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EVALUATION

of the

**Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009
on airport charges**

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1. INTRODUCTION

1.1 Purpose of the evaluation

This evaluation concerns Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges (hereinafter "the Airport Charges Directive" or "the Directive")¹ which establishes a common European framework for regulating essential features of a set of charges that are paid by airlines to airports.

Airports, in particular hubs and large airports, are critical gateways facilitating the movement of EU citizens and goods to, from and within the Union and as such have a direct impact on the EU's competitiveness and connectivity of its citizens. In 2017², more than 1 billion passengers transited through and over 17 million tonnes of freight and mail were carried from EU airports.

In light of this, it is prudent to periodically review provisions regulating airports to ensure that they are still fit for purpose and that the sector is functioning well from the perspective of the wider community. The 2015 Aviation Strategy³ also foresees the evaluation of the Airport Charges Directive, in order to assess whether it may need to be reviewed.

Since the entry into force of the Directive, the Commission has gathered evidence indicating that the Directive has improved the airport charges setting process compared to before its adoption. But evidence also shows that the Directive may not have fully achieved its objectives and that the issues relevant today, especially given market and regulatory developments, may not all be addressed by the Directive.

In September 2016 the Commission therefore published a Roadmap⁴ outlining its plans for this evaluation. An external support study⁵ to this evaluation was carried out and

¹ OJ L 70, 14.3.2009, p. 11-16

² Source: Eurostat – Main statistical findings 2017 (most recent complete figures available in February 2019); figures exclude any double counting

³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, An Aviation Strategy for Europe, COM(2015) 598 final:

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0598&from=EN>

Commission Staff Working Document Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, An Aviation Strategy for Europe SWD(2015) 261 final

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015SC0261&from=en>

⁴ http://ec.europa.eu/smart-regulation/roadmaps/docs/2017_move_012_evaluation_airport_charges_en.pdf

⁵ <https://publications.europa.eu/en/publication-detail/-/publication/8e6db69a-e601-11e7-9749-01aa75ed71a1>

published in December 2017. This study in turn, takes into account the conclusions of the mid-term evaluation⁶ carried out in 2014.

This evaluation systematically reviews and analyses all available evidence, from a variety of sources, which include information shared by the concerned stakeholders.

Evaluation results will directly inform future policy decisions. They provide a starting point for a possible revision of the Directive. In this respect, an outline of the planned impact assessment was published on 13 November 2017 in the Inception Impact Assessment⁷. The impact assessment work is ongoing and will continue in 2019. An external study supporting the impact assessment started in May 2018.

1.2 Scope of the evaluation

This evaluation covers the period since the beginning of the application of the national transposition measures (15 March 2011) until March 2019 and it covers all EU Member States. Since the Directive is also relevant to the European Economic Area (EEA) and Switzerland, many references in this document include these countries as well.

The evaluation covers the 5 evaluation criteria foreseen in the European Commission's Better Regulation Guidelines⁸, namely relevance, effectiveness, efficiency, coherence and EU added value.

2. BACKGROUND TO THE DIRECTIVE

2.1 Scope of the Directive

The Airport Charges Directive sets common principles for the levying of airport charges at Union airports. It applies to all airports in the EU which handle at least five million passengers per year or, for those Member States with no airport reaching this threshold, to the largest airport in terms of passenger movements in that Member State⁹. The Airport Charges Directive is incorporated into the EEA agreement, as well as in the air transport agreement with Switzerland. In 2017¹⁰, 89 airports (out of which 83 are located in the

⁶ Report from the Commission to the European Parliament and the Council on the application of the Airport Charges Directive, COM(2014) 278 final <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0278&from=EN>

Evaluation of Directive 2009/12/EC on airport charges, Final Report, September 2013 prepared by Steer Davies Gleave

<https://ec.europa.eu/transport/sites/transport/files/modes/air/studies/doc/airports/2013-09-evaluation-of-directive-2009-12-ec-on-airport-charges.pdf>

⁷ https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5533746_en

⁸ http://ec.europa.eu/smart-regulation/guidelines/docs/swd_br_guidelines_en.pdf

http://ec.europa.eu/smart-regulation/guidelines/docs/br_toolbox_en.pdf

⁹ The Commission's legislative proposal for the Directive had included a threshold of 1 million passenger movements or 25000 tonnes of freight per year. See section on relevance for more details.

¹⁰ Source: Eurostat – Main statistical findings 2017

EU) are covered by the Directive, capturing 85% of the passenger and 84% of the freight traffic in Europe. A full list of airports in scope of the Directive can be found in Annex 3.

Airport charges are defined in the Directive as a levy paid by airport users, namely airlines transporting passengers or freight, to airport managing bodies for the use of facilities and services, which are exclusively provided by the airport managing body and which are related to landing, take-off, lighting and parking of aircraft, and processing of passengers or freight.

There are two main streams for airport revenues: aeronautical (the amount an airport earns through the supply of airport infrastructure needed for the provision of air passengers and cargo services to airlines) and non-aeronautical or commercial (the amount an airport earns through other activities such as shops and restaurants, parking and airport access, rental car operations, land rent or advertising). Airport charges represent the main component of airports' aeronautical revenues¹¹, which in turn account for more than half of airports' revenues (55% in 2014, according to ACI-Europe¹² based on results reported by 221 airports).

At the same time, airport charges represent an operating cost for airlines. A recent study undertaken by ICF for ACI-Europe¹³ estimated that airport charges represent between 3% and 17% of airlines' total costs. The report suggests that for main full service carriers and low cost carriers airport charges represent 3%-12% of total costs, while they represent a higher share for regional carriers, which account for a small proportion of airline passenger market. In contrast, Airlines for Europe (A4E) claim that airport charges account for about 20%¹⁴ of airlines' total costs. The importance of airport charges as a share of airlines' total costs varies not only across airlines but also through time as other operational costs change, the most variable of which are fuel costs. It is difficult to obtain verifiable estimates of any of these figures, and the share will vary case by case. This evaluation does not endeavour to provide robust estimates of these figures, but it is fair to argue that airport charges represent an important source of revenue for airports and, a non-negligible cost for airlines (depending on their business model and circumstances).

Economic theory indicates that in perfectly competitive markets (i.e. where there is a large number of suppliers and there are no barriers to entry the market), there is 100% cost pass through. In these markets, perfect competition drives prices down to the level of

¹¹ Aeronautical revenues includes also security charges or charges for passengers with reduced mobility. Charges for ground handling services are sometimes reported as aeronautical revenue as well.

¹² Source: ACI-Europe, *Economics Report 2015* <https://www.aci-europe.org/policy/position-papers.html?view=group&group=1&id=6> Airports Council International Europe represents the interests of over 500 airports in 45 European countries, including all EU Member States, EEA and Switzerland.

¹³ ICF, *Identifying the Drivers of Air Fares, 2018*, a report for ACI-Europe, <https://www.aci-europe.org/policy/position-papers.html?view=group&group=1&id=6>

¹⁴ Source: Airlines for Europe <https://a4e.eu/airports/> Airlines for Europe (A4E) represents the interests of leading European airlines which account for more than two-thirds of the continent's passenger journeys.

(marginal) production costs and if these costs change, all firms operating on the market will be forced to pass these through to their customers. In Europe, the market for the provision of air passengers and air cargo services is generally considered competitive. Therefore it is expected that increases in airport charges or conversely lower airport charges would be, at least in part, passed through¹⁵ by airlines to passengers or freight customers.

In addition to airport charges, there are other types of charges that airlines usually pay to airports such as security charges, charges for passengers with reduced mobility, ground handling, terminal air navigation services, etc. and which are governed by other pieces of EU legislation. These charges are not in scope of the Airport Charges Directive and hence are not the subject of this evaluation, although there are situations of partial overlap which are described further on.

2.2 Competition rules and public intervention in the market for airport services

EU competition law and rationale for public intervention

It has been recognised¹⁶ that an airport always fulfils a public function, regardless of its type of ownership or management, and that the provision of airport facilities to airlines and the various service providers, in return for a fee, must be regarded as an economic activity¹⁷ and therefore subject to EU competition law.

In most sectors of the economy, EU competition law, which, among others, prohibits companies holding a dominant position in the internal market or a substantial part thereof from abusing such position, is considered sufficient to address any anti-competitive behaviour. Any market failures are therefore usually addressed *ex post* through application of EU competition law, with the exception of certain industries which are subject to some sort of sector-specific supervision or regulation.

Historically, the reason why governments impose economic regulation on airports (as well as other utility and public infrastructure providers), has been to curb *ex ante* the risk that they misuse the significant market power they may hold due to monopoly characteristics. Where applicable regulatory provisions refer to significant market power, the term is often considered to be equivalent to dominance under EU competition law and rulings¹⁸ of the Court of Justice. This misuse of market power could for example

¹⁵ There is no study available at EU level on this specific topic. However, a report produced by a group of researchers provides evidence to support that there is a significant cost pass-through for the airline industry http://www.seo.nl/uploads/media/Position_paper_Carl_Koopmans_Rogier_Lieshout_01.pdf

¹⁶ Commission Decision 2004/393/EC of 12 February 2004 concerning advantages granted by the Walloon Region and Brussels South Charleroi Airport to the airline Ryanair in connection with its establishment at Charleroi, para 156

¹⁷ ECJ judgment of 12 December 2000, Case T-128/98 – Aéroports de Paris v. Commission

¹⁸ Case 27/76, United Brands v. Commission, 1978, ECR 207: "*The dominant position... relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.*"

manifest itself in excessive airport charges or service quality reduction and has the potential to feed through to a large number of final consumers, leading to a welfare loss in society. If necessary and justified, it is sometimes therefore preferable not to wait for an abuse of market dominance to take place, which would be addressed *ex post* through competition law tools. Introducing *ex ante* regulation on regulated sectors in general and on the airport sector in particular has the aim to correct, at least partially, market failures and to move closer to outcomes in terms of price levels, service quality, investments, reliability and choice one would expect in an effectively competitive market.

At EU level, an illustrative example of *ex ante* regulation is the 2002 Framework Directive¹⁹ for electronic communications networks and services.

Competition in the airports sector

Effective competition between suppliers, in this case airports, encourages cost-effective operations, drives down prices and increases quality. It also enables operators to make long-term investments in facilities and services that match the requirements of the customers, in this case airlines and air passengers²⁰.

The absence of effective competition between airports could manifest itself in a range of ways. Airports could choose to maintain airport charges at current levels but allow quality to fall. Alternatively, airports could seek to raise airport charges above levels warranted by costs faced by an efficient operator or by long-term investments. This could be the case where airports operate efficiently and extract excessively high margins, which would normally not be achievable in a competitive market. It could also occur where airports operate inefficiently by allowing their costs to rise or by not adopting cost-saving or innovative technologies, or a combination of these.

From the perspective of the passengers, there are two concerns. The primary concern is the potential adverse effect of airlines passing on inefficiencies (inflated aeronautical charges or low service quality). This may have a second, dampening effect on the demand for air travel which, if significant, would be adverse for the whole economy and the welfare of society. The intended effect of any sectoral intervention in the airport charges setting process is to reduce the level of consumer detriment which would be experienced as a result of certain airports misusing their market power, which supposes that they are not subject to effective competition, and where competition law remedies are not considered sufficient to address the risk.

Where airports face limited competition, market forces alone are unlikely to lead to an economically efficient outcome, even in the long-run. Such a situation can arise due to the structure of the market.

¹⁹ OJ L 108, 24.2.2002, p. 33-50

²⁰ When 'passengers' are referred to in this document, this also includes owners of freight unless clearly stated otherwise.

First, significant barriers to entry in the airports sector can arise due to privileged geographic location (e.g. in densely populated areas, in affluent regions, near highly valued tourist destinations). This is often coupled with regulatory constraints such as planning or noise restrictions or other environmental considerations, which have a considerable impact on the possibility for a new airport to be built or an existing airport to expand and which can represent barriers to entry to the market. For example, the establishment of new airports in the vicinity of major European cities is nowadays almost inconceivable, which means that the inability for a second (or third) airport to be established nearby provides significant barriers to entry, assuming that the demand exists²¹. Second, these industries are characterised by high fixed costs: airport infrastructure is lumpy and expensive, which results in economies of scale. For example, the cost of building a runway is large, but the marginal cost (the cost of an additional runway take-off or landing) may be close to zero. Third, airports exhibit also economies of scope, i.e. it is less costly that the airport provides a group of services (both aeronautical and non-aeronautical) rather than to have each service provided separately. Fourth, the existence of substitutable airports and competition from other forms of travel varies and therefore it may be limited for some airports and market segments.

In turn, airlines may exercise countervailing bargaining power over some airports (e.g. by switching or threatening to switch aircraft elsewhere), which would discourage the airports to behave in an anti-competitive manner. On the other hand, in several decisions on State aid, the Commission found that airlines have used this bargaining power to extract concessions from airports which are not market-based²².

Airlines' bargaining power is closely linked to the existence of sufficient alternative capacity at other airports. Furthermore, even if such available airport capacity exists, some airlines make significant investments at a specific airport, to maximise the value of their offer to customers, and consequently they may have less incentive to move aircraft to another airport, as the investments would be (at least partially) lost. And last, but not least, in deciding to reduce their presence at congested airports, airlines also have to take into account the risk of losing the respective slots. In the EU, Regulation 95/93/EEC on slots (the "Slots Regulation") provides that at congested airports airlines are allocated slots on the basis of their previous use, according to a system based on what is known as

²¹ No new airports have been built in the EU over the past 10 years. However since the 1990s' there has been a constant trend to convert former military airfields into civil aviation airports (e.g. Glasgow Prestwick, Dijon, Hahn, Memmingen). As regards the existing airports, over the same period, only one new runway has become operational (at Frankfurt), but terminal capacity has been expanded at many airports (e.g. Barcelona, Budapest, Copenhagen, Dubrovnik, Dublin, Rome, Vienna, etc).

²² In the following State aid cases, the Commission found that certain airlines benefited from a selective advantage (likely) not on market terms: SA 33983 Sardinian airports, SA 33963 Aéroport d'Angoulême, SA 33961 Aéroport de Nîmes, SA 26500 Aéroport d'Altenburg Nobitz, SA 27339 Zweibrücken Airport, SA.24221 Klagenfurt Airport.

the 'grandfather rights' rule. If an airline does not use a slot in a certain season, it will lose it.²³

In the airports sector, EU competition law has been applied in addressing anticompetitive behaviour²⁴ that consisted of State owned airports using their market dominance to the advantage of their own subsidiary in a downstream market or to support the respective State-owned airline(s). No similar antitrust investigation has been carried out in the last two decades. In addition, to date, no findings of excessive airport charges and/or service quality reductions by airports, contrary to Article 102 of the Treaty of the Functioning of the European Union (TFEU), have been made and there is no investigation ongoing on such issues. Furthermore, EU competition law has also been applied in merger cases, both as regards mergers between airport operators²⁵ as well mergers between airlines²⁶. These cases are of particular relevance as regards the assessment of competition between airports concerning the provision of access to the airport infrastructure services (see section 3 for further details). Finally, in State aid cases the Commission assesses whether the arrangements between airports and airlines are free of State aid. In order for an arrangement between an airport and an airline to be free of State aid, the airport needs to ensure when setting up the agreement, that the expected costs generated by the agreements will be covered by the corresponding expected revenues. When this is not the case, the airline may benefit from a selective advantage which, assuming other conditions are met, in principle constitutes incompatible State aid²⁷.

2.3 Wider policy context

The Airport Charges Directive is embedded in the wider policy context of EU aviation policy.

The Third Aviation Package²⁸ adopted by the Council in 1992 represented the final stage in the liberalisation of the access to the air transport market. Before that time the market was governed by bilateral agreements between Member States which tended to rigidly control route entry and capacity, with many international (including intra-EU) routes

²³ Council Regulation (EC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports, OJ L 14, 22.1.1993, p. 1.

²⁴ Cf. Commission Decision of 28 June 1995 relating to a proceeding pursuant to Article 90 (3) of the Treaty (Brussels National Airport), OJ L 216, 12.09.1998, p.8; Commission Decision of 10 February 1999 relating to a proceeding pursuant to Article 90 of the Treaty (Case No IV/35.703- Portuguese airports), OJ L 69, 16.3.1999, p. 31; Commission Decision of 10 February 1999 relating to a proceeding pursuant to Article 86 of the Treaty (IV/35.767 - Ilmailulaitos/Luftfartsverket), OJ L 69, 16.3.1999, p. 24; Commission Decision of 26 July 2000 relating to a proceeding pursuant to Article 86(3) of the EC Treaty (AENA), OJ L 208, 18.08.2000, p. 36.

²⁵ Cases M.5652 – GIP/Gatwick Airport; M.4164 – Ferrovial/Quebec/GIC/BAA; M.3823 – MAG/Ferrovial Aeropuertos/Exeter Airport.

²⁶ Cases M.8672 easyJet/certain AirBerlin assets; M.8633 Lufthansa/certain AirBerlin assets

²⁷ See footnote 22

²⁸ The most relevant prominent parts of the third package were Regulations (EC) Nos 2407/92/EC, 2408/92/EC and 2409/92/EC. As its name suggests, there were two earlier packages of aviation liberalisation, the First Package, adopted in 1987, and the Second Package, adopted in 1990.

operated by only one airline of each country (usually the national carriers) and air fares almost entirely set by agreement between airlines. The internal market for provision of air passenger and cargo services was completed in April 1997, when European air carriers were granted unlimited right to operate not only between Member States, but also within the domestic border of another EU Member State²⁹.

General provisions in EU law, not specifically targeted at conduct adopted by airports, provide for protection from different forms of discrimination, such protection accruing *in casu* to airlines. Reference is made to Regulation (EC) No 1008/2008 on common rules for the operation of air services in the Community³⁰ (the "Air Services Regulation"), which prohibits discrimination on grounds of nationality, as well as discrimination of cross-border services compared to domestic services³¹. Reference is also made to Article 102 TFEU which, in the case of undertakings that hold a dominant position in the internal market or a substantial part thereof, prohibits abuses of such position in so far as it may affect trade between Member States. Such abuse may consist in the application of dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.

No EU legislation on airport charges existed before the adoption of the Directive in 2009. The Commission had previously proposed a Regulation in 1990³² and a Directive in 1997³³ in this area, as part of a wider effort to promote efficient airport operations and the optimal use of scarce capacity, as a key link in the aviation value chain. Shortages in airport take-off and landing slots at congested airports is being dealt with by the Slots Regulation, while the partial opening of the groundhandling services market was established through Directive 96/67/EC on groundhandling services³⁴ (the "Groundhandling Directive") in 1996. The EU also adopted legislation in the field of aviation safety and security and addressed the issue of air traffic management by means of legislative measures creating the Single European Sky.

²⁹ The acts composing "the third package" were subsequently incorporated into the EEA agreement, so that their application was extended to Iceland, Norway and Liechtenstein. Switzerland is bound by an air transport agreement through which many elements of the package (later replaced by Regulation (EC) No 1008/2008) are applied in the relationship between the Union and Switzerland.

³⁰ Regulation (EC) No 1008/2008 of 24 September 2008 on common rules for the operation of air services in the Community, OJ L 293, 31.10.2008, p. 3. Regulation (EC) No 1008/2008 consolidates the provisions of the Regulations included in the Third Aviation Package.

³¹ Cf. Cases C-92/01 and C-70/99.

³² Proposal for a Council Regulation (EEC) on consultation between airports and airport users and on airport charging principles COM(90) 100 final, OJ C147, 16.6.1990, p 6-12

³³ Proposal for a Council Directive on airport charges COM(97) 154 final, OJ C257, 22.8.1997, p.2-7

³⁴ Council Directive 96/67/EC of 15 October 1996 on access to the groundhandling market at Community airports, OJ L 272, 25.10.1996, p. 36.

2.4 Impact Assessment

The impact assessment³⁵ accompanying the proposal for the Airport Charges Directive observed that, in general, competition between airports was relatively limited. In some cases the level of airport competition varied by market segment and depended strongly on the type of airport, with smaller airports being generally subject to stronger competitive pressures than larger ones. However, higher levels of competition were also noted between some international gateways and smaller secondary airports, as well as between major international gateways for connecting long-haul intercontinental traffic.

In addition, the impact assessment found that the different existing systems of airport infrastructure pricing were not always properly justified to airport users. Furthermore, airport users were not usually informed about future investments at airports, their necessity and likely impact on the level of airport charges. This led to a situation where air carriers on the one hand and airports on the other were often in disagreement on charging systems and charges levels.

The impact assessment also observed that ownership of EU airports was still largely public, but recognised a move towards airport privatisation. It indicated that public authorities had an interest to facilitate increases of airport charges for those airports that were in the preparatory stages to privatisation so as to increase revenues from the sale.

Another important element discussed in the impact assessment was the fact that many EU airports did not recover full aeronautical infrastructure costs from aeronautical revenues. It was noted that airports have developed from transport nodes which only generated income from transport activities to complex, stand alone, multi-product entities (this is particularly the case for large airports).

The introduction of a minimum set of common EU principles in the levying of airport charges was aimed at addressing the overarching objective of a more efficient functioning of the internal aviation market, in line with the Lisbon Agenda³⁶ and the focus of the Commission's Strategic Objectives 2005-2009³⁷, particularly as regards prosperity and solidarity in the EU.

The impact assessment tested four policy options, namely: (1) 'no EU action'; (2) the development and adoption of voluntary EU-wide self-regulatory measures by industry actors; (3) the introduction of an EU legal act establishing a general framework based on

³⁵ Commission Staff Working Document, Proposal for a Directive of the European Parliament and of the Council on airport charges, Full Impact Assessment SEC(2006)1688 <http://ec.europa.eu/transparency/regdoc/rep/2/2006/EN/2-2006-1688-EN-1-0.Pdf>

³⁶ The Lisbon Agenda or Lisbon Strategy was adopted by the European Council in March 2000 and it broadly aimed to "make Europe, by 2010, the most competitive and the most dynamic knowledge-based economy in the world"
https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/00100-r1.en0.htm

³⁷ Commission Communication COM(2005) 12 final, Strategic Objectives 2005 – 2009 Europe 2010: A Partnership for European Renewal

a number of common principles as regards airport charges setting; and (4) the introduction of an EU legal act establishing a uniform compulsory regulatory system, based on a single method of calculation to be defined.

In view of the market structure described above and market developments (in particular the liberalisation of air services provision – see section 3), at the time of the proposal it was considered that market dynamics combined with the application of general competition law alone - i.e. options 1 and 2 - was insufficient to address the existing situation. Option 4 was assessed as potentially having the strongest impact on cost-efficiency of airports, but it was expected to imply significant administrative costs and it was considered to be a rather inflexible tool which would not have taken into account specific local conditions.

An *ex ante* intervention at EU level in the form of a Directive was therefore proposed to improve the airport charges setting process (option 3). This option (see also subsequent sections) introduced a set of common principles, while leaving room for adaptation to local circumstances and it was expected to lead to a downward pressure on charge levels. The analysis included in the impact assessment pointed to the fact that adequate regulation is a very good way to increase efficiency in a harmonised manner.

2.5 Problems to be tackled by the Directive and objectives of the Directive

The 2007 Commission proposal³⁸ was meant to contribute to the aim of ensuring that the entire aviation supply chain becomes as competitive as possible in order to ensure the continued competitiveness of the whole EU economy. This idea was also carried over into the adopted Directive.

During this evaluation process, the Commission has re-constructed the reasons which lead to the proposal. The Intervention logic (see Annex I) links the underlying problems identified in the market with the objectives set and the measures intended to address the causes of the problems and achieve the objectives. The starting point has been the 2007 impact assessment and its elements have been completed where not entirely specific, in light of the Commission's experience in monitoring the transposition and application of the Directive.

The Airport Charges Directive aimed to tackle two **problems**:

- (i) the existence of diverging charging systems in the Member States that lack clear transparency in the way in which they are built up; and
- (ii) the possibility for some airports to extract prices and terms that would otherwise not be achieved in a competitive market.

The impact assessment identified the following **specific objectives** for the intervention at the time, which were also carried over into the final text of the Directive:

³⁸ Proposal for a Directive of the European Parliament and of the Council on airport charges, COM(2006) 820 final
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52006PC0820&from=EN>

- (i) to ensure fairness in the process of setting charges;
- (ii) to contribute to fair competition between EU airports by the introduction of a common charging framework and principles;
- (iii) to promote more transparent charging systems applicable to users of airport infrastructure; and
- (iv) to generate and maintain sufficient revenues to sustain and complete airport infrastructure at an optimal level.

