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THE EUROPEAN "OPEN SKIES" AND THE LOW-COST AIRLINES IN THE NEW AIR TRANSPORT SECTOR

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978-88-902811-6-7

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Preface

Even if there is no unique definition of the *low-cost airline* phenomenon, also known as *low fare*, *no-frills* or *discount airline*, the concept originated in the United States with Southwest Airlines (which began to run service in 1971). It was used afterwards and in the early 1990s spread to Europe and subsequently to the rest of the world.
In 1991, the Irish company Ryanair, previously a traditional carrier, evolved into an *low-cost airline* and was followed by other *low-cost airlines* that adopted the same concept offering cheaper air tickets, holiday packages, car rental and booking possibilities, thus expanding online sales.
It is now generally accepted that a low-cost airline offers low fares and eliminates most traditional additional passenger services.
The European low-cost airline market continues to grow strongly and probably this evolution will continue also in the future.
In this context the Euromediterranean Jean Monnet Centre of Excellence and the Jean Monnet Chair of "*European Law*", according and with the scientific and financial aid of the CMU (Community of Mediterranean Universities) and EMUNI (EuroMediterranean University) decided to publish the final thesis of Second Level Degree in "*Legal, Cultural and Linguistic Aspects of the European Union*", discussed on November 2008 at the Faculty of Foeign Languages and Literatures, University of Salento.
This study provides an overview of the key elements indicating typical practices and the consequences of the growing European low-cost airline sector in terms of business, passenger rights, travel for leisure and tourism.

Lecce, August 2010

Cosimo Notarstefano
EUROMEDITERRANEAN JEAN MONNET CENTRE OF EXCELLENCE
Jean Monnet Chair "European Law"
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This thesis has fulfilled the requirements as laid down by the 2 year postgraduate degree course in Literary and Technical/Scientific Translation. The focus on the lingua franca of low cost travel is perfectly matches the cultural and professional profile envisaged by the course, the aim of which is to prepare graduates linguistically and culturally for rapid entry into those professions requiring advanced translation, interpretation and communication skills in English and in a second language.

The University system in Italy is undergoing a sea change, and the Faculty of Foreign Languages and Literatures is fully involved in carrying out this complex set of reforms involved. The contribution of the Faculty staff and institutions such as the "Euromediterranean" Jean Monnet Center of Excellence directed by Prof. Cosimo Notarstefano has, in this light, been noteworthy.

The organization of the thesis itself presents an excellent model for a course in Translation and Interpreting, and provides a fundamental waystage in changes envisaged with regard to University level teaching methodology and practice: mastery in state-of-the-art theory combined with a functional and pragmatic approach to practice in the professions.

Alizia Romanovic
Dean of Faculty of Foreign Languages and Literatures
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The airline industry employs pilots, flight assistants, caterers and ground staff, and all these jobs demand not only fluency in English but a command of the technicalities involved in the trade.
The study of the documentation collected in this book, and the drafting of an "open text" of specialized terminology, require also competency in dealing with English for Special Purposes and Specialized Translation.
Interpreters and translators, however, are trained to serve a broad market and not only a narrow professional sector. Intercultural studies and cultural mediation have become as much buzz words as topical issues, at the end of the first decade of the 21st century.
Interpreter and translation training courses attended at the Università del Salento (Lecce, Italy), have paved the way to an airline assistant career for the author of this publication. Yet, her job experience has, in turn, expanded the potentials of the skills acquired. A well trained good memory is essential to an interpreter, as well as to a flight assistant, if one considers the long list of acronyms commonly used to replace lexemes within a sentence. Behind each acronym there is a broad range of subject matters making up this essential communication tool. Like in the language of Economics, acronyms used in the airline industry might appear cryptic to outsiders, but are not more than the essence of a straightforward technical talk. When correctness needs to be replaced by usage, trained professionals with a translation background education, intervene in mediating language loanwords and borrowings to cater to the needs of an intercultural setting, based on several reference frameworks. This occurs particularly in technology-based sectors using English as a *lingua franca*.
Today the global village requires professionalization at all levels. This publication is a product of a professionalized frame of mind, common to all language professionals, to be used as a practical tool in today's knowledge-based economies set in a globalized world.

Maria Rosaria Buri
University Researcher in Translation/Interpretation Studies
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The flight attendant experience with Alitalia acquired from October 2003 to September 2008 has led to the choice of the topic of the dissertation thesis for the "Second Level Degree Course" in Literary and Technical/Scientific translation of the University of Salento (Lecce, Italy). The educational career begun with the D.U.T.I. (Translation and Interpretation Diploma) which focused on Tourism and Business, later converted in First Level Degree Course in Translation and Interpretation, triggered the special concern for English specialized discourse.
The thesis in "International and European Law on Languages" has been coordinated by Cosimo Notarstefano (responsible of the *EuroMediterranean Jean Monnet Centre of Excellence* and *Jean Monnet Chair "European Law*") and supervised by Maria Rosaria Buri (*Researcher in Translation/Interpretation Studies University of Salento - Lecce)*.
"*The European Open Skies*" is an analysis of the impact of the changes in the air transport sector as a consequence of the emergence of low fares airlines, following the liberalization of air transport and the creation of the European "Open Skies". In the low-cost era, the low-fares model are promoting European peoples integration and cohesion.
This integration and mobility within the EU on the other hand encourage multilingualism.
Languages are the prime tools of communication and reflect our different cultures and identities. European people speaking several languages can integrate better in another country to study and to work and have easier access to other cultures, as the cultural divide is a crucial problem for successful communication. Thus the European Commission plays a major role in promoting culture, language and multilingualism.

Irma Viti
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LIBERALISATION AND DEREGULATION IN THE AVIATION SECTOR: LOW-COST CARRIERS AND LOW-COST MODEL

Regulation in the Aviation Sector

The aviation transport, born on the 17th of December 1903[1], when the Wright brothers were able to make fly their rudimental device, has turned today, into a very important factor for the economic globalization and the social progress.
Since then, air transport used to be a highly regulated industry, dominated by national flag airlines protected by bilateral agreements imposing restrictions on the routes, the number of flights and the setting of high fares.
Air transport is ruled by national laws and regulations, and by international conventions and treaties issued by international and national organizations[2]:
The European Union legislation in the field of air transport covers the following issues:

- Licensing of Air carriers[3]
- Access for Community Carriers to intra-Community Air routes[4]
- Fares and rates for air services[5]

[1] http://it.wikipedia.org/wiki/Trasporto_aereo#Storia_del_trasporto_aereo 2/03/08
[2] http://www.enac-italia.it 2/03/08

International Organisations	ICAO: International Civil Aviation Organization IATA : International Air Transport Association
European Organizations	ECAC: European Civil Aviation Conference JAA: Joint Aviation Authorities EASA: European Aviation Safety Agency EUROCONTROL: European Organisation for the Safety of Air Navigation
National Organisations	Ministero delle infrastrutture e dei trasporti ENAC: Ente nazionale per l'aviazione civile ANSV: Agenzia nazionale per la sicurezza del volo ENAV: Ente nazionale per l'assistenza al volo

[3] Council of the European Communities, *Council Regulation (EEC) No 2407/92 of 23 July 1992, Licensing of air carriers*, in Official Journal L240, 24 /08/1992, p. 1-7.
[4] Commission of the European Community, *Communication from the Commission on the consequences of the Court judgements of 5 November 2002 for European air transport policy*, Brussels, 19.11.2002, COM(2002) 649 final, p. 15.
[5] Council of the European Communities, *Council Regulation (EEC) No 2409/92 of 23 July 1992 on fares and rates for air services*, in Official Journal L 240, 24/08/1992 p. 15 – 17.

- Procedure for the application of the rules on Competition to undertakings in the air transport sector[6]
- Code of conduct for computerized reservation systems[7]
- Common rules for a denied-boarding compensation system in scheduled air transport[8]
- Common rules for the allocation of slots at community airports[9]
- Harmonization of technical requirements and administrative procedures in the field of civil aviation[10]
- Air carrier liability in the event of accidents[11]
- Access to the ground handling market at community airports[12]

Liberalisation and Deregulation

The liberalisation of air transport was implemented gradually during the course of the late 1980s and early 1990s.

The liberalisation of the European air transport was achieved in some stages:

- In 1987, under the **first package of liberalisation measures**, fare restrictions were reduced. Carriers were also given additional flexibility for cooperation within the limits of existing air service agreements.
- In 1990, the so-called **second package of liberalisation measures** allowed all European airlines to carry passengers to and from their home countries to other EU Member States (3rd and 4th freedoms). Also 5th freedom flights, i.e. intra-European flights with stop-over in a third country and the right to pick-up and drop-off passengers during the stopover, were allowed to a greater extent. Fare and capacity restrictions were further abolished.

[6] European Commission, *Competition rules applying to undertakings in the EC and ECSC Treaties*, Articles 81-86.

[7] Council of the European Communities, *Council Regulation (EEC) No 2299/89 of 24 July 1989 on a code of conduct for computerized reservation systems* in Official Journal L 220, 29.07.1989, p. 1-7.

[8] Commission of the European Communities, *Communication from the Commission to the European Parliament and the Council pursuant to Article 17 of Regulation [EC]261/2004 on the operation and the results of this Regulation establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights*, Brussels, 4/04/2007, COM(2007) 168 final, p. 12.

[9] Council of the European Communities, *Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports*, in Official Journal L 014 , 22/01/1993, p. 1 - 6

[10] Council of the European Communities, *Council Regulation (EEC) No 3922/91 of 16 December 1991 on the harmonization of technical requirements and administrative procedures in the field of civil aviation*, in Official Journal L 373 , 31/12/1991 p. 4 – 8.

[11] Council Regulation (EC) No 2027/97 of 9 October 1997 on air carrier liability in respect of the carriage of passengers and their baggage by air in Official Journal L 285, 17.10.1997, p. 1-3.

[12] Council of the European Union, *Council Directive 96/67/EC of 15 October 1996 on access to the ground handling market at Community airports*, in Official Journal L 272, 25/10/1996, p. 36 – 45.

- In 1993, **the third package** of measures, including the common licensing of carriers and freedom of access to the market, was introduced. All carriers holding a community license were allowed to serve any international route within the European Union. Finally, carriers were given almost full freedom to set fares. In 1997, as part of the third liberalisation package, all carriers holding a community license were given the right of cabotage, i.e. the right to operate domestic routes within the whole of the EU.

As a result of the creation of the single market for air transport, European carriers obtained practically unlimited freedom to choose their routes, capacity, schedules and fares. The interference from national governments in these decisions was reduced to a minimum. Commercial considerations became the primary incentive for airlines to open and close a new route, to add and reduce capacity and to increase or lower fares.

Deregulation from a normative point of view

On 21st of April 2004, the Council adopted the Regulation (EC) 793/2004 on common rules for the allocation of slots at Community airports13. It represented an amendment of the previous Council regulation (EEC) 95/93[14]. The new regulation contained a considerable number of improvements in comparison with Regulation (EEC) 95/93 and aimed at ensuring that the scarce capacity of congested Community airports was used as efficiently as possible.
On 23rd January 2007 national authorities, regional bodies and local authorities, stakeholders associations and organisations, air carriers, airports, slot coordinators and Eurocontrol were invited to assess the effects of regulation (EC) 793/2004.
They all advocated increasing airport capacity by means of additional rules and local guidelines.
From the deep analysis made by these interested parties emerged that the new entrant rule had had only a limited effect on competition at Community airports and on the use of scarce airport capacity, as only small operations had been taken that had not provided an effective competition in the market place. The possibility to introduce local guidelines having the potential to increase the flexibility to enable a better use of the slots at congested airports that already existed had to be enlarged, provided that the requirements in the Regulation were respected.

[13] European Parliament and the Council, *Communication on the application of Regulation (EC) 793/2004 on common rules for the allocation of slots at Community airports of 21 April 2004 amending Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports*, Brussels, COM(2008) 227, p. 1-7.
[14] Council of the European Communities, *Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports* in Official Journal L 014, 22/01/1993 p. 1-6.

The regulation has brought some benefits to the use of airport capacity, but it should be improved to address the increasing congestion at Community airports in a more consistent way. For this reason, it is necessary to implement the "Action Plan for Airport Capacity, Efficiency and safety in Europe" that was adopted in October 2007[15].
The existing capacity has been fostered by the introduction of sanctions preventing slot abuses.

The EU-US "Open Skies" Air Transport Agreements

The EU-US "Open skies" Air Transport Agreement, signed on 30th of April 2007, came into force on 30th of March 2008 with the start of the 2008 summer season. It ratifies new rights for EU airlines.
All European airlines are recognised as "Community air carriers" by the US. Any "Community air carrier" is allowed to fly between any point in the EU to any point in the US, without any restrictions on pricing or capacity. They can also continue flights beyond the United States towards third countries ("5th Freedom"). They can operate all-cargo flights between the United States and any third country, without a requirement that the service starts or ends in the EU ("7th Freedom"). These air carriers enjoy the "7th Freedom right" to operate direct passengers flights between the US and a number of non-EU European countries and a number of access rights to the US "Fly America" programme for the transport of passengers and cargo financed by the US Federal Government. They are given more freedom to enter into commercial arrangements with other airlines (code-sharing, wet-leasing etc.). Rights in the area of franchising and branding of air services to enhance legal certainty in the commercial relations among airlines, together with the possibility of antitrust immunity for the development of airline alliances.
New rights for EU investors in the area of ownership, investment and control of US airlines; Rights in the area of inward foreign investment in EU airlines by non-EU European investors; Rights in the area of ownership, investment and control by EU investors of airlines in Africa and non-EU European countries.
Already from the first day of the application of the Agreement numerous new flights between the EU and the US have taken off to new destinations. Transatlantic services will increase particularly in those Member States where there had been restrictions so far[16].

[15] Commission of the European Communities, *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, An action plan for airport capacity, efficiency and safety in Europe*, Brussels, 24.1.2007, COM(2006) 819 final, p. 1-15.
[16] In London-Heathrow alone, flights to the US are increased by 18 daily flights, an increase of more than 20%. The number of direct flights between Spain and the US will significantly increase.

Among the benefits, this Agreement opens the possibility of additional extra passengers on transatlantic flights17 over a period of only 5 years. By eliminating the restrictions of the bilateral agreements, it is expected that the price of flights between the EU and the US will fall for both business travellers and leisure passengers.
The Agreement introduces unprecedented mechanisms for regulatory convergence, notably in competition, state aid and security. The objective is to minimize incompatibilities between the rules and policy approaches on either side of the Atlantic.
In the field of **aviation security**, a working arrangement has been reached on 11th of March 2008 between the European Commission and the US Transportation Security Administration on reciprocal airport assessments.
This is an important step toward enhancing the compatibility of security measures.
In the field of air **traffic management and environmental protection**, the European Commission and the U.S. Federal Aviation Authority have created the Atlantic Interoperability Initiative to Reduce Emissions (AIRE) Partnership to improve the environmental footprint of air transport with environmentally friendly air traffic procedures from gate to gate.
In the field of **competition policy**, the European Commission and the U.S. Department of Transportation have started to work together to achieve compatible regulatory approaches.
The Agreement establishes a new mechanism: The **Eu-US Joint Committee** will monitor the implementation of the Agreement and ensure regulatory cooperation.
The EU-US Air Transport Agreement will deliver substantial benefits for passengers, shippers and the air transport industry on both sides. The EU is determined to go further, to remove further barriers to trade, in particular in the area of foreign investment, where aviation remains restricted and closed in comparison with other sectors of the economy.
The EU-US Agreement commits both sides to continue negotiations aiming at further liberalisation of traffic rights and additional foreign investment opportunities.
These **second-stage negotiations** started on 15-16 May 2008 in Ljubljana, under the Slovenian EU Presidency.

[17] Airlines make use of the opportunity to operate transatlantic flights from outside their home country. Air France operates now direct flights from London to Los Angeles. British Airways with its subsidiary Open Skies has announced operations from Paris to New York. Many airlines make use of the extended code-sharing opportunities from 30 March. Following the agreement, Sky Team partners Air France-KLM, Delta and Northwest have applied for antitrust immunity for a four-way-joint-venture. One world partners Iberia, Finnair, Malev and American have also applied for antitrust immunity for a closer alliance. Furthermore, there has been a new transatlantic investment in the airline industry.
German airline Lufthansa acquired 19% of US carrier JetBlue in February 2008. The transatlantic market is by far the biggest international air transport market with about 50 million passengers in 2007. More than 400 daily flights are operated between the EU and the US in April 2008.

The Agreement includes a mechanism to guarantee progress towards the second stage agreement in view of the ultimate EU objective of an Open Aviation Area between the European Union and the United States. If no substantial progress has been made by November 2010, the EU can decide to suspend certain rights granted to US airlines.

Germany, France, the Netherlands and 13 other Member States[18] had already bilateral open skies agreements with the US. Those agreements gave EU airlines the right to fly without restrictions on capacity or pricing to any point in the US, but only from their home country – French airlines from France, German airlines from Germany and so on. These new open skies agreements included the so-called "5th freedom" and thereby gave US airlines the rights to operate flights within the Community.

In the United Kingdom, Ireland, Spain, Greece and Hungary, air services were restricted to a certain number of weekly frequencies or a certain number of airlines. For example, transatlantic flights from London-Heathrow were restricted to four airlines only. Now, this biggest transatlantic gateway will be open for all EU and US airlines.

Finally, in Bulgaria, Cyprus, Estonia, Latvia, Lithuania and Slovenia there was no legal basis at all for direct flights from and to the US.

Low-Cost airlines

Low-cost airlines, also no frills airlines, are so called since they provide basic products with no frills, paid-for additional service elements, and minimal seating comfort.

The low-cost carriers standardize the service by eliminating or cutting down on service elements, offering a one-class cabin with one-way fare, reducing the range of on-board catering and switching to on-board sales of food and beverages to obtain additional income. They provide only point-to-point connections.

Flying time is maximized for each aeroplane, and this implies very reduced times between arrival and departure; the turnaround times of airplanes are reduced to minimal since less time is needed for loading and cleaning and empting of toilets due to the lower in-flight food consumption and to the use of small and uncongested airports.

Due to the free-seating procedure that is the abolition of seat reservation and to the introduction of reusable plastic cards, time and costs can be saved during the check in. The booking and the purchase of flights is ensured by means of cost-effective and easy-to-handle software since complex booking operations are generally not required because of simple flight network.

[18] Austria, Belgium, Czech Republic, Denmark, Finland, Italy, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Sweden.

Basic characteristics	Detailed characteristics
A simple product	• one passenger class / one cabin class • simple fare schemes with limited product differentiation • no frills, such as catering, lounges and frequent flyer programmes,... • no ticket repayment and rebooking
Low operational cost combined with high productivity	• single aircraft type reducing training and servicing costs as well as crew and maintenance costs • lower crew wage schedules due to low average seniority and performance linked wage structure, personnel performing multiple tasks (for instance flight attendants also cleaning the aircraft or working as gate agents), etc • outsourcing of all non-flying jobs (i.e. ground handling, aircraft maintenance, call centres,...) • emphasis on direct sales of tickets, especially over the Internet (avoiding fees and commissions paid to travel agents and computer reservations systems) • the use of secondary airports with excellent slots, low landing fees, less congestion,... • simplified routes, emphasising point-to-point transit instead of transfers at hubs (again enhancing aircraft utilisation and eliminating disruption due to delayed passengers or luggage missing connecting flights) • high seat density • high utilisation of aircraft achieved through short flights and fast turnaround times (i.e. more block-hours/day means lower unit cost) • low rotation time(*) of approximately 20 minutes • free seating encouraging passengers to board early and quickly
Specific positioning	• aggressive marketing campaigns • leisure travellers and price-conscious business travellers • stronger fuel hedging programmes

(*) The time the aircraft is parked on the ground when engines are turned off.
Source: based on *Bieger and Agosti (2005); ELFAA (2004); Doganis (2006); Klein and Klein (2005) and* [illegible] *(2004).*

THE LOW-COST AIRLINE MODEL

LOW-COST PERSONNEL

It is typical for low-cost airline to incur small costs[20] for ground staff and office waiting rooms that are generally small since, due to the point-to-point connections there are no transfer passengers. Automatic check in kiosks allow to save boarding staff.

[19] Directorate General for internal policies of the Union, Policy Department Structural and Cohesion Policies, European parliament, Transport and tourism, *"The consequences of the growing European low-cost airline sector"*, IP/B/TRAN/IC/2006-185, PE 397.234, 4/12/2007, p 6.
[20] Grob S., Scroder A. in "*Handbook of low-cost airlines*", 2007, pp. 41-45.

