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How to compete for a place in the world with a hand tied behind your back: The case of air transport services in Girona☆

Germà Bel [a,b,*]

[a] Universitat de Barcelona (ppre-IREA), Barcelona, Spain
[b] Barcelona Graduate School of Economics, Barcelona, Spain

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ABSTRACT

This paper studies the case of Girona-Costa Brava airport, which is an outstanding example of success in increasing airport activity. Passenger traffic has increased by 770% between 2002 and 2007, and it is expected to keep increasing in the near future. The main factor driving this growth has been the expansion of Ryanair operations. We analyze how the conditions provided by the region and the airport facilities have met those factors usually required by low-cost companies to expand operation in secondary regional airports. Besides, within a framework of lack of commercial activism by the airport manager, we analyze the commercial and financial policies undertaken by regional and local authorities to entice airlines to increase their flying to Girona airport, even if these authorities do not share any responsibility for airport management.

1. Introduction

By 2002, the passenger traffic in Girona airport was 557 187 passengers. However, in 2007 passenger traffic had reached 4 848 619. Indeed, Girona has experienced an impressive growth of passenger traffic, and passengers in 2007 represent 8.7 times the volume of traffic in 2002. Passenger traffic will likely be around 6 million in 2008, according to the intense growth experienced in the first months of this year, since passengers increased by 25.5% in the first six months of 2008.

All this makes Girona-Costa Brava airport one of the most singular cases of airport growth in recent years in Europe. Potential effects of this traffic growth are important, since Brueckner (2003) and Green (2007) have empirically found that passenger activity is a strong predictor of urban growth, whereas cargo activity is not (Green, 2007). Most trips using Girona airport have a tourist motivation (holidays plus visits to friends and relatives, according to the aggregation suggested in Papatheodorou and Lei (2006)), and the main final destinations are the city of Girona itself, the nearby seaside area of Costa Brava, and the city of Barcelona, one of the hottest tourist spots in South Europe.

The continuously increasing operation of flights by the low-cost company Ryanair has been the main driving factor for the growth of Girona airport. Ryanair began flying in Girona on December 2002, and it has carried more than 4.2 million passengers in 2007, absorbing 88% of the total passenger traffic in the airport. In this way, Girona has reached a top position among those continentals European airports where Ryanair has established an operational base, together with Marseille, Rome-Ciampino, and Milan-Orio al Serio.

In this paper, we study the case of Girona, extensively document its growth, and analyze the driving factors of this evolution. Concerning the factors attracting low-cost companies, we see how issues related to fees paid and to aeronautical discounts are severely restricted by the rigid management system of Spanish airports. We show how territorial authorities of Girona, which have no responsibilities in the airport management, have developed alternative strategies in order to overcome the rigidities derived from the current management model.

We contribute to the existing literature by showing how regional public and private actors can implement creative solutions to entice airlines to increase their flying to a regional airport, even in absence of a flexible and dynamic airport management. A clear

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* Department Política Econòmica – UB, Facultat Econòmiques – Torre 6, Planta 3, Avd. Diagonal 690, 08034 Barcelona, Spain. Tel.: +34 934021946; fax: +34 934024573.
E-mail address: gbel@ub.edu

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message emerges from this analysis: the convenience of decentralizing airport management, so that commercial policies oriented to increase the socio-economic impact of the airport can be more effectively implemented. It is worth noting that our analysis is limited to the centralized-individual dimension of the choice on management model. Instead, our analysis does not allow for any implication on the public–private dimension of the choice on the concrete management tool.

The rest of the paper is organized as follows. Next, we briefly explain the methodology employed in the case study. In Section 3, we relate our study to the existing literature. In Section 4, we briefly review the basic characteristics of Girona region, and after that, we extensively document the growth of traffic operations in Girona airport. In Section 5, we discuss the driving factors for this growth, with special emphasis on the leading role played by Ryanair. In Section 6, we review the model of management airport in Spain in order to show the extreme rigidity that this model imposes concerning the possibility of applying tariff policies and discount policies intended to attract airlines activities. Then we discuss in Section 7 how territorial authorities have applied several alternative tools in order to overcome the airport's manager rigidity concerning commercial policy. Finally, we conclude with some final remarks.

2. Methodology

Primary research for this paper has been obtained through formal interviews with Salvador Montserrat (Air Transport Manager & Route Development, Province Government of Girona), and Joan Pluma (City Council of Girona, and Province Government of Girona). Useful information has been obtained as well by means of semi-formal interviews with Manel Nadal (Regional Government of Catalonia), and Domènec Espadalé (President of the Girona Chamber of Commerce). The content of a preliminary version of the paper was discussed with businessmen and local authorities of the Girona province in a meeting organized on April 4, 2008 by the Foundation *Cercle d'Infrastructures de Girona* (Girona Infrastructures Association).

