

THE ITALIAN AIR MARKET: AN ANALYSIS OF THE CURRENT CONTEXT

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ABSTRACT

The paper analyses the current situation of the Italian air market resulting from the deregulation process and from the changes in the internal market. In the first part, we present the current framework of the Italian airports showing the great role of the low cost carriers (hereafter LCC), then the history of the former flag carrier Alitalia is discussed. In the second part, we will discuss the strategies implemented by airports to attract air carriers, by means of three case studies (Aeroporti di Puglia, Alghero's airport, Emilia Romagna's airports) . It emerges how discounts on landing and/or terminal charges, revenues guarantees scheme, co-marketing agreement are deeply used in many Italian airport. Since the majority of these airports are publicly owned, it could result both in public transfer to cover losses and in unjustified public expenses to maintain underused or unnecessary airports due only to political reasons. The constraint on public transfer foreseen in the proposed national airport plan, could be the first step towards a more rational framework. On the other hand, due to the high unpredictability and evolution of the aviation sector, the national plan should not become a strict planning tool to imperatively decide which airports should grow and develop.

Keywords: liberalization, airports, low cost carrier, state aid

INTRODUCTION

Following the deregulation process which took place in Europe in the 90's, the air transport market in Italy showed a constant growth in terms of passengers carried both on domestic and international routes. In this paper, we analyze two factors that played a major role in the development of the sector. In the first part, after a short overview on the deregulation process in Europe, we analyse the Italian context focusing on the history of the former flag carrier *Alitalia* and on the role of the medium/small airports that raised their importance after the deregulation process. In the second part, starting from three case studies, we analyze the relationships between air carrier and airport considering the tools used by the latter to attract

carriers. We point out as these strategies together with the absence of a factual transport policy, led to the proliferation of airports whose losses are, in the majority of cases, covered by the public subject. The scheme for a national plan for airports (MIT, 2013) presented at the beginning of 2013 by the government, seems to be the first step toward a more rational framework of the sector. Finally, conclusions will be drawn.

1. THE DEREGULATION PROCESS IN EUROPE

The deregulation process in Europe followed four steps (Graham, 1997, 1998; ELFA, 2004; Malighetti et al. 2008) that led to a unique domestic market for the continent. Following the deregulation process of the 90's, other agreements have been defined to further liberalize the market; for example, on 30 March 2008, the EU-US Open Aviation Agreement¹ went into effect allowing any airline of the EU and of the US to fly between any point in the EU and in the US². On the supply side, the main result of the deregulation process has been the entrance and the development of low cost carriers that, thanks to a completely new managerial strategy, have been able to gain growing market shares both on national and international routes³ reaching the first positions⁴ in the European ranking per passengers carried (CAPA, 2011). According to many researchers (Graham 1997; Oum et al. 2009) liberalization entails a series of changes to the air transport sector such as an increased competition among airlines (which in turns leads to a decrease in the level of fares), an increase in service quality (in terms of flight frequency, routes served, more flexible fares, enhanced service levels and more extensive connection possibilities, etc) and an improvement in productive efficiency of the airlines (since they are forced to optimize their network and strategy).

In general, liberalization determined a growth in passenger traffic both in main and in medium/small underused secondary airports located in areas with a latent demand for air transport (both new demand and diverted demand from more expensive transport alternatives) (Dobruszkes, 2006). LCC carriers also forced airports to change the way they conduct their business since, the capability of an airlines to guarantee high level of passengers in an airports, creates an asymmetry between the two partners, with more market power in the hands of the airlines (Barbot, 2006). In the case of airports closely located, this situation pushes the airports to compete harder (through low landing charges and/or handling fees, co-marketing agreements, etc) to attract carriers (Barret, 2000 and 2004).

2. THE ITALIAN CONTEXT

Prior to deregulation, as for other European countries, the air transport sector in Italy was strictly dependent from the former publicly-owned flag carrier *Alitalia*, operating from its main

¹ In 2006 there had been the open sky agreement between EU and Morocco.

² On the contrary, while US airlines are allowed to operate intra-EU flights European airlines are not permitted to operate intra-US flights.

³ European Commission, Transport Statistical Pocketbook 2009-2012.

⁴ This is the case of Ryanair and easyJet

airport in Rome and from few other airports. The network structure was not a properly defined hub and spoke, even if the national network was in connection with international and intercontinental services. Following the liberalization of air transport, Italy witnessed a considerable growth in terms of passengers. In the following paragraph, we will analyze the national airports' framework, then we will recall the weak situation of Alitalia trying to identify the elements that contributed to the actual situation of the sector.

2.1. Italian air market and airport framework

In Italy there are currently (2011) 46 airports, differing both for their scale and type of operation, for which statistics are published annually by ENAC⁵.

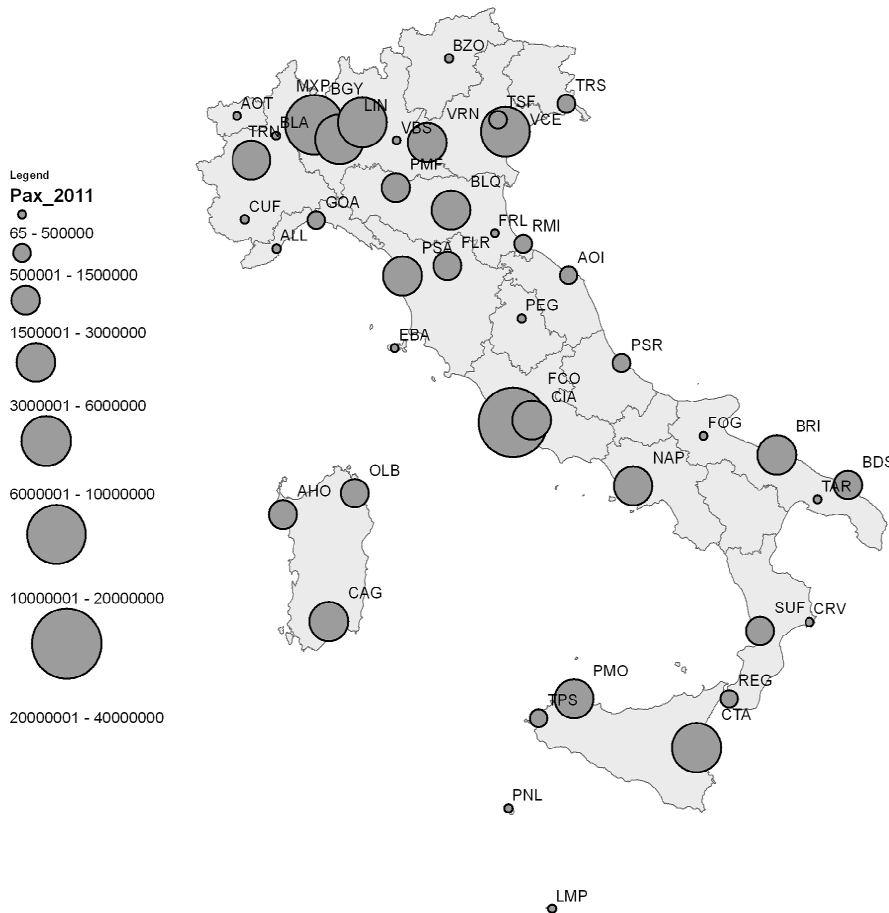


Figure 1 - Italian airports, 2011 passengers (source: our elaboration on ENAC 2011)

If we compare the Italian values with those of other European countries, we can stress similarities and differences.

