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Options for Traffic Growth at Smaller European Airports Under the European Commission's Guidelines on State Aid

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Abstract

The European Commission will strongly cap state aid to airports from 2024, putting at risk many smaller airports failing to break even. Based on literature research and empirical cases, we assess public funding options to increase traffic and revenues of airports which are unlikely to infringe state aid rules. There is some scope to declare several airport functions as areas of non-economic nature, which would allow public bodies to take over costs without violating European state aid rules. In addition, boosting the number of air services operated as public service obligations and providing incentives may constitute legitimate options to improve airport financials. However, all forms of support described herein come at the taxpayers' expense, though.

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1. Introduction

The decentralized European airport landscape is characterized by an uneven distribution of flights (Suau-Sanchez, 2013). Larger airports are usually profitable, while smaller ones are highly challenged to recover even operational costs, not to mention full costs including investments, financing or depreciation (ACI Europe, 2016). Several factors contribute to the low profitability of small airports: Many regional airports are located outside large metropolitan areas where passenger potentials and hence the attractiveness for carriers may be limited. Low traffic levels then hamper cost recovery, as many positions of airport costs are fixed (see Fernandes et al., 2014 or Vogel, 2016). Apart from this cost burden, only a few low cost carriers (LCC) operate in general at smaller airports. The aim of the LCCs is to reduce costs, especially the cost of using airports, avoid complexity and exploit benefits (Warnock-Smith and Potter, 2005).

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2352-1465 © 2018 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0/) Selection and peer-review under responsibility of the scientific committee of the International Conference on Air Transport – INAIR 2018. 10.1016/j.trpro.2018.12.020 In addition, small airports are faced to a phenomenon called "route churn": major LCCs operate as pan-European carriers without being closely attached to a national home market, and rely to a large extent on outsourcing. This minimizes irreversible investments in particular airport bases and reduces switching costs (de Wit and Zuidberg, 2016). Thus, while LCCs dictate prices (Zuidberg, 2017), airports and their (usually public) owners can either lower airport charges, introduce inventive payments to attract LCC and boost passenger throughput, or maintain their old charging schemes and see passenger numbers decline. In these cases, operational losses and a need for state support are likely results (Kazda et al., 2017).

While the European Commission (EC) acknowledges that there might be a need for state intervention on airports with less than 3 million passengers (EC, 2014b), in several cases, the EC declared state aid to airlines or airports to be incompatible with the law (see EC, 2014a). This is making it difficult for airports providing an incentive for carriers. Moreover, smaller airports are facing an uncertain future as, by 2024, the "Guidelines on State aid to airports and airlines" (EC, 2014b) is supposed to put stronger limitations on public finance of airports with more than 200,000 passengers. The tightening of the Guidelines may lead to far-reaching consequences for airports that will not be able to cover their operational costs by that deadline (Zuidberg, 2017). In summary, several regional airports might be forced to cease operations after 2024.

2. Objective, Methodology and Research Contribution

Connectivity provided by air transport supply is one important pillar for regional development (see in general e.g. Brueckner, 2003, or Green, 2007, and on Europe van de Vijver et al. 2016, Florida et al., 2015 and Tveter, 2017). Therefore, a large-scale closure of regional airports could contradict goals of regional development and cohesion. In addition, closing airports seems to be unlikely in an environment where policy officers declare airports as "job machines", as it is considered that one job in the air transport industry creates more than three jobs in other sectors (Lenne, 2018).

This paper aims to identify feasible ways for airport management and (regional) governments to cope with the legal framework. The results may be of interest both for airport managers and owners and for policymakers: The former might be interested in learning how to deal with new state aid rules, and how to circumvent them, while the latter would aim to close exactly any existing loopholes, as the identified options could be regarded as detrimental to the EC's goal to safeguard competition.

The methodology of the paper is a qualitative literature- and case study-based assessment of the relevant legal framework. The study provides a description on the barriers and possibilities on continuing public funding of Community airport and airline operations under the Guidelines set by the European Commission (2014b).

In the following section (3), the paper briefly assesses the outcome of the prominent court case on Charleroi Airport as an example of how the EC dealt with state aid to airports in the past. As a solution and consequence of previous controversial regulatory steps, the new Guidelines (EC, 2014b) came into force in 2014. The authors summarize key criteria of state aid rules, which form the basis for subsequent assessments. Based on cases from the literature, section 4 discusses potential ways to improve financials and/or traffic volumes at smaller airports under the Guidelines. This section contains a legal compatibility analysis of (1) subsidies for airport activities of non-economic nature, (2) application of public service obligations (PSO) and (3) the provision of incentive schemes to air operators. Section 5 concludes the findings on possible options to support regional airports and stimulate traffic against the background of strict EU state aid rules for airlines and airports from an applied perspective and further discusses some limitations of the paper and resulting needs for future research. In sum, the paper complements the vast literature on specific issues regarding state aid to airports and airports.