Low-cost managers achieve the maximum utilization of permitted working hours within the legal limits for their workers, drafting a labour contract[21] where different national legal regulations are applied in order to employ staff with the best of benefits from the low-cost airlines' point of view. They cut costs with avoidance of voluntary social charges – such as holiday allowance or Christmas bonus – and outsourcing of uniform procurement[22].

Low-cost fleet

Low-cost airlines reduce their costs also by using a uniform fleet of the same types of aircrafts (typically B737, more recently A319). This leads to cost savings for personnel training and to a more flexible operational planning since flight and technical staff are subject to identical qualification standards. Costs are saved also in the field of maintenance and repair assigned to specialists (outsourcing) who are able to carry out these jobs avoiding extra fixed costs for the airline company. The planes are above all second-hand aircrafts, bought with the leasing option. They are often less equipped aircrafts, ordered directly from the manufacturer and provided with windows without blinds or seats without storage pockets for magazines and safety instructions. The compartment of the catering trolleys is eliminated, so the number of seats on board is increased to transport more passengers.
Low-cost airlines placed huge orders with manufactures over the last few years. The airlines Ryanair, EasyJet, Air Berlin, Fly BE and Germanwings alone ordered more than 330 new airplanes in 2005[23] to take profit from the large discounts. Such discounts may be used by the traditional airlines to sell a certain number of the carriers to leasing companies in order to hire them back afterwards.
During the aviation crisis following September 11th, 2001, a lot of used airplanes were offered on the international market for very low prices and many low-cost carriers increased their fleet.

[21] Ryanair employees have an Irish contract.
[22] Ryanair's staff, for example, must pay themselves for the uniform and the airport pass. Some low-cost airlines charge future employees a training fee. Ryanair even charges job applicants for processing their documents 50 euros, which are reimbursed, however, if the person is employed.
[23] Grob S., Scroder A. in "*Handbook of low-cost airlines*", 2007, pp. 37-41.

LFAs	Traditional airlines	LFA advantages
Operate from mostly secondary, underutilised, regional airports	Operate from mostly primary international hub airports	Lower airport charges, faster turnaround times, less air traffic control-related delays
Fast turnarounds (25 min.)	Slow turnarounds due to use of congested hub airports	Better fleet utilisation
Direct point-to-point flights, no transfers, short-haul routes	Mix of long, medium and short haul routes with transfers ("connecting flights")	Lower complexity, higher capacity utilisation
Standardised fleet (only one aircraft type), higher seating density	Various aircraft types, low seating density	Cheaper aircraft financing; Lower maintenance and training costs; Simpler swapping around of flight and maintenance staff; Higher capacity utilisation
Distribution primarily through direct channels (internet, call centres)	Most tickets sold via travel agencies (high GDS costs, travel agent commissions, etc.)	Lower distribution costs, lower complexity
No "frills", extras paid for (e.g. catering, excess baggage)	Entertainment programmes, express check-in, VIP lounges, paper tickets, business class, "free" catering	Lower ancillary costs, less complexity; Additional revenues
Highly incentivised work force (variable proportion of salary up to 40%)	High basic salaries (variable proportion less than 10 %)	High employee productivity

Figure1: Low-fare model advantages[24]

Low-cost model applied to different sectors

Low-cost cruise ship

A recent implementation of the low-cost strategy to the ship sector has led to the creation of the "low-cost cruise ships", the alternative choice to the expensive cruises not accessible to everyone.

[24] European Low-fares Airline Association, "*Liberalisation of European Air Transport: The Benefits of Low-fares Airlines to Consumers, Airports, Regions and the Environment*", 2004 p. 39.

EasyCruise[25] is a company offering a low-cost cruise ship. They launched their first cruiser at very cheap prices, in 2005 aiming at creating a new target group consisting mainly of young people with no experience in nautical travel, but familiar with internet and capable of designing their own journeys. Generally children and teenagers under 14 are not welcomed on board. The average age of EasyCruiseOne passengers in the Caribbean is 38 and in the Mediterranean 32 years.

The central factors for the success of EasyCruise are the optimising of costs in all business areas. It operates short cruise periods (less than six hours daily) with consequent low consumption of fuel. And it employs minimal staff.

EasyCruiseOne was originally built for the US-shipping company "Renaissance Cruising" that went bankrupt, and EasyCruise was able to purchase the ship at a very low price. When the now called EasycruiseOne was purchased, it was rebuilt in Singapore. The coach sizes were reduced and the sport facilities were taken out of the ship in order to increase seat capacity for accommodating more passengers. This reduction caused the removal of a lot of windows and many coaches had to be sold as interior ones. Demanding an exterior coach is considered extra-service, so this generates and extra-income for the company. A further element of cost reduction is the outsourcing of activities on land such as excursions. It is the easy principle that governs the politics on the ship.

The standard fare includes passage (incl. harbour fees) a bed and an en-suite bathroom. Passengers are allowed to bring drinks aboard except for alcoholic drinks. There is an American restaurant on board offering international easy-cuisine for all kind of tastes, adapt to young people. They can use an EasyCruise credit card to pay all services on board and to identify all passengers when leaving or accessing the vessel.

The most important selling channel is by internet or travel agencies offering a 10% reduction off the going rates published on its website. Clients do not receive a ticket and need only to present a confirmation of their booking. If customers buy on line they print the confirmation directly.

The pricing policy starts setting lowest prices that enhance early bookings reducing the risk of low utilisation. Arriving to the date of departure, prices increase. It is the opposite to the last minute system.

EasyCruise uses the press and the internet to inform customers about the company and its services.

Low-cost bus

The bus industry is made up of small and medium sized companies, most of which operate on a local and regional level only. In the past bus travelling was strongly

[25] EasyCruiseOne is one of the latest ventures launched by Stelios (stelios.com), the serial entrepreneur and chairman of the EasyGroup (easy.com). In 1995, Stelios founded EasyJet (easyJet.com), Europe's leading low-cost airline.

regulated in most European countries in favour of the railway companies. Starting in 1980, railways and bus companies have been privatised and today most buses operate on private basis. Bus line operation is still limited in many countries. In Germany, for example, a law on transports prohibits the operation of bus lines where there is satisfactory railway service.

However for occasional travelling, such as day trips, long distance journeys and trips on hired coaches organized in advance by tour operators or the bus company itself there is no need of a special permission, so these services can be considered as completely liberalised.

In Germany the first low-cost bus service, the 9E-Linienbus was founded at the end of 2004. This service which operates at night substituting train service, connects the airports of Hamburg, Hannover and Frankfurt and continues to Heidelberg and works in a Ryanair's style.

Low-cost line operation exists in the liberalised market of Great Britain. Two low-cost operators are the 9E-Linienbus, operated by the Stagecoach Group and the Easybus, operated by the EasyGroup.

In London the Stagecoach Group started to use the Megabus as a no frills bus line for intercity connections in August 2003. After a successful start between London and Oxford new connections were quickly added. Today Megabus connects more than 30 British cities.

In 2006 the United States followed the English example and created some low-cost intercity connections. Prices are based on the airline low-cost pricing model and therefore yield management. They start from 1£ for the first 20 seats and then the later bookings prices go up to £ 4. In order to reduce costs no tickets are printed and bookings are made trough internet from six weeks until one hour prior to the departure. The luggage is limited to one carry-on bag per person, there is no toilet on board and the booking is charged with an extra 50 cents.

One year after Stagegroup launched its own low-cost service called Easybus in central London. The most important service connects London Luton Airport to the city centre. Again the prices follow the rules of a yield management with raising prices towards the travelling date.

Low-cost car rental

The European rental car industry has grown in the last years and it is undergoing important changes in the client segments, since more than 50% of the market turnover comes from business clients. Accordingly there is stiff competition for the business clients and car rental providers offer the business segment great discounts. Also the tourism segment is growing.

Tourists travelling by airplane create a steady and continuously growing demand in the Mediterranean countries. Experts predict a growing demand for car rentals in the future and this reflect the current trend in tourism where well-informed people compose their own individual journeys.

People travel more often but prefer short trips. There is also a greater demand for cars at their destinations and in this sense the low-cost airlines have had a great impact on the developments in the car renting industry.

The European low-cost rental car industry was established in 2002, 5 years later than the low-cost airlines. A fundamental difference between them is that the car rental industry has three different low-cost models.

- The **low-cost brand business model** is the most similar to the low-cost airline model. It is characterized by lean management, standardization, and outsourcing. The established car rental providers reacted to the low-cost trend and created their own brand in order to survive. Examples include **Sixti**, the low-cost brand by Sixt; **Euromobil**, the low-cost brand of Volkswagen, and Avis Basic the low-cost brand by Avis. Only Hertz decided to maintain their traditional service and not to create their own brand. Sixti also operates trough the internet and offers a simple handling for reservation and maintenance for a small choice of car types. The basic price includes a few services whereas all special services incorporate an additional charge. However Sixti, as all the low-cost providers is still revising its strategy and now it permits also changes in reservations, it has added an extra car type, and has introduced the 24h-calculation principle including fuel and cleaning, and finally has increased the maximum rental period to one hundred days.
- **Advertisement on wheels** Financing a rental car business by advertisements is not a new concept. The German company Maxhopp has been providing discount rental cars displaying advertisements. The appearance of Lauda-Motion[26], an Austrian company founded and directed by the former formula one driver Niki Lauda, fundamentally changed the German and Austrian markets. Counting Austria only, LaudaMotion numbers about 150 Smarts displaying advertisements for McDonald's, Air Berlin and others. A Smart can be hired for 1 € a day but it must be driven in the city specifically within a range of 30 to 100 km.
- **Broker** Brokers in the car rental industry play a similar role as brokers in other industries such as tourism. In the car rental industry, brokers do not hold a fleet on their own, but rent cars from other companies, picking the most attractive offer at any point in time. Their existence is possible because of the huge pool of cars held by the established firms. Sunny Cars, a German firm has been in business as a broken for 15 years. EasyCar is another successful car broker.

[26] Today it is possible to rent a smart car for just one euro per day at Lauda-Motion rental cars, the company founded by Niki Lauda. The doors of the rented city car, carry Lauda publicity and the hirer commits himself to cover at least 30 km per day in the city, (not more than 100) without ever exceed 60 km/h obviously in order to let people read the publicity slogans! The only inconvenient is that today cars can be rented just in Austria and Germany. But in a next future, also Italy will have the first Lauda Motion Points.

Low-cost and network carrier business model within the same airline grouping

Many attempts to establish a no-frills low-cost carrier within the same grouping of a network carrier business model have failed. An example was the soon closed endeavour of Continental Airlines in setting up its low-cost spin-off Continental Lite.
Running two different and conflicting airline business models simultaneously is very difficult and results in poor quality, dissatisfied customers and discouraged employees.
Despite some negative experiences some of the major US American network carriers are implementing the idea of following a low-cost strategy. The large number of attempts was a reaction to the spread of this business model in the airline industry and represented the willing of network carriers to participate in the growth market for budget air travel[27].
Network carriers choose to set up low-cost carriers in order to increase their corporate value. The incompatibilities in operating the two business models derive from their contrary and conflicting configurations and have caused inconsistencies in the way the business model of a low-cost carrier has been applied to the new unit. Most definitions and requirements of the two business models are incompatible.
It seems that the existence of these incompatibilities of the two business models and the resulting negative impacts makes the implementation of such a strategy difficult. Incompatibilities of the business models are referred to any inconsistencies or missing fit of strategic positions that generate negative impacts that make trade-offs necessary. However, negative impacts can be reduced by carrying out organisational and market-driven conditions.
Five different business models exist in the airline industry. The basic output is the same and involve the transportation of passengers between two destinations, but their way to create value on the market place and their main strategic success factors are different.
Luca Graf[28] used an inductive and qualitative research approach to study the

[27] Due to the spread of low-cost airlines, most conventional carriers are reviewing their own business models and adjusting their competitive reactions, sometimes risking to cannibalise their core business. In those European markets where the competition from LCAs is particularly high, conventional carriers try very hard to increase their productivity and to decrease their unit costs, in order to offer competitive prices. In addition, they try to discourage the potential entry of LCAs by implementing drastic price decreases, along with capacity increases and/or loyalty programs that this often result in a price war.
They acquire an LCA or create an independent LCA. They establish an LCA within the traditional airline itself that requires a strict distinction between the two products. They also switch to more profitable markets, or transform a full service carrier into an LCA.
[28] Graf Luca, *Incompatibilities of the low-cost and network carrier business models within the same airline grouping*, in Journal of Air Transport Management, 2005, vol.11, pp. 313-327.

negative impacts that may inevitably arise due to the existence of several incompatibilities between the two business models. His objective was to develop insights into the incompatibilities of business models in the same grouping and to suggest new ways to overcome these deficiencies.

In order to achieve more rigorous results, he studied five cases in the European airline industry, including both failed and still active examples of low-cost units of major network carriers: British Airways and Go; KLM and Buzz; KLM and Basiq Air; Lufthansa and Germanwings, and Swiss in Europe.

Graf's study proved that it is important to separate markets by transferring decentralised traffic flows to the low-cost unit and using the network carrier for hub operations.

Go was established in 1998 as a separate entity but as a subsidiary of British Airways and started operations at Stansted airport. Before launching its own low-cost carrier subsidiary, BA talked with Ryanair about a possible investment in the Irish low-cost carrier. Go underlined its close relationship with BA. Go chose destinations where BA was also operating even if it served different airports such as London-Heathrow or London-Gatwick. Go was designed to address the leisure segment, but it also served business travellers. Go was organised as a completely separated team and was autonomous when making decisions about production and network planning, distribution, purchasing, organisation, human resources and product design. It was not independent for investments.

BA performed only central functions such as safety supervision, cabin crew selection and training and revenue accounting.

Go was set up as a low-cost carrier offering services of a differentiated premium carrier. Go moved into profit in the third year of operation. In 2002, EasyJet acquired and integrated Go into its operations.

Buzz was set up in January 2000 by KLM UK. Buzz constituted a brand with the corporate entity of KLM UK behind, the latter being a subsidiary of KLM. Buzz operated on the same routes previously served by KLM UK and addressed both passengers travelling for leisure reasons and business users. Since Buzz travelled to primary airports abroad, it was equipped with a more precious low-cost product. Meals were served, frequent-flyer points were awarded and uniforms and cabin styling had to changed.

Buzz established its own corporate culture. Its organisation consisted of a separate team, working closely together with the overhead of KLM UK. It could not make decisions about production and network planning. In 2003 the board of KLM decided to sell the activities of Buzz to the low-cost carrier Ryanair as Buzz was losing over 1 million euros a week with its operations.

Basiq Air is not a corporate entity but a product label following the low-cost carrier business model. Its operations grew out of Transavia[29] in December 2000.

Transavia started to offer scheduled flights in connection with KLM services in the '90s. These flights were then substituted by flights labelled with the Basiq Air

[29] The subsidiary and charter carrier of KLM.

brand and were based on the low-cost carrier business model.
Today the operational bases of Basiq Air are the airports of Amsterdam and Rotterdam. Ten airports are assigned to its activities.
The low-cost carrier targets primarily passengers travelling for leisure purposes, even if it attracts also business travellers without approaching them directly. The aircraft operations and services are provided and charged by Transavia. Basiq Air and Transavia autonomy towards KLM is as high as it is restricted only for investments and basic strategic decisions.
Germanwings was set up in October 2002 as a separate low-cost carrier belonging to the Eurowings Group. It was the result of the transformation of the unprofitable charter business of Eurowings into a low-cost carrier, the property rights of the brand name were granted by Lufthansa, which supported the establishment of Germanwings in the supervisory board of Eurowings. Therefore, Germanwings can be considered as the low-cost carrier of Lufthansa, even if its influence on the decisions of Germanwings is rather limited. Germanwings serves both leisure and business travellers and cooperates with tour operators offering flights included in packaged tours. The organisation of Germanwings is located in Cologne. The headquarter of Eurowings, instead, is placed in Dortmund. The autonomy of the German low-cost airline is only restricted in terms of investments and basic strategic decisions towards Eurowings and Lufthansa.
Swiss International Air Lines (Swiss) transformed its European Economy Class product creating **Swiss in Europe** in 2003. the airline uses a half-return pricing on the internet showing only one price for a flight at a time and thus influencing customers' by suggesting single fares. *Swiss in Europe* promotes direct sales via the internet and makes food and beverages available in the economy class within Europe only against payment. The processes regarding onboard catering have been outsourced. The autonomy of this low-cost unit is limited, as its activities are integrated in the organisation of *Swiss*. Therefore, it can be affirmed that *Swiss* operates a premium network carrier business model and a low-cost carrier simultaneously.
The airlines mentioned above have attributed a different level of independence and autonomy to their low-cost units. Germanwings has the highest independence towards Lufthansa, Swiss in Europe has the lowest level of independence towards Swiss. In between there are Go, Basiq Air and Buzz. Only Germanwings and Go can be defined as true subsidiaries. Basiq Air, Buzz and Swiss in Europe are simply low-cost carrier business models.

Pioneers of low-cost airlines and low-cost airline strategies

The pioneer of low-cost idea

The Pacific Southwest Airline (PSA) and Air California were the first and the second low-cost carriers in the world. Today they are both defunct. Instead it was only the third one, Southwest Airlines (SWA) to "take off".
Founded in 1967, in Dallas, (Texas), it was unable to begin revenue service until June 14th 1971, because of the protracted legal battle initiated by local incumbents Braniff, Trans Texas and Continental. By the end of the 1980s, SWA has grown up and turned into the largest low-cost carrier in the world. It has also become the largest domestic airline in the USA and the second largest airline of the world. It expanded very strongly both during and immediately after the recession years 1980-82 and 1993-94, adding a total of 10 new destinations in each of these periods. Nowadays it is being credited with being the single most important competitive force in the US airlines industry.
The revolutionary formula consisting in: low-fares, no frills, high frequency, short haul and point-to-point service, turned the company into the most profitable airline, becoming a sort of model for the growing number of low-cost carriers arising around the globe, such as Ryanair and EasyJet in Europe, Airtran (formerly known as Valujet) and JetBlue in the USA, Westjet in Canada, VirginBlue in Australia, and Air Asia in the Far East, to name just a few. Despite their momentary spectacular growth rates and profits, most of them, even adopting a SWA- style business model did not have a long-term success. They had a dramatic drop in profits and went under in the aftermath of 9/11.
However passengers on the domestic US market have enjoyed significant benefits since and because of deregulation. According to a study by the US Department of transportation these advantages are the result of this "low-cost airlines service revolution". Even SWA, which today still accounts for around eighty percent of all low-fare airline service in the USA, met some obstacles in its start-up period because of the increasing competition, but it was able to avoid bankruptcy.
Throughout its entire corporate history, neither in the crises years 1979 (second oil price shock), 1982/83 (US recession), 1991/92 (Gulf War) and 2001/02 (9/11) SWA has never been forced to furlough any staff due to downsizing and restructuring. Aiming not only at leisure travellers but also at the business travel segment, SWA offers **high-frequency service**[30].

[30] The same is true for some European low-cost carriers which, like EasyJet, report a business travel share of around 40 per cent, climbing fast.

In 1987 SWA created a frequent-traveller bonus scheme of its own: Rapid Rewards, until 1996 known as Company Club. It was based on the number of trips taken instead of the mileage accumulated that was considered the most generous loyalty programme of all US airlines. Of course SWA has taken advantage of low input costs wherever possible and reasonable. It has standardized its fleet around the Boeing 737 aircraft[31] thus saving costs on maintenance, training and staff. It offers only one-class, point-to-point service primarily to/from secondary or uncongested airports[32], allowing it to achieve the industry's quickest turnaround times and the lowest airport charges. As a consequence, SWA has a ground taxi time of only 3 minutes 44 seconds and has an average of almost 11 and 1/2 flight hours per day, the highest industry wide aircraft utilization rate.

Furthermore, SWA was the first to introduce, the on-line booking procedure in the USA, and it is currently earning 70 per cent of its tickets revenues from internet sales. In conclusion the SWA low-cost business model is built on at least five cornerstones: a high quality service, excellent labour relations, unconventional advertising and public relations, conservative corporate finance and organic corporative growth.

But SWA is adding another quality dimension to its low-fare product: the same high-frequency service as offered by its network competitors in order to minimize overall travel time for all customers and to fully meet the specific needs of the short-haul business traveller.