With respect to the number of big and medium airports (i.e. airports with more than 1 Million passengers), Italian figures are comparable with other countries, while considering small

⁵ Enac - the Italian Civil Aviation Authority - was established on 25th July 1997 by Legislative Decree no.250/97 as the National Authority committed to oversee the technical regulation, the surveillance and the control in the civil aviation field (source: ENAC website accessed 24 October 2012).

airports with less than 0.5M passengers per year⁶ Italy seems to have a lower number compared to the other nations⁷.

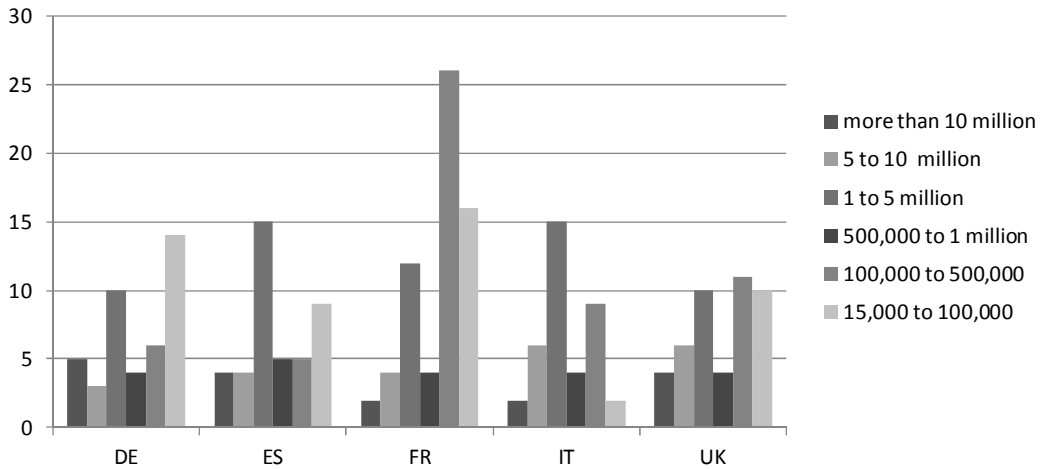


Figure 2 - Number of airports per passengers carried in 2010 (source: Transport Statistical Pocketbook 2012)

Considering the demand trends for Italy, we observe a constant growth in terms of passengers and cargo with slowdowns in correspondence with economic crises or other events followed always by a constant recovery, in particular for the passenger sector. The 2007 financial crisis represents the highest traffic slowdown in the last twenty years, still unrecovered.

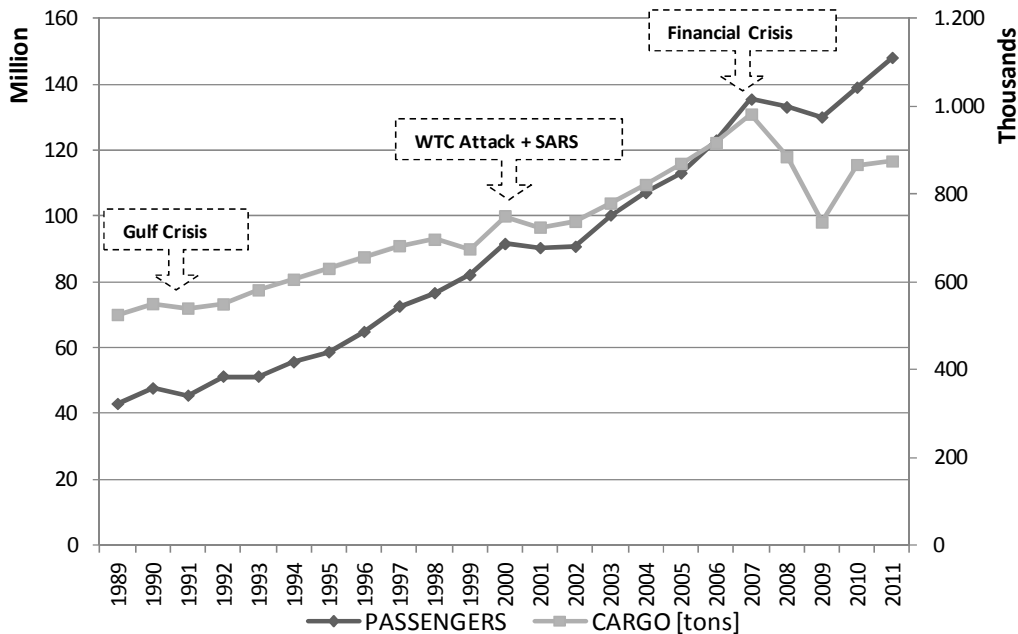


Figure 3 - Italian trend for passengers (left axis) and cargo (source: for values 1989-1993 Italian National Statistical Institute historical series, for values 1994-2011 Enac Annuario statistico)

Comparing domestic and international trend for passengers, an higher CAGR 2000-2011 can be observed for international traffic (5.63%) with respect to the domestic one (3.14%). The

⁶ According to (EC, 2002) the transition point for an airport to become profitable appears to be in the order of about 0.5M passengers per annum.

⁷ Nevertheless, considering ENAC data (2011) Italy has also seven airports with less than 15000 passengers.

growth trend for international traffic has followed a constant path since 2003, corresponding, somehow, to the increase of LCCs presence in the Italian airports (Bergamo, Roma - Ciampino, Pisa, Catania, etc).

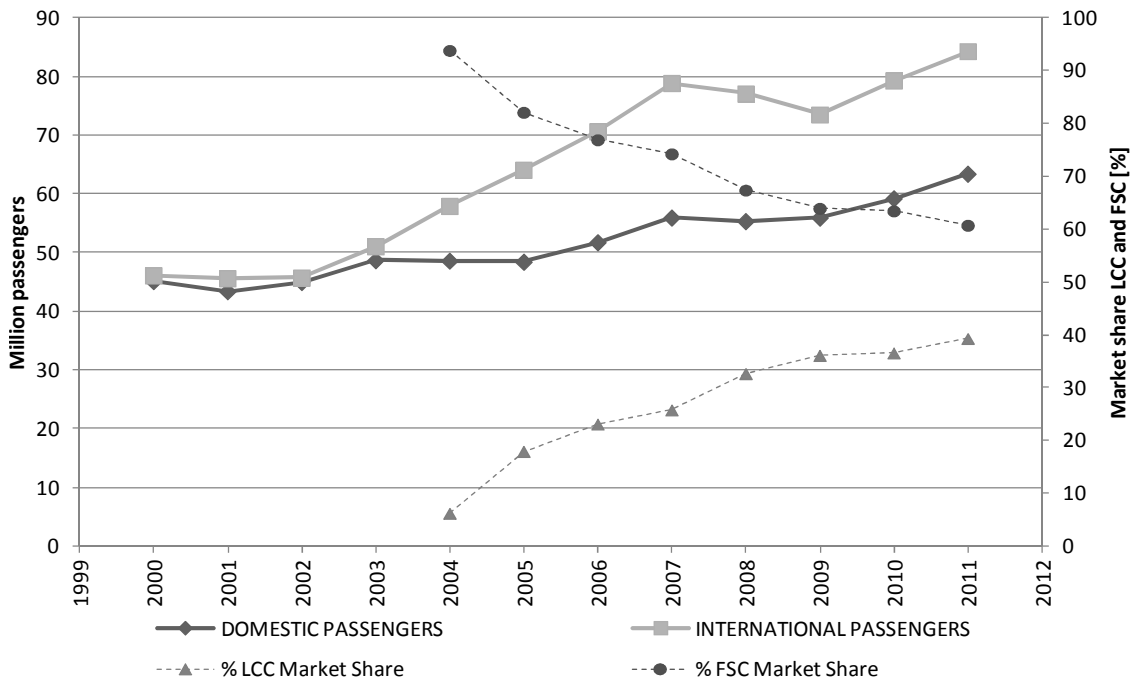


Figure 4 - Domestic and international trend for passengers in Italy in comparison with market share (right axis) for both LCC and FSC (source: Assoaeroporti⁸ annual statistics, Enac Annuario statistico)

According to DLR (2008), in no other European country there are more airports served by LCCs than in Italy. In the last years, LCCs in Italy have increased their role while FSCs have reduced their market share. This is largely due to the failure of the former flag carrier Alitalia which has not been able to face the new scenario derived from the liberalization, but also due to the limited involvement of other FSC into Italian domestic network.