Several sources have provided data required in conducting this case study. Passenger traffic data in Girona and all other Spanish airports have been obtained from the web page of *Aeropuertos Españoles y Navegación Aérea* (AENA, the centralized manager of airports in Spain). Information on the profiles, trip motivations, and final destinations of Girona airport passengers has been obtained from two surveys implemented in 2004 and 2005 by Martínez, Barceló, Caparrós, and Martínez (2005) and Martínez, Prats, and Barceló (2004). The review of current academic literature has provided secondary sources of information.

3. Relationship to the literature

Several works in the literature have studied the factors leading to the expansion of operations by low-cost companies in secondary regional airports. Barrett (2004a, 2004b) studies and discuss the strategy followed by Ryanair of avoiding large and congested airports, so that the company can enjoy low airport charges, quick turnarounds, rapid check-in facilities, simple terminals and accessibility. On their side, Warnock-Smith and Potter (2005) have identified as additional influential factors for low-cost companies a prospect of high demand for this type of services, convenient slot times, and good aeronautical discounts. In a recent paper, Hanaoka, Inamura, Zhang, and Saraswati (2008) study the strategies followed by the major low-cost carriers in the United States (Southwest, JetBlue and AirTran Airways), Europe (easyJet and Ryanair) and Asia (Air Asia) regarding the location of their operational bases. They conclude that Ryanair is the only one among those carriers that concentrates in using secondary regional airports.

Much has been written on low-cost airlines, but far less on the implications for airports of low-cost expansion. An early paper on this issue is that by Francis, Fidato, and Humphreys (2003), which analyzes two different cases of airport–airline interaction. One of these two airports is close to a major hub and is owned by a larger airport group regional, whereas the other is more isolated and locally owned. In both cases, airport managers play an active role in reaching agreements with the airline (by reducing handling cost per flight with respect to the number of flights in one case, and by free handling costs in the other). Francis, Humphreys, and Ison (2004) enrich this kind of analysis by considering five types of airports. In a more recent paper, Fu and Zhang (2008) analyze the implications of 'revenue sharing' between airports and airlines, and find that it has positive effects on the social welfare.

Our analysis is closely related to that of Francis et al. (2003), in the sense that we deal as well with ways in which low-cost carriers achieve improved financial conditions for operating in an airport. However, a key difference in our study is that the airport manager does not have the capability of engaging in agreements on charges with the airline, so no financial cost reduction can be implemented. Instead, local and regional public and private actors – not currently involved in the airport management – engage in agreements with the airlines in order to increase their revenues from operating in the airport. Hence, by increasing airlines' revenues, local actors implement similar incentives than those implemented by airport managers that reduce airlines' costs.

4. Air services in Girona airport: an impressive evolution

Girona is a mid-size city in the Northeast of the Spanish Peninsula, within the region of Catalonia, with a population of 92 186 in 2007. The city displays a variety of characteristics that make it attractive for tourism: commercial activity, sophisticated gastronomy and, specially, a rich historical heritage (Galí Espelt & Donaire Benito, 2005). Beyond the city boundaries (and within 1 h by road transportation), there are other areas with high potential attraction for tourism, such as the Costa Brava, pre-Pyrenees tourist destinations, and the city of Barcelona.

Foreign tourism activity is extremely high in these areas, as reflected by different types of statistics. For instance, the region of Catalonia (where the main tourist destinations are – by far – Barcelona and Girona) was the final destination for 19.2% of foreign tourists in 2000; there since has increased its share until 25.7% in 2006 (Frontur, 2007). Specially, illustrative is the fact that the province of Barcelona concentrates 24% of all payments made with foreign VISA and MasterCard credit cards (which concentrate 75% of total expenditures made by foreigners with credit cards, according to data gathered by *Barcelona Turisme*), ranking first in Spain. The province of Girona ranks fifth, with 9% of payments with Visa and MasterCard (whereas its population represents only 1.56% of the Spanish population). Besides Barcelona, only very important tourist spots such as the provinces of Madrid (12%), Malaga (10%) and Balearic Islands (10%) have more credit card payment than Girona.

Close to the city of Girona, there is the airport of Girona-Costa Brava. The airport is located near the small town of Vilobí d'Onyar, 12 km south of Girona and 85 km north of Barcelona. National and international air transport services in Girona airport began operating in March 3, 1967. In the decade of the 1970s, the airport experienced an intense growth of air passenger traffic, based on summer charter flights. Since the late 1970s/early 1980s, regular flights were reoriented to Barcelona airport and tourist charter flights were reoriented to different Mediterranean destinations in Spain. Because of it, after reaching peak traffic of 830 000

Table 1
Evolution of traffic (passengers, flights and cargo) in Girona airport 2000–2007.

	2000	2001	2002	2003	2004	2005	2006	2007	Growth 2000–2007 (%)
Passengers	651 402	622 410	557 187	1 448 796	2 962 988	3 533 564	3 614 254	4 848 619	644.3
Flights	13 742	13 513	14 907	20 138	28 668	32 126	33 439	45 282	229.5
Cargo	384 430	173 719	494 361	289 947	142 973	240 696	484 407	234 180	−39.1

Source: author's, based on data obtained from AENA's web page.

passengers in 1983, traffic figures kept decreasing until the early 2000s. Thereafter, a whole new story for air traffic in Girona-Costa Brava began.