The first problem (i) was stated as such in the impact assessment. However, the issues presented in the impact assessment regarding the competition between airports, airports ownership, national regulatory frameworks and consultation processes, systems of charges and the financing of airports indicate that the fundamental problem that the Directive sought to address was to avoid the potential adverse impacts of airports extracting prices and other terms that would not be achievable in a competitive market (i.e. the second problem (ii)). This interpretation seems to be confirmed by the EP's first reading³⁹ and Council's general approach⁴⁰ on the proposed Directive. This evaluation has therefore also assessed the effectiveness of the Directive in addressing the risk of possible misuse of significant market power by airports, which had not been identified as a specific objective for the intervention at the time, alongside the four specific objectives outlined in the Impact Assessment.

2.6 Measures of the Directive

In order to attain its objectives, the Directive contains a set of measures. These measures translated into EU legislation a number of basic non-mandatory, behaviour-related principles drafted by the Council of the International Civil Aviation Organization (ICAO) and widely accepted by the industry worldwide⁴¹. ICAO policy recognises inter-alia the need for the economic regulation of airports to include elements such as cost-relatedness, non-discrimination in the application of the charges, the ensuring of transparency and consultation, and the establishment and review of quality standards.

Measures of the Directive

Concretely, the Directive includes the following measures:

- Non-discrimination between airport users, but allowing for modulation of charges on the basis of public and general interest, including environmental issues (Article 3);

³⁹ European Parliament Report of 10.12.2007 on the proposal for a directive on airport charges: "*This directive should apply to all airports which have a certain dominance on the market.*"

⁴⁰ Council's Political agreement, 3 April 2008: "*a large majority of Member States... considered that at least one airport per Member State had to be covered by the Directive, as the largest airport in each Member State has an exceptional position in the market of that particular Member State*"

⁴¹ ICAO's Policies on Charges for Airports and Air Navigation Services, Doc 9082, Ninth Edition – 2012 http://www.icao.int/publications/Documents/9082_9ed_en.pdf

- Allowance of common and transparent charging systems across airport networks (Article 4) and across airports serving the same city or conurbation (Article 5);
- Regular consultation of airport users by airport managers on the operation of the system of charges, the level of charges and quality of service; the right to seek intervention of the independent supervisory authority (ISA), with the option to select alternative measures, equally involving the ISA (Article 6);
- Transparency by the airport manager over the basis for setting charges including requirements for information flow to and from the airport users (Article 7);
- Consultation of airport users on new infrastructure (Article 8);
- Flexibility to allow agreements relating to quality standards between airport managing body and the airport users (Article 9);
- Flexibility to allow airport managers to offer differentiated services to airlines (Article 10);
- The establishment of an independent supervisory authority (ISA) to ensure the correct application of the Directive's measures (Article 11).

Commission proposal and final Directive

The text adopted by the legislators differs in certain points from the original text proposed by the Commission. To summarise, the following changes were introduced, some of which might have affected the effectiveness or relevance of the Directive, as shown by the present evaluation:

- the passenger threshold for determining which airports were to be in the scope of the Directive was raised from 1 million passengers to 5 million passengers and the 25000 tonnes of freight threshold was abolished;
- agreements on service quality became an optional feature, having been envisaged as a mandatory requirement in the original proposal;
- references to the right of Member States to allow airport networks and airports to apply a common charging system were included;
- the requirement for airports to provide information on the total staff and productivity of the investments was removed;
- references to an independent regulatory authority were replaced with an independent supervisory authority ('ISA'), but the responsibilities and requirements on its independence, transparency and impartiality were kept in principle. The same applies to the powers of the ISAs, subject however to opt-outs (cf. last bullet point below);
- the possibility for the national ISA to delegate the implementation of the Directive to other ISAs was added;
- the possibility for Member States to opt out from the dispute resolution mechanism was added, in cases where the ISAs determine or approve the airport charges, or their maximum level, or where there is a mandatory national procedure in place under

which the ISA examines whether airports are subject to effective competition and whenever warranted, the ISA determines or approves the airport charges, or their maximum level.

Intervention logic

The measures of the Directive are designed to cause a series of positive changes which ultimately lead to impacts, mirroring its objectives. This section, as well as the diagram of the Intervention logic in Annex 1, outlines the ways in which the Directive was expected to work.

First, a compulsory regular consultation process requires airports and airlines to exchange information on the system and level of airport charges and the quality of services, in order to achieve agreement whenever possible. Furthermore, the Directive foresees that specifically for plans of new infrastructure, airports have to consult the users beforehand, so that investment is correctly balanced with users' needs. Airports and airlines are also allowed to conclude service level agreements on quality and operational performance standards.

This permanent dialogue was expected to lead to an improved level of acceptability of airport charges by airlines. At the same time the level of charges would allow airports to recover – at least partially - their operating and capital costs and earn reasonable profits. As previously explained, airports receive revenue from airlines (mainly as airport charges), but also directly from passengers using the commercial outlets; in the EU, airports have to self-sustain their costs, since access to State aid is very limited (see next sections). Airports would be encouraged to improve the soundness of their management and take decisions that are efficient, while users are given the possibility to understand the match between airports' costs and investments on one hand and the charges perceived on the other hand. Also, because the exchange of information foreseen goes both ways, airports have the right to receive relevant information from users so as to allow them to employ their capital and dedicate their capacity in an optimal way.

Second, the non-discrimination requirement in the application of charges is intended to protect users against any potential unfair treatment; however airports are given the possibility to modulate their charges for environmental or public interest reasons (e.g. congestion, noise, NO_x emissions, CO₂ emissions). Charges can also be differentiated on the basis of different quality and scope of services in order to meet the needs of users and promote efficient use of the infrastructure; such differentiation has to be justified and transparent.

Third, the presence of control mechanisms embodied by the independent supervisory authorities who are empowered to arbitrate between the sometimes diverging interests of airports and airlines was expected to ensure that all provisions of the Directive are correctly applied. To address the issue of potential or real conflict of interest, the Directive imposes that the supervisory authorities are legally distinct and functionally independent from any airport or airline and take decisions in a transparent and objective manner.

Overall, these elements were expected to contribute to charges being better adapted to the needs of users, as well as to airports functioning more economically and efficiently. They would reduce information asymmetry and prevent possible discrimination of airport users and increase their bargaining power. This would contribute to reducing the potential for airports to extract terms and conditions that they could not achieve in a competitive market.

2.7 Baseline

The baseline describes those developments (throughout the evaluation period) that could have been expected in the absence of the Directive. It is the hypothetical scenario against which any actual effective changes, attributable to the Directive, are measured. This section describes the previous baseline assumptions of the original impact assessment and discusses whether any policy or market developments that have occurred since then have influenced these assumptions.

Before the introduction of the Directive, some Member States had adopted oversight measures at the larger airports, varying from ministerial approval (the most common, but the least transparent) to economic regulation by an independent authority. But, where existent, many of these measures were diverging and they were not always sufficiently transparent, so it was difficult for airlines to understand the link between the level of charges with the services provided or the investments made by airports.

In the impact assessment, it was anticipated that without an EU intervention the variation in the charging systems and their underlying principles would persist and the risk that the charges at airports with some monopoly power would increase. Additionally, it was expected that the trend towards airport privatisation would continue, which would lead to Member States further increasing charges at these airports. It was considered that inefficiencies in the airport market would continue, possibly hampering the development of the air transport sector.

Increased airport charges or deteriorated service quality or airport charges perceived by airlines as being unjustified would have inevitably led to increased tensions between airports and airlines. Low cost carriers would have probably been less concerned than full service carriers, as at the time when the Directive was prepared their presence at EU's primary airports, which are usually more costly in terms of airport charges or with longer aircraft turnaround, was negligible. This was estimated to possibly have a negative impact on employment in the EU air transport sector, as network carriers are more labour intensive. Nevertheless, as described later in this document, over the past 10 years low cost carriers have continued to open or expand operations at some of EU's primary airports.

The welfare of the passengers might have been affected, as inefficiencies in the airport market due to a lack of a common framework for airport charges setting were assumed to lead to inflated costs.

Through the application of a common set of basic rules on airport charges throughout the EU, the Directive was supposed to foster fair play between the aviation partners when

negotiating the use of airport infrastructure. The introduction of a Directive on airport charges aimed at increasing cost transparency and exerting a downward pressure on charge levels. Increases in airport charges should not be seen in isolation (lower airport charges are not necessarily an objective as such) as they may very well be justified if they reflect increases in operating expenditure or investment projects in line with the (long-term) needs of consumers.

Important policy developments since the adoption of the Directive include the adoption of the Guidelines on State aid to airports and airlines⁴² (2014) and the Aviation Strategy (2015). The modernised State aid rules aim to ensure a level-playing field among airports and airlines in the internal market while promoting local development and accessibility of regions and they address the issue from the perspective of airports' access to public financing. The Aviation Strategy reiterates the overarching goal of strengthening the competitiveness and sustainability of the entire EU air transport value network. The Guidelines and the Strategy would have benefited indirectly the airports-airlines relationships as regards airport charges, also in the absence of the Directive. It is nevertheless fair to argue that such an impact would have been minor as compared to a targeted piece of EU legislation such as the Airport Charges Directive.

Important market developments since the adoption of the Directive include, against the backdrop of intense airline competition, a trend towards increased airport competition. The factors underpinning these developments are discussed in detail in section 3.2. However, while structural changes in the airport market would have led to a reduction of the market power of some airports, even in the absence of the Directive, they would not have (and have not) affected all airports homogeneously. The observed increase in airport competition nevertheless affects the baseline assumption for this evaluation as it slightly reduces – at least for some airports - that part of the observed change that can potentially be attributed to the Directive⁴³.

3. STATE OF PLAY AND MARKET CONTEXT

3.1 State of play – transposition and implementation of the Directive

The Airport Charges Directive entered into force on 15 March 2009 and the deadline for transposition was 15 March 2011.

Whilst compliance with the Directive's requirements concerning the consultation process by airport managing bodies and airport users is to be controlled by the national supervisory authorities, the Commission has monitored on a regular basis the transposition and application of the Directive by individual Member States.

⁴² Communication of the Commission - Guidelines on State aid to airports and airlines, OJ C 99, 4.4.2014, p.3.
[http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0404\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0404(01)&from=EN)

⁴³ Under the assumption that they were not caused by the Directive itself, which we assume to be unlikely

Enforcement action by the Commission has focused on incorrect transposition or deficiencies in the application of the Directive. Since the end of the transposition deadline, the Commission has launched investigations (via the EU Pilot mechanism or formal infringement procedures) against 13 Member States⁴⁴. These were either triggered by complaints from airlines, airlines associations or citizens, or on the Commission's own initiative. The main concerns relate to the consultation process and the transparency of information linked to it, discriminatory charging systems and the independence and responsibilities of the national independent supervisory authorities.

The issues raised by the Commission during these proceedings overlap to a very large extent with the findings of the mid-term evaluation of the Directive carried out in 2013/2014. The report concluded that whilst the Directive appears to have made an important contribution to improving the process for setting airport charges, its application needs to be further monitored.

Following a recommendation of the mid-term evaluation, the Commission created in 2014 an expert group composed of national independent supervisory authorities (the so-called 'Thessaloniki Forum'⁴⁵) with the objective of helping the authorities to develop their working methods and knowledge by sharing experience and best practice. The Aviation Strategy sees an important role for the Thessaloniki Forum, namely: i) continuing to support the better implementation of the Directive; and ii) advising the Commission on how regulatory action can be more effectively targeted at airports with significant market power.

Europe's airports serve markets at different stages of maturity, in different geographic regions, each with their own specific socio-economic and population characteristics, offering different service quality. For this reason the Directive does not impose a particular charging system or regulatory model, but allows Member States to take into account the national specific conditions, provided that the provisions of the Directive are fully applied. It is thus left to the Member State or ISA to set its specific form of economic regulation or to not introduce any economic regulation at all.

For those setting economic regulation, it can vary according to the till applied (single till, dual till or a hybrid till). In a single till system, revenues from aeronautical and commercial activities are combined in one regulatory till. In a dual till system, revenues from the airport's commercial activities are not taken into account but only aeronautical activities are taken into consideration when setting charges which means that essentially airport charges have to account for the full cost of aeronautical infrastructure. In a hybrid system, the airport is obliged to transfer a part of the non-aeronautical proceeds to the regulatory till. Airlines tend to be in favour of a single till approach, arguing that the airport's commercial activities are a result of the traffic which airlines bring to the airport

⁴⁴ BE, BG, CY, DE, EL, ES, FI, FR, IE, IT, PL, PT, SE

⁴⁵

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3084&NewSearch=1&NewSearch=1>

and therefore they should also benefit from profits made through commercial activities in the form of reduced charges. Airports on the other hand tend to argue that the single till does not provide any incentive for the airport to develop commercial activities, stifling the growth of its economic activity.

Economic regulation can also vary according to pricing mechanisms (price cap, rate of return, no pricing mechanism etc.), the existence of an airport network etc.

The current regulatory picture for European airports varies greatly as shown in table 1 below⁴⁶. As can be seen from the table for a large number of airports, Member States apply economic regulation (light-handed economic regulation and price cap regulation) which goes beyond the requirements of the Directive.

Table 1: Type of economic regulation in EU, Norway and Switzerland in 2016

| | Single till | Dual till (including hybrid) |
|---|---|--|
| No economic regulation | Bucharest, Manchester, London Stanstead, London Luton, Edinburgh, Birmingham, Glasgow, Bristol, Heraklion, Luxembourg | Sofia, Prague, Helsinki, Swedavia group (Gothenburg, Stockholm Arlanda) |
| Light-handed economic regulation ⁴⁷ | London Gatwick ⁴⁸ | Cologne-Bonn, Düsseldorf, Berlin Tegel, Berlin Schönefeld, Frankfurt, Hannover, Hamburg, Munich, Stuttgart, |
| Price cap regulation | Marseille, Nice, Dublin, London Heathrow, Avinor group (Oslo, Bergen) | Vienna, Brussels, Copenhagen, Toulouse, Budapest, Bologna, Naples, Verona, Thessaloniki, Aéroports de Paris (AdP) group (Paris Charles de Gaulle, Paris Orly), Rome airports (Fiumicino, Ciampino), ANA group (Lisbon, Oporto, Faro) |
| Rate of return regulation | Zagreb, Vilnius | Geneva, Zurich, Athens, Amsterdam, Ljubljana, Warsaw, Aeropuertos Españoles y Navegación Aérea (AENA) group (Spain), Milan airports (Linate, Malpensa) |

Apart from the type of economic regulation (if any) for airport charges, the precise structure of airport charges also varies strongly among airports in the different Member States. Some airports structure the charges into a total of three charges in their tariff manuals (landing, parking, passenger), while others divide them into as many as fifteen charges (landing, lighting, noise, parking messenger, security, passengers with reduced mobility (PRM), check-in, boarding bridge, baggage, cargo hangar, ground handling, fire

⁴⁶ See external support study mentioned in footnote 4.

⁴⁷ See Annex 2 Abbreviations and Glossary for an explanation of the term.

⁴⁸ Gatwick's licence 2014-2021 requires it to comply with a set of commitments which include conditions relating to price, service quality and infrastructure development.

prevention, power supply⁴⁹). This does however not imply that airport users pay a lower amount of airport charges at airports with three charges than at airports with a set of fifteen charges, but it is only about how different charge items are grouped.

Article 1(5) provides that the Directive is without prejudice to the right of the Member States to apply additional regulatory measures that are not incompatible with the Directive. This may include economic oversight measures, such as the approval of charging systems or the level of charges, including incentive-based charging methods or price cap regulation.

Concession agreements in place at EU airports (see also section 3.2 below) usually contain provisions relating to airport charges setting and often include main parameters for the charges setting process and the calculation of the level of airport charges. Other Member States adopted national legislation containing main parameters for the charges setting process and the calculation of the level of airport charge.

In order to comply with Article 1(5), these provisions and parameters should however not limit the airport charges setting process to such an extent that it would render the consultation as provided for in Article 6 and the consultation on new infrastructure in Article 8 meaningless or limit the scope for the intervention of the ISA pursuant to Articles 6(4) or 6(5) and Article 11.

In practical terms however, it has been proven difficult to determine if such provisions and parameters set in a concession agreement or in national law as described above can be considered as being compatible with the Directive or if they render the consultations in Articles 6 and 8 meaningless or limit the scope for the intervention of the ISA on the basis of Article 11 to such an extent that they would be in breach of the Directive.

3.2 Market context and development

Evolution of air transport at airports in EU/EEA and Switzerland

The demand for airport services depends largely on the volume of aircraft movements which, in turn, depends on the demand for air transport by passengers and cargo customers. Therefore, the airline market has important implications for airports.

As shown in the Aviation Strategy, over the last 20 years, as a result of the liberalisation of the internal market and substantial growth of demand within the EU and worldwide, the EU aviation sector has developed significantly. Over the evaluation period the aviation market has continued to grow.

The table below shows the situation in 2009 when the Directive was introduced and 2017 (for which the most recent complete yearly data are available)⁵⁰. The share of the

⁴⁹ Not all of these charges fall within the scope of the Directive.

⁵⁰ Source: Eurostat - air transport statistics

http://ec.europa.eu/eurostat/statistics-explained/index.php/Air_transport_statistics

passengers and freight volumes at the airports covered by the Directive have remained relatively stable in these two reference years:

Table 2: Evolution of air transport at airports in EU/EEA and Switzerland

| EU/EEA and CH | Number of airports in scope of the Directive | Total number of passengers (in 1000) | Passengers at airports under the Directive (in 1000) | Share of passengers at airports under the Directive in total | Total freight (in 1000 tonnes) | Freight at airports under the Directive (in 1000 tonnes) | Share in total (%) |
|-------------------------|--|--------------------------------------|--|--|--------------------------------|--|--------------------|
| 2009 | 68 | 1,285,243 | 968,920 | 75 % | 13,388 | 10,247 | 77 % |
| 2017 | 89 | 1,781,180 | 1,504,031 | 84% | 19,084 | 16,053 | 84% |
| Change 2009-2017 | 30.8% | 38.5% | 55.2% | - | 42.5% | 56.6% | - |

The share and ranking of Europe’s largest airports have been very stable, with the top 25 airports in 2009 and 2017 being exactly the same (although with different rankings) and representing a cumulated share of more than half of the total number of passengers carried (see Annex 6 for detailed figures).

Airline privatisation and consolidation

Air carriers in the EU were traditionally publicly owned. British Airways was the first EU airline to be privatised - in 1987 -, but it is only a decade later that the trend has gained real ground (Lufthansa in 1997, Iberia in 2001, etc.). Almost every major airline by passenger numbers has nowadays private investors (even though Member States retain stakes in former national carriers such as Air France - KLM, SAS, Finnair or TAP). In the Member States which joined the EU after 2004, most national airlines remained controlled by the respective States. Lufthansa Group⁵¹, IAG⁵² and Air France-KLM⁵³ are now three of the five biggest European airline groups by passenger numbers (the other two are low cost carriers Ryanair and easyJet, which have never been state owned).

Following liberalisation and deregulation of the internal market, competition between airlines intensified in the EU which has forced airlines to pursue the rationalisation of costs. Furthermore, increased competitive pressure and the need for rationalisation have led to a consolidation in the airline market with some carriers (for example Air Berlin, Malev or Monarch) ceasing operations while others having merged into larger airline groups as explained above. These airline groups usually concentrate their traffic at several hubs (multi-hub strategy).

⁵¹ Lufthansa Group includes former national carriers Lufthansa, Austrian Airlines, Swissair and Brussels Airlines

⁵² IAG includes former national carriers British Airways, Iberia and Aer Lingus

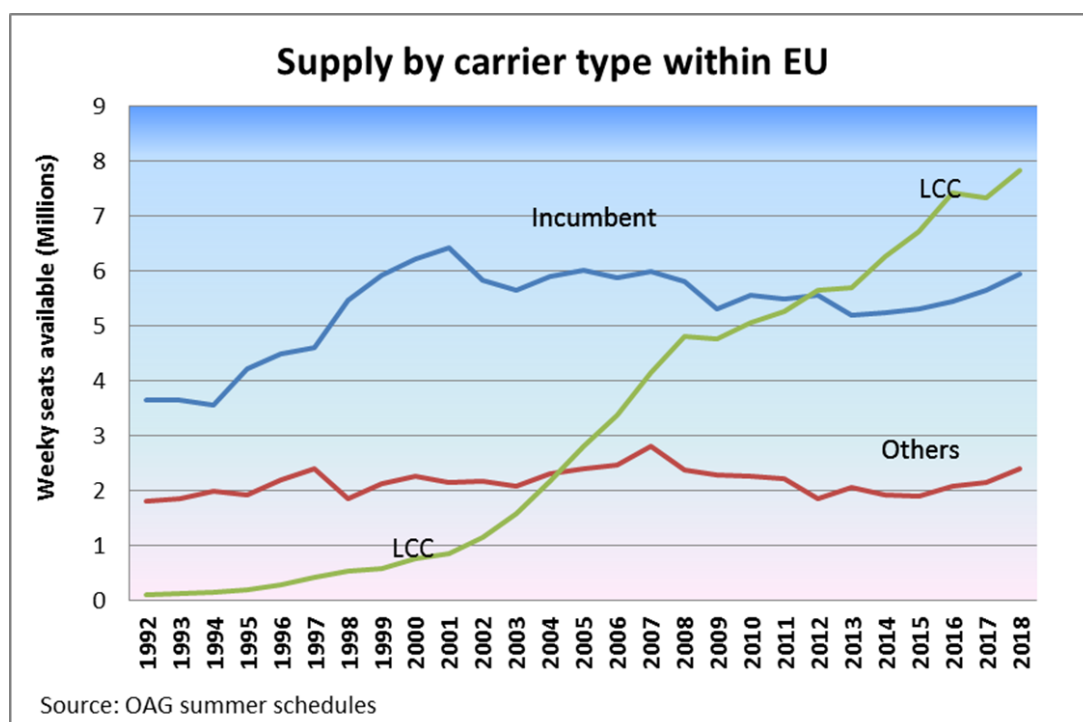
⁵³ Air France – KLM group includes former national carriers Air France and KLM

Growth of low cost carriers

At the same time, low cost carriers which aim to keep air fares as low as possible have continued to grow both in the EU and worldwide. Ryanair and easyJet as the two biggest low cost airlines have increased their number of passengers between 2010 and 2017 by 103% from 59 million to 120 million⁵⁴ and by 65% from 48.8 million to 80.2 million⁵⁵ respectively. Other low cost airlines, such as Norwegian or Wizz Air have also continued to expand.

According to data extracted from the OAG⁵⁶ summer schedules, low cost carriers have taken over 50% of Intra-EU market in terms of seats available in 2018 and accounted for the large majority of net additional seat capacity between 2007 and 2018 as presented in the graph below.

Figure 1: Supply of weekly seats available by carrier type within EU



While low cost carriers usually commence their expansion using small secondary airports, they have started over the recent years to use large primary airports. The market shares of low cost carriers at these airports is increasing. In particular, Ryanair had since the start of its operations in 1985 followed a strategy to operate at secondary airports. Since 2014 Ryanair is reviewing this strategy and increasingly also operates from primary airports⁵⁷. In 2016, Ryanair operated for the first time to more primary airports

⁵⁴ <https://investor.ryanair.com/traffic/>

⁵⁵ <http://corporate.easyJet.com/investors/traffic-statistics/2018/english>

⁵⁶ OAG – the Official Aviation Guide – is the largest airline schedules database, holding future and historical flight details for more than 900 airlines and over 4000 airports.

⁵⁷ <https://corporate.ryanair.com/about-us/history-of-ryanair/>

than secondary facilities⁵⁸. By contrast, the strategy of easyJet (which started operations in 1995) has been and is to fly from primary airports⁵⁹.

It is now not unusual for European airports with between 5 and 15 million passengers annually to have as their largest client a low cost airline, whereas this was mostly the case for smaller and secondary airports at the time when the Directive was drafted. The external study found though that the market share of low cost airlines at large airports is generally lower than at secondary airports but the situation varies strongly from airport to airport.

While for large airports, low cost airlines are usually not the largest customer they nevertheless contribute to the growth of passenger traffic. A study⁶⁰ commissioned by ACI-Europe in 2017 shows that between 2010 and 2016 on flights within the 45 countries with at least one airport that is member of the association, low cost carriers have accounted for 76% of growth at airports of all sizes.

Evolution of business model of full service carriers

At the same time the business model of full service carriers has evolved over the evaluation period. There is now more competition between low cost carriers and full service carriers than historically, with a convergence of the service offering between these operating models. Examples of reduced differentiation in the service offered include lower availability of in-flight meals or premium seating on full service carriers or fast-track boarding and luggage allowances on low cost carriers.

International air services agreements and third country airlines

In parallel with the liberalisation in the EU, international aviation relations with third countries with the goal of opening access to cross-border markets became more widespread; the EU-US Open Skies Agreement signed in 2007 allowed any EU or US airline to fly between any point in the EU and the US.

Some emerging third country airlines (e.g. Gulf airlines, Turkish Airlines) have increased and continue to increase their services to Europe.