In the majority of cases, LCCs use secondary airports with idle capacity located in areas previously not served by FSC; the analysis of 2000 – 2011 CAGR data⁹ confirms that, whereas there is (or there was) a LCC, traffic trend has been faster (always above 10%) than the average value for Italy (4.48%). The following figure compares CAGR values and LCC share in the airports where this increase has been faster. In almost all the cases, Ryanair is the dominant carrier.

⁸ Assoaeroporti is the association that represents the major Italian airports operators

⁹ We consider here only values over 11%.

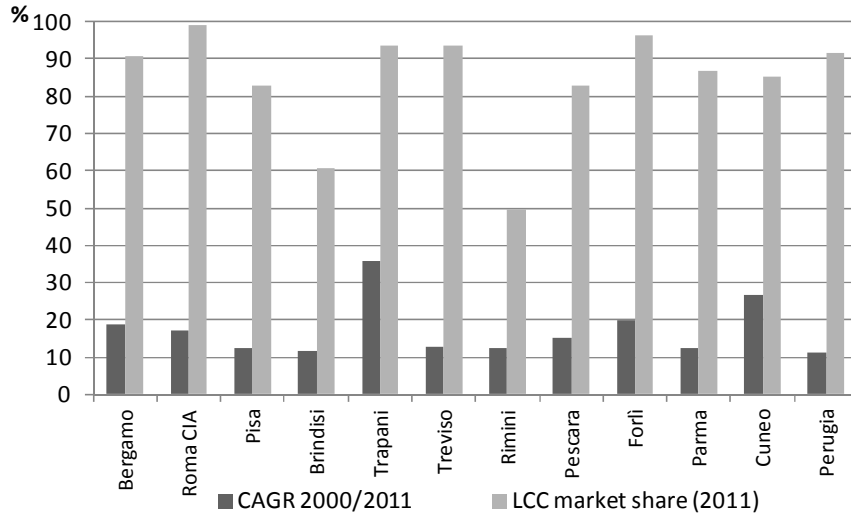


Figure 5 - CAGR and LCC market share in the airports with the highest increase in passengers traffic (source: our elaboration on Enac statistics 2000-2011)

A research made by KMPG (2011) points out how the distribution of LCCs' traffic in Italy is located mainly in medium-small catchment areas (i.e. less than 0.5M inhabitants). Moreover, while in the rest of Europe LCC serve generally big airports (i.e. over 5M passengers), in Italy seems to prevail a much more homogeneous distribution among the airports, including the main ones (Milan Malpensa, Venice and Rome Fiumicino)¹⁰.

Analysing traffic data (2011) for the 46 Italian airports with respect to total traffic, it emerges that the first five airports serve more than 50% of the total traffic while this value reaches nearly the 90% if we consider the first fifteen airports. Rome and the two Milan's airports historically play a major role while regional airports such as Bologna, Napoli, Venice and Catania, with an high mix of LCC and FSC carrier, have gained increasing importance following the deregulation process.

¹⁰ In Milano Malpensa's airport, the second one in terms of passengers carried, one of the two terminals is specifically for easyJet. Trapani's and Pisa's airports are nearly served only by LCCs.

Airport	Pax (2011)	Ownership (2012)	% Tot Traffic	% LCC (2011)
Roma FCO	37.406.099	MIX PRIV	25,28	17,50
Milano MXP	19.087.098	MIX PUB	12,90	36,40
Milano LIN	9.061.749	MIX PUB	6,13	6,80
Venice	8.507.691	MIX PRIV	5,75	39,00
Bergamo	8.338.656	MIX PUB	5,64	90,80
Catania	6.774.782	PUB	4,58	41,00
Bologna	5.815.971	MIX PUB	3,93	41,00
Naples	5.725.033	MIX PRIV	3,87	35,60
Palermo	4.944.311	MIX PUB	3,34	48,80
Roma CIA	4.776.919	MIX PRIV	3,23	99,10
Pisa	4.517.166	MIX PUB	3,05	83,00
Bari	3.708.441	PUB	2,51	56,00
Turin	3.700.108	MIX PUB	2,50	24,70
Cagliari	3.685.564	MIX PUB	2,49	49,40
Verona	3.342.804	MIX PUB	2,26	34,20

Table 1 - Main data for the first fifteen Italian airports (source: our elaboration on ENAC, 2011 and airports' company information)

Concerning the airports' ownership, Italy follows the European trend where the public presence is still strong¹¹ (ACI 2010). Considering the airports wholly in public hands and those with a major public presence, the value reaches nearly the 75% of the total number. Among the first fifteen airports per passengers carried in 2011, eight are publicly or nearly publicly owned while only the ones in Rome, Venice and Naples have private majority.

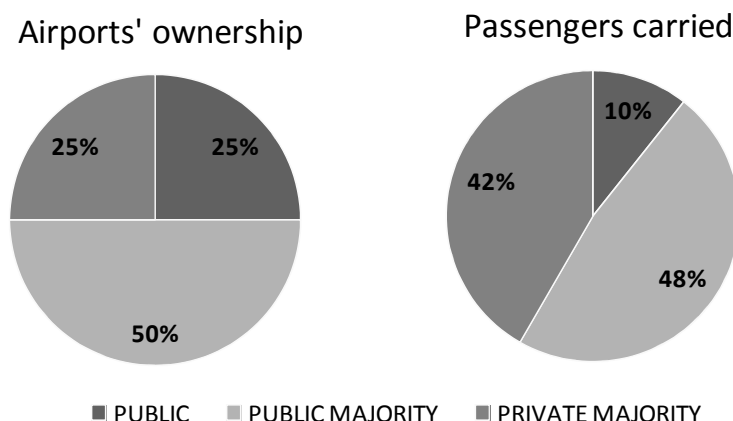


Figure 6 - Ownership of Italian airports (left figure) and passengers carried according to the nature of the airports (our elaboration on ENAC 2009, websites of airport operators). NOTE: public or private majority refers to a situation where the public or private sector owns a majority share in the airport operator

For the next years, due to the critical financial situation of many medium and small airports or to fulfil the financial needs of public administrations, an increase in the private presence could be foreseen (Milan, Forlì, Salerno, Turin, Genoa have already planned the privatization or the reduction of the public share for their airports).

¹¹ According to the ACI Report on airports' ownership (2010), "the 78% of publicly owned airports handled 52% of total European passenger traffic whereas mixed public-private ownership or fully privatised airports handled 48% of all European passenger traffic (22% of the total number of airports)".