By the beginning of the 2000s, the passenger traffic in Girona airport was barely above 500 000 passengers. However, in the recent years the volume of passengers using the Girona airport has experienced an impressive increase. Table 1 shows the evolution of traffic volumes since 2000.

Passenger traffic in 2007 is almost 7.5 times that in 2000. With an increase of 644% in the period, Girona is in the top position within the airports with the highest increase in passenger traffic in the current decade. Among those Spanish airports with relevant amount of traffic in the whole period, only Murcia-San Javier shows a higher growth in 2000–2007, 1175%. Overall, traffic increase in Girona airport is 13 times that experienced in the Spanish airport system (49%) as a whole. As a result, Girona airport has ranked 10th in Spain according to passenger traffic in 2007, whereas it was only 23rd in 2000.

Traffic growth in Girona airport has resulted in a sharp increase in the ratio passenger/flight operation, which increases from 47 passengers per flight in 2000, to 107 passengers per flight in 2007. However, cargo traffic has not followed the same path as passenger traffic did, since it has shown a wide variability in the period analyzed. By 2007, cargo was 39% lower than that in year 2000.

Recent evolution of passenger traffic in Girona airport shows that traffic growth remains a key feature. In the first semester of 2008 passengers in Girona airport have been 2 666 883, which implies a growth of 25.5% with respect to the first semester of 2007. This rate is the highest one among all Spanish airports, and is nine times the rate of growth of the Spanish system of airports as a whole (2.8%).

It is not possible to analyze the financial impact the traffic growth has implied for Girona airport, since no financial official information on single airport basis is available in Spain. However, given the low number of passengers Girona airport received by 2000, important scale economies have been likely realized[1] because of the passenger activity growth there since.

5. Drivers of traffic growth in Girona airport

The success of Girona airport in increasing its passenger traffic has a clear and outstanding factor: increasing operations by the low-cost company Ryanair. This company began its operations in Girona airport in December 2002 (which was too its first operation in Spain), with two flights a day in the route Girona–Frankfurt (Agulló, Rey, Rosselló, & Torres, 2007). The first whole year of Ryanair operations in Girona was 2003, and since then this company has been the uncontested leader in this airport: in 2003 Ryanair market share was 66%, and that figure has increased up to 88% in 2007.

[1] Francis et al. (2004, p. 509) report an ICAO study that found the average unit cost (AUC) for airports less than 300 000 WLU to be US$ 15, whereas AUC was US$ 9.4 for airports with 300 000–2.5 million WLU, and US$ 8 for airports of 2.5–25 millions WLU. On their side, Pels, Nijkamp, and Rietveld (2003, p. 358) found from their DEA analysis that the smallest airports on their sample operate under increasing returns to scales.

Nowadays, Ryanair operates flights to 54 out of the 61 destinations regularly served from Girona. These destinations include cities in 19 countries of the European Union and the North of Africa. In addition to Ryanair, Centralwings, Spanair, Transavia France and Transavia Holland serve seven other destinations in the European Union.

Ryanair operation in Girona is an extreme case of a more general behavior of this airline in Spain. Because of the intense growth of Ryanair operations in Spain in recent years, particularly since 2003, this airline reached in 2006 the first position in the ranking of low-cost companies carrying passengers to Spain, replacing in this position easyJet, the leading low-cost company until 2005. Overall, only Iberia, the main conventional Spanish airline, carries more passengers to Spain than Ryanair does (IET, 2006, 2007).

Table 2 includes all Spanish airports that had relevant passenger traffic in 2000 (more than 100 000 passengers). The left hand of the table shows the airports where Ryanair's market share is over the global share in the Spanish market (5.3% in 2007), whereas the right hand of Table 2 includes those airports where Ryanair's market share is below the global share.

Ryanair is the leading airline in five airports (Girona, Reus, Murcia-San Javier, Zaragoza, and Valladolid). In all of them Ryanair's market share is between 40 and 50%, with the exception of Girona, where it controls 88% of the passenger traffic. Ryanair is the second airline in three additional airports (Santander, Granada-Jaén, and Valencia).

Those airports in which Ryanair is more active in gaining a high market share tend to be the airports where passenger traffic experiences highest rates of growth overall. The difference in average airport growth between the two columns is high, 251.84% against 45.4%, and it is significant at the 1% level (t-statistic = 7.48).

