil Aviation Conference
April 1997. Table 2 summarises the operations of Irish carriers to/from and within Ireland in December 1992 and December 1997, during which time they recorded a 58% increase in the total number of flights. The report of the European Commission in 1996 highlighted the fact that Ryanair’s share of total output was over half that of Aer Lingus and by far the highest of any of the second largest carriers in the EU.

Aer Lingus has recently announced its intention to join the OneWorld alliance group, whose major partners are British Airways and American Airlines. The other Irish and UK carriers on the Dublin-London route offer high frequency point-to-point services at low cost. The access that Aer Lingus enjoys at London-Heathrow and London-Gatwick provides links to the main global air transport networks. Given the presence of British Airways at Heathrow and the significant slots held by Aer Lingus at the same airport, the issue of Irish benefits and costs from the alliance will be focused around what happens there. The ratio of the average number of passengers per movement at Heathrow is significantly higher than for any other airport in Europe, with the exception of Gatwick.[28] British Airways has been focusing its attention on the development of long-haul routes from the two London airports and withdrawing from many regional or domestic services that it operated directly or through its many partners.

### TABLE 2: DETAILS ON THE OPERATIONS OF IRISH AIRLINES

<table>
<thead>
<tr>
<th>Carrier &amp; Code</th>
<th>International</th>
<th>Domestic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Routes</td>
<td>Flights</td>
<td>Routes</td>
</tr>
<tr>
<td></td>
<td>Dec 92</td>
<td>Dec 97</td>
<td>Dec 92</td>
</tr>
<tr>
<td>Irish Republic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aer Lingus</td>
<td>El 19</td>
<td>21</td>
<td>1464</td>
</tr>
<tr>
<td>Ryanair</td>
<td>FR 6</td>
<td>15</td>
<td>446</td>
</tr>
<tr>
<td>Cityjet</td>
<td>WX 2</td>
<td></td>
<td>259</td>
</tr>
<tr>
<td>Ireland Airways</td>
<td>2E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aer Arann</td>
<td>RE</td>
<td>4</td>
<td>182</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>38</td>
<td>1910</td>
</tr>
</tbody>
</table>

Source: UK Civil Aviation Authority (1998)

[28] See Reynolds-Feighan and Button, 1999
Air traffic volumes to and from Ireland, particularly through Dublin, have reached very high levels with Dublin-London now the busiest air route in Europe. There are several advantages to Ireland of having a large air traffic hub airport on the island. Such a hub affords enhanced accessibility for people and goods to and from regional airports, all UK regions, European centres and long-haul routes that are important for the continued growth of the economy. The Dublin region has a sufficiently large hinterland population to support an international hub airport and the airport becomes more attractive to carriers the larger the passenger throughput. If the traffic were to be split between two airports, the attraction of either airport would diminish. There are significant advantages to concentrating traffic at a single site.

Ireland has benefited significantly from the liberalisation of European air transport. The growth and development of Ryanair’s services have had a very substantial impact on the frequency and costs of air travel to several key European centres. The increased frequency of services by all carriers to the main international gateways has provided direct access to the main global air transport networks. The growth in the volume of traffic through Dublin particularly has afforded the economy high levels of direct access to an increasing number of centres in Europe and North America. The management and provision of air transport infrastructure must be prioritised in order to ensure that Ireland is in a position to continue to benefit from the gains which the single European air transport market has to offer.

REFERENCES


Avmark Aviation Economist, 1994


CEC (1997) Draft directive on Airport Charges, Commission of The European Communities, Directorate General VII.