2.2. Alitalia: an Italian novel

We will shortly recall here the main points of Alitalia's story¹², for further details see Beria et al. 2011 and Giuricin 2009.

Alitalia - Linee Aeree Italiane S.p.A. (hereafter AZ), has been the Italian flag carrier since its foundation in 1946. It was 100 per cent owned by the Italian Treasury and it has been the monopolist in the Italian market until the deregulation process. The story of the carrier is characterised by a series of difficulties in which bad management capacity, government and political interference, the strong influence of trade unions determined huge losses promptly covered by public intervention (Beria et al, 2011); it has been estimated (Giuricin, 2009) that between 1996 and 2008, governments gave more than 4 billion euro to save AZ, nevertheless this did not avoid the bankruptcy that occurred in 2008.

Until the mid 90s AZ was the only Italian operator up to the entrance of Meridiana and Airone; the former acted more as an ally due to several code sharing agreement while the latter has been the only significant competitor for AZ for more than a decade (Spagnuolo, 2000). Until 1997, Alitalia's ASK trends was comparable with that of the main European airlines (Bergamini et al., 2010). At the end of the 1990s, competitors were expanding their markets through mergers and strategic alliances (Fan et al., 2001), also AZ signed, in January 1999, the merger/alliance with KLM which was scheduled for completion at the end of 2000. One of the pillars of such merger was the opening of a new hub in Milano Malpensa in October 1998. So, many flights were transferred from Roma Fiumicino, while operations in the other Milan's airport, Linate, were strongly reduced by law¹³. However the merger between the two carriers ended in August 2001, as decided one-sidedly by the Dutch carrier which imputed the failure of the partnership to the insufficient development of MXP (Alitalia moved only the flights but not the base and progressively returned flights back to Roma) and AZ's incomplete privatization (Beria et al., 2011).

At the beginning of the new millennium, AZ was in a very weak situation, being without a strong partner (in 2001 it joined SkyTeam alliance), operating from two closely located hubs and facing increasing competition, also from Low Cost Carriers. The result of all these factors has been a constant loss of market shares both on domestic and international routes; in particular, in Europe and Asia, between 1996 and 2006 it lost 14.8% and 10.6% of its market share (Bergamini et al.). The following figures compares Italy's and AZ's trends for passengers; despite the overall growth of traffic in Italy, Alitalia values have been constant or declining while its competitors, including LCC, have increased their market share. Passengers traffic in Italy grew with a CAGR of 4.48% during 2000-2011 while, in the same period, AZ has had a CAGR of only 0.66%. The domestic market share fell from 80% to 44% between 1996 and 2005 and the European market share from 22.5% of 2002 to 17.4% of 2005 (Boitani and Scarpa, 2006).

¹² Following the liberalization of the sector, many other carriers failed in Italy. In many cases they were low cost carriers unable to face the strong competition from foreign airlines (e.g. Volareweb, Alpe Eagles, Azzurra Air, Air Bee, myair.com, Windjet).

¹³ Two Decrees (3 March 2000 and 5 January 2001) identified Linate as the national and Community airport for point to point connections, fixing at 18 the number of hourly movements in the airport.

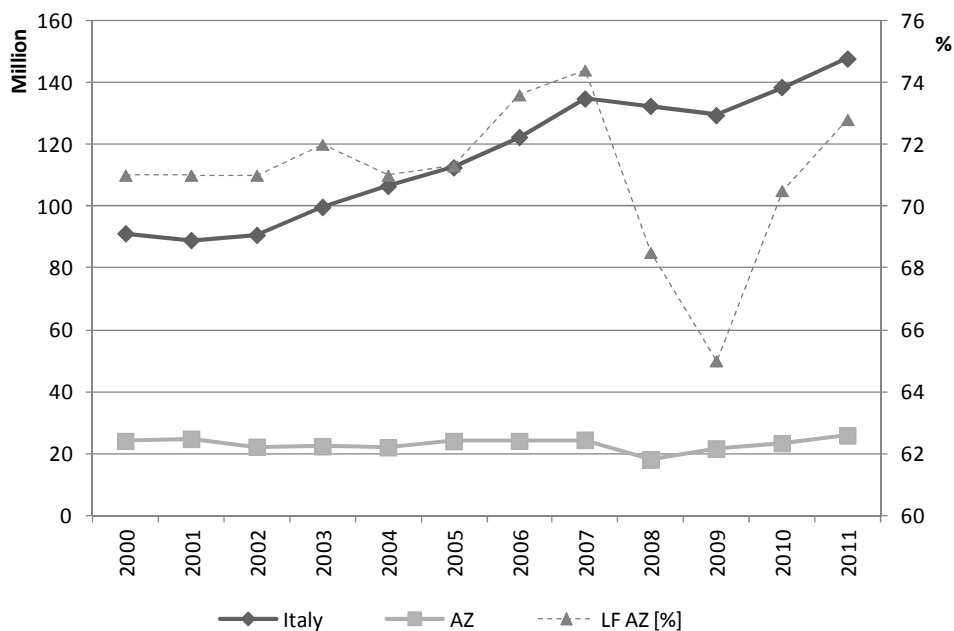


Figure 7 - Alitalia load factor trend (right axis) and traffic trends for Alitalia and Italy (our elaboration on Enac 2000-2004 and 2011, AEA 2005-2010)

In the following years, several attempts were made to privatize the carrier (see Beria et al. 2011 for a detailed description), whose financial situation worsened every year up to 2006 when losses increased to around 2 Million Euros per day (Scarpa, 2007).

Finally, the privatization took place in 2008¹⁴ through the creation of a “bad company” which involved the setting of a large redundancy fund. A group of 16 Italian shareholders (including the former main domestic competitor *Airone*), made an offer to buy the “good company”. The new carrier, called *Compagnia Aerea Italiana* (CAI), began operations in January 2009, according to an hub and spoke scheme. Many flights from Milan Malpensa were transferred back to Rome while Alitalia’s monopolistic position¹⁵ remained on the most valuable domestic route between Milano Linate and Rome Fiumicino.

Concluding, the merger with KLM, could have stopped the declining condition of Alitalia, also thanks to the elimination of any political interference and the introduction of strict management strategies. The failure of the initiative left Alitalia in a weak situation with its structural problems (absence of a real industrial plan, double hub scheme, low productivity, strong trade unions, high cost) unresolved and amplified within the new framework derived from the deregulation. The result has been the loss of market share in national and international markets in favour of both new entrants and old rivals.

¹⁴ Previously, the attempt to sell the carrier to AirFrance/KLM, had failed due to both trade unions refusal to accept Air France's proposal on labour issues and political interference.

¹⁵ During the privatization process, a specific legislation (Law 166/2008), had deprived the Italian Competition Authority (AGCM) of its powers to effectively review the merger between Alitalia and Airone until 2012, including the possibility to introduce remedies to remove Alitalia’s dominant position in key Italian routes. On April 2012, AGCM underlined the monopolistic situation on the Linate-Fiumicino route imposing the removal of the market power (AGCM, 2012).

3. AIRLINES AND AIRPORTS: RELATIONS AND IMPLICATIONS

In the previous paragraphs, we presented the overall Italian framework, in the following paragraph, after a short recall of the European point of view on state aids in the aviation sector, we will focus on the relation between airports and airlines. Starting from three case studies, we will discuss the tools adopted by airports to attract airline.