3. EC Guidelines on state aid to airports and airlines

At the beginning of the 21th century, the European Commission brought forward controversial cases to the European Court of Justice concerning the legal evaluation on state aid in the context of airports and airlines. Probably the most disputed one is the *Charleroi Airport and Ryanair* case (C76/2002), which had engaged the EC and the Court for over 13 years, before the latest decision (that the measures granted did not constitute state aid) was made in October 2014. The Belgian press published in July 2001 that Ryanair received state aid from Wallonie for its operations at Charleroi Airport. The EC opened the official investigation in December 2002. It took more than one additional year that a (partly) negative decision was adopted by the EC in February 2004. Through, following almost 5 years of discussion, this decision was annulled by the General Court in December 2008 saying that the "Commission's decision (...) was vitiated by an error in law" (EC, 2016, p.64). This case showed that it was time to amend the law (more on the case see e.g. in Barbot, 2006 and in Griffin, 2006).

Taking into account the market developments, the EC amended the previous state aid framework (EC, 2005) and published a new "Guidelines on state aid for airports and airlines" (EC, 2014b). The preamble of the Guidelines argues that the EC is aware of a multitude of complex long-term arrangements between airports, airlines and public authorities, where state aid may distort competition and may undermine the level playing field in the market, while on the other hand, well-founded arguments for state aid exist that could help to correct market failures.

Criteria	Investment aid to airports	Operating aid to airports	Start-up aid to airlines		
a) Contribution to a well- defined objective of common interest	Increasing intra-EU mobility; Facilitating regional development		No duplication of existing comparable connection (high-speed rail, another airport)		
b) Need for state	Airports with less than 3 million annual passengers (pax)				
intervention	(neip to larger airports only in case of case-specific or exceptional circumstances)				
	10 years transitional period		Airports in remote regions		
c) Appropriateness of the aid measure	Address the c				
	Less distortive	Fixed sum covering the	Ex ante business plan showing		
	(guarantees, soft loans)	expected gap	profitability at least after 3 years		
d) Incentive effect	Analysis based on ex ante business plan	Present, if the level of economic activity of the airport would be significantly reduced in its absence	If the new route would not have been launched without aid; start new route after submitting the application form for aid!		
e) Proportionality of the		Up to 50% (700.000 - 3m			
aid	Up to 25% (3m - 5m pax) Up to 50% (1m - 3m pax) Up to 75% (below 1m pax)	pax) Up to 80% (less than 700.000 pax) Up to 100% (below 200.000 pax)*	50% of airport charges for max. 3 years		
f) Avoidance of undue	Airports with traffic up to		Public authorities must make plans		
negative effects on	5 million pax; resulting	Assessment	public; no accumulation with other		
competition and trade	from business plan		state aid on the route		

The following section describes the main criteria on state aid in the new Guidelines (EC, 2014b), which is also summarized in the below figure.

evised EU Block Exemption Regulation from 2017 now also covers airports <200,000 pax (EC, 2017b).

Figure 1: The criteria framework on state aid to airports and airlines, Source: own figure based on EC (2014b) and EC (2017b)

Except for very case-specific or exceptional circumstances, investment and operating aid may only be granted to airports with less than 3 million passengers per year, which however applies to more than 85% of all airports in Europe (Fig. 2). *State aid for investment in airport infrastructure* may be allowed if there is a genuine transport need

and the public support is necessary to ensure the accessibility of a region. The new guidelines define maximum permissible aid intensities depending on the size of an airport, in order to ensure the right mix between public and private investment. The possibilities to grant aid are therefore higher for smaller airports than for larger ones.

Operating aid to regional airports is allowed for a transitional period of 10 years, in order to give airports time to adjust their business model. In order to receive operating aid, airports need to work out a business plan towards full coverage of operating costs at the end of the transitional period. The Guidelines then allow for higher investment and operating aid intensities for airports with annual passenger traffic below 700,000 and 200,000 passengers, respectively, with the latter group being exempted from most state-aid restrictions.

Start-up aid to airlines is defined as a "necessary incentive to create new routes from regional airports" and may amount to up to 50% of airport charges over a maximum of three years. Even if the aid intensity remains under this threshold, start-up aid offered by the airport operator can be an issue under the regime of the new Guidelines. This is because the provision of start-up aid ceteris paribus may result in lower net revenues and hence – given the high share of fixed costs at the airport level (Maertens, 2013) – in higher losses at the airport operator level, which in turn may increase the airport's need for operating aid.