Competition on international air services markets has created incentives for building strategic alliances in order to achieve economies of scale and scope and to respond to consumer demands for global networks. In 2017 the three major airline alliances (Star Alliance, SkyTeam and Oneworld⁶¹) represented almost 60% of the global market share based on revenue passenger kilometres⁶² and therefore, according to ICAO, competition

⁵⁸ <https://www.business traveller.com/business-travel/2016/11/07/ryanair-continues-move-towards-primary-airports/>

⁵⁹ <http://corporate.easyJet.com/~media/Files/E/EasyJet/pdf/investors/presentations/cmd-presentation-27-09-2017.pdf>.

⁶⁰ *The continuing development of airport competition in Europe*, Oxera for ACI-Europe, September 2017, <https://www.aci-europe.org/component/downloads/downloads/5189.html>

⁶¹ Lufthansa Group is member of Star Alliance, Air France-KLM of SkyTeam and IAG of Oneworld

⁶² <https://www.statista.com/statistics/718635/airline-alliances-market-share/>

is not just between individual airlines but increasingly between these alliances⁶³. In 2013 32% of intra-EU passenger traffic and 39% of extra-EU traffic was carried on one of these alliances.

Developments in the downstream market for air services

Over the evaluation period the downstream market for air services has also become more sophisticated, as the wide spread of internet has enabled consumers to compare alternative travel options more effectively. Increasing use of social media has raised awareness of service levels offered by both airports and airlines, which has led them to dedicate efforts to promote a positive image of their offers and avoid negative coverage.

Impact of recent developments on airport competition

These developments in the airline sector have an impact on airports and the way they compete.

The Guidelines on State Aid to airports and airlines state that "*competition between airports can be assessed in the light of airlines' criteria of choice, and in particular by comparing factors such as the type of airport services provided and the clients concerned, population or economic activity, congestion, whether there is access by land, and the level of charges and overall commercial conditions for use of airport infrastructure and services.*"⁶⁴

The business model of low cost airlines is focussed on point-to-point services and leisure passengers⁶⁵. This tends to make low cost airlines in general more willing, able and likely to switch routes and aircraft between airports than traditional full service carriers. This possibility to switch routes relatively easily allows airlines to put airports into increased competition. The continued growth of low costs carriers thus means that an increasing number of airports are faced with increased competition by other airports as these airlines consider airport cost as a key factor⁶⁶ in deciding which routes to serve and more easily switch capacity than full service carriers. Traditionally, low cost carriers' first bases were smaller, secondary airports which were offering simpler and hence less expensive infrastructure, but located near populated areas (e.g. Brussels South Charleroi, Milan Bergamo).

⁶³ https://www.icao.int/Meetings/atconf6/Documents/WorkingPapers/ATConf6-wp85_en.pdf

https://www.icao.int/Meetings/SUSDEV-AT/Documents/ATConf6_10009.pdf

⁶⁴ Communication from the Commission — Guidelines on State aid to airports and airlines, OJ C 99, 4.4.2014, paragraph 43.

⁶⁵ One can also observe a limited shift in the business model by which some low cost airlines move closer to services of network carriers (e.g. premium economy service; provision of connecting traffic for long-haul routes).

⁶⁶ See for example research paper *The Role of Secondary Airports for Today's Low-cost Carrier Business Models: the European Case*, Dziedzic M and Warnock-Smith D, 2016, <http://eprints.hud.ac.uk/id/eprint/29183/3/Journal%20Paper%20LCC%20hybridisation%20and%20secondary%20airports%20in%20Europe%20Final.pdf>

The multi-hub strategy applied by large airlines groups increases the potential of these airlines to choose among several airports for allocating new capacity or to switch existing capacity. It thereby increases the bargaining power of these airline groups at the airports concerned.

The increased penetration of the EU market by non-EU carriers (in particular from the Middle East and Turkey) which is intrinsically linked to the expansion of their non-EU hub airports has added competitive pressures on the market through introducing competition among airports for new connection services by these carriers from an EU airport to their hub.

Work commissioned by ACI-Europe in 2017⁶⁷ concluded that competition between airports with less than 10 million passengers annually remains high, that for airports with 10-25 million passengers annually there is considerable evidence that airports compete more than in the past, and that for airports with more than 25 million passengers annually there is evidence that competition has also increased. Several factors contribute to this conclusion. First, the growth of low cost airline which have greater ability to switch between airports has resulted in more intense airport competition for routes. An analysis of the extent of route churn, i.e. the opening and closing of different routes, shows that route churn rates increased at medium-sized and larger airports during 2013 and 2016, although overall if airports of all sizes are taken together they remained relatively stable during the same period. In addition, Middle East carriers are able to connect to airports across Europe, generating pan-European competition for these connections. The extent to which large airports compete for connecting passengers has also increased, particularly because of the rapid growth of the Middle East and Turkish hubs. Finally, according to the work commissioned by ACI-Europe, the number of city pairs with a competing airport offering similar services has increased for larger airports.

Airlines (A4E, IATA^{68 69}), on the other hand, have gathered evidence indicating that competition between airports is rather exceptional. According to airlines, it exists at smaller airports where there is excess supply of capacity both at individual airports and within the peer group, but most airports, in particular those serving large cities and conurbations or those grouped as networks, benefit from significant market power. IATA in its study argues that route switching remains limited and makes reference to the findings of the study commissioned by ACI mentioned above that overall route churn has remained stable. IATA points out that switching routes is not cost-less, especially for network carriers but also for pan-regional point-to-point airlines. Switching costs consist of costs involved in the physical switch of the airport, such as relocating equipment and

⁶⁷ See footnote 60.

⁶⁸ The International Air Transport Association (IATA) represents the airline industry and brings together some 265 airlines comprising 83% of global air traffic

⁶⁹ IATA Economics Briefing, *Airport Competition: Myth or Reality?*, November 2017 https://www.iata.org/publications/economics/Reports/airport_competition_web_2017.pdf

staff, as well as termination and negotiation of supplier agreements, in addition to the costs involved in marketing a new route or an increase in capacity on an existing route.

In the Guidelines on the State Aid to airports and airlines the Commission notes, as a general principle, that "*airports are in competition for the management of airport infrastructure, including at local and regional airports.*"⁷⁰

At the same time, in individual merger decisions involving an analysis of competition between the airports, the Commission considered several criteria as relevant for assessing airport substitutability in relation to the market for airport infrastructure services, while acknowledging that the airlines' choice of airports ultimately depends on passengers' demand. In addition to the catchment area of a particular airport, the Commission has notably analysed the costs of operating from a particular airport, capacity constraints for slots and facilities, passenger volumes or the positioning of the airport (e.g. a niche airport serving high yield time-sensitive passengers or an airport serving mainly leisure, less time-sensitive passengers).⁷¹

It can be observed from the Commission's decision-making practice in the field of mergers that there is no one-size-fits-all solution when determining the competition between the airports observed. Any conclusion on the competition will depend on the circumstances of each individual case. The Commission has, in its prior decision practice, frequently defined the geographic scope of the market for airport infrastructure services as local (e.g. limited to the airport itself).

Common ownership of airports

The existence of common ownership that can be found in networks and also for airports serving the same city is also relevant in the context of assessing competition between airports. Currently, in Europe there are five network airports operating all airports on the national territories of Finland, Portugal, Norway and Spain and two sub-national networks in Greece and Sweden. There are also four main EU cities served by more than one airport under common ownership: Berlin, Milan, Paris and Rome.

Airports under common ownership on a confined geographic area cannot be expected to compete. In Australia⁷² for instance, where a light-handed monitoring regime of airport charges and quality by the competition authority is in place, there is a limit of 15% on cross-ownership between the country's busiest airports as a measure to prevent a behaviour that could damage competition.

In this respect, the UK Competition Commission found in 2009 that the common ownership of London and Scottish airports "is a feature which prevents competition

⁷⁰ Communication of the Commission - Guidelines on State aid to airports and airlines (2014/C 99/03), paragraph 44

⁷¹ Cases M.5652 – GIP/Gatwick Airport, paragraph 14; M.4164 – Ferrovial/Quebec/GIC/BAA, paragraphs 15-17; M.3823 – MAG/Ferrovial Aeropuertos/Exeter Airport, paragraphs 16-19; M.8672 easyJet/certain AirBerlin assets, paragraph. 74; M.8633 Lufthansa/certain AirBerlin assets, paragraph 118.

⁷² Australia Airports Act, 1996 <https://www.legislation.gov.au/Details/C2010C00109>.

between them⁷³ and required the BAA (successor to the British Airport Authority⁷⁴) to sell three of its seven airports as a remedy designed to benefit passengers and airlines. A 2016 evaluation⁷⁵ of the interventions shows that there is strong evidence of positive changes at the divested airports. Positive changes derived primarily from new commercial strategies at divested airports and other airports directly and indirectly affected by the divestments. A number of factors indicated increased competition and benefits to passengers. Growth in passenger numbers was measurably higher post-divestment than at other UK airports, efficiency increased (in particular at Heathrow and Gatwick) and service quality to passengers and airlines improved.

Capacity constraints and their impact on competition among airports

Air capacity is a matter of concern for the EU aviation industry, be it in the air on the ground. The situation in Europe from an airport capacity perspective is a mixed one: at certain locations there is overcapacity, whilst some airports struggle with the challenge of increasing capacity to keep pace with demand. Overcapacity can in particular be found at small and regional airports, while some large airports are facing or will shortly face severe capacity constraints⁷⁶.

Eurocontrol⁷⁷ has forecast (2018) that by 2040 within the plans reported by the airports which represent 84% of the traffic, 1.5 million flights will not be accommodated. This is the equivalent of an estimated 160 million passengers unable to travel. This capacity gap is equivalent to 7 or 8 busy runways, spread over 17 different States, with Turkey⁷⁸ and the UK likely to be the most heavily affected. Although airport capacity growth was found to be better targeted at the larger airports, which are more likely to face capacity constraints, than it was in the previous Eurocontrol report (2013), the 2018 report predicts that by 2040 more than 16 airports will operate at 80% or more of capacity for 6 consecutive hours per day, compared to 6 airports in summer 2016. The associated airport congestion will bring delays to the network, with average summer delays per flight expected to jump from 12 minutes in 2016 to 20 minutes in 2040.

⁷³ Competition Commission, *BAA airports market investigation – A report on the supply of airport services by BAA in the UK*, March 2009

⁷⁴ BAA owned 7 airports: Gatwick, Heathrow, Stansted, Aberdeen, Edinburgh, Glasgow, Prestwick (sold in 1991) and Southampton (acquired in 1990)

⁷⁵ Competition & Markets Authority, *BAA airports: Evaluation of the Competition Commission's 2009 market investigation remedies*, May 2016

⁷⁶ European Observatory on Airport Capacity & Quality, *Learning from national, regional and local strategies on airport capacity*, Final Report of Task Force, 2015

⁷⁷ Eurocontrol, *Challenges of Growth*, 2018
<http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/challenges-of-growth-2018.pdf>

⁷⁸ Eurocontrol's study covers the airspace of the European Civil Aviation Conference States, i.e. EU 28 + Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The Former Yugoslav Republic of Macedonia, Turkey and Ukraine

But expanding airports, which might seem the obvious answer to this situation, is associated with the risk of negative effects to the society, such as, for instance, increasing noise and air pollution, as well as potential negative effects on residential areas to make room for new facilities. For this reason, plans to expand major airports often lead to intense and contentious political debates and lack of sufficient societal acceptance, in particular from local communities.

Caution should also be exercised in drawing inferences from these forecasts for the future need for airport growth, since factors such as policy responses to climate change, jet fuel prices or global economic downturn could affect the attractiveness of air travel in future. Another fact complicating any forecasts is that technological developments, such as the use of larger, quieter and less polluting aircraft, or improvements in air traffic navigation, have the potential to facilitate a more intensive use of some existing airport facilities.

Even so and despite continued investment by EU airports, further significant investment in airport capacity is likely to be required over the next two decades. While the source of financing of these investments may be very different, an important part of it generally comes from airport charges. For large EU airports, i.e. airports with more than 5 million passengers annually, investments have to be financed from airports' own resources and cannot be supported by State aid, since these airports are considered to be usually profitable and able to cover all of their costs, except in very exceptional circumstances.⁷⁹

Capacity constraints at airports are an important factor in assessing the level of competition between airports. From the airports' point of view, existing spare capacity should normally determine airports to be more proactive in attracting airlines to fill their capacity. In contrast, congested airports are less able to increase volumes (in terms of aircraft movements or passengers/tonnage numbers) and hence have less incentive to reduce airport charges or improve further service quality. From the airlines' perspective, they can incentivise airports to reduce airport charges or increase service quality (or both) by threatening them to switch some of their routes or their entire operations to alternative airports. This is nevertheless plausible and credible only if there is sufficient spare capacity at those other airports.

Commercialisation of airports and developments in airport ownership

Another important development in the airport industry constitutes its increasing commercialisation. Airports were treated in the past as strategic infrastructure providers directly controlled by national (or regional) governments. In Europe and in many other areas of the world, airports have increasingly been restructured as public corporatized enterprises or have introduced private capital, either through their partial or full privatisation or through long-term concessions⁸⁰. An airport operated as a commercial

⁷⁹ Communication of the Commission - Guidelines on State aid to airports and airlines (2014/C 99/03), paragraph 89

⁸⁰ There are different types of arrangements possible under the concession agreements, see for further info:

enterprise is most likely to focus on increasing its efficiency. On the other hand, publicly owned and operated airports also focus, at least partially, on non-commercial, public policy objectives such as the economic development of the region through improved connectivity.

According to ACI-Europe⁸¹, between 2010 and 2016 the percentage of EU airports that are fully public has dropped from 77% to 53.2%, while the percentage of airports that are fully private has increased from 9% to 16.9% and of those that have mixed ownership has increased from 14% to 29.9%, over the same period. For the calculation of these figures, also airports which are under private concessions but publicly owned (e.g. airports in Cyprus, Portugal, Greece, France) are considered private.

Most examples of fully privately owned and operated airports are to be found in the UK, where the BAA was floated on the stock market in 1987 as a single entity and afterwards taken over by a private consortium in 2006. In the case of e.g. Frankfurt (listed in 2001), Brussels, Copenhagen or Vienna, the private sector interest is a majority. Spain's Aena was partly (49%) privatised in 2014. Nevertheless, most major airports in Germany and in France retain the State as majority and the private sector as minority shareholders. Also, the vast majority of airports in Member States that joined the EU as of 2004 are fully owned by the respective States, as are the airport networks in Finland, Sweden and Norway.

Alongside the trend of private sector investment into airports, there has also been an increased move towards concessions. The external study found that 23 airports (28%) covered by the Directive were operated in 2016 under concession agreements compared to 13 (19%) in 2009.

Over the evaluation period, concession agreements involving the sale of the right to operate airports were concluded in France for Nice airport (2016 until 2044), in Greece for Thessaloniki, Rhodes and 12 smaller airports (2015 until 2055), in Italy for Milan (2011 until 2041), Rome (2012 until 2044) and Venice (2012 until 2027) airports and in Portugal for Ana airport network (2013 until 2063).

These concession agreements at EU airports usually involve the right to operate an airport (or several airports) and to control one or all of the airport's activities for a limited, but long-term period of time. At the end of the concession period the assets of the airport usually go back to the State. The concessionaire takes over a financial risk for the management and the operation during the period of the concession. The concession agreements in place at EU airports often contain provisions relating to airport charges setting applicable for the entire period of the concession.

- IATA, 2018, <https://www.iata.org/policy/infrastructure/Documents/Airport-ownership-regulation-booklet.pdf>

- ACI-World, 2018, https://aci.aero/Media/ae86ff71-4322-412d-9326-bc1423398bb5/pXvbKQ/About%20ACI/Priorities/Economics/2018/ACI_PolicyBrief_CreatingFertileGroundsforPrivateInvestmentinAirports.pdf

⁸¹ ACI-Europe, *The ownership of Europe's airports*, 2016.

4. EVALUATION METHODOLOGY

4.1 Short description of methodology and data sources

The evaluation of the Airport Charges Directive started in September 2016 with the publication of the roadmap and was overseen by an Inter-service Steering Group (details in Annex 4), who followed the exercise.

Baseline: The main source used to define the baseline in this evaluation is the 2007 impact assessment.

Fact finding study: This evaluation builds in particular on the findings of the “Support study to the ex-post evaluation of Directive 2009/12/EC on Airport Charges”⁸² prepared by Steer Davies Gleave (hereafter the “study”) for the European Commission in 2017. The study relied on a combination of sources and methods, including desk research and extensive stakeholder consultation. The 2017 study in turn, takes into account the conclusions of the mid-term evaluation study carried out in 2012 by the same external consultant.

The study included in-depth economic analysis examining key aspects of the performance of airports covered by the Directive such as pricing (airport charges), investments, productivity and efficiency. The study completed the analysis for 35 airports and partially completed the analysis for a further 31 airports. It has drawn on airports’ annual reports and financial statements as main source of information, which were complemented by analysis of contextual information and data such as airlines’ reports and financial statements, traffic statistics, airports’ ownership or management arrangements, quality of service metrics. A sample of 5 EU 28+3 airports not subject to the Directive and 5 non-EU 28+3 airports was also chosen in an attempt to benchmark the performance of airports covered by the Directive. The study has also reviewed market power assessments of airports carried out in Europe and elsewhere.

The targeted consultation conducted by external consultants under the study included a survey of key stakeholders, using surveys adapted to each stakeholder group (airports, airlines, Member States / ISAs and other groups) and distributed virtually to all actors, as well as interviews with a selection of 40 key stakeholders. In addition to an assessment of each evaluation question, the study also covers a detailed factual description of the application of the Directive in all 28 Member States, Iceland, Norway and Switzerland, as well as 8 case studies of specific airports or airport groups located in France, Germany, Italy, Portugal, Slovakia, Spain, Sweden, and UK. The interviewees and airports subject to the case studies have been chosen by the contractor in collaboration with the Commission.

⁸² <https://publications.europa.eu/en/publication-detail/-/publication/8e6db69a-e601-11e7-9749-01aa75ed71a1/language-en>

Targeted consultation:

In addition to the targeted consultation carried out under the scope of the external study, two events were organised by the Commission in cooperation with the European University Institute / Florence School of Transport Regulation in Florence. The first event was the high-level symposium held on 17 June 2017 and chaired by Commissioner Bulc; the symposium gathered a number of leading figures representing the airport and airline industries and discussions focused on the emerging findings of the external study. The second event was a seminar at technical level held on 28 May 2018 which grouped airlines, airports, ISAs and academia representatives and which was used to discuss the emerging conclusions from the Commission's evaluation. The outcome of these events has been integrated into this evaluation.

Open Public Consultation:

The Commission organised an online public consultation to support this evaluation. The consultation ran from 3 April to 26 June 2018. The questionnaire of the public consultation was made available on the Commission's Public Consultation Portal "Have your say"⁸³ in all EU languages. The survey was answered by a total of 62 respondents, 28 of which were individuals and 34 of which were replying on behalf of an organisation. Respondents came from 17 Member States and Norway, with the highest number (20) from Germany.

Annex 5 contains further details on the stakeholder consultation activities.

Information from Member States:

The Commission has analysed annual reports prepared by national independent supervisory authorities, pursuant to Article 11(8)⁸⁴ of the Directive, where available.

Complaints, investigations and infringements:

A review of complaints received by the Commission and own-initiative investigations or infringement proceedings was conducted, as a key evidence gathering exercise to support this evaluation in order to identify difficulties with the transposition, application, interpretation and enforcement of the Directive. In addition, the study contains summarised information about complaints submitted by airlines to the national independent supervisory authorities.

Information from airports and airlines:

The Commission is in permanent contact with airports and airlines (individual and their associations) which have prepared and submitted during or before this evaluation position papers and studies on the topic of airport charges and related issues, such as airport competition, airline competition, evolution of airport charges / air fares, etc. The Commission has carefully reviewed all evidence submitted.

⁸³ https://ec.europa.eu/info/consultations/public-consultation-charges-use-airport-infrastructure_en

⁸⁴ Article 11(8) foresees that ISAs publish annual reports concerning their activities.

Work of the Thessaloniki Forum:

The Forum has published a number of reports over the last few years. Industry (airports and airlines) is widely consulted by the Forum in the preparatory stages of their work. In 2016, the Forum published two sets of recommendations – one on consultation between airports and their users, and the other on setting and estimation of airports' cost of capital. In 2017, the Forum published two further reports – one providing recommendations on how market power assessments can be used to ensure that economic regulation of airports is appropriately targeted, and the other summarising practises in conducting market power assessments. Most recently, in December 2018 the Forum published another two reports – one presenting their views on the use of selection criteria to identify airport operators most likely to have significant market power and the other presenting recommendation on assessing non-discrimination under the Airport Charges Directive. All of this work has been taken into account in this evaluation, especially as source of information cross-checking.

4.2 Limitations and robustness of findings

The data collection and analysis carried out has a number of limitations, whose impact was mitigated by cross-checking as much as possible data gathered across different sources.

This evaluation has considered whether there is any existing evidence relating to the market power of EU airports, and the possibility that any EU airport with significant market power may have misused that market power. However, the evaluation has not sought to undertake detailed analysis of the market power of individual airports, nor has it sought to establish whether any specific airport may be misusing significant market power, should it be determined that it has such market power. Such analysis is by its nature very time consuming and undertaking it would have been disproportionate for an evaluation of a Directive.

Airports and airlines remain polarised as to how airport charges should be set and have vested interests in advocating less intervention (airports) or on the contrary, a general strengthening of its provisions (airlines). Their strong incentives are reflected in their respective views on the performance of the Directive. Such divergent positions might limit the confidence in the data, both quantitative and qualitative, put forward by either of the two groups of stakeholders. Although it is often the only information available, it is very difficult to verify its degree of accuracy. This evaluation has therefore taken all information available into account while remaining transparent on its provenance, conscious of the existence of possible bias.

With few exceptions, customers' satisfaction as regards the quality of service received or required is rarely systematically monitored by neutral, independent bodies. It is also known that such views and needs differ between time-sensitive and price-sensitive consumers.

Many of the Directive's objectives are qualitative by nature including, for example, ensuring fairness in the process of airport charges setting. The lack of relevant quantified

or monetised data makes it difficult to draw firm conclusions about the Directive's effectiveness in achieving such objectives.

The evaluation has highlighted issues that appear to be limiting the effectiveness of the Directive. In certain cases the Commission is investigating whether the issues reflect misapplication of the Directive. In such cases it has not been possible to draw firm conclusions about the extent to which such issues are a matter of misapplication of the Directive and the extent to which the issues relate to the Directive itself. Furthermore the existence of ongoing investigations or infringement actions limits the level of detail that can be presented on the issues in this staff working document.

5. ANALYSIS AND ANSWERS TO THE EVALUATION QUESTIONS

5.1 Relevance

1) To what extent is the Directive still relevant to tackle today's reality?

To assess whether the Directive remains relevant to tackle today's reality means assessing, on the one hand, whether the problems and problem drivers identified in 2007 persist today, as they formed the basis of the Directive. It also means assessing whether any new problems have arisen since the adoption of the Directive that might be of relevance. On the other hand, the analysis also assesses how the objectives of the Directive compare to current policy needs.

This section provides an analysis of the most important market and regulatory developments since 2007 and how they affect the above identified problems and their underlying drivers.

In the subsequent question we will discuss whether the objectives of the Directive appropriately address these problems.

Possibility for some airports to extract prices and terms that could not be achieved in an effectively competitive market

The 2007 impact assessment accompanying the proposal found that there was limited competition between airports and that competition mainly took place at the level of regional airports, enhanced by the rise of low cost carriers. This was identified as one of the drivers for the issue that some airports might be able to extract prices and terms that could not be achieved in an effectively competitive market.

As explained in detail in section 3 above, since the impact assessment and the adoption of the Directive, the market for airport services has further evolved and airport competition has become more widespread. The strong growth of low cost airlines continued and has stimulated airport competition further. This concerns, in particular, small and mid-size secondary airports as the business model of low cost airlines has until recently primarily focused on these airports. According to the external study there are indications that for markets with a relatively low level of demand or seasonal markets, especially, these airlines have been effective in getting airports to bid against one another for routes or aircraft capacity.

At some large airports, the possibility for low cost airlines to grow is limited by severe capacity restrictions at these airports as described in section 3. Nevertheless, the above described evolution has led to an increase in competition also at some large airports.

Furthermore, besides competition by low cost airlines at large airports, the development of multi-hub strategies by large airlines groups makes it increasingly possible for these groups to move or to threaten to move capacity away from an airport to another and to put airports into increased competition compared to the situation before. Because of the cost involved in switching capacity, this is particularly true for new capacity. The possibility to move or to threaten to move aircraft capacity is at some large airports limited by severe airport capacity restrictions.