3.1. European point of view on state aids in the aviation sector

In September 2005, the European Commission (hereafter EC) adopted the *Community guidelines on financing of airports and start-up aid to airlines departing from regional airports* which took account of changes which had taken place in the European aviation market and expressed the Commission's point of view on this matter. The guidelines cover two major areas, namely the start-up aid for new air routes and the financing of airport infrastructure and operations.

According to the Guidelines, any measure which may constitute State aid to an airport must be notified so that its impact on competition and trade between Member States can be examined (EC, 2005). In terms of start-up aid, the "principle of the private investor"¹⁶ should be applied, so it is possible for a public airport to give an airline financial advantages from its own resources generated by its business activity, if it proves to be acting as a private investor, for example by providing a business plan setting out the profitability forecasts for its airport economic activity. In particular, (for a detailed description see EC, 2005) according to the guidelines:

1. Start-up aid must be notified to the Commission, that evaluates them;
2. Financial start-up incentives could be provided for routes linking a regional airport in category C or D to another EU airport¹⁷;
3. Aid will apply only to the opening of new routes or new schedules, which will lead to an increase in the net volume of passengers;
4. Start-up aid must be degressive and of limited duration¹⁸, that is the route receiving the aid must ultimately prove profitable;

¹⁶ A measure could be considered a state aid if a private investor acting in a free market would not participate in the transaction.

¹⁷ EC categories for airports are A: 'large Community airports' with more than 10 million passengers a year; B: 'national airports', with an annual passenger volume of between 5 and 10 million; C: 'large regional airports', with an annual passenger volume of between 1 and 5 million; D: 'small regional airports' with an annual passenger volume of less than 1 million.

¹⁸ For routes from disadvantaged regions, degressive aid may be granted for a maximum period of five years, it may be maintained at 50 % of total eligible costs for the initial three years.

5. Degressive aid may be granted for a maximum period of three years. The amount of the aid in any one year may not exceed 50 % of total eligible costs for that year and total aid may not exceed an average of 30 % of eligible costs.

Moreover, any granting of start-up aid should be adequately made public and any airline submitting its application should provide a business plan showing, over a substantial period, the viability of the route after the aid has expired. Finally, the aid should be stopped once the objectives in terms of passengers have been reached or when the line breaks even, even if this is achieved before the end of the period initially foreseen.

Following the publication of the guidelines, the European Commission has opened several investigations involving airports in many countries (Italy, France, Germany, Austria, Sweden, etc). According to the commission, many agreements between airports and carriers, as well as rebates and marketing, are not in line with EU State aid rules¹⁹ and in particular they do not respect the market economy investor principle. Also few Italian airports are (Alghero) or have been under investigation (Grosseto) by EC to check the conformity to EU state aid rules of several support measures used by them.

In 2011 the Commission started a public consultation²⁰ involving member States and stakeholders to provide feedback on the application of guideline as well as any comments and proposals regarding the public financing of airports and airlines. From this consultation emerged that guidelines have been conceived as overly complicated and thus quite difficult to apply. The Commission will then revise and update the rules – covering both airlines and the financing of airport infrastructure – to consider also the changes that have occurred in the market during the last years.

4. THE ITALIAN CONTEXT AS A RESULT OF THE RELATION BETWEEN AIRPORTS AND AIRLINES

Following the liberalization of air transport, some medium/small airports (for example Bergamo, Pisa, Catania) have gained a major role in the Italian market due to the presence of a LCC. In general terms, there is a trade off between the presence of a LCC (which means high passenger numbers and, in theory, additional expenditure in the local economy) and the costs associated to this choice (discounted airports charges, marketing partnership, etc) over time. The positive results of these airports, in terms of traffic and local development, furthered the idea that any airport could regenerate regional economy (stimulating tourism, providing connections towards larger cities and creating new jobs) if adequately made capable to attract LCCs. However, concerning the positive impact on the overall regional economy due to air traffic, although some studies point out that airports' contribution to the overall economy of the areas they serve could be substantial (York Aviation, 2004), it is

¹⁹ European Commission - Press release. "State aid: Commission investigates potential state aid at Carcassonne airport in France". 04/04/2012

²⁰ European Commission. Consultation on review of the Community guidelines on financing of airports and start-up aid to airlines departing from regional airports. Period of consultation from 07.04.2011 to 07.06.2011

difficult to individuate and measure the impacts since the causality between air transport services and regional economic development is blurred and sometimes circular (Graham, 2003; Williams and Baláž, 2009).

The result of this context has been an irrational race to open new airports that determined an oversupply of airports with no consideration related to the catchment area to be served and the number of airports already existing in the area. These airports often tried also to attract carriers by means of rebates, implicit subsidies, expensive co-marketing practices, enlarging the losses. Finally, since the majority of these airports are in public hands the result, in many cases, has been, the use of public money to cover the deficits incurred and scarce or none results both in transport and local development.

4.1. Tools to attract airlines

In accordance with EC guidelines, an airport operator willing to grant start-up aid should select one or more air carriers through an open and non-discriminatory tender procedure. Competition between airports to attract airlines led many of them to implement new strategies. Here we summarize the main tools applied and the conditions that make them consistent with law, while in the next paragraph we will deepen some of these strategies starting from the analysis of case studies.

1. Co-marketing agreement: strategic partnership between airports and airlines aimed at offering to carriers the opportunity to reduce their start-up costs related to new routes in exchange of marketing and advertising activities paid by the airport or by the local authorities to the carrier. In general the contribution is linked to a defined volume of passengers and number of flights for each destination that the carrier will guarantee to the airport;
2. Direct subsidies: the airport or the local authority makes available a certain amount of money to support the opening of new routes, usually under the guarantee of a certain supply or a certain number of carried passengers;
3. Discount on landing and/or terminal charges: discounts in the form of rebates or reductions on the published tariffs over a relatively short period of time;
4. Revenues guarantees: the airport guarantees that the airline will achieve a certain level of revenues or a certain load factor, otherwise the airport will pay the shortfall or will pay up to a fixed amount (Copenhagen Economics, 2012).

In principle, if the advantages are made on a transparent and non discriminatory principles, no state aid rule should apply as the airport is not “favouring” a particular undertaking (EC, 2002). The reality differs from this principle since in many cases airports offer discounted charges although these are not published or incorporated in a transparent structure of tariffs, or they offer marketing grants exclusively to one carrier. This suggests the idea that the scale of discounts and grants is subject to secret negotiation between airlines and airports (ibid).

In the following paragraph we will deepen some of the strategies listed above; we will first discuss the case of Aeroporti di Puglia which initially relied upon a publicly open procedure to

stimulate traffic in its airports. Then we will discuss the main tools used by airports to attract carriers analyzing the experience of Alghero's airport. Finally the situation of Emilia Romagna Region will be presented, where its four airports compete within the same catchment area.

4.2. Tender procedures: the case of Aeroporti di Puglia

Aeroporti di Puglia (AdP), owned by the local regional government, manages four airports (Bari, Brindisi, Foggia, Taranto) in the southern Italian region Puglia. The four airports, all together, had 5.8 Million pax in 2011; they played a major role in the development of Puglia in the last years contributing to tourism growth and internationalization of local companies.