As mentioned, the case of Girona is extreme in Spain. It is not only that Ryanair concentrates 88% of the traffic in Girona, and that traffic growth has heavily increased in this airport in the recent years. In addition, the 4 260 702 passengers carried by Ryanair in Girona airport in 2007 represent 38.46% of all passengers carried by Ryanair in Spain in 2007 (11 077 714). An additional feature of Girona airport can explain all this factors taken together. Besides being close to a city with strong appeal for tourism (Girona), and to a local area with heavy tourist activity (Costa Brava), Girona airport is located within 1 h of road transport from Barcelona, the most important city in Spain concerning tourism, as well as a hot spot among the tourist cities in the South of Europe. This fact is of remarkable relevance, if we consider that according to Martínez et al. (2005, p. 18) more than 85% of trips in Girona airport in summer 2005 had tourism related motivation – 71.7% holidays and 13.7% visiting family and friends.

Indeed, the percentage of foreign travelers whose final destination is Barcelona is very high, as shown by several surveys that have studied the characteristics of Girona airport users in the past years. In this way, Martínez et al. (2004, p. 22) found that 26.7% of international visitors using this airport in the high season (Summer) of 2004 had Barcelona city as final destination, and an additional 8.7% had a different point within the province of Barcelona as final destination. Similar percentages have been found for the high season (summer) of 2005: 26.8% going to Barcelona city and 10.9% to other destinations within the province of Barcelona (Martínez et al., 2005, p. 26).

Table 2
Spanish airports and Ryanair.

Airport	PAX 2007	PAX Ryanair	Ryanair/Total (%)	Growth 2007/2000(%)	Airport	PAX 2007	PAX Ryanair	Ryanair/Total (%)	Growth 2007/2000 (%)
Girona	4 848 619	4 260 702	87.9	644.3	Alicante	9 120 819	362 538	4.0	51.1
Reus	1 305 894	604 088	46.3	79.3	Fuerteventura	4 630 056	120 668	2.6	33.5
Murcia-S. Javier	1 995 162	876 120	43.9	1174.5	Málaga	13 590 537	345 150	2.5	43.9
Zaragoza	512 184	217 342	42.4	107.6	Madrid-Barajas	52 143 275	1 136 951	2.2	58.5
Santander	761 783	306 879	40.3	192.1	Tenerife Norte	4 125 034	88 524	2.1	71.1
Valladolid	512 929	204 180	39.8	147.3	Palma Mallorca	23 227 983	276 652	1.2	19.6
Granada-Jaén	1 467 590	339 401	23.1	188.1	Tenerife Sur	8 639 341	52 817	0.6	−2.4
Valencia	5 929 916	919 649	15.5	162.2	Barcelona	32 800 570	0	0.0	65.6
Jerez	1 607 834	224 326	14.0	127.8	Gran Canaria	10 354 858	0	0.0	10.4
Santiago	2 050 121	246 499	12.0	53.8	Lanzarote	5 625 580	0	0.0	12.5
Almería	1 206 634	109 957	9.1	32.0	Eivissa	4 765 121	0	0.0	6.5
Sevilla	4 507 142	385 271	8.5	113.0	Bilbao	4 277 610	0	0.0	67.3
Average growth				251.84	Menorca	2 776 610	0	0.0	0.2
Standard Dev.				330.94	Asturias	1 560 830	0	0.0	90.9
					Vigo	1 405 968	0	0.0	94.8
					A Coruña	1 266 804	0	0.0	115.1
					La Palma	1 207 572	0	0.0	34.7
					Pamplona	498 473	0	0.0	44.4
					San Sebastián	466 494	0	0.0	64.4
					Melilla	338 650	0	0.0	28.4
					El Hierro	184 762	0	0.0	50.2
					Vitoria	173 877	0	0.0	39.2
					Average growth				45.4
t-Statistic for difference of average growth				7.48	Standard Dev.				31.6

Source: author's, based on info in AENA web page.

If we look at low season (out of summer) trips, the share of Barcelona city as final destination is even higher: 42.8% of total passengers in 2004 and 41.1% in 2005. Overall, destinations within the province of Barcelona account for more than 50% of foreign travelers in low season trips in 2004 and 2005 (Martínez et al., 2005, p. 81).

The factors driving the growth of traffic in Girona airport can be summarized as follows: the airport serves a medium-size city (Girona) rich in cultural and historical features, which is close to a seaside area (Costa Brava) that has a long history as Sun-tourism destination. In addition to that, Girona airport provides an easy and convenient access to the metropolitan area of Barcelona, which a large fraction of passengers takes as final destination. Small traffic in Girona airport at the beginning of the 2000s provided enough free capacity for expansion of flight activities. Turnaround time in Girona-Costa Brava is extremely low, 25 min, among the lowest in Europe, and well below the 40-min standard turnaround time planned by AENA for the type of plane operated by Ryanair. In addition to this, airport parking prices at Girona airport are less than half of those applied in Barcelona airport in all time intervals, with the exception of the first 30 min, fraction in which Girona price is one-third of Barcelona price.