Finally, the increased penetration of the EU market by non-EU carriers and their continued expansion as described in section 3 results in competition among airports as these carriers introduce competition among airports for new connection services by these carriers from an EU airport to their non-EU hub.

The analysis thus finds there are indications that due to recent market developments, airport competition has increased. Competition among small and regional airports that had already been identified as intense in the 2007 impact assessment has further increased. In addition, competition among airports now also extends to larger airports that were in general not considered to face competition at the time of the 2007 impact assessment. The extent to which these developments affect the competitive situation of an individual airport differs. This analysis has not found sufficiently robust evidence on the competition situation that would allow it to draw clear conclusions on the exact level of competition at individual airports.

As explained in section 3 above, the Commission's decision making practice under EU merger legislation indicates that competition between airports will very much depend on circumstances of each individual case. As shown above, the Commission has, in the majority of its previous merger cases, defined the geographic scope of the market for airport infrastructure services as local.

There are indications that competition remains limited for some, in particular large airports, resulting in significant market power of these airports vis-à-vis airlines. The strong growth of low cost airlines presented above affected large airports to a lesser extent than small and mid-size secondary airports. Capacity constraints at some large airports in particular have limited the potential for growth of low cost airlines. The multi-hub strategy applied by large airlines groups increases the potential of these airlines to choose among several airports for allocating new capacity or to switch existing capacity. But this comes at a cost for the airlines thereby limiting the interest of airlines in switching existing capacity. Again capacity constraints at some large airports limit the possibility to move capacity or to threaten credibly to move capacity.

The conclusion that competition appears to remain limited for some, in particular large, airports, is supported by market power assessments carried out by or on behalf of national authorities in the Netherlands, Ireland and the UK. These assessments found significant market power for Amsterdam Schiphol airport, Dublin airport, as well as for

London Heathrow and London Gatwick airports in the market for the provision of services to passenger airlines (see the response to evaluation question 3 for details on these market power assessments). For these airports the national authorities came to the conclusion that *ex ante* economic regulation going beyond the Directive's requirements is justified because of the risk of misuse of the significant market power of the respective airport assessed. In addition, as shown in Table 1 in Section 3, Member States apply economic regulation that goes beyond the requirements of the Directive to a large number of other airports, despite not having undertaken detailed market power assessments. This evaluation has not sought to determine the reasons why Member States have decided to apply economic regulation at all EU airports that are regulated. As no detailed market power assessment has been conducted for those airports, this evaluation cannot draw any firm conclusions on the competitive situation at each individual airport to which Member States apply economic regulation.

As referred to above, detailed market power assessments have been conducted only for a selection of airports in the Netherlands, Ireland and the UK. It is possible that there are additional airports that have significant market power apart from the four airports identified on the basis of these assessments. However, to establish definitely the competitive situation for all airports would require an individual analysis of the market power of each airport which is not proportionate in the context of this evaluation.

The 2007 impact assessment had identified information asymmetry on the composition of airport charges as another driver to the problems identified. As will be discussed in more detail in the section on effectiveness, the Directive has improved transparency in the way airport charges are set but lack of transparency and information asymmetry remain an underlying issue.

Whereas competition has increased overall, there are indications that competition appears to remain limited for some, in particular larger capacity-constrained airports. The evaluation thus concludes that the possibility for some airports to extract prices and terms that would otherwise not be achieved in an effectively competitive market appears to remain today to some extent. Nevertheless, this evaluation also concludes that while the size of this problem in terms of the number of airports concerned is unknown, it might have decreased because airports increasingly face competition at a level which goes beyond the level of competition between airports that was determined in the 2007 impact assessment.

Diverging charging systems in Member States which lack clear transparency

The Directive contains a number of provisions aiming at creating a common regulatory framework among Member States. These provisions concern consultation, transparency, non-discrimination, the setting up of an ISA and appeals.

The Directive has been partially successful in setting up a common framework for consultation, transparency, non-discrimination, ISAs and appeals as will be discussed in more detail in section 5.2 on effectiveness. The current regulatory picture for European airports as regards the type of economic regulation (see section 3 for details) varies greatly as the Directive does not prescribe any regulatory model.

As will be detailed in section 5.2 on effectiveness, the Directive has also improved transparency in the way charges are set. At the same time, the evaluation however comes to the conclusion that lack of transparency remains an issue.

However, the evaluation finds that the problem of diverging charging systems which lack clear transparency contains two aspects, i.e. divergence of charging systems on the one hand and lack of transparency of these charging systems on the other hand. These two aspects do not seem to be problems in themselves but rather problem drivers.

A problem resulting from diverging charging systems can be distortion of competition among airports through insufficient level playing field if an airport is subject to tighter regulation than a competing airport in another Member State. Alternatively, diverging charging systems can act as a barrier to entry for airlines wishing to launch new services at an airport, given the need for them to familiarise themselves with the differing airport charges setting processes in place.

A lack of transparency of the charging systems is part of the problem driver ‘scarce information on the composition of airport charges’ that was among the drivers identified for the problem that some airports might be able to extract prices and terms that could not be achieved in an effectively competitive market.

Barriers to entry for airlines

The evaluation identified a further problem that has not been addressed by the 2007 impact assessment and the Directive, which is the risk that in certain cases (e.g. where there is an airline with significant buyer power at an airport), the airport charges setting process might indirectly impose additional barriers to entry for airlines wishing to launch new or expand existing services at an airport.

This can for example be the case where an airline with significant buyer power at an airport operating at its capacity limit hampers the expansion of airport capacity by using the airline's weight in the consultations on investments to expand airport capacity. The possible resulting lack of capacity prevents other airlines to launch operations to/from this airport. Another example could be that the airline with buyer power could negotiate an airport charges schedule in its favour, for example by way of significant volume discounts. This would deter airlines not benefitting from these discounts to launch new services to/from the airport.

The airline with buyer power could thus try to influence the airport charges and investments in a way which benefits it but is neither in the interests of other airlines, nor in the interests of air passengers or cargo customers in general. This problem can lead to inefficiencies, for example in the form of higher fares/air cargo rates or narrower ranges of air services than would otherwise have been the case, adversely affecting air passengers and freight customers. Alternatively, as noted above diverging charging systems across EU airports could act as an additional barrier to entry for airlines wishing to launch new services at an airport. This would be the case where differing charging systems result in airlines facing higher time and money costs to participate effectively in the airport charges setting process at different airports.

The magnitude of this issue is not known and evidence available at this stage is very limited. ACI-Europe presented the example of Munich airport where the largest airline at the airport allegedly opposed investments into a terminal used mainly by its competitors and not by itself. A 2017 study commissioned by ACI-Europe⁸⁵ found that at capacity constrained airports (i.e. where the number of passengers wishing to use an airport exceeds its capacity) incumbent airlines can charge a fare premium, or 'scarcity rent'. This is a mark-up on the fare the airlines would be able to charge if there were no capacity shortage, which does not reflect the costs the airlines incur. The report points out that the existence of these fare premiums provides an incentive to incumbent airlines to oppose airport expansion, so as to continue to collect scarcity rents and to prevent new competitors from entering the market. In such situations, the incumbent airline interests concerning capacity expansion at a congested airport may thus not always be aligned with those of the passengers and therefore may not contribute to delivering a socially optimal outcome.

- 2) *To what extent have the specific objectives underlying the adoption of the Directive proven to be appropriate for addressing the problems? To what extent is the current scope of application of the Directive catering to the real needs of airports (e.g. sufficient funding) and their users (e.g. cost-efficient airport charges, quality standards, differentiation of services)?*

This question assesses the extent to which the specific objectives underlying the Directive have proven to be appropriate for addressing the problems as they have evolved as presented under the answer to evaluation question 1.

The evaluation includes the specific objective of promoting more transparent charging systems. However, transparency is usually not aimed at solely for the sake of it. It would rather be a means to achieve something, such as to achieve acceptability of changes in airport charges and charging levels by airlines and to improve the bargaining power of airlines.

One of the problems identified in the analysis under evaluation question 1 is the possibility for some airports to extract charges and terms that could not be achieved in an effectively competitive market. This problem is reflected in the specific objective of ensuring fairness in the process of charges setting, especially when dealing with airports with significant market power. More transparent charging systems could be one of the measures to support this objective of ensuring fairness. While the objective of ensuring fairness implicitly reflects the identified problem, it could be argued that this specific objective is not specific enough to address the problem. The term "fairness" is very vague and leaves a large room for interpretation. As regards promoting more transparent charging systems, this objective addresses only significant market power of airports stemming from information asymmetry. However, as explained in section 2.2 above, significant market power of airports usually stems from other factors as well.

⁸⁵ SEO Amsterdam Economics, *The Impact of airport capacity constraints on air fares*, 2017

The specific objective of generating sufficient revenues to maintain and complete airport infrastructure at an optimal level does not seem to be directly related to any problem that had been identified in 2007 impact assessment that were the basis of the Directive. It may have been added to complement the other objectives, to address any potential negative side-effects of the Directive on investment that would have undermined the long-term sustainability of the framework the Directive aimed to establish. In this case it also (indirectly) relates to the identified problems. Generating sufficient revenues to maintain and complete airport infrastructure at an optimal level remains important, taking into account that significant investment in airport capacity is likely to be required over the next two decades as detailed in section 3.

The evaluation identifies some gaps in the specific objectives underlying the intervention. Only airports and airlines are mentioned. Consumers are mentioned only briefly in the general objectives. Consumer interests are not always aligned with the interests of the stakeholders directly affected by airport charges, i.e. airlines and airports. If the initiative is supposed to cater to the needs of the EU society as a whole, it thus also has to take into account consumers' interest.

The evaluation also finds that while diverging charging schemes in the Member States which lack clear transparency were identified among the problems, the aspect of diverging charging systems is not translated into any specific objectives. This leads to a gap in the specific objectives which in turn will lead to not addressing properly the identified problem. However, as presented in the answer to the previous question, this problem does not seem to be relevant as it does not constitute a problem as such but could be rather one of the drivers to a possible other problem of distortion of competition between airports.

The evaluation identified an additional problem presented in the answer to the previous question which is the risk that in certain cases (e.g. where there is an airline with significant buyer power at an airport) the airport charges setting process might impose additional barriers to entry for airlines wishing to launch new services at an airport. This issue has not been addressed by the Directive. Consequently, there is no specific objective that would address this problem.

Overall, the evaluation finds that the objectives underlying the adoption of the Directive are broadly appropriate for addressing the problems. However, there are some inconsistencies and gaps as discussed above.

- 3) *To what extent do the airports concerned by the Directive have market power, and notably how relevant is the threshold regarding the selection of airports to be covered by the Directive? Does it reflect correctly airports market power?*

This section starts out by looking at the evidence available on EU airports having significant market power. As explained in section 2, the 2007 impact assessment did not explicitly include tackling the risk of the misuse of significant market power of airports and its adverse effects among its specific objectives. However, as explained in same section, this evaluation treats tackling the risk of misuse of significant market power of

airports as an implicit specific objective of the initiative at the time and adopted Directive. In this context it is of relevance to first establish if there are airports that have significant market power.

This section then goes on to discuss the evidence available on whether having more than 5 million passenger annually is of relevance as an indicator of significant market power.

Existing assessments of market power of EU airports

It is important to draw a distinction between airports having significant market power and airports misusing this significant market power. Having significant market power merely implies that an airport has the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers within the relevant market; whereas misuse of significant market power by an airport would consist in more than just holding a significant market power, but rather in the adoption of specific conduct by this same airport, which may be found to constitute a misuse of its significant market power, such as the excessive level of airport charges or the discriminatory treatment of downstream customers.

Whether or to what extent EU airports that are currently within the scope of the Directive have significant market power and therefore there is a risk that they may misuse that power are controversially debated questions in the industry. It is not at all straightforward to answer them, as a market power assessment would have to be carried out individually for each airport in scope of the Directive. These assessments involve a time- and resource-intensive analysis of the competitive constraints faced by each airport in the relevant market(s) and carrying them out would be disproportionate for an evaluation of a Directive.

Examples of market power assessments that have been carried out by or on behalf of national authorities can be found in the Netherlands⁸⁶, Ireland⁸⁷ and the UK⁸⁸. The time taken for the market power assessments varied from 1 year for the Netherlands and Ireland to 2½ years for the UK (including the assessment of appropriate remedies), illustrating the complexity of carrying out a market power assessment.

The market power assessment carried out by the Netherlands Competition Authority came to the conclusion that Amsterdam Schiphol Airport has significant market power.

⁸⁶ The opinion of the Netherlands Competition Authority (former NMa) on Amsterdam Schiphol Airport's market position and the desirability of economic regulation which had been requested by the the Dutch Ministry of Infrastructure and Environment is available at:

<https://www.acm.nl/nl/publicaties/publicatie/6779/Advies-NMa-over-regulering-van-Schiphol/>

⁸⁷ The report on the Review of the Regulatory Regime for Airport Charges in Ireland completed by Indecon on behalf of the Department of Transport, Tourism and Sport is available at:

<http://www.dttas.ie/sites/default/files/publications/aviation/english/review-regulatory-regime-airport-charges-ireland/review-regulatory-regime-airport-charges-indecon-economic-consultants.pdf>

⁸⁸ The decisions of the CAA for the respective airports are available at: www.caa.co.uk/CAP1133 (Heathrow airport), www.caa.co.uk/CAP1134 (Gatwick airport), www.caa.co.uk/CAP1135 (Stansted airport passenger airline services), www.caa.co.uk/CAP1153 (Stansted Airport cargo only airlines services)

The market power assessment of Irish airports carried out in Ireland on behalf of the Department for Transport concluded that Dublin airport has significant market power in its relevant market. The report on the Review of the Regulatory Regime for Airport Charges in Ireland also analysed the market position of the other two main airports in Ireland, Shannon airport and Cork airport, and found that these two airports do not have significant market power. The market power assessments performed for London Heathrow and for London Gatwick airports concluded that both airports had significant market power in the market for the provision of services to passenger airlines. The market power assessment performed for London Stansted airport, in contrast, concluded that it did not have nor was likely to acquire significant market power in the relevant market for services to passenger airlines or in the relevant market for cargo airlines.

In addition, Copenhagen Economics carried out for the German Airports Association⁸⁹ an analysis of the competitive situation of the twelve German airports. This study found that all twelve German airports considered in the study were subject to several, albeit different, competitive constraints. Due to the cumulative effect of these competitive constraints, it would be unlikely that German airports have significant market power that they can misuse. This privately commissioned market power assessment is not comparable in terms of level of detail, and therefore robustness, to the analysis of the market power assessments carried out by or on behalf of national authorities mentioned above.

The French competition authority recently stated that it considers that competition at airports with more than 5 million passengers annually is structurally limited⁹⁰, without, however, having performed detailed market power assessments. The decision-making practice of the French competition authority considers that large airports, with the exception of those serving the same city, operate in a monopoly at a given location, even if they may experience some competitive pressure for their hub activities from a nearby airport.

To conclude, four airports are found to have significant market power as the evidence from the market power assessments in the Netherlands, Ireland and UK suggests. There is no conclusive evidence available on the extent to which significant market power can be found at other airports across the EU as no market power assessments have been carried out by other authorities, as discussed in the response to evaluation question 1.

⁸⁹ Airport competition in Germany, Copenhagen Economics for the German Airports Association, November 2016.

⁹⁰ Opinion by the French competition authority on a draft decree modifying some aspects of the national framework on airport charges; République Française, Autorité de la concurrence, Avis n° 16-A-10 du 3 mai 2016 concernant un projet de décret relatif aux redevances aéroportuaires, <http://www.autoritedelaconcurrence.fr/pdf/avis/16a10.pdf>

Relevance of threshold (of 5 million passengers annually and largest airport in a Member State)

The Directive applies to all airports with more than 5 million passengers annually as well as to the largest airport in Member States where no airport reaches this size.

According to the 2007 impact assessment the threshold should focus the intervention on airports that have sufficient traffic that makes regulation of airport charges meaningful to air carriers serving those airports. The threshold itself was based on the upper limit of passenger movements for "large regional airports" defined in the then Community guidelines on financing of airports and start-up aid to airlines departing from regional airports⁹¹. The determination of its exact level was not based on any further evidence.

As regards the inclusion of the largest airport in Member States where no airport reaches this size within the scope of the Directive, it was deemed (recital (4) of the Directive) that in a Member State where no airport reaches the that size, the airport with the highest passenger movements enjoys such a privileged position as a point of entry to that Member State that it is necessary to apply this Directive to that airport⁹².

The final threshold included in the Directive was the result of discussions during the legislative process. The Commission proposal for the intervention had provided that the Directive should apply to any airport whose annual traffic is over 1 million passengers annually or 25 000 tonnes of cargo. It had not included the largest airport in a Member State irrespective of its traffic.

In 2017 six airports (Bratislava, Tallinn, Zagreb, Vilnius, Luxembourg and Ljubljana) had less than 5 million passengers annually but fell within the scope of the Directive because they were the largest airport in the respective Member State. During the targeted stakeholder consultation some airports with under 5 million passengers annually which are under the scope of the Directive, stated that being the largest airport in a Member State should not be a sufficient criteria to be within scope of the Directive. Tallinn airport for example argued that the costs of implementing the Directive are not proportionate in relation to the benefits, given the small size of the airport.

While it is evident that a threshold based on number of passengers annually for airports to fall within the scope of the Directive allows focusing on airports with higher traffic and where the volume of airport charges paid is more important, the choice of situating a threshold at 5 million passengers annually is not based on precise calculations. The criterion that the largest airport in a Member States where no airport reaches this size falls within the scope of the Directive, irrespective of the airport's traffic, is based on considerations other than absolute traffic volume alone. Rather, it focuses on the

⁹¹ OJ C 312, 9.12.2005, p. 1. The 2005 Guidelines were replaced in 2014, see footnote 42.

⁹² The inclusion of the largest airport in each Member States irrespective of its traffic in the scope of Directive was confirmed as being compatible with Union law in the judgement of the Court in the case C-176/09 of 12 May 2011.

privileged position of airports that constitute the point of entry into the Member States concerned.

Does the threshold reflect airports' market power, i.e. are airports below this threshold unlikely to have significant market power?

As discussed in section 3 and the reply to the evaluation question 1, an assessment of the development of competition among airports provides indications that in general competition among airports increased and is particularly effective for small and medium-sized airports. While it can be therefore expected that small and medium-sized airports are thus less likely to have significant market power, only detailed market power assessments could confirm this premise. The assessment of the development of competition is not able to provide indications about the size of the airports that should be considered as small and medium-sized airports for the purpose of this conclusion.

Drawing on market power assessments that have been carried out and were presented above, a number of criteria can be identified that have been used when assessing whether an airport has significant market power. The size of an airport is not among the criteria. This can serve as an indication that significant market power depends on factors other than the size of the airport and does not support the idea of the threshold of 5 million passengers annually reflecting significant market power. Airports with less than 5 million passengers annually can also have significant market power while at the same time airports with more than 5 million do not necessarily have significant market power.

The external study supporting this evaluation carried out an analysis of the change of different profitability indicators at airports of different sizes from 2009 to 2015 to identify if airports below a certain size are less likely to have significant market power. However, the change in different profitability indicators cannot be used as an indicator that an airport would have significant market power, as will be explained in the section on effectiveness below. It consequently does not allow reaching any conclusion whether airports below a certain size are less likely to have significant market power.

The stakeholder consultation carried out for this evaluation revealed that the majority of responding ISAs, airport operators and airlines consider that the choice of the 5 million passengers annually threshold was somewhat "arbitrary", was not evidence-based and as a criterion was not sufficient to determine that an airport has or does not have significant market power.

Some stakeholders, including the Austrian ISA and ERA, suggested that the threshold should be lowered to 1 million passengers annually as they believe airports below 5 million passengers annually can also have significant market power.

The analysis above has shown that small and medium-sized airports seem to be less likely to have significant market power in view of the increased competition. However, it is unclear up to which level of annual passengers an airport should be considered as a small or medium-sized airport which is less likely to have significant market power. Airports exceeding the threshold of 5 million passengers annually can only be regarded as a very crude proxy for airports with significant market power.

Conclusion on Relevance

The first problem that the Directive aimed to address - some airports being able to extract prices and terms that would otherwise not be achieved in a competitive market – appears to persist, albeit on a smaller scale. Since the preparation of the Directive, competitive pressures on European airports have generally increased for small and regional airports that had already been found to face competition. In addition, competition among airports is found to now also extend to medium-sized and larger airports. However, the extent to which these developments affect the competitive situation of individual airports differs and cannot be determined with certainty. Several Member States have undertaken detailed analysis and found significant market power at four airports (Amsterdam Schiphol, London Heathrow, London Gatwick, Dublin). Relevant national authorities decided to impose *ex ante* regulation to those four airports. There is no conclusive evidence available on the extent to which significant market power can be found at other airports across the EU as no market power assessments have been carried out by other authorities or by the Commission for the purpose of this evaluation.

As regards the second problem that the Directive aimed to address - diverging charging systems in Member States that lack clear transparency in the way they are built up – the evaluation finds that diverging charging systems as well as the lack of clear transparency do not seem to be problems in themselves but rather problem drivers.

A problem resulting from diverging charging systems can be distortion of competition among airports through insufficient level playing field if an airport is subject to tighter regulation than a competing airport in another Member State. Alternatively, diverging charging systems can act as a barrier to entry for airlines wishing to launch new services at an airport, given the need for them to familiarise themselves with the differing airport charges setting processes in place.

A lack of transparency of the charging systems is part of the problem driver ‘scarce information on the composition of airport charges’ that was identified among the drivers for the problem that some airports might be able to extract prices and terms that could not be achieved in an effectively competitive market.

The evaluation has brought to light an additional issue. At some airports (e.g. where there is an airline with significant buyer power at an airport), there is the risk that the airport charges setting process might indirectly impose additional barriers to entry for airlines wishing to launch new services at that airport. For example, incumbent airlines with significant buyer power might use the airport charges setting process to hamper investment in airport capacity, or skew the airport charges schedule in their favour. However, the evidence available on this issue at this stage is limited and the evaluation has not established the magnitude of this issue.

The specific objectives of the Directive identified in the impact assessment still broadly reflect the problems identified above. Nevertheless, some gaps and inconsistencies have been identified:

- The specific objectives of the Directive insufficiently reflect one of the problems it aimed to tackle, namely the issue of some airports being in a position to extract prices that would not be achieved in a competitive market.
- The interests of passengers travelling by air and owners of air freight are not explicitly mentioned in any specific objective of the Directive.
- The specific objective of promoting transparent charging systems should rather be a means to achieving a certain objective than an objective in a final legal intervention.

The double threshold determining that the Directive applies to any airport with annual traffic exceeding 5 million passengers and/or with the highest number of passenger movements in each Member State, remains relevant to the issues and specific objectives identified above to a certain extent. The threshold of 5 million passengers annually focusses intervention on airports with higher traffic, where the volume of airport charges paid is generally higher and where the implementation costs are less likely to be disproportionate. There is however no precise calculation underpinning the number of 5 million passengers annually. In addition, there was never an assessment undertaken as to whether this threshold reflects in any way the market power of the airports concerned. The criterion requiring the largest airport in each Member State to be in scope of the Directive is not conducive to focussing on airports with higher traffic. The double threshold can therefore, at best, only be regarded as a very crude proxy for airports with significant market power. The threshold is however easily applicable and very clear.

5.2 Effectiveness

- 4) *To what extent is the existing range of remedies (as foreseen by Article 6 of the Directive) across Member States effective in dealing with possible market power of airports?*

The Directive provides for three types of remedy, according to Article 6(3) and 6(4), 6(5)(a) and 6(5)(b). Table 3 summarises the three types of remedy and identifies the countries in which they are applied.