Fig. 2. Number and share of EU airports by size group, Source: Sabre MI

Table 1 further provides information on the geographic distribution of airports in the EU by size class. France has the highest number of airports under 200,000 passengers per year (37), followed by Greece and Sweden with 28 airports each. The United Kingdom has 27 small airports, Spain 14 and Germany and Italy 10 each.

Airports between 200,000 and 3 million passengers are potentially most severely affected by the current regulation on state aid, as the European law prohibits operational aid being paid after the 10-year transitional period. Spain and Italy have 18 airports in this size class each, followed by United Kingdom with 17, Germany with 15 and France with 14. Interestingly, all EU Member States with the exception of Hungary and Belgium have at least one airport with 200,000 to 3 million passengers per year, so the issue discussed in this paper is of EU-wide relevance.

EU Member State	No. of airports < 200,000 passengers per year	No. of airports > 200,000 and < 3,000,000 passengers per year	No. of airports > 3,000,000 passengers per year	Total number of airports with scheduled services in 2017
France	37	14	7	58
United Kingdom	27	17	9	53
Spain	14	18	10	42
Greece	28	10	1	39
Sweden	28	8	2	38
Italy	10	18	8	36
Germany	10	15	8	33
Portugal	13	3	3	19
Finland	14	2	1	17
Poland	5	9	1	15
Romania	4	6	1	11
Denmark	5	2	1	8
Croatia	3	5	0	8
Ireland	2	3	1	6
Austria	2	3	1	6
Czech Republic	4	1	1	6
Netherlands	2	2	1	5
Belgium	3	0	2	5
Bulgaria	1	2	1	4
Cyprus	0	2	1	3
Lithuania	1	2	0	3
Slovakia	1	2	0	3
Hungary	1	0	1	2
Estonia	1	1	0	2
Latvia	1	1	0	2
Malta	0	1	0	1
Luxembourg	0	1	0	1
Slovenia	0	1	0	1
EU-28 Total (2017)	217	149	61	427

Table 1. Number of airports by passengers in the EU 2017 (Source: Sabre MI)

4. Possibilities for public support to regional airports and airlines

The Guidelines follow the aim to prohibit anti-competitive state aid. However, there are many ways of dealing with the state aid issues, which are against the EC's idea of safeguarding competition. The following three subchapters characterize opportunities to bypass state aid rules: subsidies of activities of non-economic nature, (increasing) application of public service obligations (PSOs) and state-funded incentive schemes.

4.1. Subsidy of non-economic activities

The Guidelines explicitly define areas which do not fall under the state aid regulations allowing government bodies take over the costs from an airport operator, i.e. air traffic control, police, customs, firefighting, safety activities against unlawful interference, and the concerning investments into infrastructure and equipment (EC, 2014b). The EC is aware that this exception has the potential to distort competition in the European Union (EU):

"Public financing of non-economic activities must not lead to undue discrimination between airports. Indeed, it is established case law that there is an advantage when public authorities relieve undertakings of the costs inherent to their economic activities (40). Therefore, when it is normal under a given legal order that civil airports have to bear certain costs inherent to their operation, whereas other civil airports do not, the latter might be granted an advantage, regardless of whether or not those costs relate to an activity which in general is considered to be of a non-economic nature" (EC, 2014a).

Regional airports in Germany for instance have to cover the above mentioned costs on their own, or – respectively – charge airlines or passengers for the use of these services. The latter is not always possible given the market power of LCCs. Hence, airports located in countries that publicly provide these services have an advantage over airports located in countries that do not cover these costs by the public. As an example, a study conducted on behalf of the EC found in 2004 that security screening costs at regional airports located in Belgium and Greece are exclusively paid for by the state. The same applies for all airports in Luxembourg and Switzerland (Irish Aviation Authority / aviasolutions, 2004).

In summary, public authorities may partially or even fully take over the costs for terminal air traffic management, firefighting and security and hence relieving the airport operator from a fixed cost block which is difficult to cover from operational revenues.