It is important to stress that many of these factors exist as well in other Spanish airports where Ryanair has an important traffic share, such as Reus, Murcia-San Javier, Zaragoza, Santander and Valladolid (see Table 2 above). However, none of them is less than 1 h by road trip to such a highly populated and tourist attractive area as Barcelona is (where a large international airport exists, as in case 1 in Francis et al. (2003)). In fact, this is the case as well in some other secondary regional airports where Ryanair has developed large operational bases in Southern Europe, such as Rome-Ciampino, and Milan-Orio al Serio.

All in all, the several factors mentioned above have been influential in the decision by Ryanair to establish an operational base in Girona. In this way, this company has channeled through this airport a large volume of traffic. This is consistent with the usual strategy followed by Ryanair of avoiding large and congested airports, so that the company can enjoy quick turnarounds, rapid check-in facilities, simple terminals, and good accessibility and lower parking charges (Barrett, 2004a, 2004b) and high demand for low-cost companies services and convenient slot times (Warnock-Smith & Potter, 2005).

However, there are other important factors in attracting low-cost carriers with strategies like those followed by Ryanair, such as low airport charges (Barrett, 2004a) and aeronautical discounts (Warnock-Smith & Potter, 2005), that are not so easily meet in the case of Girona airport. Hence, this point deserves more attention.

6. A hand tied behind the back: the airport management model in Spain

European airports that belong to large national airport markets are usually managed on individual basis (Bel & Fageda, 2006, 2007). This is the case for Germany, France, and Italy[2] (as well as for large Anglo-Saxon countries such as the USA, Canada and Australia). Individual management is also the case for the Netherlands, Ireland, Denmark, Belgium and Austria. Indeed, in all these countries grants and subsidies to small airports and/or airports located in poor regions are often available from more than one government level, or implemented through a transparent cross-subsidy scheme.

Special mention must be made of the United Kingdom case, where BAA group (nowadays owned by Ferrovial) was formed on initial privatization, and now manages three airports in London (Heathrow, Gatwick, and Stansted), Glasgow, Edinburgh, Aberdeen and Southampton. Other important airport groups based in Europe have developed. An interesting case is Fraport, owner and manager of Frankfurt airport. A majority of Fraport shares are owned by the state of Hesse (31.6%) and the city of Frankfurt (20.2%), with the remaining shares in private hands. In addition to Frankfurt airport, Fraport is manager and/or owner of more than 15 management companies all over the world. Another relevant case is TBI-Abertis, which manages airports in the UK, Sweden, United States and

[2] It is worth noticing that airports serving the same metropolitan area are managed sometimes as a group. For example, in Italy that is the case of Milan (Malpensa and Linate) and Rome (Fiumicino and Ciampino). Other significant example is that of Paris (Charles de Gaulle, Orly, and Le Bourget), managed by Aéroports de Paris (ADP).

Table 3
Airport classification regarding the landing fee, 2008.

Airports with commercial traffic	Traffic thresholds (passengers 2007)
Fisrt category: Alicante, Barcelona, Bilbao, Fuerteventura, Gran Canaria, Lanzarote, Madrid-Barajas, Málaga, Palma de Mallorca, Sevilla, Tenerife North Tenerife South, Valencia *Eivissa and Menorca between May 1 and October 31*	Maximum (Madrid-Barajas): 52 143 275 Minimum (Menorca): 2 776 610
Second category: Almería, Asturias, Granada-Jaén, Jerez, La Coruña, La Palma, Santiago, Vigo. *Eivissa and Menorca between November 1 and April 30* *Girona and Reus between May 1 and October 31*	Maximum (Girona): 4 848 619 Minimum (La Palma): 1 207 572
Third category: Albacete, Badajoz, Burgos, Ceuta, Córdoba, El Hierro, La Gomera, La Rioja-Logroño, León, Madrid-Cuatro Vientos, Melilla, Huesca-Pirineos, Murcia, Pamplona, Sabadell, Salamanca, San Sebastián, Santander, Son Bonet, Torrejón, Valladolid, Vitoria, Zaragoza. *Girona and Reus between November 1 and April 30*	Maximum (Girona): 4 848 619 Minimum (several): 0

Note: (1) The classification of airports regarding the 'approaching fee' (air traffic control) is basically the same, with the exception that Eivissa and Menorca are in the first category throughout all the year, and Girona and Reus are in the second category throughout all the year and (2) other minor fees (i.e. 'security fee') do not distinguish between airports, and some discounts are applied to airports outside the Peninsula (Canary and Balearic Islands, and Melilla).
Source: author's, based on AENA web page for passengers and AENA (2008) for fees.

several Latin American countries. Whenever a group has reached a large share of a national market, as it happens with BAA in the UK, the national competition authorities have developed increasing concerns about the effects on competition of such level of concentration, and try to make sure that financial and fees policies do not distort competition.[3]

Where a national airport system is run in a centralized way, it has just one large airport. This situation exists in a few countries such as Portugal, Finland and some of the small new European Union countries as Slovakia, Leetonia, Lithuania, and Estonia. Spain is unique, because it is the only European country with several large cities and airports, and with a large air market, in which all airports are managed by a single national agency.