Table 3: Remedy procedures chosen by European States⁹³

| Approach | Remedy | Impact on airport charges | Countries |
|--|--|--|---|
| General remedy procedure as per Article 6(3) and Article 6(4) | ISA has the power to intervene where airports and airlines disagree. | Suspensive effect on charges where airport must wait until ISA decision to take forward proposal (if positive ISA ruling). | Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Finland, Greece, (probably) Hungary, Italy (for airports under ART), Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Romania, |

⁹³ Based on analysis undertaken as part of the external study mentioned in footnote 4. It was not clear on the basis of the desk and field research undertaken as part of the external study which of the remedy procedures are applied in Slovenia (p. 126 of the report).

| | | | |
|------------------------|---|---|---|
| | | | Slovakia, Spain, Sweden, Switzerland |
| Article 6(5)(a) | ISA sets the charges (or approves) the charges itself. | Airport proposal not taken forward before ISA's decision. | Austria, Cyprus, Denmark, France, Germany, Ireland, Italy (for airports under ENAC), Norway, Poland |
| Article 6(5)(b) | ISA assesses if airports are subject to effective competition, when warranted on the basis of the results, ISA sets the charges (or approves) the charges itself. | Airport proposal not taken forward before ISA's decision. | United Kingdom |

The importance of the ISAs

In all cases the ISA plays a critical role in ensuring the effective application of the remedies, while the specific role varies across the three types of remedy. As noted in the 2007 impact assessment accompanying the Directive, it is important for the system of remedies to work effectively that the ISA has a "*thorough understanding of the airport business, be in a position to take decisions on airport charges that are independent as well as underpinned by expertise.*"

ISA independence

Most of the airlines and airline representatives responding to the targeted consultation (IATA, A4E, IACA, the German airline association BDF, Air France - KLM, easyJet, Ryanair, Alitalia and SAS) raised concerns about the independence of certain ISAs, highlighting a lack of legal separation between certain ISAs and the airport managing bodies they supervise. Air France - KLM highlight the ISAs in NL, UK and IE as examples of ISAs operating independently and being legally distinct from any airport or airline, but suggest this is not the case in most other countries. BDF noted that in Germany the role of ISA has been given to the Ministries of Transportation in the 16 federal states, despite the federal states being owners of the airports they supervise. They argue that this means that while the ISAs are functionally independent, they are not politically independent. The airlines' concern is shared by the German Monopolies Commission (Monopolkommission) – an independent expert committee that advises the German Government in the areas of competition and regulation – who concluded that "*...many Länder have a dual role as both owner and regulatory authority, as a result of which conflicts of interest cannot be ruled out.*"⁹⁴ None of the airports responding to the consultation expressed concern about ISA independence, although Sofia, Prague and Bratislava airports all noted that their airport were both owned and regulated by the State.

⁹⁴ The Twenty-First Biennial Report by the Monopolkommission, 2016, http://www.monopolkommission.de/images/HG21/HGXXI_Kap1_Flughafenregulierung.pdf

As noted in section 3, concerns relating to the independence of ISAs have underpinned many of the investigations and infringement proceedings launched by the Commission since the time limit for transposition of the Directive. These concerns have generally related to circumstances in which the ISA powers have been granted to Government Departments while the Government has retained the ownership (or share of the ownership) in the airports being regulated. The evaluation has found that, on the one hand, the issues often reflect incorrect application of the Directive and could in those cases be addressed via infringement action. On the other hand, and independently from the existence or not of infringements, it can be said that issues linked to circumstances in which the ISA powers have been granted to Government Departments while the Government has retained the ownership (or share of the ownership) in the airports being regulated are not sufficiently addressed in the provision that concerns the independence of the ISA (Article 11(3)).

ISAs ability to intervene

A number of airlines and airline representatives (A4E, IATA, Ryanair and easyJet) responding to the stakeholder consultation, raised concerns about the powers given to ISAs. IATA and easyJet suggested that in order to effectively address the risk of potential misuse of significant market power by an airport, ISAs need to be able to determine the airport charge levels. They noted that this was not the case for most ISAs. IATA identified a lack of sufficient detail in the Directive as contributing to this situation.

The Directive (Article 11) requires Member States to ensure that a procedure for resolving disagreement is established; the conditions under which a disagreement may be brought to the ISA are determined; and the criteria against which the disagreement will be assessed are determined. The Directive requires that the procedures, conditions and criteria be non-discriminatory, transparent and objective. However, the Directive lacks specificity on certain very important points related to ISAs ability to intervene as it does not say explicitly which criteria ISAs should use, or which actions they should be able to take in seeking to resolve a disagreement.

The evaluation has found that the powers given to the ISAs to intervene in the case of a disagreement in airport charges vary considerably. The external support study concluded that a number of ISAs, including those supervising larger aviation markets such as Germany, Spain and ENAC in Italy, have limited powers. In addition, the evaluation has identified particular issues related to article 1(5) of the Directive, which recognises the right of Member States to apply "...additional regulatory measures that are not incompatible with this Directive or other relevant provisions of Community law with regard to any airport managing body located in its territory." These measures are broadly defined and according to the Directive they may include the "approval of charging systems" or "price cap regulation".

Member States have interpreted the requirement that these regulatory measures should not be "incompatible" with the Directive in different ways. Certain Member States have interpreted this Article as meaning that the requirement established under Article 6(3) of the Directive for them to ensure that in the event of a disagreement over a decision on

airport charges, either the airport or its users may seek the intervention of the ISA, does not extend to any decisions on airports charges taken by the Member States themselves.

The Commission is investigating a number of cases where national laws may not be compatible with the Directive. Quite apart from possible misapplications of the Directive, it is clear that there are different interpretations regarding the extent to which the Directive's requirements apply where aspects of airport charges are fixed by Member States themselves (e.g. in national legislation or concession agreements). The application of those requirements to such cases would reflect the objectives underlying the Directive. Conversely, the different interpretations on this point limit the effectiveness of the Directive in achieving its objectives in circumstances where aspects of airport charges are fixed by Member States themselves.

ISA skills and resources

Finally, the evaluation has revealed concerns about a potential lack of sufficient resources in some ISAs. Responses to the stakeholder consultation, including the majority from airlines and from certain airports highlighted concerns about the level of staffing and/or expertise at certain ISAs (including the ISAs in Germany, France, Sweden and Hungary). The German airline association BDF expressed concern at the lack of expertise within individual German ISAs and suggested replacing the 16 regional ISAs with a single ISA at federal level. IACA went further in suggesting a single European wide regulator be created to ensure sufficient expertise.

Information provided by the ISAs themselves (to the external support study) indicates that in Hessen in Germany⁹⁵, Sweden, Austria, Finland, Croatia, Luxembourg, Switzerland and Norway less than 1 full time employee is assigned to tasks related to airport charges. This level of resourcing could be considered rather low, especially in cases where the ISA is responsible for providing oversight to one of the largest EU airports or a number of small to medium sized airports. The ISA in Hessen, Germany, is responsible for Frankfurt airport, the third busiest airport in the EU, and the ISAs in Sweden and Norway, are each responsible for multiple airports including airports serving more than 20 million passengers per annum.

It is not possible to draw firm conclusions, on the basis of the information collected as part of the evaluation, about whether the level of skills and resources of any individual ISAs is sufficient. Recital 12 of the Airport Charges Directive states "The [Independent Supervisory] Authority should be in possession of all the necessary resources in terms of staffing, expertise and financial means for the performance of its task." In fact, it is difficult to see how a Member State that fails to endow the ISA with the resources necessary to fulfil the functions attributed to it by the Directive could comply with the latter. A lack of sufficient skills or resources could, therefore, potentially be addressed via infringement action.

⁹⁵ The ISA in Hessen also draws on external expertise.

It is relevant to recall that, as noted in section 3, in 2014 the Commission created an expert group made up of ISAs – the 'Thessaloniki Forum' – with the aim of facilitating the sharing of expertise and best practise between the ISAs. The group has been active since its formation developing guidelines and recommendations to support the better implementation of the Directive.⁹⁶

In summary, ISAs play a critical role in ensuring the objectives of the Directive are met and where they are sufficiently well skilled, have sufficient powers, and are sufficiently independent, the remedies function effectively. However, the evaluation has revealed that in a number of Member States, one or more of these conditions is missing, and that, quite apart from any case of misapplication, lack of detail in the relevant requirements in the Directive is also relevant in the matter.

Indications of possible misuse of significant market power by airports

The response to this evaluation question has so far focussed on the effectiveness of the Directive in establishing ISAs that are able to intervene effectively in addressing the risk of possible misuse of significant market power by airports. The remainder of the response considers whether there are any indications of misuse of significant market power by any EU airport.

As noted in the response to evaluation question 3 above, assessing the market power of an airport is a very complex exercise and such analysis has only been undertaken by or on behalf of national authorities in three Member States. Furthermore, assessing whether a given airport may be misusing its significant market power is a more challenging task still, not least because it is not a straightforward task to assess the level of charges, profit levels, service quality and other behaviours that could be expected in an effectively competitive market. A detailed assessment of this kind would be disproportionate for an evaluation of a Directive. Nonetheless the evaluation has reviewed whether there may be any indications of possible misuse of significant market power by any airports.

It is important to bear in mind in interpreting the results of this analysis that all of the airports analysed are subject to regulations meeting the requirements of the Airport Charges Directive. Moreover, as shown in section 3, in many cases the national regulatory frameworks go beyond the requirements of the Airport Charges Directive, including with the aim of precluding the risk of possible misuse of significant market power (e.g. regulatory framework in the United Kingdom).

Indications of possible misuse of significant market power by airports – excessive profitability

The existence of airport profits should not be considered negatively; they are consistent with the existence of effective competition in the airports market and often indicate good management. However, "excessive" profitability, which can be defined as profits

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<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3084&NewSearch=1&NewSearch=1>

exceeding the level that could be expected in a competitive market, could be a sign that an airport may be misusing significant market power.

The external study quotes data from ICAO's State of Airport Economics paper⁹⁷ that suggests that the average profitability of airports worldwide was 47.0% in 2014, measured using the average earnings before interest, tax, depreciation and amortisation (EBITDA) margin. The external study showed that the EBITDA margins of EU airports were broadly in line with this global average, with 10 out of 37 airport operators and airport groups covered by the Directive exceeding the worldwide average, while the rest were below.

The level at which profits might be considered "excessive" can vary between given industries and is not possible to clearly define. In the absence of a more suitable benchmark, the external study compared the profitability of airports in scope of the Directive against the profitability of major European airlines and airline groups. As explained in Annex 6, this comparison was performed using three alternative measures of profitability – EBITDA margins, the Return on Capital Employed (ROCE) and Return on Total Assets (ROTA).

While the profitability of airports appears to be significantly greater than that of airlines using EBITDA margins their profitability appears to be much more in line with airlines using the ROCE or ROTA measures of profitability. The external support study noted that comparing the profitability of airlines and airports using the above measures of profitability is not strictly fair due to the structural differences in the two types of business. It is also important to note that the analysis only assesses the profitability of airports and airlines in a single year, 2015 (the latest year for which financial accounts were available). As noted in the external study the profitability of firms can vary significantly through time, and depends on which part of the investment cycle it is in.

ACI-Europe has cautioned against using EBITDA margins in comparing the profitability of airports with other sectors, including airlines, noting that more capital intensive companies require higher operating margins to pay for investment. This position is supported by economic theory and peer-reviewed literature which suggest that measures of accounting profit, including EBITDA, are of limited use in assessing possible misuse of significant market power, and that EBITDA, might be particularly misleading in capital intensive industries.⁹⁸ Economic theory indicates that any evaluation of possible misuse of significant market power should focus on economic profits, not accounting profits, where economic profit is defined as the difference between a firm's revenues, operating expenses and the opportunity cost of the inputs used to make the firm's sales.⁹⁹

⁹⁷ https://www.icao.int/sustainability/Airport_Economics/State%20of%20Airport%20Economics.pdf

⁹⁸ See, for example, Bork & Sidak (2013) *The Misuse of Profit Margins to Infer Market Power*, The Journal of Competition Law & Economics, Volume 9, Issue 3, 1 September 2013 pp 511-530

⁹⁹ See Krugman & Wells (2008) *MicroEconomics* for explanation of the concept of opportunity cost and differences between economic profit and accountancy profit.

In 2017 A4E published a summary of the findings of a study (undertaken by York Aviation)¹⁰⁰ which sought to assess the profitability of the 30 largest European airports by calculating their economic profits. The study had sought to calculate economic profits as the difference between the returns from the regulated part of each airport's business (using the ROCE) and the airport's weighted average costs of capital (WACC). However, the study team reported problems obtaining relevant financial information. This included finding that of the 30 airports they set out to assess, 16 were members of airport groups and did not report at the airport level. The study found that most of the 18 airports, for which WACC information was obtained, had positive economic profits (i.e. they were earning returns greater than their cost of capital). The study also found that the level of economic profit was higher at airports operating a dual till than airports operating a single till. The study team recognised however that the existence of economic profit is not necessarily indicative of the misuse of significant market power, and can be consistent with effective competition so long as they are not sustained over long periods of time. The study team also highlighted the need for caution in interpreting the results, more generally, due to the limitations in the available data referred to above.

In summary, assessing whether an individual airport is making excessive profits is extremely challenging, and undertaking detailed assessments at the airport level would have been disproportionate as part of this evaluation. It is therefore not possible to draw any firm conclusions about whether any EU airports may be currently earning excessive profits on the basis of the analysis undertaken for this study.

Indications of possible misuse of significant market power by airports – excessive airport charges

A second possible indicator of an airport misusing significant market power could be "excessive" airport charges, which can be defined as airport charges being above the level that could be expected in a competitive market.

The impact of the Directive on airport charges was the subject of much debate in 2016, following the publication of a study commissioned by A4E¹⁰¹ assessing the changes in airport charges at Europe's 21 largest airports between 2005 and 2015. The study employed three alternative approaches to assessing the increases in airport charges over this period. The most often quoted conclusion of the work was based on an analysis of data provided by A4E member airlines¹⁰² on the actual airport charges they paid along with the passengers carried. The conclusion was that the airport charges paid by A4E member airlines at the top 21 European airports had increased by 80% between 2005 and 2015.

¹⁰⁰ <https://a4e.eu/wp-content/uploads/2017/06/A4E-Draft-Key-Messages-Presentation-for-29.6.17-V6.pdf>

¹⁰¹ *Analysis of Airport Charges*, Aviation Economics for A4E, January 2016 (<https://a4e.eu/wpcontent/uploads/2015/02/AvEc-Airport-Charge-Analysis-v1.5.pdf>)

¹⁰² The analysis is based on data provided by IAG, Lufthansa, easyJet and Ryanair.

Later in 2016, ACI-Europe published its own analysis paper¹⁰³, which concluded that airport charges at the top 21 European airports had increased by 25.4% in real terms over the period 2005-2014¹⁰⁴. The analysis paper highlighted various reasons why the 80% increase in airport charges quoted from the earlier A4E study was misleading. The paper noted, in particular, that the increase had been expressed in nominal terms (i.e. it had not been adjusted to remove the impact of general inflation in prices over the period) and that the analysis had included the impact of changes in charge levels imposed by new EU regulation that fell outside the scope of the Directive. In the paper, ACI-Europe also notes that over the period 2005-15 the top 21 airports delivered additional airport capacity of at least 177.4 million passengers per annum and a 12.4% increase in overall passenger satisfaction.

The analysis of airport charges undertaken as part of the external study estimates that the average real increase in airport charges at the airports in scope of the Directive, across the four scenarios considered¹⁰⁵, between 2009 and 2016 was 23.3%. The analysis of airport charges is based on airports' published charges and does not correspond directly to the actual received aeronautical yield per passenger at airports, which will include the effect of passenger mix along with the impact of incentives and commercial arrangements (see evaluation question 5 for more information on incentives and commercial agreements). Analysis of the relationship between the changes in airport charges and aeronautical yield was also undertaken for a number of airports and airport groups. While this analysis indicated yield growth had been less than the growth in airport charges, this result was not statistically significant.

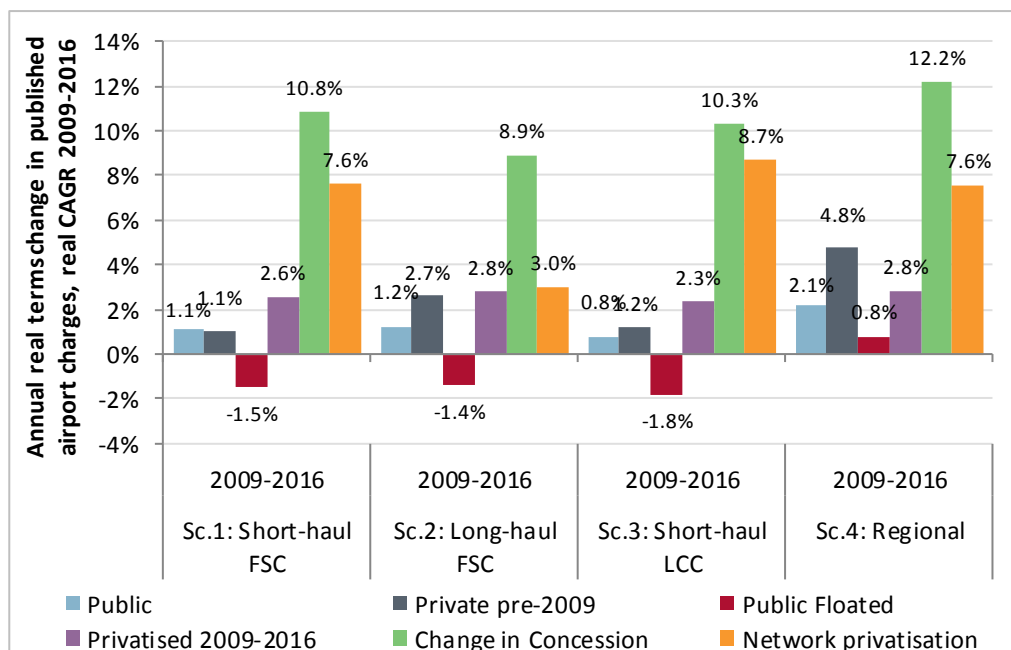
The analysis undertaken as part of the external study also showed that growth in airport charges during the period 2009-2016 varied significantly across airports. As shown in figure 2 below the study indicated that the highest growth in airport charges over this period occurred at airports which had seen a change in ownership of an existing concession agreement – the two large groups active in Italy (S.E.A covering the main Milan airports and Aeroporti di Roma covering the Rome airports) - or had been privatised as part of a network – AENA and ANA networks in Spain and Portugal respectively.

¹⁰³ *Leveraging Airport Investment to Drive the EU's Aviation Strategy*, ACI Europe, May 2016

¹⁰⁴ ACI-Europe had planned to calculate the increase in charges over the same period as A4E (i.e. 2005-15) but an insufficient number of airports provided them with data for 2015.

¹⁰⁵ See Annex 6 for details.

Figure 2: Growth of published airport charges per turnaround, by concession status, CAGR 2009-2016



Source: Steer Davies Gleave analysis based on IATA Airport, ATC and Fuel Charges Monitor Oct.2009, IATA Aviation Charges Intelligence Center 2016 (accessed February 2017)

Increases in airport charges must be treated with great caution, however, in assessing possible misuse of significant market power by airports. Large increases in airport charges can potentially be justified if used to fund increased capital expenditure or to fund other measures to improve service quality. Greater increases in airport charges may, in some cases, be justified by the removal of public support. For example, AENA explain the large increases in airport charges at their airports by pointing out that from 2000 to 2010, airport charges in Spain stayed practically flat despite AENA carrying out a major capital investment programme at that time. AENA explain that this resulted in AENA building up high levels of indebtedness and led to the need for a significant increase in airport charges in 2012, equal to an increase of 18.9% on average across the network. AENA have further pointed out that following the significant growth in airport charges in the period to 2013, airport charges stabilised before reducing in 2016 (by 1.9%).

The evolution in airport charges between 2009 and 2016, as estimated as part of the external support study, also provides little indication as to whether the level of airport charges could have been considered excessive in 2009 or 2016. It is possible that even at airports where airport charges have fallen since 2009, the level of these charges could be considered excessive. The opposite may also be true.

In summary, it is not possible to draw any firm conclusions about whether any airports are charging "excessive" airport charges on the basis of the analysis undertaken for this study.

Indications of possible misuse of significant market power by airports – regulatory till

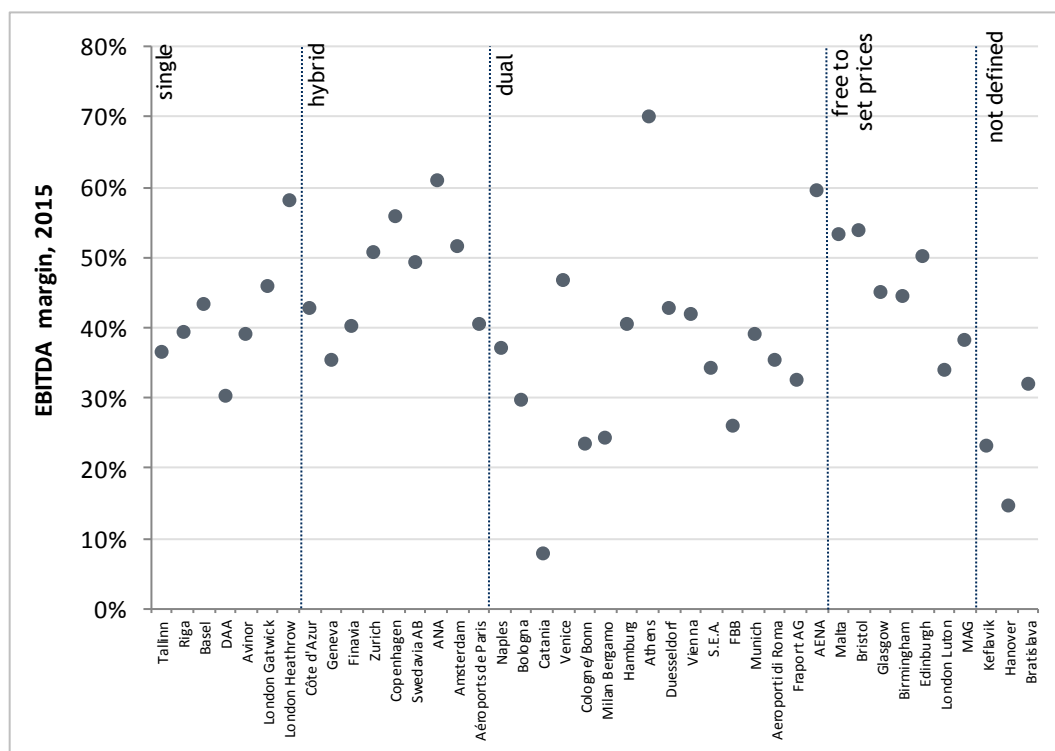
In responding to the consultation, a number of airlines and their representatives (including IATA and A4E), highlighted the use of hybrid or dual till mechanisms for setting airport charges at many EU airports as evidence of airports misusing significant market power. They note that the non-aeronautical services (including commercial activities) provided by airports are intrinsically linked to their provision of aeronautical services. Further they argue that as the returns from airports' non-aeronautical activities tend to be higher than the returns from their aeronautical activities, the use of a single till tends to result in lower airport charges. They argue, therefore, that the use of a single till more closely replicates the approach taken by airports operating in a competitive market, where they would try to reduce their charges as much as possible.

ACI-Europe refutes these arguments. They argue that the markets for aeronautical and non-aeronautical services are separate. Further they argue that the use of the dual till ensures that the charges airlines pay properly reflect the full costs of the aeronautical services they use, while under a single till the returns from the non-aeronautical business are used to cross-subsidise the aeronautical business. Finally, they highlight the need for significant investment in airport capacity to address growing capacity constraints and argue that the dual till is better as it ensures the airport can earn sufficient revenues on its aeronautical business to attract financing for new infrastructure.

Neither analysis appears entirely correct. Assuming airports are subject to effective competition and charges are set freely in negotiation between the airport and the airlines, airports will generally attempt to optimise the price levels on the aeronautical and non-aeronautical sides of their business in order to maximise their profits. This may involve lowering aeronautical charges in order to attract more traffic and thus more passengers passing through the airport, when non-aeronautical revenues overcompensate the lower aeronautical revenue, or vice versa, depending on the airport's unique business circumstances.

In practice, however, the evaluation has found that in most cases, the regulatory till is defined by legislation or an ISA. The situation in Germany appears to be an exception – under German law airports are free to decide the till they use; all German airports in scope of the Directive have chosen to set charges under a dual till. As noted above, a study undertaken by York Aviation for A4E in 2017 concluded that economic profits were higher at airports using the dual till than at other airports, but suggested caution in interpreting its results. Analysis undertaken as part of the external study also highlights the need for caution. As shown in figure 3 below, it found that EBITDA margins for airports using dual till were in fact broadly similar, and lower on average, than those for airports using hybrid or single tills.

Figure 3: EBITDA margin at airports and airport groups by till, 2015



Source: Steer Davies Gleave analysis using airport annual accounts and stakeholder consultation responses

The evaluation concludes that the use of a hybrid or dual till does not provide sufficient evidence that an airport is misusing significant market power. This is also the conclusion reached by the Thessaloniki Forum in a recent report¹⁰⁶. There is ongoing debate regarding the most appropriate till to use in regulating airports with significant market power. This is the subject of differing views not only amongst airports and airlines, but also amongst independent experts. This is reflected in ICAO's policies on airport charges¹⁰⁷, which, like the Airport Charges Directive, are neutral on the nature of the regulatory till, stating that "The cost to be allocated is the full cost of providing the airport and its ancillary services... Consistent with the form of economic oversight adopted, these costs may be offset by non-aeronautical revenues."