4.2. Application of Public Service Obligations

Public Service Obligations (PSOs) in air transport are part of the EU's legislation for Services of General Economic Interest (SGEI). With this instrument it shall be safeguarded that any services, which are not commercially viable but still considered by the Member States to be in the general economic interest, can be provided under the condition that the State provides financial support ("compensation"). The SGEI Package (EC, 2012) and the Articles 16 to 18 of the Air Services Regulation 1008/2008 (EC, 2008) describe the conditions for allowing an air route as PSO:

- a) The task for a SGEI must be imposed by a public authority
- b) The SGEI must encompass a single route or a group of routes to be defined ex ante (no generic route or any route from an airport or city)
- c) SGEI should exhibit "special characteristics, as compared with ordinary economic activities"
- d) SGEI must fulfil transport needs which cannot be met by existing air routes or other means of transport
- e) Access to a route can be limited for a time of up to four years
- f) An invitation to tender containing objective and transparent parameters concerning the compensation payment has to be published

The original intention of the legislator for the application of PSOs was to enable Member States (or regional authorities) to finance air services on routes which are not commercially viable, but are deemed necessary to keep up a minimum level of quality of life in sparsely populated, outermost, ultra-peripheral or island regions, where otherwise inhabitants would suffer from severe disadvantages (e.g. unavailability of medical services or access to education institutions). Thus, the most obvious application of the PSO instrument can be observed in regions like the Canary Islands, Azores, Shetland Islands or Hebrides. The majority of currently applied PSOs fulfil these criteria (EC, 2017a).

Currently, the European Commission reports that 178 intra-EU PSOs are in place (EC, 2017a), of which 174 are domestic. As of April 2017, the only cross-border PSOs were Larnaca-Brussels (Ryanair, no compensation, open to competition), Strasbourg-Amsterdam (Air France), Strasbourg-Madrid (Air Nostrum), and Strasbourg-Prague (Czech Airlines). The latter three routes from Strasbourg were financially supported with 3.6 million \in in 2013 and are closed to competition (Rocque, 2015).

Another form of existing PSOs are air services between national capitals (Budapest to Pristina, Skopje, Podgorica, Sarajevo and Tirana) which have been imposed by the Hungarian government. These PSOs are not officially listed by the EC, as these routes are not intra-EU-routes. However, the Member State government (Hungarian government) pays a Community Carrier (Wizzair) to operate these services (Maslen, 2016).

The application of PSOs to grant aid to LCCs is not a new phenomenon. Already in 2005, the Chambre de commerce et d'industrie du Var and the Aéroport Toulon-Hyères granted Ryanair an aid of 500,000 \in per year to operate the air route from Toulon to London-Stansted. This state aid in the form of a compensation for a PSO was accepted by the EC without objections (EC, 2006).

As a consequence of this, the authors find that the European Commission leaves a wide scope for the Member States to define air routes to be in general economic interest and hence be eligible to be designated as PSO. According to the EC Guidelines on SGEI, Member States are free to grant compensation up to the total cost of services plus a usual profit margin to an operator under the PSO regime (EC, 2012).

Hence, the authors argue that in future, (regional) governments which want to avoid the closure of chronically loss-making airports could increasingly make use of the PSO instrument. This will be done not primarily to support a particular route of public interest, but to transfer funds to the airport in a legally compatible way. The financial flow from the government body to the airport can be shown as in figure 3.

We assume that the instruments of PSOs can be (mis-)used to circumvent the future ban of operational aid to regional airports under the following conditions: A state institution (state, regional or even city government) wants to support a regional airport located in its region, which is not able to cover its operational costs. The state institution defines one or more air routes of their liking as being in the public interest. The state institution invites airlines for a tender, providing operating support at a fixed amount per passenger, e.g. for a daily flight to one or more destinations. The non-discriminatory, open and transparent tender may result in an offer that the winning airline requires a compensation of, e.g. $10 \notin$ per passenger on the routes defined as being in the public interest. The support charges for PSO flights at a level sufficient that the airport can cover its operating costs.

With this set-up, the government body also avoids criticism of European Commission "to maintain airport charges at an artificially low level in order to attract airlines and may thus significantly distort competition." (EC, 2014), as airport charges are sufficiently high to cover the airport's operational cost.

The presented indirect form of state aid to airports seems to be in line with European law, as the EC has set very narrow rules to designate an airport itself as SGEI: "can only be the case if part of the area potentially served by the airport would, without the airport, be isolated from the rest of the Union to an extent that would prejudice its social and economic development." (EC, 2014b). These criteria seem to be applicable only to most remote or island airports, but most likely not for regional airports e.g. in the periphery of metropolitan areas.



Fig. 3. Financial flow between public authority and airport operator under a PSO scheme, Source: own figure

In summary, the legal hurdles to designate particular (or in the most extreme case - all) air routes at an airport are much lower, given the past examples of international PSOs being designated by Cyprus, France and Hungary. However, a massive use of the PSO instrument would significantly increase bureaucracy. Also, Article 19 (9) of the Air Services Regulation 1008/2008 limited PSO's on a given route to a maximum of 4 years (or 5 years for routes to outermost regions).