SWA has always fostered its underdog image in advertising and in promoting its brand and product. Initially SWA marketed itself as the "Love airline" which was based at Dallas Love Field Airport, serving love "potions" and "Love bites"(peanuts!)[33] on board and hiring very attractive cabin attendants only. It quickly managed to attract a large number of male business travellers and many of the ancient and also of the more recent print ads and TV commercials are on display at SWA's website. All the new routes were advertised as spreading love to the new destination. Even today the SWA's ticker symbol on the New York Stock Exchange is LUV. Later, in the more politically correct times of the 1990ies, it partly redefined its image to become a "Symbol of Freedom" that with its low-fares democratised flying.

[31] When the low-cost revolution put its roots, many analysts, without having sufficient acquaintance with the airline industry, stated that the business model relies on using a single aircraft: the B737. This was due to the fact that when SWA entered the market, Boeing had a de facto monopoly in that aircraft category; the first variants of McDonnell Douglas' DC 9 models were about 20 per cent smaller in terms of seat capacity. Today, only Ryanair and Southwest rely exclusively on the B737, while EasyJet, Air Asia and Air Berlin operate large Airbus A320 family fleets as well. Many other low-cost carriers such as Wizzair operate all Airbus fleets.

[32] Whenever SWA serves busier airports, including other carriers' hubs, it avoids scheduling its flight during peak periods, opting for the periods between connecting banks instead.

[33] Frieberg K. *Nuts! Southwest Airlines' Crazy Recipe for Business and Personal Success*, Brodway Books, January 1998.

What is more, some exogenous factors have fuelled SWA's and the entire low-cost segment's spectacular growth worldwide, while at the same time showing a structural weakness of the traditional network carriers' business model based on their dangerous over dependence on passengers willing and able to pay an ever increasing premium for their service; Martin, for example, an influential writer for the Financial Times, argues that many traditional airlines still cling to the obsolete and dangerous notion of air travel being an elite form of travel instead of a mass market.

The qualitative and quantitative analysis of this so-called "Southwest Effect" has become the object of intense economic research recently. SWA is considered to have stimulated competition in the post-deregulation US airline industry. Initially the term "Southwest effect" was used to describe the positive change in the number of emplacement and the consequent decrease of the average fare in the market where SWA entered. In a 1996 study, the United States Department of Transportation identified three distinct facets of the "Southwest effect":

- The direct competitive effect: lower fares, higher passengers volumes.
- The so-called halo effect with SWA entry lowering fares at nearby airports.

The role model effect with the successful business formula of SWA, served as a blueprint for newcomers, whose entry in other markets, in turn has intensified competition there[34].

The first European low-cost airline: Ryanair

In Europe, the development of low-cost carriers is a significant factor in the evolution of airline competition and demand trend. Pioneered by Pacific South West and copied in 1973 by Southwest, even before the liberalization of 1978, the low-cost concept became established in Europe in 1985 with the adoption of that model by Ryanair.

Following early liberalisation between Ireland and the UK, Ryanair emerged as a new entrant in a market that had been dominated by Aer Lingus and British Airways. Ryanair initially introduced services between Ireland and UK destinations, including London. Once the third liberalisation package was introduced in 1993 Ryanair was able to start services between the UK and Continental Europe.

With the appearance of Ryanair and a multitude of follow-up airlines, this business model was also established in Europe and has become part of today's European flight market. Ryanair has taken over the role of the European low-cost leader with respect to the implementation of the business model while having made "good"

[34] The underlying reasons behind the fractional ownership boom are the, compared to the airline travel, greatly increased flexibility and comfort, significant time-savings (at airports) as well as the perceived higher security level. For a survey of fractional ownership growths trends and a detailed discussion of its advantage and disadvantages.

profits. By advertising low prices, it has built an image of being a discounter airline, always signalling to potential customers the prospect of less expensive air travel thanks to its bottom-down prices.

It has affected changes in tourist preferences by encouraging people to choose itineraries according to price[35].

Ryanair provides a good example of growth, beginning with a small network[36].

From 1991 to 1995, its network remained restricted and focused on the Ireland-Great Britain and particularly London market.

By 2001 the network increased while being centred on Dublin and London Stansted.

By 2004, Ryanair opened several continental bases from which it has numerous connections (Brussels South Charleroi, Frankfurt Hahn, Gerona, etc). It has also bought out Buzz from KLM recovering its network connecting London to the French areas that were not available in Ryanair's supply. By using secondary airports Ryanair has obtained many reductions in taxes and in ground time operation, for this reason it avoids cities with no secondary airports such as Athens or Lisbon

Five types of low-cost carriers[37] have been distinguished:

- **The Southwest copycats**: airlines that have been remodelled by a private entrepreneur (e.g. EasyJet).
- **Subsidiaries**: airlines that have been established as subsidiaries of long-established airlines. They aim at regaining a share of the low-fare segment which was taken away from the established company (e.g. MetroJet, Snowflakes and Go).
- **Cost-cutters**: long-established "legacy" airlines that try to reduce their operating costs by rationalising the frills offered (e.g. Aer Lingus).
- **Diversified charter carriers**: low-cost subsidiaries developed by charter airlines.
- **State-subsidised companies** competing on price: airlines acting as if they are low-cost carriers.

[35] "The main thing is to go somewhere. Where exactly is not important". That is to say, rather than deciding first on a favoured destination and then searching for the cheapest fare to get there, people tend to select destinations based on fares, especially when looking for rather short trips or week-end trips.

[36] Dobruszkes. F, in "*Analysis of European low-cost airlines and their networks*", Journal of transport Geography, 2006, vol.14, pp. 249–264.

[37] Francis et al. (2006) developed a typology, conceptually distinguishing five broad types of what is known as low-cost carriers.

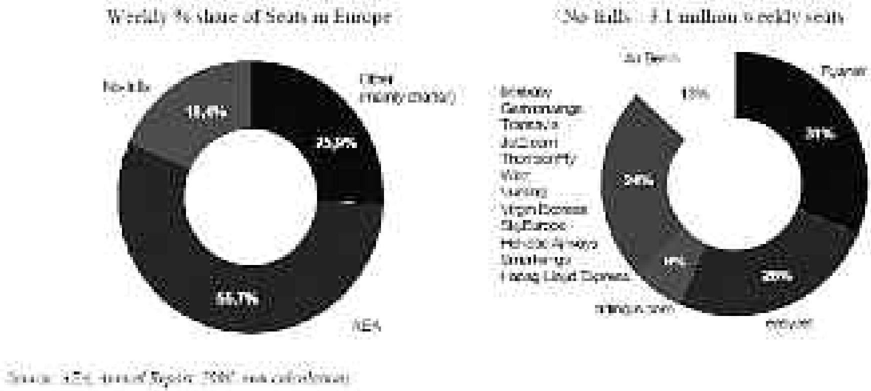


Figure 2: Weekly percentage share of seats in Europe, Summer 2006[38]

Low-cost marketing mix approach

Strategic price policy

Since **low-fare** is the most important feature attracting low-cost clients, it represents the most important marketing instrument for low-cost airlines since it turns out to be a long term factor for customer loyalty. The primary aim of the low-cost airlines is achieved through an as high as possible and steady seat occupancy rate.
Among the tasks of price policy are:

- To fix the current ticket prices in compliance with the price/performance ratio
- to establish the conditions (e.g. payment terms or duties for cancellation and rebooking).

The fixed prices must at least cover all costs and are designed to ensure a maximum utilization of the available capacities and to position the product in the low-cost segment.
Considered under time-related aspects, price policy is divided into a long-term strategic and a short term, tactical component. The strategic price policy positions the services offered by low-cost airlines within the low price segment by means of the advertised base price and exercises a long-term influence on booking behaviour. The tactical price policy ensures high short-term occupancy rates on certain routes.

[38] Directorate General for internal policies of the Union, Policy Department Structural and Cohesion Policies, European parliament, Transport and tourism, *"The consequences of the growing European low-cost airline sector"*, IP/B/TRAN/IC/2006-185, PE 397.234, 4/12/2007, p. 11.

Low-cost airlines use the price discrimination possibilities with respect to the point in time of booking and the availability of their services (day of the week/holiday period or time of the day). Since in most cases no differentiation is practised as far as a product policy is concerned, only one price is always offered for a specific flight at a certain point in time, thus simplifying the price system.

Further discriminations are applied with respect to the different distribution channels (different booking taxes for call centre, the Internet or travel agency) or the airport of departure.

For pricing they use a mixed calculation, that is the average ticket price determined by cost accounting procedures (fixed and variable costs for a certain occupancy rate) served as a basis for the offered prices.

Flights are sold at different prices, with part of the low-cost tickets being distributed at a loss which, in turn, is compensated by the high-priced tickets.

The time-related price discrimination is implemented trough penetration pricing. At first, low base prices (initial prices) corresponding to the strategic price policy aims are determined, i. e. a market oriented pricing based on competition and demand is being practised. These base prices are communicated to the consumers in order to encourage them to book early[39].

As booking goes on, pricing becomes more cost-oriented and prices increase as the departure date draws closer. In a first step a specific low-price contingent is determined. Its amount varies from an airline to another, comprising about 10% to 70% (Ryanair) of the offered seats. In general this part is about 20-30%. When this contingent is sold, prices increase in steps and may reach or even go beyond the prices of established airlines.

Due to their restrictive conditions policy, most low-cost airlines did not encounter the problem of overbooking and of related costs for compensation payments to passengers. Therefore the EU Commission put into force new regulations to protect passengers rights by 17 February 2005[40], in order to compel low-cost airlines as well, to assume liability for cancelled and delayed flights.

An interesting analysis to take into consideration to understand the game of these dancing prices, and learn when to buy a cheaper flight, has been made by two economists[41], Eric Pels and Piet Rietveld[42]. They have analysed the pricing behaviour of low-cost and traditional carriers in the London-Paris market where they coexist.

[39] In contrast to last minute prices which are perceived by costumers as being reduced as time goes on, this price system conveys to the customer the idea of a price guarantee, i.e. there will be no cheaper prices for a certain flight at a later point in time.

[40] European Parliament and the Council of the European Union, "*Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91*" in Official Journal L 46, 17.2.2004, p. 1–8.

[41] Department of Spatial Economics, Free University Amsterdam.

[42] Pels E., Rietveld P., "*Airline pricing behaviour in the London–Paris market –Ryan air example*" in Journal of Air Transport Management, 2004, vol.10, pp. 279–283.

In particular the analysis focuses on the lower or upper fares offered by carriers (traditional and low-cost carriers) in response to their competitors' adjustment. In the London-Paris market, there were five players at the time of data collection[43]: EasyJet, Buzz[44], British Midland, Air France and British Airways.
The data were collected on a weekly basis up to one month before departure. In the month before departure data were collected on a daily basis.
The result[45] has shown that the fares increase overtime for most carriers. EasyJet offers its lowest fares 21 days prior to departure. Buzz offers its lowest fare 33 days prior to departure. For British Midland, this is 23 days, while for the two alternatives offered British Airways, the fare is lowest 35, respectively, 28 days prior to departure. Except for EasyJet, an increase in the fare in the previous period automatically leads to an increase in the current period, although the rate at which fares increase may decrease.
EasyJet only responds to British Midland's fare. When British Midland lowers its prices, EasyJet follows in the same direction. Surprisingly, an increase in EasyJet fare in the previous period leads to a decrease in British Midland's fare in the current period. Both EasyJet and Buzz are low-cost carriers, targeting similar market segments with a fixed number of passengers in relation to the combination of the average fare and total capacity offered by the airlines.
Actually when EasyJet increases its fare, Buzz understand that EasyJet's flight is nearly full and the number of potential Buzz's passengers is rapidly decreasing. In order to increase total demand, it then lowers its prices. This response to a potential competitor is also observed for other airlines.
Air France is not included in the estimation since the fares did not change in the last 31 days. It results that the dominant network carriers do not react to the prices offered by low-cost competitors. Although they may offer some limited number of seats at discount fares, the actual availability depends on the entire network strategy.

[43] Data were collected from airline websites and travel agents. Passengers could choose different departure airports: Stansted (Buzz, British Airways (1st alternative) until mid June), Luton (EasyJet), Heatrow (Air France, British Midland, British Airways (1st alternative) from mid June until September, British Airways (2nd alternative) from mid June until September).

[44] Buzz no longer exists as an independent carrier.

[45] Pels E, Rietveld in "*Airline pricing behaviour in the London Paris Market*", Journal of Air Transport Management, vol. 10, 2004, pp. 279-283.

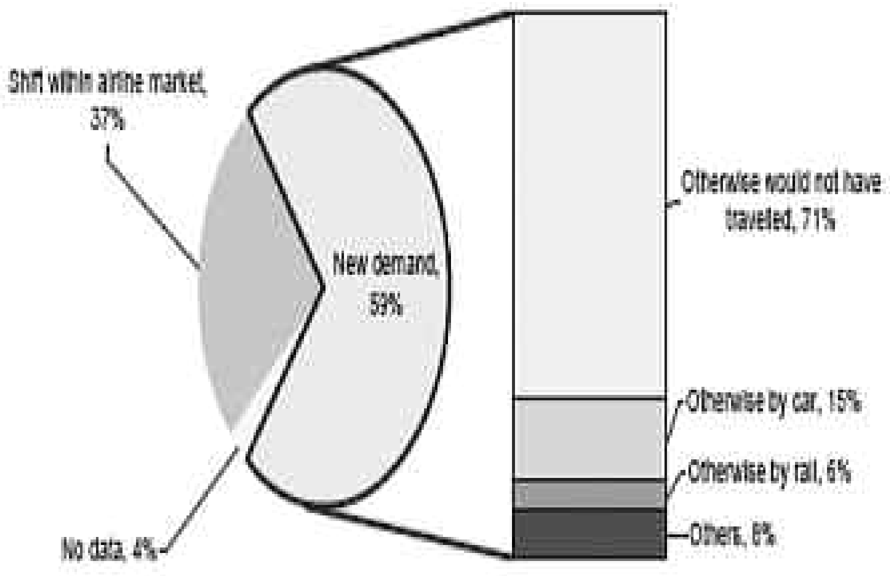


Figure 3: Generation of new passengers through low-fares[46]

PRODUCT POLICY

The product offered by a low-cost airline is a basic product consisting in the point-to-point transportation of passengers that is from A to B, without offering transfer traffic. This is the core service. Additional services, only to a limited extend, may be offered before, during or after the journey, and these allow to distinguish from one low-cost competitor to another.
The discrimination between different booking categories which is practised by the established airlines carriers, is not applied by low-cost airlines. However if discrimination is understood as a form of distinction from competitors, this is practised in relationship to the established airlines in the form of a new product offer (product innovation) and among the low-cost airlines in the form of the offered major comfort (seat density) or certain additional services (e.g. catering included in the price).
The low-cost concept implies the use of a uniform fleet of the same types of aircraft leading to cost savings for personnel training and to a more flexible operational planning since flight and technical staff are subject to identical qualification standards.
The seat density which is a product feature is determined according to principles

[46] Directorate General for internal policies of the Union, Policy Department Structural and Cohesion Policies, European parliament, Transport and tourism, *"The consequences of the growing European low-cost airline sector"*, IP/B/TRAN/IC/2006-185, PE 397.234, 4/12/2007, p 13.

designed to optimise revenue. Tighter seating[47] as well as the disappearance of different booking classes lead to a restriction of the quality of the product while allowing an increase in transportation capacity. Consequently costs per seat drop and the priority service feature needed by customers is achieved.

Brand policy

Among the aims of the branding policy pursued by low-cost airlines are
- positioning
- creation of a brand image
- distinction from competitors
- and publicity increase.

The brand name is marketed in the context of "cheap fly" through communication policy to the end customer. As a result, the consumer perceives the brand image of the low-cost carrier offering "tickets almost for nothing".
The low price is considered as the instrument for customer loyalty.

Distribution policy

The low-cost airlines sell their service trough a few channels, mainly directly through the internet or booking machines – direct self distribution – or through their own centralized call centres established at cost competitive location[48]. The use of call centres and payment by credit card is subject to additional charges.
For example, Ryanair use a self distribution without intermediaries , thus saving costs for travel intermediary commissions and the CRS – Computer reservation system – tax and obtaining new revenue sources through extra charges (e.g. extra charge for payment by credit card with Ryanair is 2.50 euros). More savings of distribution costs are achieved by issuing flights tickets together with the boarding pass and by using electronic tickets. Printing and material costs are even partly shifted onto the passengers (e.g. Print-out of tickets when booking online).

Communication policy

The communication policy is designed to inform potential customers about the available services offered by a low-cost airline. Public relation work is carried out

[47] In the low-cost airplanes, the seat distance is between 74 and 76 cm instead of 79-86 cm with traditional airlines.
[48] For booking flights via call centres, the services of call centre companies are sometimes used (e.g EasyJet). They are specialized in such services and, consequently the prices they offer are in most cases even cheaper than the costs incurred by the respective airline for ensuring this service by itself.

through spectacular action in order to attract great public interest and gain free publicity[49].

Low-cost airlines run various sales promotion actions such as the sale of tickets at a symbolic price (e.g. for one cent or euro) or giving away flight tickets as gifts.

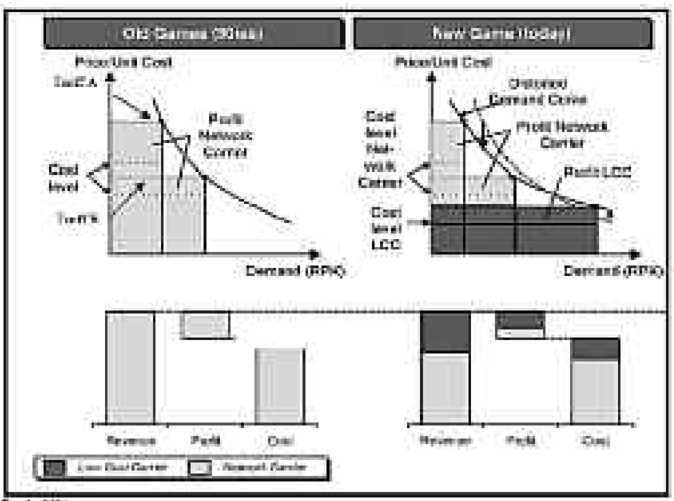
Furthermore communication is practised through intensive advertising addressed to the end consumer and focused mainly on the convenient prices, even if it is the net price to be mentioned. Any extra charges such as general taxes, handling or safety duties and fuel taxes are charged separately and mentioned in a footnote in advertisement on daily newspapers, since daily prices need a daily press.

Innovative approaches are also being followed by some low-cost airlines. On British TV, there is for example a documentary series run by EasyJet – "Fly on the wall" – which is about the life of passenger and staff of the airline. After it had reached a very high audience in the UK, it was even sold to other countries – New Zealand, Australia, Japan.

In addition to behaviour and corporate communication, the corporate identity encompasses the external image – corporate design – including among other features, branding of aircraft. Some low-cost airlines use the airplane surface for communicating booking phone numbers (Easyjet) or internet domains.

Flag carriers instead remain discrete, because it is publicly known that they receive or have received state aids and advantages from the public authorities.

Figure 4: Economic model for low-cost model[50]



Source: Franke, 2004

[49] The public appearances of Ryanair's CEO, Michael O' Leary, are often referred to. In 2003 for example, dressed up in military camouflage clothes, O'Leary drove a scrapped Second World War tank to Luton airport in the north of London where supported by his minions, he started changing anti-EasyJet slogans.

[50] Directorate General for internal policies of the Union, Policy Department Structural and Cohesion Policies, European parliament, Transport and tourism, *"The consequences of the growing European low-cost airline sector"*, IP/B/TRAN/IC/2006-185, PE 397.234, 4/12/2007, p. 2.