Indications of possible misuse of significant market power by airports – lack of effective consultation

Some airline representatives and individual airlines responding to the stakeholder consultation (including A4E, easyJet, and IATA) also raised concerns about airport charges decisions being taken at certain airports in the absence of effective consultation

¹⁰⁶ *The Use of Selective Criteria in the Economic Regulation of Airports*, Thessaloniki Forum of Airport Charges Regulators, 2018
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=38501&no=2>

¹⁰⁷ ICAO's Policies on Charges for Airports and Air Navigation Services, Doc 9082, Ninth Edition – 2012
http://www.icao.int/publications/Documents/9082_9ed_en.pdf

of users, as evidence of misuse of significant market power by those airports. The examples generally relate to situations where elements of airport charges (e.g. levels of investment) are decided by Member States (e.g. in national legislation or concession contracts). Regular consultation of airport users is a central feature of the Directive and replicates behaviour that would be standard practise for airports operating in competitive markets. Earlier in the response to this evaluation question, it was noted that the Commission is investigating a number of cases relating to the possible misapplication of the Directive's requirements where aspects of airport charges are fixed by Member States themselves. It was also noted that the evaluation had found that the absence of specific stipulations in the Directive as to how its requirements apply in such circumstances may have diminished its effectiveness.

In summary, while the evaluation has identified decisions that appear to have been taken in the absence of effective consultation at certain airports, behaviour that might not be expected of an airport operating in a competitive market, no firm conclusions can be reached about whether there is misuse of significant market power by any EU airport. However, the evaluation has found that the Directive does not specify in detail the requirements pertaining to ISAs' independence (e.g. to avoid possible conflicts of interest linked to regulation by a Government Body of a state-owned airport) nor those pertaining to the powers and duties of the ISAs (e.g. to define the actions ISAs should be able to take to resolve a disagreement). Member States' individual decisions concerning specific requirements regarding these aspects has led to different – and sometimes insufficient - degrees of independence, powers and duties of the ISAs across the EU. The evaluation has also found that there are different interpretations regarding the extent to which the Directive's requirements apply where aspects of airport charges are fixed by Member States themselves. The lack of detail on these points appears to limit the Directive's effectiveness in addressing the risk of possible misuse of significant market power by airports.

5) In which ways have industry actors made use of the Directive's provision allowing for justified modulation of charges and services for users, while preventing discrimination?

Article 3 of the Directive requires Member States "...to ensure that airport charges do not discriminate amongst airport users...". However, it also states that this "...does not prevent the modulation of airport charges for issues of public and general interest, including environmental issues". Article 10 of the Directive states that the "...level of airport charges may be differentiated according to the quality and scope of such services and their costs or any other objective and transparent justification". It goes on to state "Without prejudice to Article 3, airport managing bodies shall remain free to set any such differentiated airport charges". The Directive allows, however, airport managing bodies to apply a common airport charges system across airports operating within airport networks (Article 4) or serving the same city or conurbation (Article 5).

The terms "modulation" and "differentiation" are not explicitly defined in the Directive but, as the above quotes illustrate, it does provide some indication of their meaning in

relation to charges setting. There is overlap between the types of variation in charges that could be defined as 'modulation' under Article 3 and defined as 'differentiated' under Article 10. For example, environmental issues are explicitly identified as a legitimate justification for modulating charges in Article 3, and could also provide an objective and transparent justification for airport charges to be differentiated under Article 10. The evaluation has also found that stakeholders often refer to "discounts and incentives" in referring to variations in airport charges, which could be defined as modulation or differentiation under the Directive.

Modulation of charges on environmental grounds

The external study has shown that the majority of airports in scope of the Directive modulate their charges on environmental grounds. This has taken one of two forms:

- Modulation for noise – variable charges based on aircraft and engine type, noise volume (dB) or ICAO noise chapter, and/or time of day; and
- Modulation for NO_x emissions – variable charges based on the mass of NO_x emitted or the aircraft type.

No airports modulate their charges on the grounds of carbon dioxide emissions.

The analysis of airports' published charges undertaken as part of the external study indicates that modulation of airport charges on the grounds of different levels of noise was most common - applied in 48 out of 79 airports (61%) in 2016, up from 42 airports in 2009. Modulation for NO_x emissions was used at 16 out of the 79 airports (20%) in 2016, up from 10 airports in 2009. The analysis shows that while environmentally-driven charges have increased as a proportion of total turnaround charges between 2009 and 2016, they still represent a relatively small proportion of the total – less than 4% for a typical long haul scenario, and approximately 1% for typical short haul and regional turnaround scenarios.

The external study has indicated that in most cases there is no clear link between the revenue from environmentally-driven charges and the provision of effective packages of compensation and mitigation schemes. With the exception of a temporary noise charge in place at Amsterdam, separate noise funds established at Geneva and Zurich airports and the hypothecation of noise charge revenues at Prague airport, no clear link has been established between the charges levied and local schemes designed to mitigate the environmental impact of flights or compensate those affected by them. The responses to the stakeholder consultation indicate that the majority of airlines are willing to accept modulation of charges for environmental reasons where the proceeds are used to pay for noise or emissions abatement measures, but that the lack of such a link causes most airlines to question the justification for such modulation.

The analysis undertaken for the external study suggests that environmental modulation of charges is more prevalent at airports in scope of the Directive than at comparator airports inside or outside the EU – none of the five non-EU comparator airports, and only one of the five comparator EU airports examined in the external study supporting the evaluation applied any form of modulation. Given that the use of environmental modulation was

already widely used prior to the existence of the Directive, it seems reasonable to conclude that the greater prevalence of such modulation at airports in its scope cannot be attributed entirely to the Directive.

Other forms of differentiation in airport charges

The external study indicates that a significant proportion of airports in scope of the Directive differentiate charges for other reasons. Out of 56 consultation responses from airports, 27 revealed that they offered differentiated charges for non-environmental reasons. The most popular form of differentiation identified was for peak/off peak services (18 out of the 56 airports responding). Airports also stated that they differentiated services for the use of boarding bridges, contact or remote parking, separate pier and in one case for use of a separate, low cost terminal.

In addition, the external study indicates that the majority of airports vary charges as part of incentive schemes in order to support traffic growth at the airport. These often involve offering discounts to airport charges, including one or more of the following:

- Volume incentives, whereby, for example, incremental passengers above a certain threshold are charged a discounted rate;
- Efficient use of capacity (load factor) incentives, which encourage airlines to fill their aircraft, and discourage frequencies that are not supported by sufficient demand;
- New destination incentives, which encourage the provision of new routes from the airport;
- Additional frequency incentives;
- Marketing support, which forms an indirect discount to the airport charges; and
- Base development incentives.

The responses to consultation indicate that by far the most prevalent of these incentives schemes are volume incentives (used at 39 out of 56 airports responding) and new destination incentives (used at 36 of 56 airports responding).

The external study indicates that the level of modulation and variation in charges, including the use of incentive schemes, has increased since the introduction of the Directive. However, it shows that the vast majority of airports responding to the stakeholder consultation (44 out of 52) indicated that the Directive had no impact on the structure of their incentive and discount schemes. This was supported by most ISA and airline responses to the consultation. The evaluation also found increased variation of charges at EU airports outside the scope of the Directive. This seems to indicate that there is an EU trend towards greater variation that is driven primarily by factors other than the Directive.

ACI-Europe suggests that the trend towards greater variation in airport charges reflects the response of airports to demands from airlines for a more tailored menu of services and the increasing levels of competition between European airports. They note that incentive schemes are offered by many airports to attract additional traffic and that airport revenues are closely linked to passenger numbers while costs increase more

slowly with increased traffic because of a high fixed cost element. This means, they argue, that not only do airports benefit from higher traffic volumes, in greater profits, but so do airport users, as costs are spread over a greater number of passengers. In its consultation response, ACI-Europe suggests that in 2015, 85% of all European airports offered incentive schemes and that an even higher proportion of airports in scope of the Directive offered such schemes. More recently, ACI-Europe have suggested, on the basis of survey of their members in 2018, that 98% of all European airports offer incentive schemes, and that more than 70% of airports more than one scheme. ACI-Europe indicated that the most prevalent of these schemes relate to new destinations / routes (83%) and volume (73%), which is broadly in line with the responses to the targeted consultation undertaken as part of the external support study.

The evaluation has highlighted different interpretations amongst stakeholders about how to apply the non-discrimination requirement in Article 3 of the Directive. ACI-Europe has suggested that in some cases these differences in interpretation have hindered the ability of airports to offer more variation in services and charges. They note that some airports have considered offering terminals with lower levels of services, but have not proceeded with the plans following critical feedback about possible discrimination from some airlines.

In a recent report¹⁰⁸, the Thessaloniki Forum of ISAs highlighted differences in policy relating to bilateral agreements. The report notes that some ISAs do not allow such agreements at all, due to concerns that they may be considered discriminatory. In contrast, some other ISAs allow such agreements provided sufficient details are provided to the ISA in the context of an investigation, to allow the ISA to ensure the agreement is not discriminatory under Article 3 of the Directive. Finally, the report highlights that some other ISAs employ a hybrid approach requiring transparency in relation to the existence and broad content of the agreement, without requiring disclosure of the detailed provisions. In these cases, the report suggests, the ISAs only require disclosure of the detailed provisions where the agreements may lead to cross-subsidisation.

Just two out of the 56 airports responding to the consultation – Heathrow and Gatwick – indicated that they use comprehensive bilateral agreements in setting their charges. In addition, a bilateral infrastructure and service agreement is in place at Munich airport where one of the terminals was jointly financed by the airport (60%) and Lufthansa (40%). In its consultation response Ryanair stated that it had used bilateral agreements with London Stansted, Berlin Schönefeld, Marseille, Charleroi and Bratislava, which are covered by the Directive, as well as a number of others which are not.

The consultation undertaken as part of the evaluation indicates that airlines views on the desirability of greater variation in airport charges differ. IATA favours a generic level of

¹⁰⁸ *Non-discrimination under the Airport Charges Directive*, Thessaloniki Forum of Airport Charges Regulators, 2018
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=38500&no=1>

low cost facilities and services being offered to all airlines. They argue that premium charges are only reasonable where additional facilities or services are specifically requested by and provided to individual airlines. The German airline association (BDF) take a similar position to IATA, arguing that charges should generally be based on a common standard with equal pricing, regardless of the terminal used, and that differentiation is only reasonable when airport users are provided with built-to-demand infrastructure or services or can freely choose between the alternatives. IATA are generally not supportive of incentives being granted to specific groups of users and argue that where incentives and discounts exist they should comply with ICAO's principles for safeguarding users against the negative effects of rebates and discounts. These principles¹⁰⁹ suggest that such incentives should be available to all operators without discrimination, openly published together with their purpose and the criteria according to which they are offered, and should be offered for a limited time only. Further the principles suggest that there should be no cross-subsidisation through other charges (i.e. any costs associated with rebates and discounts should not be allocated to airlines that do not benefit from them).

On the other hand, low cost carriers such as Ryanair and easyJet argue that the provision of differential services at differential prices (including as part of bilateral agreements) is a feature of well-functioning markets and, like ACI-Europe, argue that the lack of detail over the application of the non-discrimination provision in the Directive has hindered their introduction. Ryanair and easyJet go further in suggesting that airports be required to offer differentiated charges where the airport services they offer vary in scope and/or quality. They point to examples of airports (e.g. Berlin Tegel and Lisbon) not offering differentiated charges despite providing clearly differentiated levels of service quality. Ryanair and easyJet also note that, while airports often refrain from offering differentiated charges for differentiated service levels, hub airports offer discounts to transfer passengers (e.g. Amsterdam airport offers a 60% discount) despite evidence suggesting that the incremental cost of transfer passengers is greater than non-transferring passengers.

In summary, the evaluation has found that there is greater variation in airport charges across European airports than at the time the Directive was introduced. This is also true at European airports not in scope of the Directive, indicating that the Directive is not the primary driver for this development. The increased variation reflects a small increase in the modulation of airport charges on environmental grounds and increased differentiation of charges. The differentiation in charges appears to reflect greater differentiation in service quality and scope, driven primarily by the demands of the fast growing low cost airlines, but also a greater use of incentive schemes, which are increasingly used by airports to support traffic growth. However, the evaluation has also highlighted different interpretations amongst stakeholders about how to apply the requirement under Article 3 of the Directive that airport charges should not discriminate amongst users. This appears to be deterring, and in certain cases preventing, airports from offering differentiated

¹⁰⁹ https://www.icao.int/publications/Documents/9082_9ed_en.pdf

charges for differentiated service quality or scope allowed for under Article 10 of the Directive.

- 6) *Have organisational and procedural arrangements led to increased clarity and fairness in setting airport charges?*

Consultation and Transparency

By mandating regular consultation between airports and their users, and defining a minimum set of information that must be exchanged, the Directive sought to have a positive impact on consultation processes across Europe. This evaluation has considered how successful it has been in doing so in practise.

While many airports in scope of the Directive already undertook regular consultation with their users prior to the introduction of the Directive, the evaluation has found that this was not true at all airports. Most stakeholders responding to the consultation, including the majority of ISAs and airlines, and some airports recognised an overall improvement in consultation and transparency compared to what was in place previously. Some stakeholders, including the ISAs in Ireland, UK and Spain, indicated that even where consultation processes were already established by national legislation the Directive has led to improvements. On the other hand stakeholder responses received from ISAs and airports in Germany, the Netherlands, France and Finland indicate that the Directive had little or no impact on the consultation processes in those countries.

While stakeholder responses indicate that the Directive has had a positive impact on consultation and transparency, they also revealed that dissatisfaction remains amongst both airports and airlines. The evaluation has found that this dissatisfaction relates, to some extent, to a lack of detail in the Directive in relation to the content, depth and output of the required consultation. For example, the Directive does not specify which airlines and airline representatives should be able to participate in consultation, nor specify the level of detail that should be provided to airport users on the calculation of airport charges, especially in relation to significant and controversial aspects like the cost of capital. The evaluation has found specific issues related to consultation on investment projects, which are discussed further under evaluation question 7.

This lack of specificity in the Directive has led representatives of each of the three main stakeholder groups – the Thessaloniki Forum of ISAs¹¹⁰, ACI-Europe¹¹¹ for the airports

¹¹⁰ Thessaloniki Forum of Airport Charges Regulators
Recommendations on Consultation and Transparency, 2016,
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=29018&no=1>
Recommendations for the Setting and the Estimation of the WACC of Airport Managing Bodies, 2016,
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=29019&no=2>

¹¹¹ ACI Europe Recommended Practice 02/2016 – Interpretation of Articles 6, 7 & 8 of the Airport Charges Directive, <https://www.aci-europe.org/policy/position-papers.html?view=group&group=1&id=6>

and IATA for the airlines¹¹² – to issue their own guidelines setting out their recommendations for the process. The guidelines differ in important ways. In general, the guidelines produced by IATA recommend that more detailed information be provided by airports than is suggested in the guidelines produced by ACI-Europe, while the Thessaloniki Forum came out somewhere between the two other groups. The evaluation has found that the impact and value of the guidelines so far produced is limited, with airports tending to conduct consultations according to the guidelines produced by ACI-Europe and airlines tending to expect consultations to be conducted according to IATA guidelines.

During stakeholder consultation, ACI-Europe and several individual airports / airport groups (including Frankfurt, Budapest, AENA, Swedavia and Napoli) highlighted issues relating to airlines not submitting the information required under Article 7(2) of the Directive.¹¹³ Airline associations (IATA, A4E, ERA and IACA) have recognised that individual airlines, especially smaller ones, are often unable to forecast traffic and fleet utilisation at individual airports beyond the very short term. They highlighted the particular challenge faced by airlines at airports where they only represent a small proportion of total traffic, and noted that unlike airports, airlines are required to participate in multiple consultations, often concurrently. Consequently, IATA has proposed that the information requirements should only be applicable to 'main' carriers. This problem appears to be an issue of possible misapplication of the Directive. However, it has not been the cause of any investigations or infringement action launched by the Commission to date.

Article 6(2) of the Directive requires that "...wherever possible, changes to the system or the level of airport charges are made in agreement between the airport managing body and the airport users". The evaluation has found that not all stakeholders have interpreted this requirement in the same way. In responding to the stakeholder consultation most airlines emphasised the need for consultation to be about more than simply information exchange, and should enable them to influence airport decisions. In contrast most airports emphasise that consultation is about sharing information and stress the need for them to be free to decide on the outcome of consultation, as they will bear the consequences and risks of their decisions – including airlines lodging appeals. The responses to stakeholder consultation indicate that in certain cases stakeholders and national authorities (e.g. Sofia airport and the authorities in Switzerland) have put more weight on the need for agreement to be reached between the airport and its users than others, resulting in the consultation process being described as a negotiation.

¹¹² IATA *Transparency requirements for the determination of airport charges in the context of the EU Directive 2009/12/EC* <https://www.iata.org/policy/infrastructure/Documents/IATA-Transparency-requirements-EU.pdf>

¹¹³ Article 7(2) requires Member States to ensure that airport users submit information to the airport before every consultation including a) traffic forecasts; b) forecasts as to the composition and use of their fleet; c) their development projects at the airport concerned; and d) their requirements at the airport concerned.

The evaluation finds that Article 6(2) is clear in requiring the airport managing body to consult its users and to "...take their views into account before a decision is taken" and furthermore to "...justify its decision with regard to the views of the airport users in the event that no agreement on the proposed changes is reached". This makes clear that the final decision on airport charges rests with the airport (subject to any views of the users being taken into account and subject to any intervention by the ISA).

ISA intervention and appeals

The external study also highlighted the importance of ISA intervention and appeals in ensuring fairness in the airport charges setting process. Articles 6(3) and 6(4) of the Directive require that in the event of a disagreement over a decision on airport charges, either party may bring the matter before the ISA. Article 6(4) of the Directive specifies that, in case the intervention of the ISA is sought, the implementation of a decision on charges is suspended until the ISA has examined the matter. The Directive requires ISAs to provide an interim decision on the entry into force of the airport's charging decision within four weeks. Article 11(7) of the Directive requires the ISA to issue a final decision as soon as possible, and in any case within four months of the matter being brought before it (or within six months in exceptional and duly justified cases).

Article 11(6) of the Directive requires that measures are taken to: a) establish a procedure for resolving disagreements; b) determine the conditions under which a disagreement may be brought to the ISA, while requiring the ISA to dismiss complaints it deems not to be properly justified or adequately documented; and c) determine the criteria against which disagreements will be assessed for resolution. The Directive requires that these procedures, conditions and criteria be non-discriminatory, transparent and objective. This flexibility has led to a broad range of national practises being adopted. For example, there is significant variation in the amount of time allowed after the airport announces its final charging decision for stakeholders to make appeals, ranging from 5 days in Romania and Italy (for airports supervised by ENAC) to no maximum period being set in some other countries (including Croatia, Hungary and the Netherlands).

ACI-Europe raised concerns at the lack of a time limit for users to appeal to the ISA, and highlighted potential remedies to address them. For example, they proposed to allow interim ISA decisions to be valid until a final ISA decision, with provisions to rectify any under- or over-payment of airport charges made under the interim decision.

While the evaluation finds that the lack of a time limit for users to appeal to the ISA after an airport charges decision has led to a range of different national practises, it has not established whether this has had any adverse impact on airport charges setting in the EU.

The results of the stakeholder consultation show that in nearly all Member States ISA decisions are appealable to the national administrative courts. As Member States are required to establish an "effective remedy" for cases of this kind, under Article 47 of the

Charter of Fundamental Rights of the European Union¹¹⁴, it is reasonable to assume that this is also the case in the Member States where no clear answers have been provided.

The stakeholder consultation has revealed some concern amongst certain airport and airline representatives about the ability of the courts to effectively adjudicate in such cases, as they do not necessarily have the technical expertise required. The evaluation has not been able to assess the extent of this problem, but has revealed some evidence to support this concern; recently in Switzerland, after airlines appealed the ISA decision related to Zurich airport charges for the period 2015-2019 to the national court, the national court declared itself incompetent and referred the case back to the ISA. In this respect, reference is made to pending Case C-379/18, *Deutsche Lufthansa*, in which the Court is asked to take a position on whether decisions taken by the ISAs must as such be open to judicial review on request by the user. The evaluation has also found that the UK provided in its national legislation for the ISA's decisions to be appealed to the Competition Appeal Tribunal, a judicial body specialising in competition and economic regulatory issues.

In conclusion, by providing a common framework – including requirements relating to consultation and transparency, prevention of discrimination and the establishment of ISAs -the Airport Charges Directive has improved the transparency and perceived fairness of airport charges setting across Europe overall. The evaluation has identified however that a certain lack of specificity in the requirements has led to a wide range of practices and that there is scope for the Directive to have ensured a more consistently high level of transparency and fairness.

7) *To what extent has the current regime managed to balance airports' needs for operation and investment with airlines' requirements for competitive airport charges, by promoting effective cooperation between the two groups?*

In responding to this question the evaluation has sought to assess the Directive's effectiveness in achieving its objective of ensuring airports have sufficient revenue to maintain airport infrastructure at an optimal level, while ensuring fairness in airport charges setting as it relates to airport infrastructure.

The process for airports to plan, finance and invest in infrastructure is lengthy and, to a much greater extent than any other aspects of airport charges setting, involves a number of other parties in addition to the airlines and ISAs, including planning and environmental authorities, political decision makers and increasingly the general public. All of these other parties can and do impact on the airport's ability to invest.

Investment in airport infrastructure represents a significant share of airports' overall costs. ACI Europe estimate¹¹⁵ that, in Europe (including Russia and Turkey) in 2015, capital costs made up approximately one third of overall airport costs. The calculation of

¹¹⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012P%2FTXT>

¹¹⁵ *Airport Economics Report 2015*, ACI Europe

capital costs, therefore, has significant implications for the calculation of airports total costs, used as the basis for airport charges setting. This is recognised in Recital 14 of the Directive, which states that “...major infrastructure projects... have a significant impact on the system or level of airport charges”.

The only requirement in the Directive relating to new infrastructure (Article 8) is that airports must consult users before plans for new infrastructure are finalised. Recital 14 explains the rationale for this requirement as being "...to make monitoring of infrastructure costs possible and with a view to providing suitable and cost-effective facilities at the airport concerned". The Directive does not prescribe in any detail how consultation on new infrastructure should be carried out nor the level of transparency required. Consequently, the evaluation has found that the ability of airports to invest in infrastructure is influenced more by national requirements than by the Directive. As a result, the way that new infrastructure investments are handled as part of airport charges setting varies significantly across Europe, and to a greater extent than the other elements of the airport charges setting process. For example, the scope of the consultation (i.e. which projects are covered), the level of detail provided and which bodies are consulted all vary across European airports.

The lack of detail in relation to the Directive's requirements on consultation on new infrastructure has led to representatives of the three main stakeholder groups - the Thessaloniki Forum for the ISAs, ACI-Europe for the airports and IATA for the airlines¹¹⁶ - all producing their own guidelines on how consultation on new infrastructure should be undertaken. These guidelines form a part of the broader guidelines on consultation and transparency developed by each stakeholder group referred to in the response to the previous evaluation question. As for the guidelines on consultation and transparency more generally, the recommendations relating to consultation on new infrastructure vary in important respects. One significant difference relates to the timing of consultation – the guidelines developed by ACI-Europe suggest that consultation need only occur before the final decision is taken, while the guidelines developed by IATA stress the need for consultation to occur from a much earlier stage, so that users can influence the choice of options being considered. Another important difference relates to the outcome of consultation, and is part of a broader issue already highlighted under evaluation question 6 above - while the guidelines developed by ACI-Europe stress the importance of the final decision on capital expenditure remaining with the airport operator, the guidelines developed by IATA stress that capital expenditure decisions should be made in agreement with users, and if no agreement can be found should be made by an ISA.

The evaluation has also found that in certain cases ISAs have not been granted the power to make binding decisions in relation to disagreements on investments in airport infrastructure. For example, in Spain, the ISA can provide non-binding opinions on

¹¹⁶ A4E have also published a position paper to set out their views on consultation and transparency. https://a4e.eu/wp-content/uploads/2016/11/A4E-Position_Consultation-and-Transparency_October-2016-V2.pdf

investment plans but the final decision on investment rests with the Council of Ministers. In France and Italy (for airports subject to ART supervision) the situation is similar, in the sense that the investment decisions are being approved by the Civil Aviation Authorities subordinated to the Ministry of Transports, but cannot be re-evaluated by the respective ISAs.

In addition, as highlighted under evaluation question 4, in several Member States, even where the ISA has been granted the power to make binding decisions to resolve disagreements on airport charges, there are national legislation or contractual arrangements which can materially limit the ISA's ability to intervene effectively in practice. As noted under evaluation question 4, the Directive is not explicit as to how its requirements apply where aspects of airport charges are defined in national legislation or concession agreements, and the consequence is that ISAs are not able to effectively intervene to resolve disagreements in certain cases. The response to evaluation question 4 concludes that this has limited the effectiveness of the Directive in addressing the risks associated with the airports being able to extract airport charges at a level that would not be possible under competitive market conditions. Any outcome of this nature could include sub-optimal levels of airport investment.