Since 2007, airports' role is strictly dependent from public funds for the development of new routes. In 2007 AdP, following section 5 of 2005 Aviation Guidelines, asked for bids for a number of new routes departing from the airports of Bari, Brindisi and Foggia. The total maximum amount of financial aids for the start up of the new routes was 63 Million euro divided into 16 lots, each referring to a single international route, and into 8 lots, each referring to a single national route²¹.

On April 2007, the measure was approved by the Commission²² since the aid was designed to help airlines wishing to establish new routes to/from the airports by meeting part of their start-up costs and route specific marketing aid. In particular, the Commission found the measure in line with 2005 Guidelines since the aid was:

1. available to all operators in a transparent and non-discriminatory manner;
2. limited to three years for each new route;
3. limited to 40% of eligible costs;
4. to be paid out on the basis of a business plan.

Only a limited number of carriers made offers, in the majority of cases only one carrier, myAir.com (AdP, 2010), an Italian low cost carrier, applied for the routes. According to Alderighi and Baccelli (2007) the strict rules of the public notice concerning both the modality to provide the contribution and penalties in case of withdrawal, have determined a low number of possible candidates.

To reach a satisfactory level of coverage, AdP then issued other two selective procurement procedures for the granting of public contributions to start up new air routes in the airport of Brindisi and Foggia²³. In the fall of 2009, myAir.com failed, this forced AdP to identify, where possible, carriers available to replace myAir.com on those routes and to sign agreements

²¹ Aeroporti di Puglia public notice published on 23 February 2007

²² Decision C(2007) 1404 (see European Commission press release Reference: IP/07/474 Event Date: 04/04/2007)

²³ Respectively on 25 July 2007 and on 9 November 2007.

with Darwin Airlines²⁴, Air Berlin, Lufthansa and WizzAir. In the summer of 2009, AdP carried out a market research to identify companies willing to base their aircraft in Puglia's airports. The only company that showed interest was Ryanair, with which, according to a specific resolution of the shareholders of Airports of Puglia, a five years agreement was signed in September 2009 (AdP, 2010). The agreement consists of two parts, the so called "airport service agreement", signed between Ryanair and AdP concerns the positioning of three aircraft at the airports of Bari and Brindisi. The second part, known as "marketing service agreement", signed between Ryanair and Puglia Region, concerns the promotion and marketing of the Puglia region through the website of Ryanair (Puglia Region, 2011). Nonetheless, the two agreements, signed with two different contractors, are related to the same object and make possible the opening of new routes from Puglia region. Concerning the total cost of this agreement for the Puglia region (owner of the airports) no detailed information is available due to confidentiality of the deal; according to press rumors²⁵, the cost for the five years agreement could reach 25 Million Euro.

In conclusion, the procedure of AdP based on a tender phase, should be considered the correct way to deal with start up aids; on the contrary, the negotiation procedure carried out with Ryanair and the following agreement, completely changed the idea, supported by EC, that public transfer should be assign according to non discriminatory and transparent procedure and must not be structural.

4.3. A synthesis of the tools to attract a LCC: the case of Alghero airport

Alghero's airport, owned by the local regional government, is an international airport situated in the insular Italian region Sardinia. With more than 1.5M passengers in 2011, it is the third airport of the island (after those of Cagliari and Olbia). Air transport is essential for residents and it also has a central role for tourism. As the 96% of all European airports, small or large (Copenhagen Economics, 2012), also SOGEAAL, the airport's operator, started actively marketing its airport to airlines.

In 2002, Sardinia Region signed an agreement with Ryanair, followed by the one between the carrier and SOGEAAL²⁶. In 2007, as a consequence of a complaint from a competing airline, European Commission started an investigation to check the conformity to EU state aid rules of a capital increase granted to SOGEAAL and of contracts between the operator and airlines for the use of the airport infrastructure and the provision of marketing services. Due to the confidentiality of these agreements, no detailed information are available; in the following discussion we will mainly refer to EC (2008).

Following the 2002 agreement, other two deals, lasting for ten years, were signed in 2003. The first one concerning co-marketing contributions²⁷ for the opening of international routes

²⁴ It operated routes from Foggia to Milan, Palermo and Turin until September 2011. According to AdP 2011, the total contribution given by Puglia Region from October 2008 to September 2011 to myAir and Darwin Airlines for the routes operated from Foggia is equal to 18 Million euro.

²⁵ La Gazzetta del Mezzogiorno, 4/09/2009.

²⁶ Followed by Marketing Agreement 2003, Handling Service Agreement 2003 and Supplemental Agreement 2006.

²⁷ Between [400 000 and 600 000 EUR] per year in relation to the first daily flight on an annual basis for each international route and between [200 000 and 450 000 EUR] per year for each second daily

covered mainly with money transferred by the regional government²⁸; the second agreement involving handling services. In 2006 the so called Supplemental Agreement was signed between the two parts; it foresaw a good performance reward per passenger carried ("success fee") that is linked to the number of passengers and flights operated annually.

Concerning the discounted fees, the Commission underlines that between 2003 and 2006 Ryanair had paid a lump sum of 129 Euros per rotation instead of the published rate of 930 Euros per rotation, which applied to the same type of aircraft.

According to EC (2008) investigation, SOGEAAL seems to operate with high losses, both in the handling services and in the general management²⁹. These losses seem related, at least in part, to the grants and the reductions given to low cost airlines. According to official documents of the Sardinia region (see Table 2) and to EC (2008), the regional government has constantly transferred money to SOGEAAL. The Region of Sardinia reimbursed SOGEAAL, from 2002 to 2007, a significant portion of the costs incurred due to its agreement with Ryanair for a total amount between 7,000,000 and 9,000,000 EUR (EC 2008). Secondly, the public shareholders of SOGEAAL has given the company a capital increase of € 4 million (ibid).

Notwithstanding the EC investigation, the regional law n. 10 approved in 2010, has foreseen both the recapitalization of Alghero's airport (thanks to 10M€, transferred from the regional budget) and resources for the financing of the three main airports of the region (in total 21M€ for 2011, 21.5M€ for 2012 and 2013). In January 2013, European Commission has opened an in-depth investigation to examine whether this scheme is in line with EU state aid rules³⁰.

Year	2005	2006	2007	2008	2009	2010
Losses [M€]	n.a.	1.1	1.8	4.5	12.4	n.a.
Public appropriation [M€]	3.2*	2.7**	3.4***	3 ^o	2.4 ^{oo}	10 ^{ooo}

Table 2 - Losses and public allocation for Alghero's airport. The public allocation refers to the subsidy foreseen by Sardinia region, it could be possible that in the end, due to political decision, the money have not been transferred to SOGEAAL. (elaboration on Enac, 2009, *Sardina regional resolution n. 9/1 of 9.3.2005 and n. 39/3 of 5.8.2005, *. *Sardina regional resolution n. 30/9 of 11.7.2006, ***Sardina regional resolution n. 40/7 of 9.10.2007, °Sardina regional resolution n. 71/37 of 16.12.2008, °°Sardina regional resolution n. 6/1 of 23.1.2009, °°°Regional Law n.10 of 13.04.2010).

The Alghero's case shows the strong role of public subjects in determining the regional aviation policy. The absence of a public procedure to select the airlines³¹ to which assign grants and the constant transfers from the public stakeholders, may have distorted competition and thus reduced the pressure towards efficiency in public spending. In February

flight during the summer season only. Plus a one-off payment contribution between [100 000 and 300 000 EUR] for the first

year of exploitation of each international route and between [25 000 and 100 000 EUR] for the second and third year (each) of exploitation of this new route (EC, 2008).