Strategic new marketing programs: low-cost airline services to business travellers- frequent flyer programs

The air transport market has become increasingly competitive since the three liberalisation packages have been completed in the EU. The UK industry has changed a lot since the establishment of low-cost airlines.
Initially low-cost airlines focused their marketing activities on the leisure market, but now a considerable part of their customer base is made of business travellers[51].
Due to these changes, the managers of traditional full-service airlines needed to redesign the products they offer in order to protect their markets. At the same time, low-cost airlines' managers need to gather information about the business travel market to be able to assess if such market can be a convenient one.
The business traveller sector represents a major market for low-cost airlines which have been able to attract a significant number of passengers competing on a very important marketing variable price.
However business travellers using low-cost airlines represent a distinct market segment in comparison with business travellers choosing traditional network carriers.
As regards price, some low-cost airlines have segmented leisure and business travellers[52].
The European market for low-fare air travel is changing radically. There is a strong competitive pressure within the market and established network airlines are fighting to retain their market shares. Many of them are re-evaluating their business model and are facing the competition of no-frills airlines by modifying and improving their frequent flyer programs which enable established airlines in order to be more competitive.
Richard Klophaus studied the prospects and problems involved in the implementation of a FFP, Frequent Flyer Program, and outlined how such problems should be applied to European LCAs to increase the loyalty of customers and long-term profitability[53].
The loyalty scheme of Frequent Flyer Programs were first launched by American Airlines in 1981. Nowadays they are included in the package of services offered by established network airlines – for example Lufthansa's Miles & More.
European low-cost airlines initially did not not provide FFPs to their customers. The aim of these programmes is to maintain customer loyalty by encouraging them to use always the same supplier and benefit from loyalty bonuses. FFPs seem not to fit to the low-cost business model; indeed, LCAs offer point-to-point

[51] In 1999, EasyJet claimed that over 50% of their passengers on certain routes were business travellers. In the same year, Go reported that 40% of passengers were flying for business purposes.

[52] EasyJet offers a simple price per sector policy; Ryanair has introduced business fares.

[53] Klophaus Richard, *"Frequent Flyer programs for European low-cost airlines: Prospects, risks and implementation guidelines"*, Journal of Air Transport management, 2005, vol. 11, pp. 348-353.

connections with low-fares and eliminate all unnecessary services. The implementation of a FFP, instead, entails additional costs and great complexity.
Anyway, many European LCAs turned away from their original business model. In order to differentiate themselves from competition, they did not focus on costs exclusively, but they started to offer new services. They began to serve more expensive primary airports instead of peripheral secondary airports and they introduced customer loyalty schemes.
Only about 20% of European LCAs had introduced FFPs or other customer loyalty schemes in March 2005.
Most European LCAs do not offer FFPs for a number of reasons:

- Start-up situation – in the early stage of a new airline, airline executives do not take into consideration the introduction of FFPs, as they have other financial and operational issues to solve
- Limited passenger numbers and lack of partners – LCAs do not manage to collect and redeem miles or credits
- Strong market growth – LCAs had a small incentive to create customer loyalty in a fast-growing European market
- Focus on costs – FFPs imply a more complex business model; therefore, it is more difficult to cut costs
- Pressure on prices – LCAs are the main reason they are chosen by customers

Some European LCAs may offer FFPs in the future. They are expected to re-evaluate their cost-driven LCA paradigm. At the moment Ryanair is the European LCA that operates with the lowest costs. In order to stay in the market they have to position themselves as low-cost carriers offering some frills among which costumer loyalty schemes can be included. Business travellers are influenced by their FFP membership when opting for a service. The high cost of FFPs run by network airlines derive from the program management needs, member communication and bonuses and gifts for frequent travellers. LCAs look for a less complicated and cheaper structure that can be characterised by as "FFP light".
Air Berlin is one of the few European LCAs that offer a FFP – Top Bonus. Miles can be collected on all Air Berlin flights and on flights operated by its partners, NIKI. When customers reach 15000 miles, they receive a free one-way flight covering the route network. A FFP light generally offers free flights as bonus.
There are other marketing instruments for LCAs to stimulate customer loyalty besides FFPs – for example the participation in an established customer card program such as Paybeck in Germany, where points can be collected as a small percentage share of the price paid for consumer goods or ticket books.
From the study carried out in 2000 by K. J. Mason[54], in which a group of short haul business travellers flying with a major carrier at Heathrow airport was compared with travellers using a low-cost airline at a secondary airport in London, emerged

[54] Mason Keith J., "*Marketing low-cost airline services to business travellers*" in Journal of Air Transport Management, 2001, vol.7, pp. 103-109.

that low-cost airlines attract more business travellers working for small and medium-sized companies that travellers working for very large companies, as small and medium-sized companies are increasingly price-sensitive.

The highest importance was given to punctuality and frequency. Ticket flexibility was also a valued item for both groups. In-flight service, frequent flier schemes and the availability of business lounges instead were rated higher by travellers using full service airlines than by those flying with low-cost airlines.

Travellers using network carriers and users of low-cost airlines work for companies having different sizes. People working for smaller companies experience a higher influence of travel costs on the profits they make in their businesses than travellers working for larger companies.

Furthermore large companies are more likely to have a travel policy to negotiate deals with travel agents and airlines.

They use different booking processes and channels. As regards the flight selection and booking process, the study showed that the Internet is increasingly used to collect travel information. EasyJet has gained a very high proportion of its total sales on the Internet[55]. From the survey emerged also that 64% of travellers using network carriers book their flight via a travel agency, while only a small percentage of low-cost customers book their travel at a travel agent.

In addition to this, they travel for different purposes. Business travellers using low-cost airlines fly for speculative visits –sales or marketing trips – while network carriers travellers go to conferences or exhibitions. 79% of respondents said that business class service did not offer value for money for short haul travel and therefore they are more likely to be attracted by low-cost airlines – “no frills” airlines.

Apart from these differences, there was also much common ground between the two groups studied. Travellers using network carriers give great importance to price and value for money, even if price seemed more important for travellers using low-cost airlines.

Since their emergence, low-cost airlines have operated only on short-haul routes. Graham Francis, Nigel Dennis, Stephen Ison and Ian Humphreys have examined the extent to which the low-cost model is applicable to long-haul operations[56]. They studied how the low-cost model could be transferred to long-haul operations. Long-haul operators have decided to utilise some aspects of the LCC successful business model. LCCs use the knowledge and skills acquired in short-haul markets to achieve cost advantages on long-haul routes. LCCs may decide to diversify and enter long-haul markets as short-haul markets are saturated with low-cost services, even if traditional airlines occupy a stronger position in the long-haul arena. Some aspects of the LCCs model can be adapted to the long-haul market, even if their business is mostly associated with short-haul operations. Their success will depend not only on achieving cost advantages but also on the viability of services.

[55] In 2000, the airline sold around 70% of its flights via the Internet.

[56] Francis G., Dennis N., Ison S., Humphreys I., “*The transferability of the low-cost model to long-haul airline operations”*, in Tourism Management, 2007, vol. 28, pp. 391-398.

Strategic flight scheduling: low-cost destinations

When choosing their routes, low-cost airlines have to consider the high prospective passenger rate, the less possible competition intensity, appropriate offers by airports with respect to costs, the legal aspects – compulsory permissions and national regulations – and available free slots.

Since they use mainly secondary airports with free capacities and without any congestions, they do not have problems in obtaining slots. The planning periods for flight schedules are shorter since they are operating on a growing market and therefore they need to make quick and short-term decisions. In most cases a route is tested with respect to its demand potential without carrying out expensive market research operations. If the occupancy rate is insufficient, the route is taken out of the program again – "trial and error"[57].

Successful low-cost airlines, such as Ryanair or EasyJet, expand systematically their system of point-to-point connexions – cost-controlled growth – using in most cases a specific airport as a home base for a whole region or country, similarly to a hub. They operate short and medium distance flights with a maximum flight time of 2.5 to 3 hours since otherwise an increased number of daily flights cannot be achieved.

However recently – late October 2006 – Ryanair started flying to destinations in North America – Fés – and Marrakech in Morocco – with a flight time of not less than 3.5 hours (Fez) and 3h 45 minutes (Marrakech)[58].

Since direct operational cost per seat-kilometre decrease as the flight distance increases, short-distance flights are characterized by an unfavourable relation of ground time to flight time and thus not economical. The longer the average flight distance, the lower are the operational costs per seat-kilometre. In order to compensate the disadvantages of short flight distances, aircraft turnaround is maximized. Quick boarding and no seat assignment, a one-class system – i.e. no separate boarding of business and economy class passengers –, no guarantee of connecting flights and, consequently, no time-critical transfer luggage, no freight transport and abandonment or reduction of catering – with the result, for example, of catering containers having to be exchanged not at all or less frequently by means of external vehicles[59].

If correctly managed, this system allows low-cost airlines to keep their aircraft flying up to twelve hours per day and to achieve a higher frequency between two destinations. Other advantages result from the fact that smaller airports without a

[57] EasyJet for example, promotes the publicity of a new route with very cheap ticket prices which do not cover costs.

[58] In the US, longer flight routes are successfully sold, such as the Jet Blue connection between New York and California with a flight time of four hours.

[59] The success of the free seat choice system can be explained through the psychological effect with passengers tending to board earlier in order to get the best seats. The boarding procedure is speeded up and delays due to late passengers can be avoided.

ban of night flights are used, and that custom controls have been abolished inside the European Union, allowing swift passenger handling.

An analysis of European low-cost carriers and their network

Low-cost airlines are giving a new boost to point-to-point routes and networks, widely seen as condemned by the hubs, whose limited numbers can be said to have facilitated the same rise of low-cost airlines, which could create many direct connections bypassing the hubs and avoiding constraining and wasteful connections for passengers.

The network's extent of a low-cost airline is measured by the number of connections or routes it links. It depends on many factors that can be summed up as:

- the age of the carrier, since generally young carriers have a smaller network;
- the origin of the carrier: creation from a pre-existing airline and/or from a significant group having sufficient means to launch an airline that carries weight;
- the availability of funds or the capacity to raise some;
- the acquisition of competing airlines (e.g. Buzz by Ryanair or Go by EasyJet);
- the way to organize savings of density multiplying the routes with the maximization of their aeroplanes' use, while decreasing their frequency.

EasyJet and Berlin, after Ryanair, are considered the top low-cost providers in Europe.
EasyJet launched flights between London and Scotland in 1995 and inaugurated its first connections between the UK and continental Europe in 1996.
Air Berlin is Europe's third-biggest low-cost airline after Ryanair and EasyJet. It has an extensive network in Germany; it joined forces with Niki, the former F1 driver Niki Lauda's airline, in 2004. The airline flies from London Stansted to Hanover, Munster, Berlin, Leipzig, Nuremberg, Paderborn and Dusseldorf in Germany as well as Belfast and several cities in Spain, Portugal, Austria, Egypt, France, Greece, Hungary, Italy, Morocco, Netherlands, Switzerland, Tunisia and Turkey. From Manchester, the airline flies to London Stansted. From Bournemouth, Air Berlin operates a service to Paderborn and Palma.

ELFAA - European Low Fares Airline Association

The European Low-fares Airline Association (ELFAA) was established in January 2004. It is the representative industry body for the low-fare sector and it has currently 10 airline members from 10 European countries: *EasyJet*, *Flybe* (UK), *Myair.com* (Norwegian), *Ryanair* (Ireland), *Sky Europe* (Slovakia), *Sterling* (Denmark), *Sverige Flyg* (Sweden), *Transavia.com* (The Netherlands), and *Wizz Air* (Hungary).
ELFAA was established as the representative industry body for the low fare sector,

with the goals of identifying policy areas affecting the low fares sector effectively, influencing regulatory issues and promoting the common interests of its members in the various European institutions.

"ELFAA will be lobbying hard to ensure that European policy and legislation promote free and equal competition to enable the continued growth and development of low-fares into the future so that a greater number of people can travel by air."[60]

ELFAA members, which include the largest low-fare airlines in Europe, represent around 75% of the total European low-fares market and carry over 100 million passengers a year, operating almost 3,000 daily flights, using a combined fleet of some 500 of the most technologically advanced, environmentally-friendly aircraft.

ECAA - European Common Aviation Area Agreement

In December 2004, the Council of Ministers authorized the European Commission to also start negotiations with eight South-East European countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the former Yugoslav Republic of Macedonia, Romania, Serbia and Montenegro and the U.N. Mission in Kossovo) on a "European Common Aviation Area" (ECAA) agreement[61].

The highest growth rates are recorded by routes to and from countries that joined the European Union in April 2004. The inclusion into the EU of Poland, the Czech Republic, Hungary, Slovakia, Slovenia, the three Baltic states as well as Malta and Cyprus meant that the EU's regulatory framework for air traffic has been extended to cover these countries. This has facilitated efforts by low-cost airlines from the 15 countries already belonging to the EU to operate new routes, together with low incomes and weakness of the flag carriers in these territories.

[60] Kurth Wolfgang, President of ELFAA and CEO of Hapag-Lloyd Express. Forum attended by various stakeholders from the European Parliament, European Council and European Commission and Eurocontrol.

[61] Bilateral agreements between the EU and some external countries about this single market in aviation services were signed on 5 May 2006 in Salzburg, Austria. It would build upon the EU's Acquis Communautaire and the European Economic Area. The ECAA in effect would liberalize the air transport industry by allowing any company from an ECAA member state to fly between any airports in all ECAA member states (including the possibility for foreign company to provide domestic flights). It is expected by the year 2010 the market integration between EU and non-EU members to be completed.On June 9, 2006 the ECAA agreement was signed by almost all of the 27 EU members, the European Community itself, Norway, Iceland, Croatia, the former Yugoslav Republic of Macedonia, Albania, Bosnia and Herzegovina and Kosovo (UNMIK as Kosovo representative under Security Council resolution 1244). The last two EU member states to sign it were Slovakia and Latvia respectively on 13.06.2006 and 22.06.2006. Finally of the initially expected countries Serbia signed on 29.06.2006 and Montenegro on 05.07.2006. Currently the ratification process is ongoing in all of these countries (Hungary finished on 31.07.2006).Further talks are expected with Switzerland, Turkey and probably the remaining EUROCONTROL members. With the Mediterranean countries are expected Euro-Mediterranean Aviation Agreements with similar content.

At present the many new low-cost airlines and charter/regional apply the low-fares model, offering consumers efficient direct services to often previously not served destinations around Europe.
According to a research conducted by the Association of the European Airlines, thanks to the implementation of a liberal legal framework – such as the Single European Avian Act – and a series of favourable political factors such as the enlargement of the European Union – the sector of "no-frills" carriers is growing strongly, thus refining and adapting its business model. Flag carriers are losing market share to the LCAs. Deutsche Bank conducted an analysis in May 2007 and calculated that the low-cost market segment might grow by 15% per annum. Flag carriers instead are expected to have no volume growth in European short haul routes.

LOW-COST CARRIERS AND SECONDARY AIRPORTS

THE SINGLE EUROPEAN OPEN SKY

Air transport contributes to create an economic and social cohesion in developing regions, boosting their balanced development. Airports can give a new impetus to local economies and have a positive impact on the maintenance of local services such as education and health. The competitiveness and the development of some regions can be implemented by passenger and freight services. Those airports providing good services can attract airlines and promote business activities, economic, social and regional cohesion within the European Union.
Air transport is not the only driver of accessibility improvement. The regional accessibility can be improved through the development of rail/air intermodality, which implies a complementation of rail and air travel, as well as through the implementation of high-speed train connections. This system can boost capacity considerably.
The Commission has been working on a general plan to create a single European space for over 15 years. The "Third air Package" has been in force since 1993. It includes a set of liberalisation measures that grant an unrestricted access[62] to the intra-Community market to all of the air carriers holding a Community licence.
A legislative package was adopted also in 2004 in order to establish a Single European Sky (SES), whose aim is to ensure the existence of a harmonised regulatory framework for Air Traffic Management (ATM) in the EU. This package should also ensure the application of the same standards in Europe. The Regulation 549/2004 established a mechanism where decisions regarding ATM are adopted by the Commission with the assistance of the Single Sky Committee.
In order to regulate the market liberalisation and boost competition between service providers by increasing their access to the market and allowing competitors to have the same business opportunities, a number of actions in the field of allocation of slots[63],

[62] Council of the European Communities, *"Council Regulation (EEC) No 2408/92 of 23 July 1992 on access for Community air carriers to intra-Community air routes"* in Official Journal L 240 , 24/08/1992 p. 8-14.
Article 3 of the Regulation states that "Community Air Carriers shall be permitted to operate between any two airports within the EU".

[63] According to this regulation, air carriers with new ideas and good products should have the possibility to enter the market and the slot allocation system must work in a transparent and non-discriminatory way. The Regulation establishes that slot allocation should be permitted only in capacity problems in an airport are so serious that traffic cannot be accommodated without serious operational problems. In most airports a slot facilitator can overcome operational difficulties.

ground handling services and computerised reservation systems have been taken.
The liberalisation of the industry has affected the activities and the behaviour of flag carriers and has been accompanied by strict control of State aid. The application of the principle of single one time-last time aid[64] for restructuring has allowed the most dynamic airlines to compete as normal players in the market.
The process of consolidation in the industry has translated itself in the recent alliances between air carriers: Air France/Alitalia, Lufthansa/Austrian Airlines, Iberia/British Airways and Air France/KLM.
With the Open Skies judgements, the Court of Justice has given a new impetus to the air industry and has assigned international negotiating powers to the Community in the field of civil aviation. Thanks to the Open Skies judgements, European airlines will be able to face the competition of third-country airlines on a Community basis.
In the latest years, the European air transport market has been marked on one side by the emergence of new Community-wide companies supported by a low-cost structure, able to offer extremely attractive and advantageous promotional rates; on the other side airports have made an effort to secure new air links.
Initially the development of airports depended on territorial considerations or military needs. Many State-controlled airports have been transferred to regional control or even to the private sector. This process has often taken the form of privatisation; therefore, the Community's airport industry has undergone a deep reorganisation which has led to the diversification and a greater complexity of the functions undertaken by airports. Not only EU's airports provide the infrastructures to the air transport industry, but they are also highly efficient commercial operators.
Airports have a crucial impact on the development of local economies[65]. They also give a positive contribution to the maintenance of local services such as education and health. Passengers and freight services play a fundamental role in the success and the competitiveness of some regions. They can attract airlines and promote

[64] Commission of the European Communities, "*Communication from the Commission Community guidelines on State aid for rescuing and restructuring firms in difficulty"*, in Official Journal, 2004/C 244/02, 1/10/2004, p. 16.

[65] The LCC activity produces positive effects in the regions where they operate. They hold a significant share of passenger travel for leisure purposes, therefore, they favour the development of tourism. The business model applied by low-cost carriers leads them to choose regional airports that are very often located in depressed and underdeveloped economic regions. Furthermore, these regions are commonly unknown to most people, and LCCs improve their visibility by flying to them and advertising them on their websites. LCCs tend to fly to the well developed economic regions. They offer low-fares and encourage air travel; consequently, the region takes advantage of the great number of people passing through it. LCA usually choose non-served regional airports and, at least for the first years, airports depend upon a single source of passengers. Such situations grant LCCs a comfortable bargaining power and these companies can follow aggressive negotiating strategies. Local authorities are deeply interested in the development of their regions. They consider air transport as a major driver for the achievement of that goal; therefore, they are ready to offer very advantageous conditions to the LCA. The intervention of the European Commission has been necessary at Charleroi airport – in Belgium – where local authorities agreed to pay a fee per passenger landed.

business activities fostering economic, social and regional cohesion within the EU. Nowadays, the airport industry is characterised by many different levels of competition between the various types of airports[66]:

- Major international hubs compete with similar airports in the transport markets concerned. The level of competition depends on the congestion and on the existence of alternative transport.
- Large regional airports compete with similar airports and major Community hubs and land transport.
- Small airports do not have to face the competition of other airports unless the markets of neighbouring airports overlap.

The Commission has defined four categories of airports[67]:

[66] Airports can be differentiated according to traffic volume measured in terms of aircraft movements – arrivals and departures – per year, passengers per year or cargo tonnes per year. An other differentiation may regard flight destinations – domestic or international – and the purpose of passenger travel – leisure or business. As low-cost airlines do not offer cargo services, airports with a focus on air cargo are not taken into account.
Mairports (2007) studied the long-haul traffic from regional airports and concluded that airports can be categorised as follows:

	Primary Hub	**Secondary Hub**	**Feeder/Regional airport**	**Low-Cost Airport**
Size in passengers per year	> 20 million	>10 million	< 10 million	Not applicable *
Main airport of the national flag carrier	Yes	No	No	No
Connections outside Europe	Yes	Yes or No	Yes or No	Possible but untypical**
Examples	Frankfurt, Charles de Gaulle, Amsterdam, Heathrow	Barcelona, Gatwick, Copenhagen	London-City, Bremen, Stuttgart	Stansted, Luton, Lübeck, Frankfurt-Hahn

* The comparison of Stansted (34 m passengers p.a.) and e.g. Hamburg-Lübeck (c. 700,000 passengers p.a.) shows that low-cost airports may vary significantly in terms of size.
** Francis et al show that the transferability of the LCA model to long-haul traffic is limited (Francis, Graham, Ison) but Franke points out that LCAs are likely to continue their expansion into new market segments (Franke, 2007). Therefore, connections outside Europe, e.g. to North Africa are possible but not the most important characteristic of the LCA phenomenon.