All but one of the airlines and airline representatives responding to the stakeholder consultation (including the airline associations A4E, IATA, IACA and BDF) expressed dissatisfaction with the current situation on infrastructure investments. They complain about not being able to sufficiently influence airport investments with respect to their timing and the options considered. Additionally, they are concerned that investments result in higher costs and increases in charges with insufficient transparency and justification and no assurance for airlines that the cost-efficiency of airports is improving. IATA, for example, complained that "no business cases are shared justifying the investments and no clear analysis is provided highlighting the benefits the new infrastructure will deliver. In most cases decisions on new investments are unilaterally taken by the airports and the users are only informed when it's too late to take their views into account". A4E, IATA, easyJet and Ryanair also expressed particular concern about instances of investments being determined for long periods in concession contracts, rendering the regular consultation required under the Directive largely meaningless.

Airlines (A4E, IATA, Ryanair, Air France - KLM) have also expressed concern that the Directive does not prevent pre-financing of airport infrastructure from airport charges, arguing that this is not consistent with ICAO's key charging principle of cost-relatedness, whereby airlines and their passengers are only charged for the cost of services actually provided¹¹⁷. Pre-financing is a practice sometimes used by airports to fund major pieces of investments (e.g. terminals, runways), by charging higher fees (including airport charges) before investments become operational.

ICAO's policy recommends that pre-funding of projects through airport charges should not be used to fully recover costs in advance of commissioning of new airport facilities or

¹¹⁷ <https://www.iata.org/policy/Documents/pre-funding.pdf>

infrastructure. But it may be accepted in specific circumstances, where this can assist in financing long-term, large-scale investment, provided that certain strict safeguards are in place¹¹⁸.

While the Directive does not impose any specific requirements on pre-financing, it is mentioned in Recital 17, which states “In Member States where pre-financing occurs, Member States or airport managing bodies should thus refer to ICAO policies and/or establish their own safeguards.”

The external support study found that in most Member States there are no specific rules on pre-financing. In those countries that have specific rules, Germany, Latvia, Switzerland, France, Ireland and the UK allow pre-financing, while Austria, Luxembourg and the Netherlands do not. The support study highlights that the Slots Regulation¹¹⁹ ‘new entrant rule’¹²⁰ means that, where pre-financing occurs, the airlines pre-financing new infrastructure may not be the ones to benefit from it. This may explain why most airlines would like to see pre-financing prevented. However, none of the stakeholders responding to the consultation identified this as an issue.

ACI-Europe's response to the stakeholder consultation recognised the importance of consulting airlines on new infrastructure but stressed the importance of the final decision on capital expenditure remaining with airport operators. The response indicates that it is the airport that ultimately bears the financial risk of the investment. It also points out that airlines often have conflicting needs, according to their business model and share of traffic at the airport. Thirdly, they point out that airlines' interests are not always aligned with those of passengers. As noted in the response to evaluation question 1, a 2017 study commissioned by ACI-Europe¹²¹ pointed out that the existence of scarcity rents at capacity constrained airports provides an incentive to incumbent airlines to oppose airport expansion even where expansion would be in the interests of passengers. ACI-Europe and certain airports / airport groups (including Brussels and Aéroports de Paris) have suggested that this has led to airlines attempting to exploit the consultation and appeal requirements of the Directive to delay investments.

At airports subject to effective competition, the threat of airlines potentially taking their business elsewhere provides a strong incentive for such airports to tailor their investments to the needs of their users (through consultation). However, airports which do not face effective competition could, in the absence of effective regulation, potentially pass on the costs of investment to users without a significant adverse impact on demand. The evaluation finds that the notion of scarcity rents is well established in academic

¹¹⁸ See footnote 41.

¹¹⁹ See footnote 26.

¹²⁰ Under this rule 50% of any slots remaining after application of the ‘grandfather rights’ rule (see section 2.2) are allocated to New Entrants and the remaining 50% are allocated according to priorities defined in the Slots Regulation and World Slot Guidelines (WSG).

¹²¹ *The Impact of airport capacity constraints on air fares*, SEO Amsterdam Economics, 2017

economic literature. It has also found that other empirical studies have indicated the existence of scarcity rents at capacity constrained airports in Europe.¹²² However further work would be required to assess the extent and magnitude of this risk across EU airports.

The vast majority of stakeholders, (including Vienna, Brussels, Sofia, Geneva, Zurich, Prague, Berlin, Frankfurt, Hannover, Hamburg, Munich, Stuttgart, Tallinn, Athens, Aena, Helsinki, Nice, Toulouse, Milan, Riga, Avinor, Warsaw, ANA, Swedavia, Ljubljana, Bristol and Gatwick airports, and BDF, IACA and IATA airline associations) responding to the stakeholder consultation stated that the Directive had no impact on the development of airport infrastructure. ACI-Europe have estimated that over the decade 2005-2015 the top 21 airports in the EU and EFTA countries invested over €53 billion, delivering capacity for an additional 175 million passengers. ACI-Europe suggests that this additional capacity almost perfectly matched passenger demand evolution at these airports (estimated by ACI-Europe to be 168.5 million).

In summary, the evaluation has found the Directive has not had a significant effect on airport infrastructure development. However, the evaluation has identified a lack of sufficient specificity in the requirements relating to consultation on airport infrastructure investment (including new infrastructure) and to the powers of the ISA to intervene in relation to airport infrastructure, which is potentially limiting the effectiveness of the Directive. The evaluation has also identified risks associated with relying on airlines to represent the interests of passengers in certain cases.

8) To what extent has the Directive contributed to the improvement of airports operations? To what extent has the Directive contributed to the competitiveness of the aviation sector in general?

In order to assess the impact of the Directive on airports operations and their competitiveness, the evaluation has sought to assess the impact of the Directive on airport charges, service quality levels and investment.

As noted in response to evaluation question 4, analysis undertaken for the evaluation shows that the average increase in published airport charges at the airports in scope of the Directive, across the four scenarios considered (see Annex 6 for more details), was 23.3% between 2009 and 2016. As already noted, the analysis does not correspond directly to the actual received aeronautical yield per passenger at airports, which will include the effect of passenger mix along with the impact of incentives and commercial arrangements.

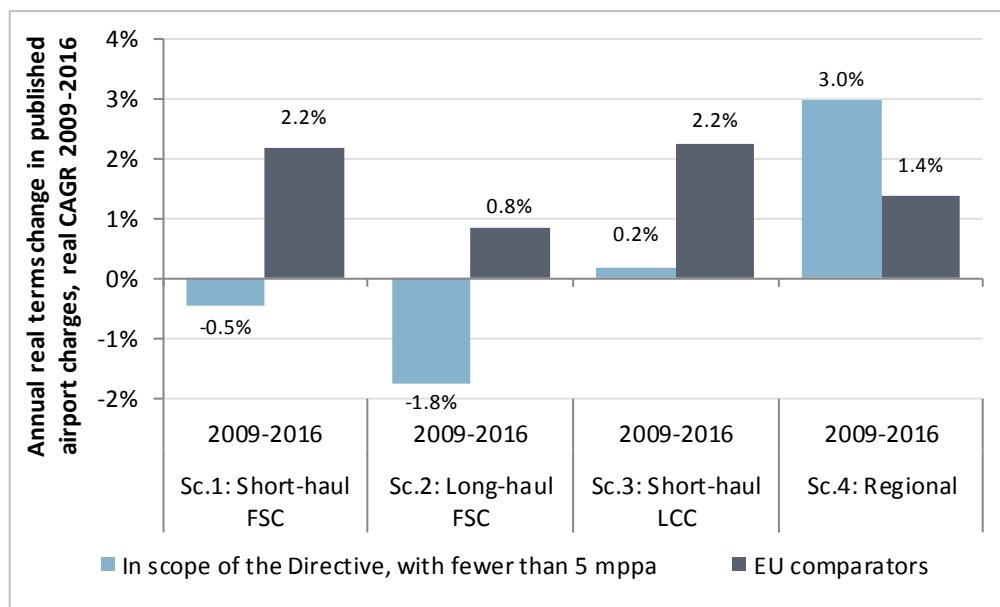
It is not possible to define with any confidence how airport charges would have changed over this period in the absence of the Directive. Instead the evaluation has sought to assess the impact of the Directive by comparing the evolution of charges at the airports in

¹²² See for example PWC (2013) *Fare differentials Analysis for the Airports Commission on the impact of capacity constraints on air fares* and Frontier Economics (2014) *Impact of airport expansion options on competition and choice*.

scope of the Directive with 1) a selection of EU airports not in scope and 2) a selection of comparable non-EU airports.

The analysis undertaken as part of the external study shows that published airport charges at EU airports in scope and out of scope of the Directive have evolved in a similar way in terms of their structure and their overall average level. However, as illustrated in figure 4 below, the analysis shows that airport charges at airports in scope of the Directive with less than 5 million passengers per year, that are covered by their being the largest airport in their Member State, have increased significantly less than airport charges at EU airports not in scope of the Directive (all of which also served less than 5 million passengers).

Figure 4: Growth in published airport charges per turnaround at airports serving fewer than 5 million passengers per annum, CAGR 2009-2016



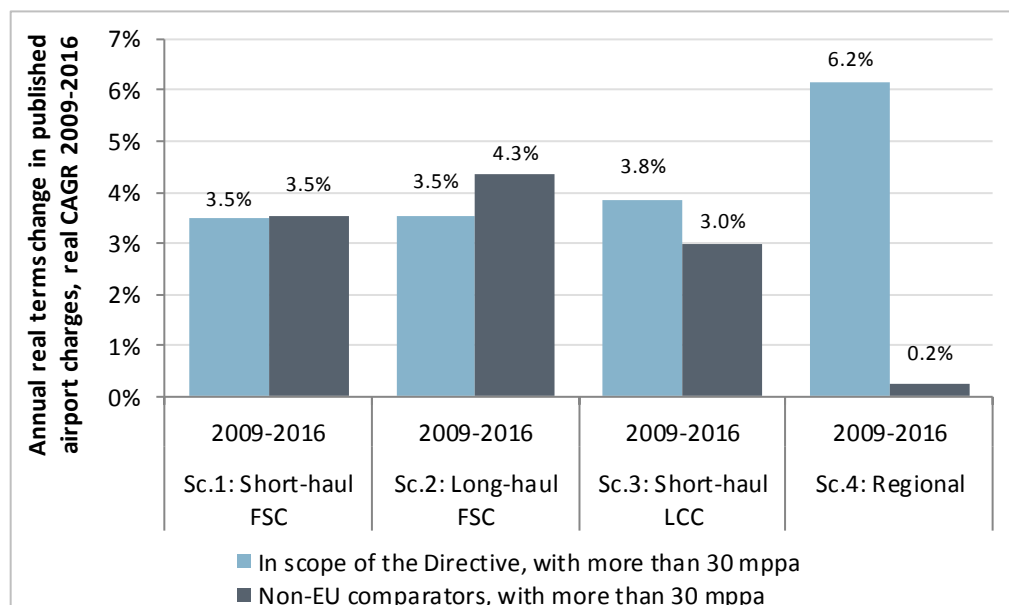
Source: Steer Davies Gleave analysis using data from IATA Airport, ATC and Fuel Charges Monitor October 2009, IATA Aviation Charges Intelligence Center 2016 (accessed February 2017)

The evaluation has highlighted a range of airport specific factors that help to explain this result. It also shows that at certain airports airport charges have fallen in real terms despite traffic increasing, potentially indicating improvements in efficiency. While this analysis is consistent with the Directive having had a positive impact on the efficiency and competitiveness at some airports serving less than 5 million passengers, the absence of sufficient data on the evolution of service quality at these airports prevents firm conclusions being drawn.

As illustrated in figure 5, the analysis shows that the growth in average charges between 2009 and 2016 at EU airports in scope of the Directive was comparable to that at non-EU airports of a similar size. Charges for regional operations grew much faster at EU airports. However such operations represent a very small proportion of the traffic at these airports. The external support study suggests that this result also likely reflects the efforts of some large EU airports (e.g. London Heathrow), which face capacity constraints, to

discourage the operation of regional aircraft, where slots could be more efficiently utilised by larger aircraft.

Figure 5: Growth in published airport charges per turnaround at EU and non-EU airports serving more than 30 million passengers per annum, CAGR 2009-2016



Source: Steer Davies Gleave analysis using data from IATA Airport, ATC and Fuel Charges Monitor Oct. 2009, IATA Aviation Charges Intelligence Center 2016 (accessed February 2017)

The Commission's Joint Research Centre (JRC) has also undertaken work to assess whether the Directive had a significant effect on the level of airport charges¹²³. The analysis is also based on airports' published charges and does not correspond directly to the actual received aeronautical yield per passenger at airports, which will include the effect of passenger mix along with the impact of incentives and commercial arrangements. JRC applied an econometric approach referred to as "difference-in-difference" analysis. In simple terms this compares the evolution in airport charges before and after the introduction of the Directive for airports in its scope with the changes before and after its introduction at similar airports outside the scope of the Directive, while controlling for airline and year specific fixed effects. JRC compared the charges across the same four turnaround scenarios used for the external report (see Annex 6 for more details). For one of the three models applied, the results indicate that the Directive may have resulted in an approximate 10% decline in airport charges for both full service carrier and low cost carrier flights within the EU at airports with between 5 and 20 million passengers annually. This effect is statistically significant, but with a low degree of confidence.

¹²³ *The Airport Charges Directive and the level of airport charges*, JRC Technical Reports, 2018. http://publications.jrc.ec.europa.eu/repository/bitstream/JRC110275/2018-07-25_final_report_for_pubsy.pdf

Analysis of Airport Service Quality (ASQ)¹²⁴ data provided by ACI for 32 airports covered by the Directive indicates that overall passenger satisfaction has been increasing. Unfortunately, however, it has not been possible to obtain ASQ data for the comparator airports, so it has not been possible to compare the relative performance of airports in and out of scope of the Directive in terms of passenger satisfaction.

The evaluation has found that the profitability of the comparator airports assessed as part of the evaluation, is within the range of those in scope of the Directive. Finally, as explained in the response to evaluation question 7, the evaluation has found no evidence of the Directive having had a significant impact on investment at EU airports in its scope.

Of the stakeholder responses expressing a view on the impact of the Directive on EU competitiveness, the vast majority said there had been no significant impact. Some respondents explained this by noting that the Directive had not resulted in significant changes in already existing regulation. A small number of respondents suggested there had been a positive impact. Naples airport and the two Italian ISAs all suggested that the Directive had a positive impact on the competitiveness of the sector as did the ISAs in Spain, Portugal and Iceland. In contrast both Finavia and Berlin airport suggested that the Directive may have hampered the competitiveness of the sector. A large number of respondents also said they were unable to assess the impact.

In summary, the analysis undertaken for the evaluation indicates that the Directive may have had a downward impact on airport charges levels at some airports in scope of the Directive. However, a lack of adequate data on service quality levels and investment at airports not in scope of the Directive, means it is not possible to conclude that the Directive has contributed significantly to an improvement in the efficiency and, therefore, the competitiveness of EU airports.

Conclusions on Effectiveness

Overall, the evaluation has found that while the Directive has achieved progress towards its objectives, it is not possible to conclude that it has been fully effective in achieving any of its objectives. Measures taken at national level, over and above the general requirements of the Directive, have impacted outcomes at individual airports in a way that makes it difficult to gauge the precise impact of the Directive itself.

The Airport Charges Directive, has provided a common framework – including requirements related to consultation and transparency, prevention of discrimination and the possible intervention of ISAs – which has prompted action that has improved the transparency and fairness of airport charges setting across Europe overall.

The evaluation has identified, however, scope for the Directive to have been more effective in improving transparency and fairness, had elements of the requirements relating to consultation and transparency been specified in greater detail. The evaluation

¹²⁴ ASQ is a global benchmarking programme set up by ACI-World which measures passengers' satisfaction whilst they are travelling through an airport. <https://aci.aero/customer-experience-asq/>

has also found that a lack of specificity in the Directive's requirements relating to investment in airport infrastructure has limited its effectiveness in improving the transparency and fairness of airport charges setting in certain Member States.

The ISAs play a critical role in ensuring the correct application of the Directive's principles and requirements. The evaluation has found that a lack of detail in the Directive's requirements relating to the independence, and powers and duties of ISAs (especially in relation to how its requirements apply where aspects of airport charges are fixed by Member States themselves) limits its effectiveness in addressing the risk of airports being able to extract prices that would not be achieved in a competitive market.

Carrying out in-depth assessments of individual airport's performance to establish any possible misuse of significant market power would have been disproportionate under this evaluation. The evaluation has identified decisions being taken in the absence of effective consultation at certain airports, behaviour that might not be expected from an airport operating in a competitive market. However, it is not possible to draw any conclusions about whether any EU airport, that may have significant market power, may actually be misusing such a market position.

The evaluation has found increased differentiation of charges across EU airports. This appears to reflect greater differentiation in service quality and scope, which is being driven primarily by the demands of fast growing low cost airlines but also a greater use of incentive schemes, which are increasingly used by airports to support traffic growth. The evaluation has also identified different interpretations amongst stakeholders on how to apply the requirement that airport charges should not discriminate amongst users, which appears to be having an adverse impact on some airports' willingness or ability to offer differentiated charges for differentiated service quality allowed for under the Directive.

The evaluation has also found that the issue highlighted in the relevance section – that there are circumstances in which airlines cannot be assumed to represent the interests of passengers – may limit the effectiveness of the objective in ensuring airports can generate sufficient revenues to maintain airport infrastructure at an optimal level. However, the evaluation has not established whether this risk has had any adverse impact on airport investment to date.

The analysis undertaken for the evaluation indicates that the Directive may have had a downward impact on airport charges levels at some airports below 20 million passengers. However, a lack of sufficient data on service quality and investment has prevented any firm conclusions being drawn about the overall contribution to the efficiency, and therefore the competitiveness, of EU airport services overall.

5.3 Efficiency

- 9) *Are the costs associated with the application of the Directive, including those borne by national independent supervisory authorities, airports and airport users, reasonable in relation to the benefits? Is there a fair distribution of costs between the main actors?*

In order to assess the efficiency of the Directive it is necessary to assess whether its objectives were achieved with a reasonable use of resources and whether the same results could have been achieved with fewer resources. The operational objectives and related intended effects of the Directive were expected to be fully met well before the end date of this evaluation period, taking into account the fact that the transposition deadline into national laws was 11 March 2011.

Implementation of legislation, in particular novel legislation like the Airport Charges Directive, usually results in some costs for the affected parties, i.e. the regulators (here the ISAs) and/or operators (here airport managing bodies and air carriers). The 2007 impact assessment did not provide estimates on monetised costs or benefits expected to be incurred by various stakeholders. Also, airports or airlines typically do not collect separate cost data for implementing the Directive, so it is not possible to estimate all its actual costs.

Furthermore, it is not that straightforward to quantify specific objectives such as contribution to fair competition between airports or promotion of fair or transparent charging systems. The Directive was expected to facilitate the delivery of outcomes that better reflect those of an effectively competitive airport market. Such outcomes should be characterised by some combination of the following elements: a) charges that correspond better to the underlying costs; b) improved service quality; c) sufficient and timely investment in airport facilities.

Costs for Independent Supervisory Authorities

Regarding costs of the ISAs, the 2007 impact assessment assumed that additional costs would be incurred by Member States where no separate, independent authority existed before the Directive as compared with those where such bodies were already functional, with additional overheads to be expected in any case. As predicted, in Member States where airport oversight preceded the Directive (e.g. Germany, Ireland, UK) or where the ISA functions have been incorporated into existing competition authorities (Estonia, The Netherlands, Spain) or civil aviation authorities (e.g. Austria, Greece, Italy – ENAC, Poland, Portugal, Romania), the main additional costs incurred related to the transposition of the Directive into national law. The evaluation found only two cases (Italy – ART and France) where the ISAs were set-up from no pre-existing body, but no details were provided as to the related costs. The transposition costs for national administrations were estimated in the external support study to the mid-term assessment to 1 full time equivalent (FTE) during one year for Member States with long-standing regulatory regimes for airports; while no estimations have been made available for

Member States with no framework pre-existing the Directive, it is sensible to assume that the transposition costs have been higher than 1 FTE during one year.

The impact assessment also anticipated costs derived from additional oversight imposed by national authorities, which would affect both the authorities themselves and the airports, but no quantification was provided. The running costs incurred by the ISAs should be linked to the number and size of the airports that fall under their supervision and the type of oversight, but the evaluation could not establish a clear, direct link. During the consultation, ISAs in 22 out of the 31 countries provided figures as to the number of staff (FTE) associated with the implementation of the Directive, which range from 0.2 FTE to 8 FTE. Hardly any ISAs however provided estimations of budget available for external support (e.g. consultants, temporary staff for specific, short-term tasks). The evaluation found that in Ireland, the Netherlands and the UK the ISAs' resources are coherent with the work required by the elaborated economic regulation in place. It is far less clear whether it is cost-efficient to have more than one ISA per Member State (as it is the case in Belgium – 2 ISAs, Germany – 16 ISAs corresponding to the 16 Länder, but only 8 concerned by the Directive and Italy – 2 ISAs). ISAs in countries applying Article 6(5) which requires determination or approval by the ISA of the level of charges should in principle incur higher costs than ISAs in countries applying Articles 6(3) and 6(4) where ISAs intervene only upon an appeal. But the external support study found at least two cases (Austria and Norway) where the ISAs appear understaffed; it should nevertheless be mentioned that costs linked with the application of Article 6(5) are driven by national regulatory measures rather than the Directive itself.

During the targeted consultation, only 8 ISAs replied the question about the proportionality costs-benefits and 5 considered that the costs are proportionate to the benefits, while the remaining 3 remarked that they already had a well-established framework before the Directive, so the Directive has added minimal costs and benefits. During the public consultation, authorities from only five¹²⁵ Member States have replied to the question as to whether the Directive has provided additional benefits beyond what would have been achieved at national level and all of the respondents have stated that this is indeed the case. No specific benefits were expected for the ISAs.

Costs and benefits for airports

Additional costs were also predicted by the 2007 impact assessment for airports subject to the Directive, resulting from the adjustments of their accounting practices in order to accommodate the mandatory requirements on consultation and transparency. Since the national supervisory authorities were allowed to vary regulation to various degrees of airport competition, it was acknowledged that this would result in variations of compliance costs among airports located in different Member States. At the airports where some form of consultation with users existed before the Directive, the additional costs were not expected to be significant, an assumption which was confirmed to a large extent by the consultation carried out under the scope of this evaluation. Additional

¹²⁵ BG, CZ, DE – Land of Hessen, ES, FR

regulatory measures imposed by national legislations can nevertheless translate into important costs for airports targeted (e.g. UK airports subject to economic regulation), but such costs should not be necessarily imputed to the Directive. Among the 31 responses received from individual airports or airport groups, only 2 airports and 2 airport groups have stated that they bear important additional costs or administrative burden, but none of them has provided concrete figures pre- and post-Directive, which makes it very difficult to assess this possibly negative impact.

Consultation responses (31) submitted by individual airports or airport groups during this evaluation unveiled a mixed picture as to whether costs are proportionate to the benefits; the individual airports who replied to the survey are divided into roughly two equal groups, one who estimates that costs are proportionate and the other one taking an opposite view. ACI-Europe estimates that overall the direct costs to airports are high and that costs are not proportionate for many airports that fall under the scope of the Directive. Additionally, ACI-Europe considers indirect costs should also be taken into account, the most important one being the loss of commercial exchange between airports and airlines, as airlines may be too often tempted to ‘run to the regulator’ instead of engaging in a true dynamic with airports. ACI also highlights the costs of the ISAs which are borne by the taxpayers.

It was expected that the main benefits for airports should be derived from increased competition, meaning that more airports would increase their efficient operations. The findings of the evaluation point into the same direction: airports cite an improved dialogue with their users among the main benefits of the Directive. It is however not clear to what extent airports have become more efficient following the introduction of the Directive.

Costs and benefits for airlines

The 2007 impact assessment did not provide any details on the possible costs for airlines, although it seems obvious that by being required to engage in the consultation process, airlines also incur costs. Airlines also have obligations under the Directive as they are required to submit a set of information to the airports during the consultations (as foreseen by Article 7(2)) but, as noted under evaluation question 6, airports have pointed out that airlines do not always fulfil their obligations. In addition, in order for them to be able to influence the charges schedule, airlines have to engage during the consultation processes, which obviously translates into costs.

Airlines were expected to benefit from the introduction of the Directive, in particular those with cost-inefficient airports as their home base.