AENA, a public agency belonging to the Ministry of Transportation (*Ministerio de Fomento*), manages in an integrated way the 48 airports that channel commercial traffic in Spain in 2008. Besides managing the Spanish airports, AENA is in charge of managing air traffic control as well. This is unique, since both functions are separated in all other airport systems. AENA is the owner of all airport facilities.

The Ministry of Transportation and AENA control all relevant decisions related to airport activity in Spain: investment plans, slots allocation and coordination – depending on the case – and formal and executive negotiations with airlines. The Ministry makes the decisions on investment, since it is entitled with planning responsibilities regarding infrastructures. AENA elaborates the technical proposals, and implements the corresponding building activity and operation. The Ministry takes the decisions regarding allocation of available slots, within the framework established by the Decree (EEC) N. 95/93 and by the International Air Transport Association (IATA) coordination procedures.

Given the characteristics of airport management in Spain, the possibility of a differentiated commercial policy by any airport in the system does not exist. In the same way, the economic resources generated by airport activity are managed by means of an integrated revenue and expenditure management. The integrated financial management implies the existence of a cross-subsidy system between the Spanish airports that is neither transparent nor efficient, and is not guided by solidarity in practice (Bel & Fageda, in press).

On the other side, airport fees for using airport facilities are established by law by the Spanish Parliament, and are set for three different categories of airports (theoretically), according to the volume of traffic each one of the airports absorbs. In this way, (1) the differentiation between the three categories is arbitrary as does not follow from cost considerations and (2) there is not the possibility of differentiating airport fees between airports within the same category.

Table 3 displays the three categories used to establish the landing fees for the Spanish airports. These categories have almost the same composition regarding the 'approaching fee' (air traffic control), as indicated in note 1 to Table 3. Each category almost perfectly reflects traffic volumes thresholds by late 1990s. However, this management system is rigid, and by year 2007 noticeable dysfunctions exist. For instance, Girona airport is the 10th airport regarding traffic volume in Spain. Hence, its traffic is higher than that of five airports in first category (Eivissa, Fuerteventura, Seville, Bilbao, and Menorca) and higher too than that of all airports in second category. However, Girona is classified second category in high (summer) season and third category in low (out of summer) season. To a lesser extend, similar dysfunctions happen with respect to Reus and Murcia-San Javier.

The management system of Spanish airports imposes rigid fee schemes, that do not properly reflect costs and, more important, do not allow for price differentiation between airports. Fees are set by the Spanish Parliament, and are applied to each airport according to the category where it is classified, without regard to other commercial considerations. The unique exception to this general procedure is those specific fees for several types of flight in out-of-peninsula airports, intended to compensate for isolation costs.

There is not such a thing as an autonomous management of the Spanish airports, so that no specific commercial or pricing policy can be applied. Indeed, this is contradictory with the usual strategy followed by Ryanair to operate flights in secondary airports, and specially to establish important operational bases, as it is the case of Girona.

7. The other (free) hand doing as much as possible: local institutions and airline friendly policies

Even if they do not share any responsibility for airport management, local and regional authorities in Girona have been extremely active in promoting airline friendly policies concerning the financial conditions for operating in Girona-Costa Brava airport. Ryanair began its operations in Girona by December 2002, and soon after that, in March 1, 2003, an agreement with the airline was signed by *Girona Centre Logistic* (a public firm co-owned by the regional government – *Generalitat de Catalunya* – the province government – *Diputació de Girona* – and the Girona Chamber of

[3] In August 2008, the British antitrust authority, following an inquiry on competition and monopoly in BAA's airports, has required BAA to sell two of its three airports in London, as well as one of its two major airports in Scotland (Glasgow and Edinburgh).

Commerce). This agreement established direct payments to Ryanair as compensation for the launching of six flights in five routes (Frankfurt Hahn – 2, London Stansted, Paris-Beauvais, Milan-Orio al Serio, and Glasgow-Prestwick). The agreement was set for two years (plus two years as possible extension).

Soon the actual evolution of the air market made the agreement obsolete. On one side, before summer 2003, Ryanair was already operating 12 flights; on the other side, there were concerns that direct compensations to Ryanair could raise problems according to EU competition laws. It is worth noting that it was already underway the inquiry on the 2001 agreements between the Wallon region – owner of Charleroi airport – and Ryanair offering special conditions to this airline for the using of the airport [Later on, by February 2004, the commission declared the reduction of landing and handling fees to Ryanair incompatible with EU regulations, because they were provided only to one company, but where not provided on equal basis to its competitors (Martí-Henneberg, Tapiador, & Pueyo Campos, 2007). Barbot (2006) provides an excellent assessment of Ryanair–Charleroi airport agreement].