[67] European Parliament and the Council of the European Union, "*Decision of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network",* in Official Journal L 228, 09/09/1996 p. 1-104. The decision defined three categories of airport: *international connecting points* with at least 5 million passengers per year, *Community connecting points* with 1 million-4,999,999 passengers per year and *regional connecting points* with 250,000-999,999 passengers yearly.
The Committee of the Regions, observing regional airport capacity defined five categories of European airports: major hub airports accounting for 30% of European air traffic; national airports accounting for 35% of European air traffic; 15 airports accounting for 14% of European air traffic; 57 airports accounting for 17% of European air traffic and 67 airports accounting for 4% of European air traffic. According to this subdivision, regional airports fall in the latter two categories.

- CATEGORY A includes large Community airports with more than 10 million passengers per year;
- CATEGORY B includes national airports with 5-10 million passengers per year;
- CATEGORY C includes large regional airports with 1-5 million passengers a year;
- CATEGORY D includes small regional airports with less than 1 million passengers per year.

The market share of low-cost airlines has risen considerably in the latest years – +16,8% from 1998 to 2004. In 2004 the three main low-cost carriers – Ryanair, Easyjet and AirBerlin – transported more than 62 million passengers in the EU.
These companies have contributed in reducing the price of air travel in Europe enhancing the accessibility of air travel to a wider public and offering a wider range of services.
Low-cost carriers and secondary airports are new and closely related concepts. Many low-cost carriers have established their basis in secondary airports. At the same time, many secondary airports have seen their traffic increase thanks to the flights carried out by low-cost carriers.
The control of those secondary airports that had been built in Europe for military purposes has been transferred from the State to the regions[68], to public companies or the private sector. The infrastructure financing and maintenance is still mainly ensured by public funds.
Initially the frequency of regional flights was low and the capacity of regional airports was unused.
The ownership of regional airports ranges from full public ownership to full private ownership, but there are also mixed forms in between. There can be different forms of ownership:

- Full float, where 100% of the airport company's shares are traded (for example Heathrow airport)
- Partial float, where some of the company's equity is traded and the remaining shares are held by public or private shareholders (such as Charles de Gaulle airport)
- Trade buyer, where private investors hold a share in the equity of the airport company (for example Tirana airport)
- 100% public ownership (such as Lisbon airport).

THE CASE OF CHARLEROI AIRPORT

The ways used by low-cost airlines to negotiate aids from public authorities have caused a number of complaints about the application of competition rules under the

[68] Bergamo - Orio al Serio airport began a regional airport in 1972. Frankfurt-Hahn has been a regional airport since 1993.

EC Treaty. An emblematic case is the establishment of Ryanair at Charleroi airport. Before the establishment of Ryanair at Charleroi, the airport received about 20,000 passengers a year.For these companies it is very difficult to get appropriate slots at large hub airports, as a result they are attracted by regional airports, where they do not have problems in finding available slots, on the contrary they are free to design schedules making the best use of their fleet and avoiding costs of delays – indeed, they can follow schedules in time – and with low aeronautical charges.
Secondary airports are more distant from the cities they serve than main airports, but their passengers are more interested in price than in distances. They usually have lower incomes and are more price sensitive than passengers using larger facilities. Furthermore, an airport expansion in a remote location, can bring positive results under a social and economic point of view, as it can promote employment. Depressed areas surrounding regional airports can be rejuvenated through the attraction of airlines.
The withdrawal of a low-cost airline can cause serious problems to secondary airports.
Most European secondary airports are dominated by one airline and therefore are more vulnerable to changes in the strategy applied by the airline[69]. The "point-to-point" services are becoming secondary to secondary airport or basis to basis services.
A greater use of secondary airports helps reducing the congestion of air transport in the major European hubs; but in order to guarantee a greater number of access points for intra-European flights, it is necessary to have an initial public incentive.
Airport activities should develop in accordance with the rules established by the EC treaty[70] and respecting the principles of transparency, non-discrimination and

[69] Ryanair owns almost a monopoly in Charleroi and Girona.
The presence of low-cost carriers has made the volume of passengers of Frankfurt-Hahn airport grow. Udo Preißner, the Director of Sales and Marketing of the Frankfurt-Hahn Airport, stated in a press release on 1 January 2008, that the airport has become a major hub of international importance within a few years. It turned into the eleventh largest international hub and the fourth largest freight airport in Europe. This development also had a positive impact on the economy of the region, since more than 3200 jobs have emerged in the area and the airport generated 52.3 M Euros taxes in 2005. Its success is linked to the presence of low-cost carriers – Wizz Air, Iceland Express and Fly Car – and in particular to the positioning of Ryanair in 1999. The Irish company is planning to station additional aircraft at Hahn in 2008. Therefore, due to the continuous increase in the volume of passengers an expansion of the terminal able to serve eight million passengers will be necessary. 20 Million Euros will be invested in this project.
[70] His Majesty the King of the Belgians, the President of the Federal Republic of Germany, the President of the French Republic, the President of the Italian Republic, Her royal Highness the Grand Duchess of Luxembourg, Her majesty the Queen of the Netherlands, *"Treaty of Rome, establishing the European Economic Community (EEC)", in* Official Journal C 325, 24/12/2002, p. 152.
Article 81 of the Treaty states: *"The following shall be prohibited as incompatible with the common market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market"*
Article 82 of the Treaty states:
"Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market insofar as it may affect trade between Member States."

proportionality of financing offered to airports and the allocation of State aid to airlines. For all of these reasons the Decision of the Commission has accepted the principle of start-up costs in the air transport industry.
Ryanair is one of the main actors acting in the growing segment of Community-size companies offering promotional rates supported by a low-cost structure. While appreciating the contribution given by these actors to the democratisation of air traffic, the Commission must ensure the compliance with the fair competition rules of the internal market, in order to allow the Member States, the public authorities and public or private airports managers to compete at a European level equally.
Secondary or regional airports, such as Charleroi, do not have a large reference airline concentrating its operations in that airport to offer the maximum of correspondences to passengers and make profits out of the economies of scale granted by the infrastructure and have to compensate the poor image they have in comparison with other larger airports.
Ryanair has decided to serve secondary airports almost exclusively.
In November 2001 the Walloon region granted Ryanair special perks to use Charleroi airport. The Irish airline was given a 50% discount on landing fees. Lower landing charges – they only paid 10% of the published handling charges for regional airports – and a 1 euro price per passenger for ground handling services. The Irish low-cost carrier was also given financial support for the opening of a base, for advertisement and other forms of promotion of the airline's flights.
In compliance with Article 87[71] of the Treaty of Rome, the European Commission opened a case against the agreement to decide whether Ryanair was favoured by that agreement to the detriment of other carriers.

[71]Article 87 of the Treaty states:
"*1. Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.*
2. The following shall be compatible with the common market:
(a) aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned;
(b) aid to make good the damage caused by natural disasters or exceptional occurrences;
(c) aid granted to the economy of certain areas of the Federal Republic of Germany affected by the division of Germany, in so far as such aid is required in order to compensate for the economic disadvantages caused by that division.
3. The following may be considered to be compatible with the common market:
(a) aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment;
(b) aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State;
(c) aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;
(d) aid to promote culture and heritage conservation where such aid does not affect trading conditions and competition in the Community to an extent that is contrary to the common interest;
(e) such other categories of aid as may be specified

In the Decision of 12 February 2004[72] the Commission stated that the fringe benefits granted by the Walloon region to Ryanair were not compatible with Article 87 of the Rome Treaty.
Article 87 states that aids granted by a Member State or through state resources, which distort competition, are incompatible with the common market. The competition rules applied by the EU constitute a major deterrent to prevent the anticompetitive behaviour of airline companies. These rules acknowledge the importance of economies of scale but they are concerned about economies of scope.
At the time of the agreement, Ryanair was in competition also with high-speed trains – such as Eurostar – as the airline flew to London Stansted.
Charleroi airport is owned by the Walloon region, but it is managed by Brussels South Charleroi Airport – BSCA.

Comments by interested parties

The Commission received both comments criticising the agreements and contributions from third parties defending their validity.
Critical observations regarded the terms under which financial incentives were provided[73]. They stressed the competitive impact aids had on other airlines and other means of transport.
Ryanair defended the validity of the agreement describing it as a common practice in the airport industry and stated that granting advantages to airlines which bring a high volume of passengers and generate significant incomes was a legitimate choice.

Comments by interested parties criticising the agreement

The airline Britannia stated that airports must provide marketing support and reductions to companies according to the passenger volume they supply, but these advantages must be proportional, realistic and limited in duration.
Scandinavian Airlines asserted it was essential that the competition among the traditional airlines and new low-cost companies which were created thanks to the deregulation of European airspace respected regulations in a transparent way and without discrimination.
KLM Royal Dutch Airlines considered the products offered by low-fares airlines and traditional airlines to be completely different and estimated that the advantages

[72] European Commission, "*Commission decision of 12 February 2004 concerning advantages granted by the Walloon Region and Brussels South Charleroi Airport to the airline Ryanair in connection with its establishment at Charleroi*" in Official Journal L 137, 30/04/2004, p. 62.
[73] The interested parties did not accept their extent, the absence of proportionality and a phased reduction, the unlimited duration of the agreement, the absence of transparency and the discrimination of companies in relation to airport taxes.

received by Ryanair at Charleroi went beyond what Article 87 of the treaty of Rome permits.
Thanks to the lower landing charges Ryanair could reduce its running costs becoming more competitive than its competitors throughout its network. Therefore Air France believed that the advantages granted by the Walloon Region and BSCA to Ryanair went to the detriment of Ryanair's competitors providing connections on the intra-Community market. Furthermore, airport taxes can easily rise if the manager has to finance specific measures in order to accommodate other carriers interested in establishing themselves at Charleroi.
According to Austrian Airlines, the arrival of low-fares airlines gave rise to a subsidies race between Airports and regions wishing to be served by low-cost carriers have decided to grant them subsidies thus generating discrimination. Austrian Airlines conclude that the agreement reached by Ryanair and the Walloon Region led to significant distortion of competition and was basically incompatible with the internal aviation market.
The association of residents and inhabitants of towns close to Charleroi-Gosselier airport was concerned that the financial aids given to Ryanair, using the Walloon Region's budgetary resources improperly, would have led to an unrestrained development of the airport within an urban site.
An interested party maintained that the equality of treatment between competitors was disrupted, since for the Charleroi-London connection Ryanair benefited from public subsidies which were not granted to Eurostar, managed by SNCB, the British Railways and SNCF.
Thanks to the reductions it enjoyed, Ryanair could apply lower fares.
Small airports have to meet higher expenses in comparison with large airports as they do not reach the critical size to cover costs and make savings of significant scale[74].
The behaviour of BSCA could not be interpreted as the conduct of a private investor in a market economy as the advantages granted to Ryanair were greater than those given to other airports.

Comments by interested parties defending the validity of the Agreements

TBI owns and manages several airports around the world – Cardiff International, Belfast International and Stockholm Skavsta airports and supplies specialised airport services to 28 other airports.
The company affirmed that the agreements signed in Charleroi were similar to those concluded by TBI with Ryanair and other low-cost companies, in Stockholm Skavsta and observed that the development of public airports should not have been slowed down in comparison with its private competitors.

[74] According to the Commission Decision of 12 February 2004, in 2003, Ryanair saved EUR 17 million on actual ground handling costs and landing charges.

Reductions on landing charges and ground handling costs are usually granted to companies able to provide a significant volume of passengers and a remarkable trading income to the airport.
Contributions for hotel, staff training or marketing costs are common and should be compared to the investment made and the risk taken by the carrier establishing its aircrafts in a little-known airport.
Public airports obliged to publicise the agreements negotiated by them with airline companies would be in a situation of competitive disadvantage in relation to private airports.
TBI highlighted that regional airports were under-used because of the absence of competition, but the growth of companies such as Ryanair has inverted this trend giving them the possibility to reach the break-even point.
HRL Morrison and Co. owns the 67% of Glasgow Prestwick. For the airport it was impossible to attract traditional companies, therefore it decided to make a 15-year agreement with Ryanair for two daily rotations between Glasgow and Dublin. Thanks to Ryanair, the airport developed its commercial operations and reached critical size and breakeven point.
Morrison stated that Charleroi airport had acted as a private investor. And that reductions in fees, contributions and financial incentives to those companies that are able to bring a high volume passengers are very common and prevent the company from choosing another airport.
Morrison maintained that the Commission could not oblige an airport to concede the same conditions to companies without making distinctions in relation to the volume of traffic generated.
Ryanair declared that low-cost companies have succeeded in making underused regional airports viable and competitive, forcing the old monopolies of traditional companies and major airports to lower their costs and improve efficiency. Consumers benefit from this situation as they can have access to plane tickets at lower prices.
According to Ryanair the agreements did not contain any elements of State aid, since the principle of private investor in a market economy was applied, there was no selectivity and the agreements did not distort the competition.
Ryanair defended the validity of the agreements stating that there was no negative repercussion on competition conditions on the relevant market, as there was no competition as regarded the type of products covered – charter and scheduled flights – and the geographical areas covered – the routes served.
Only a long-term agreement with airlines can allow secondary airports to develop a high volume of passengers and attract investments in their infrastructure. In order to attract companies, airports are ready to negotiate discounts and reductions. Ryanair proved that the net payment provided as a benefit at Charleroi is higher than those provided at other airports.
Before Ryanair set up a base at Charleroi, the airport received only 20 000 passengers per year, but the volume of traffic increased by 1,455% between 1997 and 2002.
Ryanair remarked that the negotiations with Charleroi were conducted like all trade negotiations and that the principle of private investor in a market economy must

be applied both to BSCA and the Walloon Region. Furthermore, the profits generated by Ryanair were higher for the owner and the manager of the airport than for the Irish low-cost airline, since the value of the airport increased.
By reducing the landing charges for Ryanair, the Walloon Region acted as a market actor. Anyway, those reductions did not regard "taxes", but "fees" paid entirely to BSCA, determined by the airports and negotiated directly between airports and airlines.
Compensation guarantees and measure of security from a government are essential for an airline wanting to set up a base in an airport.
By deciding that the Walloon Region did not have the right to give this assurance, the Commission would have made a discrimination between public and private airports.
The profitability of an airport can increase thanks to a "network effect" between an airport and the airlines operating in it, the "learning curve" and the economies of scale which are able to lower the airport's unit costs.
The advantages obtained by BSCA thanks to the agreement with Ryanair include the revenue generated by airport taxes and the marketing services provided by Ryanair.
Referring to the advantages that it received, Ryanair specified that the "one-off" incentives were aimed at developing new geographical connections and that the contribution for marketing activities represents a better tool for promoting an airport than a reduction in airport fees.
In addition to this, as Charleroi agreements were publicised, the advantages granted to the Irish airline would have been available to other airlines investing in Charleroi under similar conditions. Anyway, Ryanair asserted that a publicity obligation would have led to discrimination between public and private airports.

Relations between Ryanair and regional airports

The construction of airport infrastructures must be considered a general measure of economic policy that cannot be controlled by the Commission under the Treaty rules on State aid[75].
As regards the Ryanair-Charleroi case, the Commission acknowledged the contribution given by the development of regional airports to many Union policies and therefore it stated that an increased use of regional airports can combat air traffic congestion at the major European hubs.
The mobility of European citizens is favoured by the existence of more access points for intra-European flights[76]. The development of regional airports helps the development of the regional economies concerned.

[75] According to the 1194 Commission's guidelines on the application of Articles 92 and 93 of the EC Treaty and Article 61 of the EEA Agreement to State aid to the aviation sector.
[76] Low-cost airlines have been reducing the cost of travel and have encouraged the mobility of persons within the EU serving an increasing number of destinations thus promoting equity and reducing imbalances within European Union and promoting European peoples' integration and cohesion.

Regional airports often have to face a less favourable situation in comparison with the major hubs as they do not have a large reference airline focusing its operations on that airport and they find it more difficult to reach the critical size to be sufficiently attractive.

Furthermore, regional airports are located in the outmost regions of the Community and consequently they have to overcome a poor image and a low profile derived by their remote location. This is the reason why the Commission confirmed a positive approach to the development of regional airports in compliance with the transparency, non discrimination and proportionality principles in order to avoid any distortion of competition.

The Commission also stated that rail and air operators should cooperate in accordance with Article 81 of the EC Treaty to develop complementarities between the two modes in the interest of users[77].

Belgium pointed out that the infrastructure of Charleroi airport was underused. In 1988 the management and operation of regional airports was transferred to the regions. On that occasion the Walloon government decided to make the most of the economic potential of these airports and made numerous investments to encourage their development.

Belgium underlined that the rules of the Treaty regarding State aid could not be applied to this type of funding since "the construction of enlargement of infrastructure projects represents a general measure of economic policy which cannot be controlled by the Commission under the Treaty rules on State aid"[78].

Belgium indicated that regional airports cannot survive without receiving public finance if the volume of passengers does not reach the needed threshold[79].

It also maintained that the impact of passenger volumes on the unit costs airports must bear is a decisive factor.

[77] In a regulated environment, there is a clear segmentation: air transport is used to reach international destinations and national remote destinations, railways for national destinations and road transport for national destinations. In a commercially driven-market environment, different transport companies trying to increase demand may naturally enter in direct competition on some routes or markets.

[78] In compliance with the Commission guidelines for the application of Articles 92 and 93 of the EC Treaty and Article 61 of the EEA agreement to State aid to the aviation sector. The Agreement on the European Economic Area (EEA), which entered into force on 1st January 1994, brings together the 27 EU Members and the three EFTA countries* -Iceland, Liechtenstein and Norway - in a single internal market, referred to as the "Internal Market." The EEA Agreement provides for the inclusion of EU legislation that covers the four freedoms — the free movement of goods, services, persons and capital - throughout the 30 EEA States. In addition, the Agreement covers co-operation in other important areas such as research and development, education, social policy, the environment, consumer protection, tourism and culture, collectively known as "flanking and horizontal" policies. The Agreement guarantees equal rights and obligations within the Internal Market for citizens and economic operators in the EEA.* Switzerland is not part of the EEA Agreement, but has a bilateral agreement with the EU.

[79] One million passengers a year.

The airport established some contacts with low-cost companies[80], various regional companies and also charter companies; but a number of faults that weighed on the airport and multiple reasons related to the contacted airlines made it difficult to set up further airlines able to provide new departures to Charleroi.
In 2001, the company Grands Travaux de Marseille studied the development potential of Charleroi airport revealing that Ryanair was the only immediately workable option to transform the airport into a successful commercial enterprise in the short or medium term.
Belgium declared that regional airports and charter companies are a winning combination. These alliances have allowed underused regional airports to report a surprising growth[81].
Regional airports negotiate the most favourable conditions in order to attract airlines and increase traffic volumes on a case-by-case basis.
After the establishment of Ryanair at Charleroi, many sub-agents decided to set up at the airport.

Advantages granted to Ryanair

Ryanair was granted advantages both by the Walloon Region and by BSCA.

Advantages granted by the Walloon Region

The Commission established that short-term reductions granted without operating any discrimination between airport users do not come into the application of Article 87 of the Treaty as they do not cause distortion of competition. At the same time the Commission specified that a system of reductions generating a treatment favouring a specific enterprise could fall within the scope of Article 87 of the Treaty[82].
Belgium and Ryanair asserted that Ryanair did not benefit from any State aid, as the Walloon Region had offered a preferential but economically profitable tariff and therefore it had acted as a private investor operating in a market economy.
In its decision the Commission had suggested that the principle of private investor operating in a market economy could not be used to justify the behaviour of the Walloon Region as that principle could only be applied within the exercise of an economic activity and never when exercising regulatory powers.

[80] Virgin Express, Ryanair, Easyjet and Debonair.
[81] Stansted, Liverpool and Luton airports enjoyed an impressive growth thanks to the passenger volumes generated by these companies.
[82] State aid that distorts competition is incompatible with the proper functioning of the internal market. If an air carrier is owned by the State, financial support is not prohibited; anyway, it can be considered as an investment and becomes allowable if a private investor would have behaved in the same way.