²⁸ According to the 2002 convention, the Region of Sardinia reimburses SOGEAAL, restoring in this way the contributions paid to Ryanair (EC 2008, point 69).

²⁹ Until 2007, due to the partial concession regime, SOGEAAL could not rely on non-aviation revenues to compensate the losses resulting from activities related to air services.

³⁰ Moreover, the EC points out how the scheme has already been implemented, without the required Commission approval concerning state aid projects and it also doubts about the respect of the *criteria regarding a clear definition of the public service remit and the selection of the service at the least cost.*

³¹ Concerning the advantages granted to Ryanair in 2003, the Commission notes that no adequate announcement had been given in order to allow other carriers to benefit from them (EC, 2008 point 139).

2013, EC extended its investigation in order to verify also infrastructure subsidies, additional state support and increase of capital and contracts with other airlines operating at the airport.

4.4. The war between airports: the case of Emilia-Romagna Region

Emilia-Romagna region (hereafter ER) has four airports: Forlì, Bologna, Rimini and Parma, all closely located along the axis of the A1 highway. The first three have a public majority while Parma has a lower presence of public stakeholders. Assuming a definition³² of catchment area that considers the percent of population within one hour driving time to the airport, the three airports clearly compete for the same traffic as their catchment areas overlap.

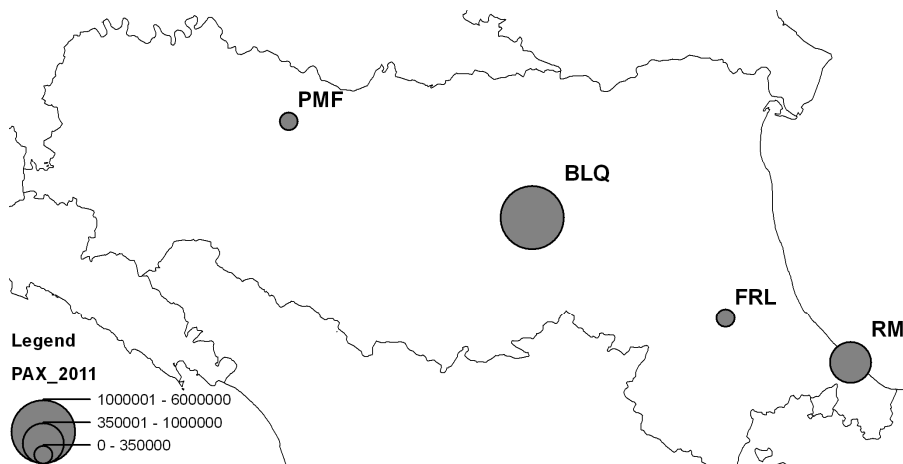


Figure 8 - Passengers carried in 2011 (our elaboration on Assaeroporti 2011). BLQ (Bologna), PMF (Parma), FRL (Forlì), RMI (Rimini)

Moreover, the typology of passenger, at least for three of them (Rimini, Forlì and Parma), is mainly low cost customer. This leads to an increase in the competition between airports since a low cost passenger values time less and is then prepared to travel further to another airport if it has cheaper flights. As a result, this situation has brought to a critical financial situation for the three airports strictly dependent from a LCC.

	Pax (2011)	National	International	CAGR 00/11	LCC (2011)	Dominant carrier	Public Share
Bologna	5.815.971	29,3%	70,7%	4,66%	41,00%	Ryanair	86%
Forlì	344.314	13,9%	86,1%	20,10%	96,10%	until 2008 Ryanair, from 2011 Windjet now Wizzair	97%
Parma	268.618	74,7%	25,3%	12,28%	86,70%	Ryanair	21%
Rimini	916.239	25,1%	74,9%	12,49%	49,70%	Ryanair	75%

Table 3 - Main data for the three ER airports (our elaborations on ENAC, 2011)

Bologna, the main city of the region, due to its central position (highly connected both with highways and railways) and the presence of LCC and traditional carriers, has experienced a constant traffic growth. Rimini's results are strongly related to the tourism sector (one third of

³² In general it depends from the type of passengers considered, for domestic flights the catchment area is lower than international flights.

the total passengers in 2011 come from charter services), since it is one of the most important tourist destination at the European level. Finally, Forlì and Parma, classifiable as small regional airports, compete with the other two for charter and low cost traffic (Forlì versus Rimini) and for the passengers coming from the North-East of the region (Parma versus Bologna).

LCCs, in particular Ryanair, have played a central role in the traffic growth of Forlì's, Rimini's and Parma's airports. The following figure represents the traffic trends for the three airports (Bologna is not considered due to its higher number of passengers).

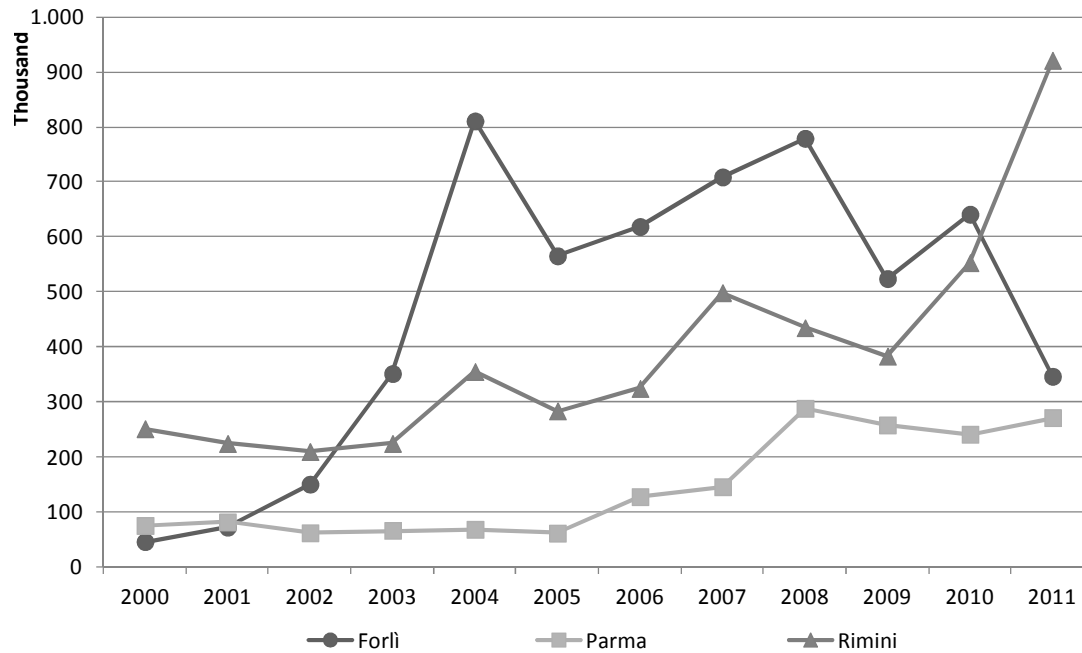


Figure 9 - Passengers carried (our elaboration on Assaeroporti 2000/2011)

During the last decade, Forlì's airport has experienced strong variations in traffic figures. The peak in 2004 derives from the repositioning of flights consequence of the temporary closure of Bologna's airport, but in 2008 it reached nearly the same amount of passengers thanks to the presence of Ryanair. The growth trend was then stopped in October 2008, when Ryanair, which was the dominant carrier, left the airport in favour of Bologna's one. Following this defection, the management started to negotiate with WindJet, an Italian LCC, that started operation in march 2009. In 2011, the airport lost again its dominant carrier which moved its operations to Rimini. As many other airports, also Forlì based its transport policy on co-marketing agreements and revenues guarantees contract (Forlì 2009 and 2010).