Within this context, by summer 2003 new negotiations were launched by the Generalitat de Catalunya and Diputació de Girona with Ryanair in order to promote the establishment of Ryanair's base in the South of Europe and to change the formal structure of the agreement. By late 2003, a new agreement was reached, and its implementation began by April 2004. Ryaniar based three planes at Girona airport, and monthly payments for commercial and marketing services by Ryanair were established for different types of service:

(a) branding of the planes based in Girona, promoting *Girona-Costa Brava* tourist brand;
(b) marketing of *Girona-Costa Brava* tourist brand in the commercial online actions taken by Raynair and directed to its customers;
(c) marketing of *Girona-Costa Brava* tourist brand in Ryanair main web page, as well as in most of its destinations web pages;
(d) additional non-regular marketing actions, such as including reports on Girona-Costa Brava in Ryanair magazine.

A new public entity was created in 2004 to sign and implement this agreement: the *Associació per al Desenvolupament Turistic de les Comarques Gironines* (ADTCG, Association for Tourist Development of Girona), owned by the Generalitat de Catalunya, Diputació de Girona and the Girona Chamber of Commerce. In the following years, negotiations were launched to induce private capital to fund the agreement and in 2006/2007 private firms began participating in the collaboration. In the meanwhile, a new agreement with Ryanair was reached to increase the number of planes based in Girona, from three to nine. These six additional planes were based in Girona through 2007.

On April 1, 2007, ADTCG was converted into a new limited company of commercial character, *Gestió de Marketing i Serveis de les Comarques Gironines* (GMSCG – Management of Marketing and Services of Girona). For 2008, the budget of this company plans to spend 4.67 million euros (plus 16% VAT) buying marketing services to airlines operating in Girona. There have been established two different business lines:

1. the first one is intended to buy services to those companies that have based planes in Girona (as of now, Ryanair with nine, and Spanair with one). 3.5 millions euros (75%) are allocated to this line;
2. the second one is intended to buy marketing services to those companies that operate flights all over the year (thus promoting low season operations). The companies that benefit as of now from this business line are Ryanair, Spanair, Transavia Holland, and Transavia France.

Gestió de Marketing i Serveis de les Comarques Gironines (GMSCG) re-sales those marketing services to public entities (such as *Catalunya Turisme* and *Patronat Turisme Costa Brava*) as well as to private firms (such as *Barcelona Bus* – a leading interurban bus services provider – and *Areas* – a firm that manages restaurant and catering services). For 2008, it is expected that re-selling to public entities will provide 52.7% of GMSCG revenues, whereas re-selling to private firms will provide 47.3% of total revenues.

It is worth making a final mention to the fact that on April 2, 2008, GMSCG and Ryanair have reached a new agreement that will be implemented in beginning of 2009. Ryanair has committed to increase until 14 its planes based in Girona (that is, adding five new planes: two in 2009 and three in 2010). Between 2009 and 2011, the investment done by local partners will be 13.9 million euros. Of them, 23.8% are to be paid by the regional government of Catalonia, 18.7% by the province government of Girona, 8% by Catalonia Tourism, and 1.94% by the Chamber of Commerce. Private firms will contribute the remaining 47.55%. The marketing expenditures committed by GMSCG have decreased on a *per based plane* basis, thus reflecting benefits from scales economies in the collaboration. Furthermore, a non-exclusivity specific clause has been introduced in the agreement, by which both parties expressly recognize that the agreement must be extended to any other company that meets the same conditions – specially, basing planes in Girona.

The five year old story of promotion actions undertaken by local and regional authorities in Girona reflect the will to meet those financial factors required by low-cost carriers to enhance their operations and, furthermore, to establish operational bases in secondary regional airports such as Girona. Care has been taken to accommodate with the commercial and financial practices developed to European Union legislation concerning competition,[4] thus avoiding discriminatory practices that could distort competition between carriers.

In addition to this, local and regional authorities try to stimulate operations by airlines other than Ryanair. They are aware that Ryanair dominant position poses some risks for the future, even if it has been Girona's opportunity window to compete for a place in the world. Low-cost airlines have less commitment to their route networks than legacy airlines, and Ryanair has been very active in withdrawing operations once the initial financial package had expired (Humphreys, Ison, & Francis, 2006). Indeed, promoting airline diversification can mitigate this risk.

Another risk usually mentioned when considering the expansion of low-cost companies in secondary regional airports is the possibility that flight services connecting with large hubs decrease (Francis et al., 2004, small Eastern European airport case). This risk has never been an issue in our case. Actually, Girona did not have regular connections to large hub airports before Ryanair began operating in 2002, and this airline provides now connectivity with other airports with relevant long distance flight supply, such as Manchester and Dublin.

The commercial practices promoted by local and regional actors have replaced the lack of commercial activism by the airport manager, AENA. The airport manager is not only passive concerning commercial policy, but also lacks responsiveness and does not dynamically adjust to the requirements of infrastructure expansion. A clear example is provided by the fact that the Investment Director Plan for Girona Aiport, approved in 2006 (Spanish Official Bulletin of August 9, 2006) forecasted the need of 18 platforms for airport parking in 2020. This implies creating one additional platform, since there existed already 17 when the plan was approved.