4.3. Publicly funded incentive schemes to air operators

Within the European Common Aviation Area (ECAA), numerous government bodies pay incentives to air operators in order to encourage passenger traffic (on the motivation behind see e.g. Núñez-Sánchez 2015). Incentive schemes as such are not critical, as long as they are designed as non-discriminatory, declining and with an absolute time limit. Examples for relatively high incentive payments include the schemes applied in Macedonia and Israel.

The Macedonian incentive scheme, providing a lump sum of $40,000 \in$ for each new destination and $11-13 \in$ per passenger, deserves special attention. It includes the condition that any airline wanting to benefit from the scheme must have a profit of more than 25 million \in and must have carried more than 10 million passengers. This effectively excludes without any good reason the majority of airlines and could hence not be considered as non-discriminatory. One of the most attractive incentive schemes for airlines is offered by the Israeli Ministry of Tourism. Since 2015, an incentive payment of 45 \in per passenger is offered for any passenger flying to the airport of Eilat/Ovda during the winter months.

Even as a non-discriminatory version of such an incentive scheme, distortions are likely to occur, as airports and countries are systematically at a disadvantage if they do not have such a scheme in place over countries that pay incentives to airlines, given that in the pan-European LCCs can easily shift aircraft from one region to a completely unrelated other region if incentive payments are granted.

In sum, it remains questionable whether such incentive payments paid for by other branches of government (e.g. tourism or economic ministries) not directly related to airport operators or the transport ministry are legally compatible with an approach of the EC that aims to avoid competitive distortions in the European airport market.

5. Conclusion and Scope for future research

With its Guidelines on state aid to airports and airlines published in 2014, the European Commission (EC) intended to regulate investment and operating aid to loss-making airports and regulate start-up aid to airlines, which could distort competition within the European Common Aviation Area (ECAA) While the general notion of the Guidelines is reasonable, their effectiveness is doubtful, given the findings in this paper. The study investigated different areas on subsidies, which still could be paid either directly or indirectly to the airport operator.

First, the classification of key airport functions as terminal air traffic management, firefighting and security as to be of non-economic nature allows a direct subsidy of key cost areas. Second, the paper found an indirect form of airport subsidy, namely when a public authority designates air routes to the airport to be Public Service Obligations (PSOs). Through the wide scope of freedom to define which routes are in the general economic interest, this instrument might be used in future to stimulate air traffic and support concerned airports. Case studies show that the PSO instrument has been used to support low cost carriers and probable also airports as indirect beneficiaries. The examples encompass Ryanair's routes from Toulon to London Stansted (2005) and Wizzair's routes from Budapest to five capitals in the Balkans (2016). Third, we have discussed the area of government-driven incentive schemes, which could be considered as state aid as defined by Guidelines. A problem arises in this area concerning the application of European law within the ECAA: While many countries at the periphery of the EU have joined the ECAA, which creates a common aviation market, it remains doubtful, whether the strict rules on state aid can and will be enforced. This field encompasses for instance large-scale incentive schemes in place at the airports of Skopje in Macedonia or Eilat/Ovda in Israel. As a consequence, we argue that competitive distortions in the area of state aid to airlines and airports will continue even after the end of the transitional period in 2024. As long as government bodies are willing to subsidize aviation, it is likely that the ban of state aid to loss-making regional airports will not have significant impact on the European airport landscape.

This paper leaves considerable scope for future research: First, except for the few cases reported, we have not yet empirically assessed the actual use of different options for state-aid. Second, this paper does not assess if, and to what extent, measures to meet the new state aid guideline have had impact on the cost and/or revenue structure of (selected) airports. Subject to data availability (to our best knowledge, detailed airport cost and revenue data for European airports are not disclosed in a systematic way)[†], such work could be undertaken in future research. Finally, further research effort should be undertaken to find answers to the general question to what extent state aid to the avaiation industry is needed to correct market failures and/or to stimulate economic development on the one hand or distorts intra- and intermodal competition on the other hand. This would also require finding answers on the questions how many (regional) airports are needed from a welfare economics perspective, how their geographical distribution should look like and whether public bodies should provide funding to regional airports in areas where larger airports can be reached in a reasonable travel time. Only when these questions are reliably answered, effective regulations on state aid in this sector can be put into place, avoiding unintended loopholes and a waste of taxpayers' money.

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[†] For the US, FAA Airport Financial Reporting Program: Form 127 provides in-detail airport cost and revenue figures, see e.g. http://cats.airports.faa.gov/Reports/rpt127.cfm. In the past, ICAOData.com offered a (paid) airport financials module providing similar data also for European airports, but this service is no longer available.

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