Belgium and Ryanair replied by stating that those advantages had been granted to the Irish airline while exercising an economic activity and not a regulatory power, in exchange for the benefits brought by Ryanair to the airport.
The Commission maintained that the act of fixing airport taxes fell within the legislative and regulatory competence of the Walloon Region and affirmed that the principle of private investor in a market economy was not applicable in that circumstance.
A Belgian federal law conferred the competence in relation to airports and aerodromes located within its territory to the Walloon.
A Walloon Parliament act in 1994 authorised the Walloon Government to regulate access to the Walloon airports. BSCA is a passive beneficiary of part of the fee income and has no power in establishing fees.
A decree of the Walloon Government fixed the level of fees to be collected from users and introduced a landing charge reductions system applicable to every airline according to the aircraft weight. It also determined that fees and subscriptions had to be made known to all users.
The function of the Walloon Region is similar to that of a regulator.
The decision to initiate the procedure defined the fees fixed by the Walloon Region as "taxes". The Court of Justice described them as "parafiscal charges" aimed at financing a specified transfer of resources[83].
The Commission thought it was appropriate to consider legally as fees the sums established by the Walloon Region for landing or parking aircraft at Charleroi.
According to the Walloon decree, the Walloon Minister of Transport could grant even more advantageous reductions on landing charges for a promotional purpose.
The Walloon authorities reduced the landing charges for one user only without creating rights for other users and granted a guarantee of compensation to Ryanair if the application of its regulatory powers would have caused any damage to the Irish airline.
The Commission asserted that the commercial need to attract Ryanair to Charleroi made the Walloon region confuse its powers and the principle of private investor in a market economy could not be applied to justify this confusion of powers or the advantages granted to Ryanair.
Ryanair maintained that the Commission would have made a discrimination between public airports and private airports deciding that the Walloon Region did not have the right to grant advantages to Ryanair, since public airports fees are fixed and controlled by a government or a regulatory authority; private airports, instead, are free to fix their fees for the duration of a contract.
This observation made by Ryanair was unfounded since the methods of fixing airport fees or taxes in Europe can vary between Member States and even within the same Member State and methods do not depend on the difference between public and private airports[84].

[83] 65% of the charges fixed by the Walloon Region went to the management of the company and 35% to an environment fund.

[84] An airport is always submitted to some forms of regulations because it always fulfils a public function. Private airports managers' fixing powers are often limited by national regulations; therefore, the airports strength in relation to their users can be controlled by national regulators who fix "price caps", which means fee levels that cannot be exceeded.

The Commission declared that it made no discrimination between public and private airports. It only pointed out that when fixing the airport charges[85], the Walloon Region did not act as a company but as a public power.
The Walloon Region was legally free to set up a system of promotional incentives relating to charges at Charleroi airport which were more favourable to the airlines and encouraged them to use Charleroi airport more.; but the Commission noted that the Walloon Region did not use any of these legal possibilities that would have allowed the tariff offered to Ryanair to be offered to all of the interested companies without making discriminations.
The Commission concluded that the principle of private investor operating in a market economy could not be applied to the behaviour of the Walloon Region and that the airport charges reduction and the compensation guarantee granted to Ryanair constituted an advantage within Article 87 of the Treaty. This advantage allowed the Irish low-cost airline to reduce its operating costs.

Advantages granted to Ryanair by BSCA

The Commission thought about the application of the principle of a private investor operating in a market economy to BSCA, an airport whose financial structure relied on that of the State, the region or other local authorities.
The financial structure of BSCA was closely linked to that of the Walloon region and therefore it did not face all the risks that define the activity of an entrepreneur. BSCA received the exclusive right to manage an airport for 50 years. BSCA did not bear the costs entirely and consequently all the risks linked to the exercise of airport activities at Charleroi[86].
The Aéroports de Paris (ADP) judgement defined the management of an airport as

[85] Airport charges in Europe are set following the rules of a wide variety of national systems. The aeronautical charges of the major international hubs – such as London Heathrow, Amsterdam, Paris Charles de Gaulle and Frankfurt – are set in compliance with the terms of regulatory pricing systems that allow charges to be set at levels which assist in the financing of future infrastructure needs. At some airports, such as Copenhagen, price levels are agreed with airline users and there is not any direct regulatory influence. At the Spanish, Italian and Portuguese airport systems, prices are adjusted annually but government must give its approval to any increase. As regards other, smaller airports, prices may change irregularly and infrequently. Directive 2007/0013 (COD), Brussels, COM (2006) 820 final, 24.1.2007, p. 16) is not intended to impose a unified pan-European pricing formula even if it is aimed at providing a framework which will set various requirements for transparency in setting airport charges.
[86] The Walloon Region and the Walloon Airport Company dealt with a number of activities such as the construction of new infrastructures, the repairs of the Charleroi site, environmental, security and airport guarding services.

business activity and in accordance with it BSCA could be described as a business as its activities could have an economic nature[87].
The Commission pointed out that commitments made by an airport operator for which it cannot be demonstrated that the airport activity will produce reasonable profits within a reasonable time cannot be considered in line with the principle of private investor in a market economy because the position of other airports is not necessarily the same as that of BSCA and the task of an airport manager changes from one airport to another in relation to the regulations laid down. When Ryanair decides to set up at a private airport, it can receive money from local authorities, for example for a marketing package.
The Commission, therefore, stated that the public/private airport dichotomy is mainly artificial; indeed, a private airport can receive various types of public finance enabling it to grant advantages to airlines.

Analysis of BSCA behaviour

The members of the Board of Directors of BSCA decided to conclude an agreement with Ryanair on 31stJuly 2001, after having considered its financial consequences. Acting as a private investor BSCA adopted a business plan for the 2001-2010 period indicating profits and costs derived from the establishment of Ryanair. The Commission examined the plan and verified that it clearly represented the costs and revenues linked to the increase in BSCA activity, but concluded that BSCA did not act as a private investor operating in a market economy, since it did not consider a number of parameters likely to call into question any potential for long-term profitability, taking risks that a private investor acting in a market economy would not have taken.
The Commission considered BSCA had made optimistic hypotheses that are in some cases independent from the collaboration with Ryanair. BSCA overestimated its future profit. A private investor, instead, would never have taken such a risk.
Before signing the contract with Ryanair, BSCA exercised a prudent management without taking particular risks. The traffic volume at the airport was between 210 000 and 235 000 passengers a year producing a positive and stable net result. BSCA's financial position was healthy with almost total absence of financial debt and a broadly positive capital.

[87] On the Ground 107 of the Judgement of the Court of First Instance of the European Communities of 12 December 2000 in Case T-128/98, Aéroports de Paris vs. Commission one can read: "It must be first noted that, under Community competition law, the concept of an undertaking covers any entity engaged in an economic activity, regardless of its legal status and the way in which it is financed (…) and that any activity consisting in offering goods and services on a given market is an economic activity".
Judgement of the Court of First Instance of the European Communities in "*Case T-128/98: Aéroports de Paris v Commission of the European Communities*" in Official Journal 2001/C 118/96, 12/12/2000, p.1.

Business hypotheses used in the business plan by BSCA are not correct according to the Commission considerations. Nearly 94% of departing passengers were carried by Ryanair. At present the airport receives a small number of other passengers coming from regular airlines and charter companies. The majority is carried by low-cost airlines.
The business plan includes a note on strategic guidelines that foresees airport development possibilities not linked to Ryanair but focused on other low-cost airlines such as Easyjet and Virgin.
BSCA also pointed out that due to the importance of Ryanair at the airport, the Irish airline would have always been given priority in planning flights and that there should have been reductions in the rates charged for handling and check in services that constituted a fixed cost for BSCA.
The Commission considered that at the time of the elaboration of the business plan that aimed at legitimating the contract with Ryanair, BSCA had foreseen a significant increase in traffic from regular airlines without taking into account certain data.
Furthermore, a well-informed investor would not have taken the risk of anticipating such a high margin fro ground-handling services. In addition to this the increase in volume handled granted a rise in labour cost for handling and ticketing services.
The Commission considered that the business revenue generated by the contract with Ryanair was overestimated. The business costs instead were underestimated. Therefore, a careful investor would have not signed the contract and the principle of private investor operating in a market economy could not be applied.
BSCA did not take into account the fact that it was responsible for financing the costs of fire and maintenance services.
A well-informed investor would not have taken the risk to make a ten-year commitment vis-à-vis Ryanair without having first clarified the situation regarding the fire, maintenance services and the sum due under the law in an environment fund[88].
The Commission concluded that in the case of BSCA and its contract with Ryanair, the extent and nature of the associated risks in relation to the expected profits could not reflect the reasoning of a private investor operating in a market economy, since a private investor would have demanded formal guarantees to the Walloon Region regarding the continuity or the increase of the fire and maintenance compensation over a 10 or 15-year period and would have made a careful comparison between the expected revenues and costs of the contact while excluding at the same time profits deriving from other commercial activities.
The Commission added that a prudent investor in BSCA's position would not have decided to commit himself with Ryanair without prior assurance about the company's recapitalisation.
According to the analysis conducted by the Commission the advantaged granted by BSCA to Ryanair must be considered as aids because they allow to reduce the

[88] The amount to be transferred to the environment fund was 35% of airport tax.

airline's running costs; indeed Article 87 (1) of the Treaty states that a measure in order to be defined as State aid must favour "certain undertakings or the production of certain goods" and the advantages in question were granted to Ryanair only.
The Commission underlined that neither BSCA nor the Walloon Region set up a system based on objective criteria able to avoid discrimination between airlines established or wishing to establish at Charleroi. It also pointed out that the publicity measures taken by the Walloon Region and by BSCA had not an official nature and were not likely to create rights for other users. Consequently reductions in landing charges or guarantees of compensation from the Walloon Region were not automatically available to other users.

The incentive effect of the aid

State aids must have an incentive effect allowing an enterprise to develop a business activity that could not have started without receiving public support. However, this activity must be profitable in the long term without aids. For this reason State aids aiming at launching new connections or at increasing frequencies must be digressive over time and limited in time. Routes must be economically viable and cannot be maintained by State aids.
Marketing aids, instead, do not have an incentive effect on the launching of a new route but ensure a permanent covering of operational costs. A start-up aid to make the route and the airport known can be justified, but the overall competition environment must be maintained.
The Commission declared that the incentive effect and the proportional nature of the aid should be assessed according to the three different parameters that work together for the common interest:

- The struggle against air congestion through the development of the offer
- The general economic situation of the region concerned and its level of development
- The development of the competition encouraged by the specified aids

The Commission believed it was convenient to permit the allocation of start-up aids for a period of five years.
As regards one-shot contributions they do not have an incentive effect for the development of profitability of lines aided.

Conclusions of the Commission

The Commission concluded that Belgium had unlawfully provided aid for the benefit of Ryanair violating Article 88(3) of the Treaty. A part of this aid could be considered compatible with the common market.

The Commission considered that the aid granted by Belgium and consisting in a reduction in airport landing charges in comparison with the official tariff and the aid granted by Belgium in the form of discounts on ground handling services were incompatible with the common market since they did not respect Article 87(1) of the Treaty.

The Walloon Region was given the freedom to fix airport charges, airport opening hours along with other provisions having a regulatory nature.

The other aids granted by BSCA[89] were considered as compatible with the common market as they were start-up aids for new routes.

However they should be subject to some conditions:

- The contributions must be related to the opening of a new route and have a limited duration in time: duration cannot go over 5 years.
- The marketing contributions must be justified in a development plan drafted by Ryanair and validated by BSCA for each route concerned.
- The sum of aids granted for the opening of a new route must not exceed 50% of start-up, marketing and one-shot costs in relation to the two destinations concerned. In the same way, the contributions granted for a destination must not exceed 50% of the actual costs for that destination.
- Ryanair must repay the contributions paid by BSCA that exceed the criteria laid down at the end of the five-year start-up period.
- Belgium must set up a non-discriminatory aid scheme to ensure equality of treatment for all airlines.

[89] Marketing contributions, one-shot incentives and provision of office space.

Low-cost carriers impact on established airports and on the air transportation sector

The impact of low-cost carriers on established airports

The continuous growth in the aviation industry that has been reported in the last few years, has slowed down. Passenger demand has fallen due to external influence such as 11th September 2001 attacks, the SARS epidemic and the economic worldwide crisis. As a consequence, the development of major airlines are facing problems with capacity utilization, since they also have to face falling profits deriving from a lower demand. The aviation industry has been modified by the differentiation trend caused by the rise of low-cost carriers. They have caused changes in the price structure of air transportation sector and have attracted passengers having different socio-economic characteristics.
The development of LCCs has affected also the competitive position of the established airports which can be evaluated taking into account their airlines and catchments areas. By introducing LCCs, well established airports could improve their traffic and widen their catchment areas while gaining competitive advantages. Nadine Pantazis and Ingo Liefner examined the impact of low-cost carriers on established international airports and analysed the case of Hanover airport[90].
The Hanover Airport is located 11 km north of the state capital of Lower Saxony and ranked eighth in term of volume of passengers among the 18 international airports in Germany in 2003. It was designed to serve 7.5 million passengers per year and therefore attracted the interest of LCCs.
The entry of LCCs at Hanover Airport had a positive impact on the airport as it made the passenger volume increase in 2003[91].
LCCs have an impact also on the structure of the airports catchment areas. Hanover Airport reported an expansion of its catchment area thanks to the market entry of HLX.
LCCs are usually chosen by economy-class clients who might use charter flights or special offers while first class clients are not affected by prices. In addition to this, the study conducted by Pantazis and Liefner demonstrated that leisure

[90] Pantazis Nadine, Liefner Ingo, "*The impact of low-cost carriers on catchments areas of established international airports: The case of Hanover Airport, Germany",* in Journal of Transport Geography, 2006, vol.14, pp. 265-272.
[91] The total air traffic increased by 6.2% and traffic towards European destinations rose by 9.2%. Positive trends were reported also at Cologne-Bonn Airport, where the traffic increased by 43% in 2003 thanks to the appearance of LCCs.

travellers are more sensitive to ticket pricing than to the travelling distance or time needed to reach the airport[92].
Pantazis and Liefner concluded that airports which are willing to accept LCCs can attract passengers who live relatively far from the airport. The growth of particular airports catchment areas could derive from the shrinkage of other airports' catchment areas, since LCC destinations are reached directly and not via hub-and-spoke transport. The appearance of LCCs has encouraged competition among airports; therefore, airports are forced to accept LCCs offering direct flights to highly demanded destinations in order to be competitive. Forecasts for the near future show that catchment areas will become spatially heterogeneous and overlap each other.

The impact of low-cost carriers on the European air transport sector

The impact of low-cost carriers on the European air transport sector has been studied deeply by Graham Francis[93], Alessandro Fidato and Ian Humphreys[94]. They observed[95] that small airports face pressures to compete for the business of low-cost airlines negotiate contracts which significantly reduce aeronautical revenues, compelling airports to compensate those costs by increasing the revenues deriving from the increase in the number of passengers. This affects the interaction between the airport and the airlines operating in it. Airports need to see both passengers and airlines as customers and they have to understand the resultant revenue streams before any preferential contract negotiation with low-cost carriers.
LCCs are expected to constitute up to 33% of short haul European air traffic by 2010. Since the low-cost revolution has started in Europe, airport managers have seen a great potential in this area to increase their revenues.
Traditionally airports have considered airlines as their primary customers because they have legally binding agreements with carriers and because airlines pay landing fees and charges per passenger or tonne of freight handled to airports.
Airlines instead have legally binding agreements with passengers and consider passengers as their primary customers. Today, airports place more emphasis on non-aeronautical revenues deriving from retail and concessions and this has made the traditional airline-airport-passenger relationship more complicated.
Airports are starting to see also passengers as customers since they generate non-

[92] In 2003, Brandt pointed out that passengers are ready to travel longer distances to use LCC offers. Greifenstein and Weiß demonstrated that LCC passengers travel longer distances than full-service carriers to reach their airport.
[93] Department of Accounting, Waikato University, Hamilton, New Zealand.
[94] Department of Civil and Building Engineering, Transport Studies group, Loughborough, Leicestershire, UK.
[95] Francis Graham, Fidato Alessandro, Humphreys Ian, "*Airport-airline interaction: the impact of low-cost carriers on two European airports*", in Journal of Air Transport Management, vol. 9, 2003, pp. 267-273.

aeronautical revenues, but it is up to the airlines to bring in the passengers and therefore airports need to meet the needs of both of them.
The authors examine the impact of low-cost carriers on the relationship between airport and airlines at two EU local airports with less than one million passengers per annum and having contrasting operating contexts.
The case study has shown that airport managers realize that the future development of secondary and regional airports depend on the incentives they offer to low-cost airlines. Low-cost carriers have a great bargaining power as they can choose to move elsewhere if one airport does not agree with the preferred terms.
In the case of Airport A – a secondary airport owned by a large privatised airport group in the shadow of a major hub – the relationship between the airport and the LCAs seems to be successful and mutually beneficial, as the airport managers understood the importance to get benefits from both aeronautical and non-aeronautical activities by creating more opportunities for passengers to spend money: for example the inclusion of bar and restaurant facilities was considered a priority since low-cost passengers who do not receive any in-flight meal demanded these services highly.
On the contrary, the case of Airport B – the locally owned regional airport located in a more isolated position – showed that the increase in the number of passengers alone is not enough to guarantee profitability. Retail facilities must be adequate to generate commercial revenues if reduced aeronautical charges are offered.
European airports need to consider which low-cost carriers are likely to sustain long-term operations. They also have to ensure that the airline-airport agreement reflects the degree of risk of the airline withdrawing services in order to be successful.

Airport choice factors for European low-cost airlines

David Warnock-Smith and Andrew Potter conducted a research in 2005[96] demonstrating that the success or the failure of low-cost carriers depends on the airport choice. The authors carried out an exploratory survey of some European low-cost airlines[97].
The number of low-cost carriers operating in the European aviation industry has increased. Secondary and regional airports compete with each other to attract the services of LCCs, and airlines take advantage of this situation in order to reduce their costs. When choosing an airport, LCCs consider different factors.
Ryanair looks for low airport charges, simple terminals, good passenger facilities and accessibility and rapid turnarounds. The Irish low-cost airline can be

[96] Warnock-Smith, Potter Andrew, "*An exploratory study into airport choice factors for European low-cost airlines"* in Journal of Air Transport Management, 2005, vol. 11, pp. 388-392.
[97] Five UK and three European Union (EU) based low-cost airlines.

considered a "market making" airline, since it uses low prices to attract passengers. Anyway, an airport must have a high demand for LCC traffic and positive economic forecasts to increase demand for point-to-point traffic by offering convenient slot times and spare airport capacity. Another factor affecting airport choice may be also airline competition.
A postal survey was carried out to provide a ranking of factors affecting LCCs airport choice. Only true LCCs offering services to the UK – both based in the UK and in the EU – were included in the survey.
From the survey emerged that:

- The top choice factor is the high demand for LCC services in the catchments area of the airport.
- The second ranked factor was represented by convenient slot times for take offs and landings and quick turnaround facilities.
- The availability of slots throughout the day was the third factor that was cited as very important.
- The fourth ranked factor was represented by good aeronautical discounts.

This finding proves that the fees may not be the most important factor in the low-cost operation of a route. On the contrary, airport managers recognize that aeronautical charges are the major factor for LCCs.
Among the lowest ranked factors there is a high level of airline competition. Low-cost airlines are not interested in competing with each others to preserve their existence.
The experience of the airport in dealing with low-cost carriers and good non-aeronautical revenues are also ranked.
This finding is undoubtedly surprising, as non-aeronautical charges could be able to subsidise aeronautical charges.
Start up LCCs rate airline competition more highly than converted airlines. Start up LCCs wish to take market share from full-service carriers, as well as creating new markets by reducing the cost of air travel. By taking into account the airline origin, converted airlines often use their previous operations as the starting point for the low-cost services.
In taking into consideration the sizes of airlines, airline competition is ranked higher by larger airlines. Smaller LCCs choose airports with a good experience of LCCs, as this enables them to guarantee passengers for the services they provide. They usually prefer airports that report good non-aeronautical revenues in order to reduce the risk of an increase in aeronautical charges.
The date of entry of the airline into the LCC market place was also analysed in the survey. The study demonstrated that the first movers in the low-cost sector gained some advantages.
The LCCs entering the market before 2000 were "market making" airlines, as they challenged the conventional idea of air transport. They established at airports having a high demand for their services and quick turnarounds.
LCCs set up after 2000 responded to the changing market. Consumers are now more aware of low-cost airlines and these newer airlines are more unwilling to compete, as they are not as well established.

To sum up, from the study into airport choice factors carried out by D. Varnock-Smith and A. Potter emerged that the primary concern for a LCC when selecting an airport is not cost, but a sufficient demand able to justify the provision of services. Airport managers need to make sure that their marketing approach puts an emphasis on demand, turnaround facilities and slot availability and that any marketing exercise is tailored towards the specific airline.