[4] Community guidelines on start-up aid to airlines departing from regional airports can be found in the *Official Journal of the European Union*, Communication from the Commission 2005/C 312/01 (December 9, 2005).

However, recent developments imply that at least 15 Ryanair planes will be based in Girona by 2010 (14 operational, and a back-up plane-). Indeed, Girona will need more than 18 platforms by 2020, but this has not been acknowledged as of now.

An active airport manager could have easily applied general and non-discriminatory fees reductions or discounts. In absence of this type of managerial approach by the airport manager, local authorities have needed to incur in relevant transaction costs to achieve the objective of promoting activity in Girona airport.

The agreements between Girona regional and local authorities and Ryanair have provided an example for other local and regional authorities in Spain that try to attract more operations by Ryanair. In this way, several institutions in Catalonia (Generalitat de Catalunya, Diputació de Tarragona, city government of Reus and the Reus Chamber of Commerce) have signed an agreement with Ryanair by early February 2008. Ryanair commits to base four or five planes in Reus, beginning October 2008, thus notably increasing it operations.[5] The counterpart has agreed to pay to Raynair 2.7 million euros per year, for publicity and marketing (payments would begin in 1 million euro in 2008, and reach 2.7 million in 2010, when the agreement is fully developed). More recently, on March 27, 2008, the regional government of Cantabria has signed an agreement with Ryanair to promote her operations in Santander airport. According to this agreement, the government will pay Ryanair 16.2 million euros during a period of five years (2.8 million in 2008 and 3.4 million per year in 2009–2012).[6]

All in all, the large dimension of Ryanair's operational base in Girona and the fact that the airline serves a large number of destinations (54 by mid 2008) suggest the development by Ryanair of a mini hub/focus city in Girona, which might explain why traffic grew disproportionately here relative to other Spanish airports. As explained by Hanaoka et al. (2008), Ryanair is unique among the largest low-cost airlines in the world in that it concentrates in using secondary regional airports as its largest operational bases. The growth in the number of planes Ryanair has based in Girona airport is indeed important: from three in 2004, up to nine in 2008. And, following recent agreements, planes based in Girona will increase up to 14 in 2010. Regional actors have been very active in establishing incentives for the increase in the number of planes based in the regional airport. Thus, creative thinking by the region has been a major driver in the decision by Ryanair to expand operations in Girona.

A clear implication follows from our analysis: increasing managerial flexibility through decentralization would enhance the possibilities of promoting the airport activity and, thus, fostering territorial interests, social as well as economic.

8. Final remarks

The case of Girona-Costa Brava airport is an outstanding example of success in increasing airport activity. Passenger traffic has increased by 644% between 2000 and 2007, and it is expected to keep increasing in the near future. The main factor driving this growth has been the expansion of Ryanair operations. On one side, with a continuous expansion of the number of routes and flights operated; on the other hand, with the establishment of an important base in Girona.

Some of the factors that have stimulated this expansion must be remarked: high potential demand for low-cost services, given the easy access to important tourist areas (Costa Brava and Barcelona), quick turnaround, good accessibility to the airport, low parking prices, etc. However, the absence of an active commercial policy by the airport manager imposed limitations on one core factor to maximize the attraction of low-cost activity: proper policies on fees and discounts. Local and regional authorities in Girona, even if not responsible at all for airport management, have replaced the airport manager in order to develop an active commercial policy. Thus, creative thinking by local and regional authorities has been a major driver in the expansion of Ryanair operations in Girona.

Ryanair expansion of operations in Girona has provided many benefits to the city and its region. On one side, it has increased the supply of affordable and fast transportation to the tourist destinations in the region. On the other, business travelers to and from Girona region enjoy many more direct destinations and low flying prices at the local airport. In addition to this, the dramatic increase of airport traffic has greatly expanded maintenance operations, handling services, and commercial services in the airport and surrounding areas, thus increasing the number of jobs directly or indirectly related to airport activities.

Of course, Ryanair's extremely high market share poses some risks related to the dominance of a single low-cost company, which has already showed the potential for quick withdrawal from other airports. Regional authorities must keep this in mind. Other potential risks steaming from large dominance by low-cost carriers, such as the reduction of flights to large hubs, was not a real risk in the case of Girona, since no flights to large hubs existed before Ryanair began operating in this airport.

The policy implemented by local and regional authorities has been very dynamic and flexible, thus achieving outstanding results. However, it has implied relevant transaction costs and lack of coordination with the airport manager. All these aspects could be further improved by reforming the management model and decentralizing managerial responsibilities. In this way, local/regional interests could do what they have actually done, but playing with both hands instead of having one hand tied to the back. This would likely avoid incurring in high transaction costs, and would further improve the effectiveness of the commercial policies undertaken. Nonetheless, as the case of Girona shows, local and regional authorities can conduct an effective promotion policy even when one hand is tied behind the back.

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