Concerning the airport of Rimini, until the entrance of LCCs, the charter sector assured constant traffic in particular during the summer period (in particular from the eastern Europe and Russia). The doubling in traffic value in 2007, derives mainly from the new routes added by low cost carriers (Rimini, 2007), in many case not confirmed in 2008, which contributed, together with the first effects of the financial crisis, to the slowdown of traffic. In order to recover traffic values, Rimini's airport strongly increased its co-marketing activity; in November 2010, the airport operator signed a five years contract with WindJet, previously operating from Forlì. This contract foresaw a revenues guarantees mechanism which required the purchase of tickets by the airport operator for an amount equal to 5.3M€ (Rimini,

2010) a year for five years starting from 2011. The initiatives of the airport operator together with the opening of scheduled flights to Russia, the most important market for Rimini, have determined positive results in terms of traffic both in 2010 and 2011. In August 2012, WindJet has failed. In September, following the end of the five years contract, also Ryanair left the airport. So, figures for 2013 are likely to be much less satisfactory.

Year	2007	2008	2009	2010	2011
Forlì	-3.80	-5.70	-6.90	-9.70	-4.00
Rimini	0.01	-0.40	-2.50	-7.60	n.a.
Parma	-4.40	-4.20	-4.50	-4.60	-4.00

Table 4 - Profit and loss account results (source: airports' financial statements)

In order to face the critical situation of the two airports, ER region created and founded (1.5M€) a brand new publicly owned company, called SAR – Società Aeroporti Romagna SpA, whose objective was to promote the process of integration between the airports of Bologna, Rimini and Forlì. The withdrawal of Bologna's airport from this process, followed by the failure and liquidation procedure for the Forlì's one in 2012, determined the failure of SAR project.

The following decision to privatize Forlì's airport could not solve the problem; in this sense, the case of Parma's airport could be a good example. In fact among the four airports of the region, Parma is the only one with a private majority. In 2008, due to constant critical financial results, the public airport operator opened the company to private investors. The investment fund Meini Airports International, owned by the Meini Bank, took the 67% of the company with a recapitalization of the company for more than 15 million euro. Since then the financial and traffic values of the airports have not changed; according to press rumors³³, due to constant losses incurred by the airport, the private shareholder is favourable to the liquidation of the airport.

The case of Emilia Romagna's airports, shows the great role played by LCCs in the development of traffic volume and their great bargaining power which can translate into a war among airports. As underlined by Copenhagen Economics (2012), smaller airports do not negotiate with the same frequency and do not have the same quality of information about the terms the carriers can obtain elsewhere; this fact determines an asymmetry of information that strongly penalizes airports.

4.5. A possible tool: the National plan for Italy's airports

In order to provide a representation of the airport system in terms of current and future capacity and make the airport network more rational, ENAC, the Italian Civil Aviation Authority, drew up a proposal for the airports national plan (ENAC, 2012), upon request of the Ministry of Infrastructures and Transport. The study aimed at highlighting the weaknesses, the emerging needs, the possible solutions and the role of each airport. Starting from this study, in January 2013, the government proposed a first scheme for a

³³ www.parmaonline.info (accessed on November 2012)

national plan for airports (MIT, 2013) where it defines the strategic guidelines and identifies the airports of the national network. The main points of the scheme are:

1. stop the construction of new airports over the next twenty years;
2. transfer to the Regions the airports not of national relevance (region should then decide if keep airports open or not);
3. promote the implementation of economic and financial plans aimed at rebalancing management at a loss;
4. foster the privatization of the airports.

According to the Italian legislation, this proposal needs to be further discussed and approved by Regional institutions, however it is the first real attempt to limit the proliferation of airports and to give more importance also to an adequate management in the Italian context.

FINAL REMARKS

In this paper we presented the situation of the Italian market showing its dynamics, consequence of the deregulation process. The case of AdP shows how the rules in the EC guidelines are perceived as too complicated and strict, which translates into a scarce participation of airlines in the tender procedure and finally may led to negotiation procedures between airlines and airports. The evolution of the aviation sector and the entrance of LCC have modified the relation between airports and carriers; airlines are both able and willing to switch away from the airport if conditions are not satisfactory for them. Thereby airlines exert a competitive constraint on airports (Copenhagen economics, 2012). The case of Emilia Romagna's airports shows that the subsidization of routes, even if labelled as start-up subsidies, often does not translate into stable routes that are given up as soon as the subsidy ends. Clearly, this practice does not determine the long term success of the airport, and in many cases it is motivated only by political consensus.

In general, in making deals with low-cost airlines, airports trade off a reduction in aeronautical revenues in return for extra non-aeronautical revenues (Barret, 2004). LCC negotiate lower costs for guaranteeing long term passenger and new route growth. Whereas the airport offers reduced fees to carriers, it should be able to cover costs through non aeronautical revenues that, according to Graham (2009), may account for about half of all revenues of an airport. Secondary airports, generally, have few facilities and the management lacks marketing skills; this translates in very low incremental revenues from non aeronautical activities (car rentals, shops, car parking, advertising in the airport, bus shuttle service to the airport directly provided or contracted out through a concession). In order to increase these revenues airports generally invest in new infrastructures that, in turn, could involve more public funds which may not be recovered if traffic is lower than expectations. This risk is increased by the consideration that the majority of these airports have a dominant single carrier so they are more vulnerable to airline switching to other airports. In fact, for LCCs closing a base is often a strategic choice that reflects higher profitability or financial and marketing support at other airports (Copenhagen Economics

2012). The case of Alghero's airport shows the dynamics in an airport willing to attract a LCC.

In general, the decision to provide subsidies to an airport, following EC rules, could be a legitimate political decision to foster regional economy and to stimulate the creation of new jobs. However, transparency and non discrimination among the airlines should be always assured. *Ex ante* and *ex post* analysis, showing the economic benefits and the effects on employment, should drive and motivate the decision process in order to efficiently use public money. Reality shows how the efficiency of the financial efforts requested is seldom checked, moreover, the frequent cases of airports' bankruptcies point out that the benefits not always counterbalance the costs. At least for the revised cases, the transparency of such subsidies seems never sufficient to judge and justify the overall operation.

Concluding, the current situation in Italy suffers for the absence of a more comprehensive regulation policy that could had provided the tools to avoid the recent irrational proliferation of airports in Italy. A coordinated transport policy with the right mix of intermodality, investments and rules seems the right starting point to face the future challenges in the transport sector within a scenario of scarce public resources. The constraint on public subsidies to airports introduced in the proposed national plan, could be the first step towards a more rational framework. On the other hand, the national plan should not become a strict planning tool to determine *ex-ante* which airport should be developed. The aviation market proved to be highly volatile, which means that is not possible to anticipate demand and consumers' preferences which are at the basis of traffic flows (Giuricin 2012). On the other hand, it is also very adaptive, being capable of modifying quickly its market supply in order to respond to airlines needs. However, this is not true for airports, whose policies must be much more devoted to the long term. In general, the preliminary study of all the inputs that affect the viability of an infrastructure project (catchment area, environmental impact, infrastructure level and the socio-economic characteristics of the area) and the use of cost benefit analysis, could help decision makers to choose the best alternative which maximize the overall social well being.

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