The remodelling of the airport-airline relationship after the emergence of low-cost airlines

Graham Francis, Ian Humphreys and Stephen Ison wrote a paper[98] in which they explored the implications of the new business model introduced by low-cost carriers from the airports' perspective. They described how airports reacted to the emergence of low-cost carriers and how they have responded to the opportunities apparently afforded to them by low-cost airlines.

The influence of low-cost carriers on the European airline sector has been dramatic and it is expected to grow further, above all on short haul European traffic by 2010. The low-cost revolution started in Ireland and the UK in 1995; since then airlines such as EasyJet and Ryanair begun to gain a good position in the low-fare sector and airport managers started to take into account the potential of this area in order to increase the airport revenues. The authors examined the need for airports to reconsider their business model and establish a new strategy to deal with low-cost airlines that demand a reduction in the amount they pay to use the facilities of an airport in order to start operating in it.

European low-cost carriers have modelled themselves by following the example given by Southwest Airlines in the USA. Since the deregulation of airline markets worldwide, low-cost carriers have emerged also in countries such as Canada, Brazil, South Africa, Slovakia, Australia and New Zealand.

The low-cost/no-frills airlines that emerged in the 1990s aimed at using a structure that had a lower cost in comparison with traditional operators, in order to be able to offer lower fares. When low-cost carriers such as EasyJet were established in the UK, British Airways set up GO. The target of these operators was mainly the leisure market, but they have attracted also business travellers. They achieved great efficiency and cost savings in many ways. By selling tickets directly via the Internet and by avoiding travel agents' commissions they managed to reduce costs. Some of the major airlines reacted by lowering their prices and by improving internet sales facilities.

The success of airports depends on airlines deciding to operate services from their airport and granting a market. Airlines are airports' primary customers.

[98] Francis Graham, Humphreys Ian, Ison Stephen, "*Airports' perspectives on the growth of low-cost airlines and the remodelling of the airport-airline relationship*", in Tourism Management, 2004, vol. 25, pp. 507-514.

Passengers instead have been perceived as part of the airlines business; consequently, little has been done by airports to get revenues from airline passengers. Passengers are airlines primary customers.
Since the mid-1990s airports have had a commercial behaviour giving more importance to non-aeronautical revenues – such as the revenues deriving from rents, car parking, concessions and consultancy. The traditional public utility model of airport management was replaced by a commercial business model. Airport managers started to take into account the revenues deriving from the passengers' spending in the terminals and car parks and as a consequence the relationship between airlines, airports and passengers became more complex. Many airports rely to their concessionaires – retailers and caterers – to generate significant non-aeronautical revenues – they rely on the profit/turnover of the concession.
In Europe there are 200 underutilised airports with less than 1 million passengers per year. Most of them are loss-making, owned by a public authority and subsidised by central or regional government. By attracting low-cost operators they can try to improve their financial performance. If the number of passengers increases, costs decline.
Low-cost airlines have contributed in making the airports chosen for their establishment grow rapidly: for example Ryanair at Stansted[99], Prestwick and Charleroi; EasyJet at Luton.
Low-cost airlines have contributed in developing smaller airports and tourist destinations as they have established their bases in locations far from major congested hub airports.
Low-cost airlines make different demands on airport facilities in comparison with scheduled network carriers; indeed they do not require high levels of service within the terminal.
By taking advantage of their strong bargaining power and by negotiating with airport management for obtaining reductions in charges, low-cost airlines have forced airport revenues down. By exercising a commercial pressure on airports, they tried to increase their passenger volume in order to reach critical mass for their facilities. This has led airports to reconsider their strategy regarding their relationship with airlines, as they became aware of the fact that they could achieve great benefits by working more closely with airlines.
From May 2001 to October 2002, Graham Francis, Ian Humphreys and Stephen Ison have interviewed managers of European airports having different ownership types, different geographical locations and different experiences in dealing with low-cost airlines. The objective of the authors was to understand what was the impact of changing operational circumstances and customer relationship on those airports.

London Luton airport is 31 miles North West of London. It welcomed EasyJet in 1995. EasyJet brought rapid growth in passenger volume to the airport, but

[99] Stansted reported a 25.6% year on year passenger growth (2000). The volume of passengers of Liverpool Airport increased from 1.3 to 2 million passengers per annum in 1991-2001 thanks to EasyJet.

managers described the airport relations with the airline as “finely balanced” and the airline was described as a “demanding customer”. Now the airline represents approximately 60% of the airports passenger traffic. Between 1995 and 2001, the percentage of revenues deriving from non-aeronautical sources at Luton rose from 45% to 59%.

Charleroi airport is located 46 km south of Brussels and is owned by the Walloon Regional Government. Since Ryanair had established at the airport, the annual number of passengers has increased. The public authorities agreed a financial package with the airline in order to attract it to the airport. According to the agreement Ryanair could pay reduced landing and handling charges. Furthermore, the airport paid an amount for marketing the airline service, office space, recruitment and training. Ryanair based three aircrafts at the airport committing itself to work in partnership with the airport for the promotion of tourism.

The case of Coventry airport is very different. It is located 100 miles from London. It has a general aviation terminal and 5000 annual passengers on charter services. It is owned by Air Atlantique. Negotiations with a low-cost carrier broke down since the airport refused to pay the airline to operate from the airport on the basis of a 10-year agreement, as it was aware of the costs it would have incurred. The situation contrasts with many publicly owned airports that are ready to support new low-cost carriers in order to try to increase revenues and to bring economic benefits to the local community. Anyway, the authors believe that airport managers have to take into account the potential risks deriving from new economic relationships, since the airports dependency on non-aeronautical revenues will increase. Airport managers should be aware that even if the low-cost market is growing, it is also very volatile.

THE COMPETITIVE ADVANTAGE OF LOW-COST CARRIERS AND THE IMPLICATIONS FOR AIRPORTS

David Gillen of the Institute for Transportation Studies of the University of California and Ashish Lall of the school of Business and Economics of the Wilfrid Laurier University in Canada carried out a study[100] to identify the sources of competitive advantage of low-cost carriers such as Southwest, Ryanair and EasyJet. The strategic advantage is provided by the simplicity of the service, the simplicity of the product design, the simplicity of processes and the simplicity of organisation. All of these factors have allowed airlines to achieve lower costs and therefore to offer lower fares.

[100] Gillen David, Lall Ashish, “*Competitive advantage of low-cost carriers: some implications for airports”*, in Journal of Air Transport Management, 2004, vol.10, pp. 41-50.

The Southwest model is based on a system of vertical relationships between processes characterised by the simplicity of service that leads to simplicity of processes and organisation resulting in greater relational coordination. This is a key factor to grant high productivity and lower costs. As a consequence, the strategy followed by Ryanair is rather different. The Irish low-cost airline seeks lower costs through lower prices. This implies that the Ryanair model can be copied more easily.

The operational efficiency of airports is influenced by the differences in the underlying drivers aiming at achieving it: bargaining power and risk exposure. An airport having a dominant single low-cost carrier is subject to more risk and low bargaining power. For this reason, non-aviation revenues become increasingly important in the total airport revenue.

Airports can be proactive by complementing airline business models and work to facilitate access and lower the cost of access to airports.

LCAs generally try to avoid mutual competition[101], but the creation of alliances has not been evident in the low-cost market so far.

The demands for airport services of full-service carriers and low-cost carriers

The European air traffic has been characterised by a remarkable increase in the share held by low-cost carriers. Sean D, Barret of the Department of Economics of Trinity College in Dublin has explored the demand function for the services of low-cost carriers, comparing it with the demand function of more traditional European airlines[102].

Sean D. Barret observes that after the deregulation, the impact of low-cost airlines on the fares and passenger volume in the European aviation sector has been dramatic. Passengers have chosen to use new airports even if they are more distant from major cities than the traditional hubs.

Airports managers have started to negotiate with low-cost airlines, as their profitability record is impressive. They are able to increase the numbers of passengers remarkably and are able to take advantage of their bargaining power while negotiating with airport managers. Ryanair, for example, has reduced fares by 8% per year while seeking cost reductions from all suppliers of services.

Full-services airlines on the contrary have a low-growth prospects on their European routes. Rigas Doganis noted that airlines are affected by substantial losses, over-politicisation, strong trade unions, low productivity, bureaucratic management, and no clear development strategy. As a consequence, some full-

[101] Ryanair concentrates its activities on smaller markets and regional airports. EasyJet focuses on bigger markets and primary airports.

[102] Barret Sean D., "*How do the demands for airport services differ between full-service carriers and low-cost carriers?*", in Journal of Air Transport Management, 2004, vol. 10, pp. 33-39.

service airlines may opt to follow the cost reduction path implemented by low-cost carriers. Aer Lingus, for example, supports the views of Ryanair.
The airline-airport interface changed since the deregulation of airlines in Europe encouraged the establishment of low-cost airlines and therefore boosted airport competition.

Low-cost and full-service carrier networks traffic distribution in the US air transportation market

Since the deregulation of air transport market started in 1978, the US air carrier networks have been increasingly focused around a small number of hubs. Indeed, hub-and-spoke networks were the main form of network organisation of large carriers as of smaller regional and commuter carriers. The passenger carrier networks were made of three/seven hubs; instead, the air freight carrier networks were focused on one or two hubs. The "hub-and-spoke" model requires a concentration of traffic in both space and time. The emergence of a new wave of low-cost airlines has affected the development of the US air transport industry significantly. Southwest Airlines began operating in the early 1970s.
Aisling Reynolds-Feighan[103] examined the traffic distribution in low-cost and full-service carrier network in the US transportation market[104]. Reynolds-Feighan compared the manifestations of hub-and-spoke networks with point-to-point operations. He argued that after deregulation most US major carriers operating relatively concentrated networks, increased the concentration of their traffic flows at a small number of key nodes.
The 1990s low-fares entrants were analysed. The study showed that low-cost airlines did not belong to a homogeneous group in terms of their network organisation strategy, their average non-stop flight segment distance, size of network or passenger connection rates. They were classified into two groups: the first group – the Southwest-type – was characterised by relatively low levels of concentration. The second group – the American Trans Air type – had very high concentration levels as it organised its traffic flows in a way similar to the full-service carriers and focused the flows and routes around a very small number of key nodes or hubs.

Low-cost airlines impact on the Brazilian air transportation market

The spread of low-cost carriers has affected also the Brazilian air traffic. After three years of operation Gol serves 20% of the domestic market.

[103] Department of Economics, University College Dublin, Belfield, Dublin 4, Ireland.
[104] Aisling Reynolds-Feighan, "*Traffic distribution in low-cost and full-service carrier networks in the US air transportation market*", in Journal of Air Transport Management, 2001, vol.7, pp. 265-275.

Fabio Evangelho, Cristian Huse, Alexandre Linhares have studied the impact that the emergence of LCCs has had on the Brazilian business travellers[105].

LCCs originally focused on leisure and tourism. Recent analysis have revealed that an increasing number of business travellers is showing interest in the services offered by low-fare airlines.

In the Brazilian market, the Department of Civil Aviation has estimated that 70% of passengers on domestic flights travel for business purposes. A new LCC -Gol Transportes Aéreos Ltda- was established in the early 1990s, when the deregulation of the Brazilian market took place.

The standard LCC model was characterised by a combination of some attributes such as:

- Distribution – also through electronic systems.
- In-flight service – without class differentiation, seat assignment and hot meals.
- High flight frequencies.
- Low tariffs and simple operations.
- Aircraft of a single type.

The implementation of the LCC model was difficult in Brazil. Due to the particularities of the country's demography, Gol had to operate not only short-haul routes, but also long-distance routes – even if the LCC paradigm is based on short-haul routes and this type of operation reduced aircraft rotations. All airports are owned by the state in Brazil and its operations are closely scrutinised by the managing governmental organisation – INFRAERO – therefore there is no competition between airports. Gol is forced to use the same airports of its competitors while the LCCs generally choose secondary airports with little congestion.

Evangelho et all. studied the profile of the Brazilian business travellers. They investigated the relation between the airline model chosen and the age profile of travellers, the size of their companies and the existence of corporate travel policies. The results of their study show that there is a segmentation in the market for business travellers. The preference for FSCs depends on a cultural nature in larger organisations. LCCs are considered to be an alternative for smaller companies with minimum expenses policies.

[105] Evangelho F., Huse C, Linhares A., "*Market entry of a low-cost airline and impacts on the Brazilian business travellers"*, in Journal of Air Transport management, 2005, vol.11, pp. 99-115.

Competition in the air transport sector. Effects on Tourism and Transport

Competition in the air transport sector

Low-cost airlines operate generally within Europe and mostly in the short-haul market. The strategy is clear: to avoid direct competition and induce traffic. The potential passengers are either those who currently choose other modes of transport, or those who generally do not travel. Implicitly, they are mainly price-sensitive leisure passengers. So an airline's competitiveness remains in its ability to drop fares to a threshold that triggers passengers' modal shift or matches their willingness to pay. Furthermore, with no competitors, airlines do not need to elaborate on matching frequencies or schedules.

The reaction of traditional European airlines to the low-cost carrier threat

The growth of low-cost carriers has caused an increased pressure on the short-haul operations of traditional European airlines – such as British Airways and Lufthansa.
A study conducted by Nigel Dennis[106] demonstrated that the traditional network carrier model can still work.
In order to be successful in the short haul market, network carriers have to implement a strategy that involves concentrating their activities on their major hubs and off-loading peripheral routes. By increasing crew and aircraft productivity and outsourcing services it is possible to achieve cost reductions. Low-cost subsidiaries seem to be a successful diversification in markets away from the main hub cities and franchising could be more widely exploited throughout the short-haul network.
However, these cost-reduction measures may be inhibited by the need to avoid damaging labour disputes.

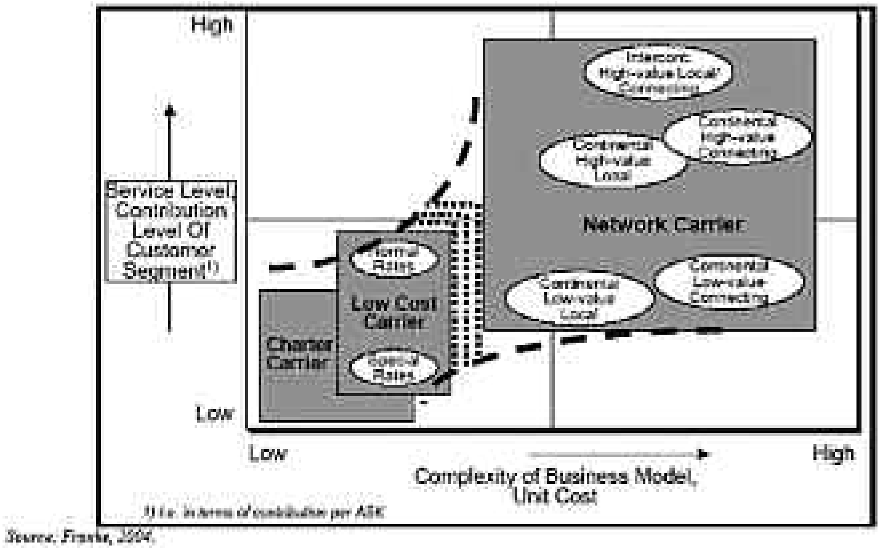
[106] Dennis Nigel, "*End of the free lunch? The responses of traditional European airlines to the low-cost carrier threat",* in Journal of Air Transport Management, 2007, vol.13, pp. 311-321.

Full-service carriers, charter and low-cost airlines

Passenger transport services include two products: scheduled flights and charter flights. The airlines that offer this kind of services are called full-service carriers. Hub-and-spoke models were developed in the 1970s and 1980s in order to carry out scheduled flights to be used for business purposes. In this system most airports serve the nearest hub offering short-haul flights.
Charter services, instead, are used only by leisure travellers and are more subject to seasonal fluctuation and political instability in the destination country. They offer direct flights between departure airports and destination airports; which means that they serve the point-to point traffic. After the deregulation of the aviation industry in the EU that started in the late1980s, competition in the air transport sector increased, but the leading US and European network carriers were not affected by the changes in prices and by the presence of new foreign airlines in national aviation markets. On the contrary, the competitive power of these leading airlines was further strengthened thanks to the development of international airline alliances that enabled them to offer air services at a worldwide level.
Before the appearance of LCAs, network carriers and charter carriers were clearly differentiated. Charter flights were generally included in holiday packages and did not represent a significant share of costs and profits. Network carriers yielded high revenues per passenger and the business was sophisticated and complex.
Both charter and network carriers have been changing their business strategies to make them more suitable for the new market. European charter airlines increased the share of "seats only" they offered in their scheduled services. They also started to offer them through the Internet. Network carriers and legacy carriers are following the example of LCAs and offer cheaper tickets, expand on line sales, offer holiday packages and services such as car rentals and hotel booking possibilities.
Before liberalization full-service carriers dominated the EU sky since the business traffic, dominating the routes, was more interested in the punctuality and quality of the service than in the price of tickets. Network carriers' planes were designed in order to satisfy their prior clients. In fact full service airlines, still today, offer a two-class cabin with complimentary food and beverages, and a major seating comfort with the best selection of Italian wines and larger and leather armchairs in the business class. After liberalization, as a consequence of the emergence of the so called low-cost airlines, besides the businessmen passengers, another segment of the aviation market was born, that of leisure travellers.
In the last five years the growth of the low-cost carriers have forced a revolution in the short-haul[107] product by the traditional airlines. For independent European airlines without a long-haul network to support, business class is now effectively dead.

[107] Whereas in long-haul markets there may always be some passengers willing to pay more for sleeper seats, it is difficult to offer passengers additional comfort features that add significant value on short-haul European routes.

Figure 5: Competition between Charter, Low-cost and Network Carriers[108]



CHARTER AND LOW-COST AIRLINES: EFFECTS ON THE ORGANIZED TOURISM[109].

APULIA CONTEXT[110]

The influence of low-cost carriers on the European airline market has been dramatic and it is expected to grow further, above all on short haul European traffic. In the workshop organized by SEAP (Puglia Airports) and held, on the occasion of the "Fiera del Levante", in Bari on the 13th September 2002, different authorities have been called to discuss the impact of low-cost carriers on the development of the organized tourism, on the relationship between them and the charter airlines, and on the changing role of airports.
Low-cost airlines are invading not only the transport sector, but also the field of

[108] Directorate General for internal policies of the Union, Policy Department Structural and Cohesion Policies, European parliament, Transport and tourism, *"The consequences of the growing European low-cost airline sector"*, IP/B/TRAN/IC/2006-185, PE 397.234, 4/12/2007 p 5.
[109] Workshop on "*Vettori low-cost e vettori charter: quali riflessi sul turismo organizzato. Dinamiche e tecniche di sviluppo, rischi e aspetti di regolamentazione"*, Fiera del Levante. Bari, 13th September 2002.
[110] Special thanks to Dr Michele Fortunato, Responsible for the press office and external relations of Aeroporti di Puglia, in Bari, for the provided documents.

tour operators. The President of ASTOI - Giuseppe Boscoscuro – the Association of the most important Italian Tour Operators with a flow of tourists of more than 5 millions only in 2001 – pointed out that they have started to offer their passengers flights and accommodation, car rental, etc. at bottom-rocket prices, over passing agencies, thus trying to replace to them. With the emergence of the low-cost companies, the outgoing charters are disappearing. The case of Ryanair at the airport of Alghero[111] is emblematic.
Low-cost carriers have an aggressive cost management. Cost savings in the low-cost airline model can be achieved in many different ways for example through an increased aircraft and crew utilisation, the use of a single aircraft type, the direct internet selling and the use of un-congested secondary airports. By seeking locations away from the major congested hubs, low-cost carriers can offer the potential of commercial viability to some smaller airports. Indeed, low-cost airlines have stimulated the growth of small airports[112]. Flag carriers instead are affected by substantial losses, over-politicisation, strong trade unions, low productivity, bureaucratic management and no clear development strategy.
In order to protect the Italian market, a successful initiative in the future could be the integration of the biggest tour operators (like TUI, or the English Thomson or Mytravel), agencies and airports that could work like a chain through efficient connections. The Sole Manager of SEAP spa – Di Paola – said this is a fundamental measure for tourism development in Italy and specifically in Apulia.
The managing Director of Lauda Air – Andrea Molinari,– a big charter company operating in the long haul sector - defined his company not as a low-cost carrier but as a cost-efficiency airline, which relies on the quality of the product that is offered to their clients and on the seating comfort that a long flight requires especially in the Italian market.

Pierluigi Di Palma, General Director of ENAC, spoke of a very complex airport world. In the past airports considered airlines as their primary customers because of the legally-binding agreements with carriers and because of the landing fees and charges per passenger or tonne of freight handled paid by airlines to airports. Today, airports place more emphasis on non-aeronautical revenues deriving from retail and concessions and this has made the traditional airline-airport-passenger relationship more complicated.
LCAs have emerged from the need of mobility. Passing through monopoly to the market, the role of passengers changes together with the transport policies: new connections are not created for political purposes, but in order to meet the

[111] Commission, "*Procedures relating to the implementation of the competition policy commission State aid - Italy State aid C 37/07 (ex NN 36/07) - Alleged State aid granted to and by Alghero airport in favour of Ryanair and other air carriers*" in Official Journal, 2008/C 12/07, 17/01/2008, p.18.
[112] E.g. Ryanair at Stansted, Prestwick and Charleroi; Easyjet at Liverpool and Luton; Bmibaby at East Midlands.

passengers' needs. Passengers are now perceived as part of the airlines business. They become airports' primary customers, since they produce non-aeronautical revenues. Low-cost airlines have been the first to understand that. They have bypassed traditional distribution channels thus targeting the final consumer directly. By taking advantage of their strong bargaining power and by negotiating with airport management for obtaining reductions in charges, they have also forced airport revenues down. By exercising a commercial pressure on airports, they tried to increase their passenger volume in order to reach critical mass for their facilities. This has led airports to reconsider their strategy regarding their relationship with airlines, as they became aware of the fact that they could achieve great benefits by working more closely with airlines. The project of "bollino blu" – which guarantees that beside security, some protections to users have to be granted by the operators – could be reintroduced to lower the differences among low-cost flights and other travel types.
Finally what is really important is to understand that the air transport sector is under a period of constant revolutions also under a normative point of view. Low-cost airlines can represent the future, but this does not mean that tour operators have to disappear. They could coexist and find new combinations with other means of transport or choose to target different clients, as Roberto Corbella, Cts tour operator said.

Benefits for regional economies from LCA activities

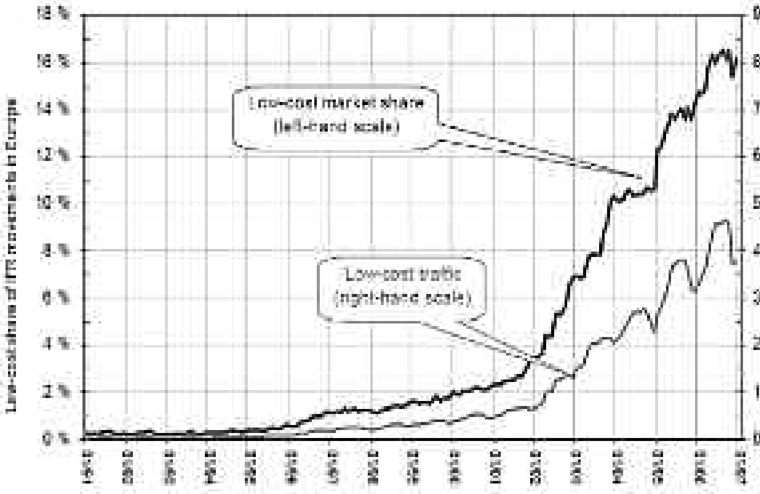
The benefits brought by LCA activity on regional economies can be classified into three main effects:
• Direct effects: increase in employment in activities directly related to air transport, such as: airlines, handling, maintenance and catering companies; airports; shopping within airports; or parking facilities. It is estimated that 1000 jobs are created for every million passengers travelling through an airport.
• Indirect effects: increase in employment and economic activity in the region as a result of the increase in flows of people, for tourism and business purposes. LCA's business model leads these companies to choose regional airports, which are in many cases located in depressed and economically underdeveloped regions. Moreover, these regions are commonly unknown to most people, and LCAs improve their visibility by flying to them and advertising them on their websites.
• Catalytic effects: attraction and retention of incoming investments and the enhancement of tourism. The increase in commercial activity enhances the competitiveness of the regions by attracting leisure and business passengers, which ultimately leads to a sustainable growth in incomes and employment[113].

[113] See paragraph 5.7.

Tourism and people's mobility

The LCA activity produces positive effects in the regions where they operate. They foster tourism, as they have a significant share of passengers travelling for leisure purposes. The emergence of low-fares airlines has revolutionised European tourism.

Figure 6: Market share of European low-cost airline operations[114]



Source: EUROCONTROL, 2007.

Prior to liberalisation, few ordinary consumers could afford to travel by air and many regions and cities lacked any air access or could only be reached by hub-airport connections, making the journey time consuming and expensive. This meant that potential tourists either did not travel to these regions at all or travelled via a less efficient, more time consuming mode of transport, such as ferries, trains, cars and buses. Even on major tourist routes, the service offered was usually highly seasonal, with limited capacity and high fares. Related services in these destinations, such as hotels and restaurants, were, as a result, also highly seasonal; therefore, they had to charge higher prices in the peak season in order to recover losses in the off peak.

LCAs have greatly increased the number of new tourist destinations accessible by air. This has greatly facilitated inter-regional tourism, as passengers travelling on holidays or visiting friends and family are generally reluctant to travel by air if

[114] *The consequences of the growing European low-cost airline sector*, Policy Department Structural and Cohesion Policies, European parliament, Directorate General for internal policies of the union, December 2007, p. 14.

they have to fly through a congested hub airport. More evenly distributed holiday traffic throughout the week helps to avoid congestion at the airports and also allows hotels, restaurants, etc., situated in tourist destinations, to maintain higher booking rates during weekdays.
Thus the emergence of LCAs, has fostered the free movement of persons within the EU, increasing peoples' mobility towards a new stage. They have also changed the selling channels, bypassing the traditional monopoly of the sales agents, and started to sell directly to final customers either via Internet websites, or through call centres. As a result, people who either could not afford to travel or travelled using other modes of transport shifted to these companies. New tourist destinations have appeared:

Table 2: Examples[115] of tourism destinations discovered for international air travel by low-fares airlines

Country	**New international tourist destinations**
Austria	Graz, Linz, Klagenfurt
Belgium	Charleroi
Denmark	Esjberg
Finland	Tampere
France	Bergerac, Rodez, Limogez, Carcassonne, Pau, La Rochelle, Nimes, St. Etienne, Tours, Poitiers, Dinard,
Germany	Karlsrhue-Baden, Altenburg, Hahn, Tempelhof, Münster (Osnabrück), Erfurt
Ireland	Knock, Derry, Kerry
Italy	Bari, Pescara, Ancona, Brindisi, Palermo, Alghero, Trieste
Norway	Haugesund
Poland	Gdansk, Poznan
Slovakia	Košice
Spain	Bilbao, Girona, Jerez, Murcia, Santander, Valladolid, Zaragoza
Sweden	Malmo, Nyköping
United Kingdom	Blackpool, Bournemouth, Newquay

[115] European Low-fares Airline Association, "*Liberalisation of European Air Transport: The Benefits of Low-fares Airlines to Consumers, Airports, Regions and the Environment*", 2004.

Another positive change made possible by LCAs has been a more even traffic distribution throughout the year. They have also popularised mid-week holiday travel to the regions.
Recently, a new trend has emerged in the market connected with the real estate business, in which high income people use cheap air links to cheaper and interesting regions to acquire a second house. In all these cases, LCAs seem to be a key enabler.

EMPLOYMENT

The emergence of low-cost airlines has boosted employment in many sectors of the economy. European regions are the main beneficiaries. There are three main types of employment generated by low-cost airlines – within airlines themselves, at airports and in regional businesses.

- Direct Employment[116]: administration, security, handling and employment related to ancillary activities – such as shops, restaurants and other commercial activities located at the airports.
- Indirect employment: it depends heavily on passenger throughput – the higher the passenger volume at the airport, the more shops, restaurants, banks, car rentals, etc. will locate there.
- Regional employment: it is associated with the growth of the tourism industry. Additionally, the increased purchasing power of employees at airports – in the tourism industry and in new businesses located in the regions – creates the need for more and better services in all other sectors and triggers a virtuous cycle for employment in the regions.

ENVIRONMENT

Low-cost airlines contribute to the development of sustainable tourism and environmentally efficient travel throughout Europe. They are actually minimizing environmental impacts given the more efficient nature of their operations and the fact that they generally operate much newer fleets. The most popular aircraft type is the New Generation Boeing 737. Airbus A-319 and A-320 are also extensively used. These new-generation aircrafts are the most technologically advanced and energy efficient aircraft available in the industry. They allow:
- A more efficient seat configuration and lower fuel consumption
- Decreased noise emissions
- Direct services lead to less connecting flights
- Reduced waste

[116] Direct employment at airports is closely related to the passenger throughput.

Safety and security

There is no evidence that LCAs have lower standards of safety than traditional airlines. Many LCAs operate young fleets which are not only equipped with the most up-to-date safety technologies but also require less maintenance, leading to cost reductions. Furthermore, LCAs have made efforts to overcome passengers' belief that low-fares may result in lower investments in aircraft maintenance, in order to gain the confidence of those passengers who do not fly with them because of these concerns. Such efforts reveal LCAs' awareness of this stereotype and, as such, it is unlikely that they would take any action that might jeopardise their safety levels, as that could result in bankruptcy.

In addition, the air transport sector in general dedicates significant efforts to the supervision and enforcement of reliable maintenance practices, and there is no evidence to support the need for additional care with LCAs.

Conclusions

The success of liberalisation in European air transport industry has largely been due to the ability of new entrants to challenge the traditional way of running an airline and pursue new business models which offer strong competition to the traditional network airlines. The Ryanair-Charleroi Airport agreement in Europe is used as an example and as a basis for the low-cost model. Within the context of the study, it has made an attempt to demonstrate that an agreement or any other arrangements between an airport and a dominating low-cost company, such as Ryanair, may have important economic effects including a growth in demand, and so welfare, by both adding new consumers and by a switch of passengers from full-service airlines to low-cost airlines. Based on the study undertaken, we can state that the EU aviation sector is moving in the right direction as in the rest of the world, European low-cost airlines are growing at a higher rate than the rest of the business. Their effect on tourism, regional development etc., are clearly positive with evident changes in travel and leisure habits. As an example, the lower cost of mobility is fostering the adoption of weekend houses in a country different from where residence is established. The negative effects (environmental, etc.), in turn, are still under control and so it is still possible to devise mitigation strategies. The low-cost model also limits the impact on the environment by efficiently using modern, fuel efficient aircraft and uncongested airports thereby promoting sustainable development.

The low-cost model in Europe has brought huge benefits to consumers, in terms of lower fares and greater choice and has benefited regional and secondary airports by delivering large passenger volumes to these underutilised airports.

European integration and development have also benefited from the increase in employment at the airports and the wider community, and increased tourism and new businesses located in the regions. They are forecasted to continue enjoying growth in future years.

Low-cost airlines need to work with the EU institutions and Member States to ensure that the benefits brought by liberalisation are promoted in future policy in order to ensure continued competition, consumer choice and lower fares.

Reducing the cost of travel they have induced mobility and the number of destinations served has been growing. Thus we can conclude that the LCAs have been promoting equity and reducing imbalances within EU, which ultimately leads to the conclusion that they are fostering construction of the EU and promoting European peoples integration and cohesion.

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GLOSSARY OF TECHNICAL TERMS ACCORDING TO ECAA

AOC: Aircraft Operator Certificate that is issued by the competent authority of a state certifying that an airline's operations are technically safe.

ATC: Air Traffic Control

ATFM: Air traffic flow management

ATM: Air Traffic Management

Available Seat-Kilometres (ASK): The total number of seats available for the transportation of revenue passengers multiplied by the number of kilometres which those seats are flown.

Available Tonne-Kilometres (ATK): The total number of metric tonnes available for the transportation of passengers, freight and mail multiplied by the number of kilometres which this capacity is flown.

Bilateral Agreements: International air traffic is based on bilateral agreements concluded between states that set out the rights of airlines of the two states to operate, market and sell their services.

Breakeven Load Factor: The load factor (see passenger load factor below) at which operating revenues will cover operating costs. Unit cost divided by yield

CAA: Common Aviation Area. An area composed of several states within which air transport operates according to the same rules.

Cabotage: The right to carry paying traffic within a foreign country. This traffic right is very seldom granted.

CAEP: ICAO Committee on Aviation Environment Protection.

CFM: Central Flow Management carried out in Europe by Eurocontrol.

Chicago Convention: International Convention of 1944 that sets the basic ground rules for international civil aviation.

CNS: Communications, Navigation and Surveillance. Together with ATM this constitutes the elements of a total air traffic navigation system.

Code sharing: Two or more air carriers using their flight designator codes on the same flight.

CRS: Computerised Reservation System. EU common rules exist setting standards for their operation.

DBC: Denied Boarding Compensation

Dehosting: Separation of a CRS from other databases and systems. Can be physical but must at least be functional. Guide to Community legislation in the field of civil aviation - ECAA June 2007 European Commission 124 DG-TREN

Distances: Airport-to-Airport great circle distances are used.

Dry leasing: Leasing of an aircraft without crew.

EASA: European Aviation Safety Authority.

EASP: Essential Air Services Program.

Economies of scale: Classical economic definition that recognises that production costs will diminish when the scale of production goes up. Certain limitations to this definition exist.

Economies of scope: Follow-on definition to economies of scale stating that the more the operations grow the more the undertaking may be able to influence/control the market. This leads typically to concerns in respect of abuse of dominant positions.

FFP: Frequent Flyer Programme.

Franchising: The use by an air carrier of another air carrier's flight designator code.

FTL: Flight Time Limitation. The flight time allowed for Pilots and cabin crew

Fully flexible fare: An air fare without restrictions which is also fully refundable.

GATS: General Agreement on Trade in Services. Only a few aspects of air transport are covered i.e. Computerised Reservation Systems, Doing Business and Foreign Repair Stations.

GDP: Gross Domestic Product.

GPS: Geostationary Positioning System. A satellite navigation system.

Grandfather-Right: A term in relation to airport slot allocation which indicates that an air carrier has the right to be given the same slot as it was operating in the preceding season.

Ground Handling: Services to ensure the proper flow of passengers, baggage and freight (i.e. check-in, baggage and freight handling) and ancillary services such as catering, cleaning of aircraft, fuelling and ordinary maintenance of aircraft, towing of aircraft, etc.

Hard rights: Traffic rights and directly related services.

Hub: Traffic centre for an airline where the traffic is scheduled in waves so that connections are facilitated.

ICAO: International Civil Aviation Organisation. A specialised Agency of the United Nations responsible for establishing (Standards and Recommended Practices (SARPs) in the technical, (economical) and Guide to Community legislation in the field of civil aviation - ECAA June 2007 European Commission 125 DG-TREN legal fields of international civil aviation. The EU has observer status.

ILS: Instrument Landing System. An approach aid employing two radio beams to provide pilots with vertical and horizontal guidance during the landing approach. The localiser provides azimuth guidance, while the glide slope defines the correct vertical descent profile. Marker beacons and high intensity runway lights are also part of the ILS.

Indirect Air Carrier: A company that sells air transport to the public and issues tickets in its own name and with its own designator code but uses another air carrier to operate the air services being sold. Also called virtual air carrier.

Interlining: The ability to transfer from one air carrier to another with the same ticket

Load factor: See passenger load factor and overall load factor.

Market investor principle: A term in connection with assessment of whether state aid exists which is not the case if a normal market investor would have acted in the same way.

Nationality clause: A clause in typical bilateral agreements which allows the receiving country to refuse the designation of an air carrier which is not owned or controlled by the citizens of the designating country.

NGO: Non-Governmental Organisation

Non-scheduled services: Are defined as 'Non-scheduled services': charter flights and special flights performed for remuneration on an irregular basis, including empty flights and blocked-off charters, other than those reported under scheduled services.

One time last time: After the final liberalisation, which took effect from1 January 1993, it was accepted by the Commission that an air carrier in economic difficulties could be given state aid once more but after that no more.

Open Skies Agreements: Air services agreements between typically the US and other states which liberalise market access (routes, capacity and prices) but keep the US home market totally protected.

Operating License: Together with the AOC the operating license certifies that an airline is both technically and economically fit. Without an operating license the airline is not allowed to operate any aircraft.

Operating Ratio: The relationship between operating revenues and operating expenses. The latter may be inclusive or exclusive of net interest.

Overall load factor: The percentage of total capacity available for passengers, freight and mail which is actually sold Guide to Community legislation in the field of civil aviation - ECAA June 2007 European Commission 126 DG-TREN and utilised. Computed by dividing total revenue tonne kilometres actually flown by total available tonne-kilometres

Passenger load factor: The percentage of seating capacity which is actually sold and utilised. Computed by dividing revenue passenger-kilometres flown by available seat kilometres flown on revenue passenger services, or seats available by no of passengers carried.

Public Service Obligation (PSO): In cases where air transport is vital for a region the state may specify certain levels of quality of service for any airline operating on a route and if necessary the state may pay compensation if no airline is willing to operate without.

Revenue freight: All freight counted on a point-to-point basis (in metric tonnes) covered by air waybills for which remuneration is received. Freight carried on trucking services is not included.

Revenue Passengers carried: A passenger for whose transportation an air carrier receives commercial remuneration.

Revenue Passenger-Kilometre (RPK): Computed by multiplying the number of revenue passengers by the kilometres they are flown.

Revenue Tonne-Kilometre (RTK): One tonne of revenue traffic transported one kilometre. Revenue tonne kilometres are computed by multiplying metric tonnes of revenue traffic (passenger, freight and mail) by the kilometres which this traffic is flown. Passenger tonne-kilometres are calculated using standard weights (including baggage) which may differ between airlines and between domestic/short/long-haul.

Scheduled Services: Flights scheduled and performed for remuneration according to a published timetable, or so regular or frequent as to constitute a recognisably systematic series, which are open to direct booking by members of the public.

Slot Allocation: Distribution of departure and arrival times for aircraft.

Soft rights: Rights which relate more to the conditions for operation such as marketing and selling etc.

TABD: Trans Atlantic Business Dialogue (Between US and EU businesses).

TEP: Transatlantic Economic Partnership (between US and EU).

Traffic distribution: The distribution by a state of traffic between two or more airports serving the same city.

Traffic rights: The right to carry passengers, freight and mail for remuneration. These rights are set out in a systematic way as follows: Guide to Community legislation in the field of civil aviation - ECAA June 2007 European Commission 127 DG-TREN:

- 1st freedom is the right to overfly a country.
- 2nd freedom is the right to overfly a country and make a technical stop for fuelling or repair.
- 3rd freedom is the right to carry passengers etc from the carrier's home state to another state.
- 4th freedom is the right to carry passengers etc from another state back to the home state.
- 5th freedom is the right to carry passengers etc between two foreign states on a service which is an extension of a service from the home state.
- 6th freedom is the right to carry passengers etc between two foreign states via a connection point in the home state i.e. a combination of 4th and 3rd freedoms.
- 7th freedom is the right to carry passengers etc between two foreign points on a free-standing service.
- 8th freedom is the right to carry passengers etc on a service within a foreign country which is an extension of a service from the home state. This is a form of cabotage.
- 9th freedom is the right to carry passengers etc on a free-standing service within a foreign country. This is pure cabotage.

Unfair Contract Terms: The EU has set out principles for defining contract terms which are unfair in a Directive from 1993.

Unit Cost: The average operating cost incurred per available tonne-kilometre.

Use it or lose it rule: A term from slot allocation which indicates that is a slot is not used it will have to be given back to the slot pool for distribution to other air carriers.

Warsaw Convention: International Convention from 1929 which alone or in combination with later protocols sets out the rules for compensation in case of accidents.

Wet leasing: Leasing of an aircraft with crew.

Yield: The average amount of revenue received per revenue tonne-kilometre. **Passenger yield**: passenger revenue per RPK.

Printed by
Editrice Salentina - Galatina (Le) - Italy

UNIVERSITÀ DEL SALENTO

POLO EUROMEDITERRANEO JEAN MONNET

Community of Mediterranean Universities

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Pubblicazione edita nell'ambito delle attività didattiche promosse dalla Cattedra di "Diritto dell'Unione Europea" e "Aspetti giuridici, culturali e linguistici dell'U.E." Azione Jean Monnet della Commissione Europea - Università del Salento, Facoltà di Lingue e Letterature Straniere (Convenzione - 2007 - 1338/001-001JEA-JECHA).