During the consultation, airlines stated that they already dedicate sufficient resources to the charges setting process and higher costs would be acceptable, if associated with proper regulation of airport charges, since “these costs would be outweighed by the benefits for airport users and the European aviation sector as a whole”. Furthermore,

airlines have also pointed to costs related to appeals and complaints against airports¹²⁶, which in their view have failed or are failing to comply with the obligations under the Directive, submitted either to the national ISAs or to the European Commission. It is clear that investigations of appeals or court proceedings translate into costs for the other interveners as well, i.e. airports, ISAs, Member States governments, the Commission. Despite airlines complaining about certain airports where they consider that the consultation process is meaningless, it is nevertheless logical to assume that airlines would not continue to engage in the consultations with airports across Europe if they did not expect to derive net benefits from them.

The passengers

Although not clearly spelled out in the 2007 impact assessment, the benefits resulted and costs incurred were expected to be passed on to the passengers.

Scope to achieve benefits at lower costs

During stakeholder consultation, a number of airport stakeholders suggested that the Directive is insufficiently well targeted at airports with significant market power. A4E suggested that a system of proportionate regulation of airports, with regulation focused on airports with significant market power, could be an alternative to the current thresholds. IATA suggested that all airports covered by the Directive hold a level of market power that justifies their being subject to its requirements. However, IATA suggests that there is a need for additional provisions to ensure that airports with significant market power are subjected to effective regulation. Since the stakeholder consultation carried out as part of the external support study, airports and airlines alike have undertaken work to consider how regulation could be better targeted at airports with significant market power¹²⁷. Also, the Thessaloniki Forum has prepared two reports¹²⁸ in 2017 on the use of airport market power assessments, and a further report in 2018 on possible screening criteria in the economic regulation of airports¹²⁹. The papers take the

¹²⁶ In BE, BG, DE, DK, EL, ES, FR, IT, NL, PL, PT, RO, SE, CH

¹²⁷ CMS/Oxera, *Market power assessments in the European airports sector*, 2017, prepared for ACI-Europe <https://www.aci-europe.org/policy/position-papers.html?view=group&group=1&id=6>

CEG, *Effective regulation of airport market power*, 2018, prepared for A4E and IATA
<https://www.iata.org/policy/infrastructure/Documents/ceg-airport-charges-report.pdf>
<https://a4e.eu/wp-content/uploads/2018/10/CEG-Airport-Charges-Report-1102018-.pdf>

¹²⁸ <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=36343&no=1>
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=36344&no=2>

¹²⁹ *The Use of Selective Criteria in the Economic Regulation of Airports*, Thessaloniki Forum of Airport Charges Regulators, 2018
<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=38501&no=2>

view that market power assessments can play a useful role in deciding which airports may require economic regulation and in which form.

Under the relevance section, this evaluation concluded that the double threshold that determines to which airports the Directive applies can be, at best, regarded as a very crude proxy for airports with significant market power. The evaluation also concluded that it is not possible to draw firm conclusions about the number of EU airports that have significant market power on the basis of this double threshold. It follows that it is not possible to draw any firm conclusions about how better targeting the Directive at airports with significant market power would have affected the number of airports subject to intervention, nor about how this would have affected total costs and benefits. However, it is reasonable to assume that had the Directive been better targeted at those airports where risks were most likely to occur, the ratio of the Directive's benefits to costs could have been improved.

10) To what extent are the administrative requirements flexible to cater for the needs of SMEs¹³⁰ active in the industry?

Mandatory consultation triggers a larger proportion in the overall costs of small airports and airlines, which are likely to have fewer resources to engage in this process. The evaluation found that there are nevertheless few SMEs in the airports group, namely Bratislava, Riga and Tallinn. To be noted that relevant information in terms of headcount or turnover is not always publicly available, therefore it is possible that there may be other airports covered by the Directive and belonging to the SMEs category, albeit very few. In the airlines group, SMEs include business aviation operators, but no information was provided during the stakeholders' engagement; in any case, it is again expected that very few airlines currently operating in Europe can qualify as SMEs. Furthermore, most airlines are members of at least one trade association and even if they do not possess sufficient resources to attend themselves the consultation procedures at all airports where they operate (which by default will be small), they are usually able to 'delegate' participation to the association.

Two SME airports reported an increase in administrative burden and cost as a result of the Directive.

The evaluation has not identified significant concerns regarding impacts on SMEs. However, the question as to whether the passenger thresholds foreseen in the Directive are appropriate remains. On this specific point, one should remind that 3 Member States with no airports above the threshold of 5 million passengers annually expressed reserves during the discussions on the proposal for a Directive, although only one of the three airports concerned is an SME according to the definition.

¹³⁰ The Commission Recommendation 2003/361/EC defines micro, small and medium-sized enterprises (SMEs) as enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

The evaluation found that although all airports below 10 million passengers annually (but above the threshold of 5 million passengers annually or the largest in the respective Member State) have to comply with the non-discrimination, consultation and transparency provisions of the Directive, most of them are nevertheless not subject to economic regulation as such imposed by the ISAs.

Conclusion on Efficiency

Through our data gathering, it was not possible to assess quantitatively all costs and benefits of the Directive. This is mainly because on the one hand the industry (airports and airlines) does not systematically collect or report separate information on costs related to the implementation of the Directive and on the other hand most of its objectives (e.g. promotion of fair or more transparent charging systems, contribution to fair competition between EU airports) are essentially qualitative by nature.

Despite issues identified in a number of Member States as presented in the previous sections, by and large, there has been increased transparency regarding the charges setting at EU airports and a shift towards more independent ISAs, which are the Directive's main benefits. As regards the ISAs, it should be recalled that not all Member States had a body with similar functions in place before the Directive. Additionally, the Commission's experience in monitoring the application of the Directive's requirements shows that the independence and expertise of the ISAs have also strengthened. While achieving these positive results implies certain costs for the industry and the Member States which have materialised since the introduction of the Directive, there are no convincing arguments to believe that the Directive has imposed particularly high or disproportionate costs. A doubt remains nevertheless as to the relevance of the two thresholds for determining the airports that fall within the scope of the Directive and the impact on efficiency at the airports concerned. Elaborated, complex economic regulation in place in some Member States is clearly more costly for all parties, but this is due to national measures that go beyond the requirements of the Directive.

As explained in section 2, the original impact assessment identified 4 possible options. While by keeping the pre-Directive status quo or by letting the sector agree on common principles would have certainly implied less costs for all parties, it was clear in the preparatory analysis, and it is also suggested by the findings of the present evaluation, that the benefits expected would not have been achieved. This evaluation indicates that if the Directive had been more specific on a number of elements as highlighted in section 5.2 (Effectiveness), it would have possibly resulted in lower costs (e.g. less costs derived from possible complaints, better focused consultations, etc) and/or higher benefits for the industry and passengers.

Through the whole body of evidence gathered during this evaluation it would appear that the overall benefits of having the Directive outweigh its costs. This is in spite of the fact that the scale of key monetised costs and benefits by the main affected groups is not available, which implies a certain degree of uncertainty as to the conclusions on the efficiency of the Directive.

5.4 Coherence

11) *To what extent is the Directive in line with other relevant EU interventions (e.g. air navigation services, ground handling services, slots, security, assistance to disabled persons and persons with reduced mobility)?*

In order to assess whether the Directive is coherent with other EU interventions its high-level objectives have been compared to those of a number of relevant Regulations, guidelines and the 2015 Aviation Strategy. The analysis has also looked in more detail at selected provisions of the interventions, where a potential for inconsistencies existed.

*Regulation 300/2008 on civil aviation security*¹³¹ (the "Security Regulation") lays down security requirements for airports and air carriers, but does not address the issue of financing of these regulatory requirements. Security charges are out of scope of the Directive, since they are not listed as part of the airport charges defined in Article 2 of the Directive, and the provisions of the Directive do not apply to them¹³².

*Regulation 1107/2006 on rights of disabled persons and persons with reduced mobility*¹³³ (the "PRM Regulation") provides that the airport may, on a non-discriminatory basis, levy a specific charge on airport users for the purpose of funding the assistance to persons with reduced mobility (PRM). Charges for PRM are out of scope of the Directive, since they are not listed as part of the airport charges defined in Article 2 of the Directive, and the provisions of the Directive do not apply to them.

Regulatory oversight arrangements for charges subject to the Security Regulation and the charges subject to PRM Regulation are different from those under the Directive. In particular, the Security Regulation and PRM Regulation provide that charges within the scope of these Regulations have to be cost related. These differences do however not constitute any incoherence as the Security Regulation, PRM Regulation and the Directive apply to different charges and there is no overlap among the charges that are subject to the different legislative texts.

The *Slots Regulation*¹³⁴ aims to ensure an optimal allocation of slots¹³⁵ in a non-discriminatory way at congested airports and to maximise the use of capacity at these airports. While the Slots Regulation thus contains rules for getting access to a congested airport, the Directive regulates the charges for that access (in case of airports within the scope of the Directive).

¹³¹ Regulation (EC) No 300/2008 of the European Parliament and of the Council of 11 March 2008 on common rules in the field of civil aviation security and repealing Regulation (EC) No 2320/2002, OJ L 97, 9.4.2008, p. 72.

¹³² Some airports do however include security charges within the airport charges.

¹³³ Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air, OJ L 204, 26.7.2006, p. 1.

¹³⁴ See footnote 23.

¹³⁵ Annex 2 Abbreviations and Glossary for an explanation of the term "slots".

As both texts deal with the use of airport capacity, this evaluation looked at potential incoherence between the two legislative texts.

This evaluation looked at the rules on pre-financing of airport infrastructure projects through airport charges and the slot allocation rules as a potential source of incoherence. The Directive does not contain any provisions on pre-financing of airport infrastructure projects through airport charges and the legal situation as regards pre-financing differs among Member States.

This evaluation thus finds no link between pre-financing infrastructure projects under the Directive and slot allocation in Europe and thus no potential incoherence. The external study and stakeholders, such as ACI Europe and IATA, have explicitly supported this.

The way slots are allocated at congested airports has an impact on the airport's operational efficiency and as such has a direct link to airport charges. If a slot is allocated to the airport user using the slot in the most efficient way at a congested airport, this could contribute to the optimal use of the scarce capacity. On the other hand, slot allocations could contribute to a reduction in the airport's bargaining power in setting airport charges, where slots allocated to an already dominant airport user could make the airport more dependent on this user.

This evaluation has looked at these as a source of potential incoherence and has found none. The rules on slot allocation and the provision of the Directive govern different aspects of airport access, i.e. the Slots Regulation governs the allocation of access and the Directive governs the charges to be paid for this access. This evaluation has not analysed possible synergies from combining the Slots Regulation and the Directive to enhance their ability to address capacity constraints as this is outside the scope of an evaluation but there may be scope for such synergies.

The *Groundhandling Directive*¹³⁶ aims at improving the efficiency and quality of groundhandling services provided to airport users by increasing competition and choice in the supply of groundhandling services. As to air navigation services, related *Regulation 549/2004 laying down the framework for the creation of the single European sky*¹³⁷ (the "SES Regulation") and *Regulation 550/2004 on the provision of air navigation services in the single European sky*¹³⁸ (the "Air Navigation Services Regulation") have the objective of offering more efficient services to airspace users, while improving the safety, capacity and environmental Key Performance Areas. This evaluation concludes that there is coherence, based on the fact that the objectives of the Groundhandling

¹³⁶ See footnote 30.

¹³⁷ Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation), OJ L 96, 31.3.2004, p. 10

¹³⁸ Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation), OJ L 96, 31.3.2004, p. 10.

Directive, the SES Regulation and the Air Navigation Services Regulation are fully aligned with those of the Directive.

*Article 19 of the Air Services Regulation*¹³⁹ contains provisions giving Member States the right to establish non-discriminatory rules for the distribution of air traffic between airports serving the same city or conurbation. This was considered necessary for air transport planning purposes. The evaluation has not found any incoherence here as the provisions on traffic distribution and the provisions of the Directive govern different aspects of access to airport infrastructure.

The *Guidelines on State aid to airports and airlines*¹⁴⁰ explain how Member States can support airports and airlines financially in line with EU State aid rules. The Guidelines on State aid to airports and airlines provide that State aid for investments at airports with over 5 million passengers annually shall in principle not be declared compatible with the internal market pursuant to Article 107(3)(c) except in very exceptional circumstances.

The prohibition of State aid for investments for airports with more than 5 million passengers annually except in very exceptional circumstance implies that airports have to finance investment through their own resources and private capital. The evaluation has looked at a possible incoherence of this approach in the Guidelines on State aid to airports and airlines with the Directive.

The Directive sets a regulatory framework for the setting of airport charges which has no intention to prevent airports from attracting private capital. It has no intention to prevent airports to have airport charges set at a level that enables airports to recover their costs, including costs for investments, so long as they are efficiently incurred, and to achieve a reasonable rate of profit. As noted under evaluation question 7, the evaluation has found no indication that the requirements of the Directive have prevented any airport to invest in airport infrastructure. This evaluation thus finds no incoherence here.

Airport stakeholders have suggested another potential contradiction between the Guidelines on State aid to airports and airlines and the Directive which is that the Guidelines would be based on the underlying assumption that there is effective competition between large airports. On this basis, they prohibit in principle State aid to airports with more than 5 million passengers per annum. The Directive, on the other hand, would be based on the opposite assumption, i.e. that airports with more than 5 million passengers annually are deemed to have monopoly characteristics, which require regulatory intervention.

The Directive's original impact assessment was built on the assumption of limited airport competition among EU airports, with the main competition taking place at the level of large regional airports. This assumption underpins the rationale for the Directive. It is, however, generally coherent with the approach taken in the Guidelines on State aid to airports and airlines as also the Directive acknowledges that, while some airports with

¹³⁹ See footnote 30.

¹⁴⁰ See footnote 42.

more than 5 million passengers annually may be subject to limited competition, not all of these airports will necessarily only face limited competition. According to the Guidelines on State aid to airports and airlines (point 105), it is necessary to assess in each case a number of factors, among which possible "competition distortions". It thus implicitly assumes and acknowledges that competition can also be found, depending on the case, at airports with more than 5 million passengers annually. Moreover, the Directive is not based on the premise that competition is excluded wherever the threshold of 5 million passengers is crossed. The setting of such threshold is, for reasons of practicability, a feature typical to rules intended to regulate markets.

The evaluation thus found no incoherence between the Guidelines on State aid to airports and airlines and the Directive.

In summary, the Directive has been found to be generally coherent with other EU interventions.

12) To what extent do the tools set out in the Directive work together in a coherent way?

The evaluation brought to light elements in Article 6 that could be analysed as a possible incoherence within that provision.

Article 6(5)(a) provides, among others, that Member State may decide not to apply paragraph 6(3) and (4) in relation to changes to the level or the structure of airport charges at those airports where the maximum level of airport charges is determined or approved by the ISA. A similar provision is contained in point (b) of Article 6(5). Given the wording employed, it could be argued that, where a Member State has resorted to the option thus available to it, airport users do not have the possibility to seek the intervention of the ISA to examine the justifications for the modification of the system or the level of airport charges, as long as the ensuing charges do not exceed the maximum. In particular, the authority would not be able to raise any issues of discrimination, incompatible with Article 3 of the Directive. This in turn would mean that the guarantees available to users would present a significant lacuna compared to the standard rule of Article 6(3) and (4), as the consequence of an option freely available to Member States.

It has to be noted however that Article 11(1) requires Member States to nominate or establish an independent authority as their national independent supervisory authority in order to ensure the correct application of the measures taken to comply with this Directive. Contrary to Article 6(3) and (4), this provision cannot be derogated from.

It remains that the drafting of the Directive may raise confusion in this respect, all the more the position is not further explained in its recitals.

The external study found that Article 6(3) and 6(4) provide that Member States shall ensure that in event of a disagreement over a decision on airport charges taken by the airport managing body either party may seek the intervention of the ISA and that the ISA shall take a decision on that. Article 6(5), however, foresees the possibility to not apply paragraph 3 and 4 in case there is a mandatory procedure under national law whereby

airport charges of their maximum level is determined or approved by the ISA. There is no provision in the Directive to require that decisions of the ISA on the basis of Article 6(5) shall be appealable to the ISA, i.e. requiring the ISA to revisit its decision. The external study pointed this out as an internal incoherence.

The evaluation looked further into this potential internal incoherence. Under Article 6(3) and 6(4) only decisions of the airport managing body are appealable to the ISA and there is no provision providing that the ISA decision on the basis of Article 6(4) should be appealable to the ISA. The Directive therefore does not provide for the ISA's decisions to be appealable to the ISA either under Article 6(4) or under Article 6(5). Unlike the airport managing body the ISA is an independent body, and its decisions do not need to be appealable to the ISA. For this reason, the provisions under these Articles do not necessarily constitute an internal incoherence.

The evaluation also analysed whether the concept of network charging systems, as provided for in Article 4 of the Directive, is consistent with the principle of airport cost efficiency as stated in recital 1 of the Directive. The external study came to the conclusion that network charging systems can be considered cost efficient if they are considered as one cost base, if sufficient transparency is provided at a network level. However, it also found that there is little incentive in the Directive for network operators to improve their overall efficiency by providing more transparency on the network and in relation to cross-subsidisation. The evaluation shares this finding. In addition, the evaluation finds that on the level of the individual airport the application of a common charging system for an airport network provides little incentive for small airports to improve efficiency. This has also been highlighted by airline stakeholders. A report¹⁴¹ prepared by the Spanish ISA (which is also the national competition authority) regarding AENA network points into the same direction. The evaluation thus finds some degree of incoherence here.

Finally, given the importance of airport investment, the Directive would be more internally coherent if it was more prescriptive on the process planning, consulting on and charging for new infrastructure beyond what is contained in Article 8 of the Directive.

Conclusion on Coherence

The evaluation found that the Directive is generally coherent with other EU interventions. The evaluation found some internal incoherencies as regards Article 6(5) where the maximum level of airport charges is determined or approved by the ISA and other provisions of the Directive, in particular Article 3 on non-discrimination. In such circumstances, it could be argued that airport users do not have the possibility to seek the intervention of the ISA to examine the justifications for the modification of the system or the level of airport charges, as long as the ensuing charges do not exceed the maximum level decided by the ISA.

¹⁴¹ National Competition and Markets Authority, *Report on the Draft Law regarding Regulation Framework at AENA*, June 2014, https://www.cnmec.es/sites/default/files/1550649_1.pdf

5.5 EU added value

13) What is the added value resulting from EU intervention in airport charging, compared to what could be achieved at international, national or regional level without such intervention?

Before the Directive came into force some Member States had already made use of regulatory systems for airport charges which however differed in objectives and means. Other Member States had no rules in place. Four main forms of regulation existed at the time: ministerial approval, rate of return regulation, price cap regulation and conduct regulation. In this context, the implementation of the Directive established for the first time a common framework applicable to all Member States.

There had been no substantial trend towards coordination of a common framework on airport charges by Member States before the evaluation period.

Although it cannot be excluded for certain that ICAO or any other body would not have intervened on the regulation of airport charges on a regional or an international level to an extent further than what is currently established by ICAO, there are no indications either that ICAO or any other body had the intention to do so. ICAO has established policies on airport charges since 1997 but these are guidance for the contracting States and are not binding. They did not prevent the divergence of regulatory systems in Member States existing pre-Directive as described above.

On the basis of the above it thus does not seem to be an overly strong assumption that, without EU intervention, Member States would have continued applying their own regulatory systems without any common set of principles also during the evaluation period. This assumption was also used as baseline scenario of the impact assessment underpinning the Directive.

In addition, before the Directive came into force, only few Member States had regulation in place that addressed the problem of the possibility for some airports to extract prices and terms that would not be achieved in a competitive market. While there is no evidence that more Member States would have tackled this issue, nothing suggests that Member States would have indeed done so during the period covered by the evaluation.

Conclusion on EU added value

At least part of the actual benefits of the Directive that the evaluation identified could be considered as EU-Added Value. Indeed, the evaluation argues that it is likely that Member States would have continued applying their own regulatory systems without any common set of principles and that some Member States would have continued to have no rules in place at all. In the absence of robust evidence, it is however not possible to draw firm conclusions on the extent of this EU Added-Value.

6. CONCLUSIONS

The aim of the Airport Charges Directive was to establish a common framework regulating airport charges at European Union airports by tackling two main issues:

- (i) the possibility for some airports to extract prices and terms that would otherwise not be achieved in a competitive market; and
- (ii) the existence of diverging charging systems in the Member States that lack of clear transparency in the way in which they are built up.

The specific objectives of establishing common EU airport charges rules were: (i) to ensure fairness in the process of setting charges; (ii) to contribute to fair competition between EU airports by the introduction of a common charging framework and principles; (iii) to promote more transparent charging systems applicable to users of airport infrastructure; and (iv) to generate and maintain sufficient revenues to sustain and complete airport infrastructure at an optimal level.

The overall conclusion of this evaluation, based on the conclusions for the five evaluation criteria set out below, is that the Airport Charges Directive has led to improvements in airport charges setting compared to the hypothetical situation in which it had not entered into force, although it has not fully met its original objectives.

The Directive remains relevant, in that the issues underpinning the Directive still persist today, to some extent. The evaluation has also revealed an additional, previously unidentified, issue in the market and has identified some gaps and inconsistencies in its original objectives. While it would appear on the basis of the limited evidence available that the benefits of the Directive exceed its costs, limitations in the Directive's effectiveness have reduced its efficiency. The Directive is generally coherent with other EU legislation but there is some incoherence between different provisions within the Directive. The Directive also appears to have added value relative to what would have occurred in the absence of EU level action.

These conclusions are based on the evaluation analysis drawing on the Commission's experience of monitoring the implementation of the Directive as well as on an extensive evidence gathering exercise, which has included ample stakeholder consultation, in addition to a review of relevant literature and economic analysis. Nevertheless, it is important to recall the limitations highlighted in section 4. These include the difficulties associated with assessing the achievement of objectives that are qualitative by their nature, and with verifying evidence presented by airports or airlines.

Relevance

The analysis of the Directive's relevance shows that the first issue that the Directive aimed to address - some airports being able to extract prices and terms that would otherwise not be achieved in a competitive market – appears to persist, albeit on a smaller scale. Since the preparation of the Directive, competitive pressures on European airports have generally increased for small and regional airports that had already been found to face competition. In addition, competition among airports now also extends to

medium-sized and larger airports. However, no firm conclusions can be drawn on the extent to which these developments affect the competitive situation of individual airports. Several Member States have undertaken detailed analysis and found significant market power at four airports (Amsterdam Schiphol, London Heathrow, London Gatwick and Dublin). Relevant national authorities decided to impose ex ante regulation to those four airports. There is no conclusive evidence available on the extent to which significant market power can be found at airports in other Member States across the EU as no market power assessments have been carried out by other authorities or by the Commission for the purpose of this consultation. Such a detailed case by case analysis, establishing the degree of market power of different airports, has not been undertaken for the purpose of this evaluation exercise, since it would have been disproportionate.

Evidence broadly points to the fact that the Directive has been partially successful in setting up a common framework for charging systems and in improving transparency in the way charges are set. Nevertheless, the evaluation finds that the second issue that the Directive aimed to address - diverging charging systems in Member States that lack clear transparency in the way they are built up – does not seem to be an issue as such but diverging charging systems and lack of transparency are rather problem drivers.

The evaluation has brought to light an additional issue. At some airports (e.g. where there is an airline with significant buyer power), there is a risk that the airport charges setting process indirectly imposes additional barriers to entry for other airlines wishing to launch services at that airport. For example, incumbent airlines with significant buyer power might use the airport charges setting process to hamper investment in airport capacity, or skew the charges schedule in their favour. However, the evidence available on this issue at this stage is limited and the evaluation has not established the magnitude of this issue.

This is linked to another important finding of the evaluation, which is that the interests of passengers travelling by air and owners of air freight are not explicitly mentioned in any specific objective of the Directive. This has led to a situation where, in certain circumstances, consumer interests are not effectively taken into account in the airport charges setting process.

The initially identified objectives of the Directive still broadly reflect the issues identified above, i.e. the issue of some airports being able to extract prices and terms that would otherwise not be achieved in a competitive market, and the issue of diverging charging systems in Member States that lack clear transparency in the way they are built. Nevertheless, some gaps and inconsistencies have been identified:

- The specific objectives of the Directive insufficiently reflect one of the problems it aimed to tackle, namely the issue of some airports being in a position to extract prices that would not be achieved in a competitive market.
- The specific objective of promoting transparent charging systems should rather not be a final objective in a legal intervention but a means to achieve a specific objective.

The double threshold determining that the Directive applies to any airport with annual traffic exceeding 5 million passenger movements and/or with the highest number of passenger movements in each Member State, remains relevant to the issues and specific objectives identified above. The threshold of 5 million passengers annually focusses intervention on airports with higher traffic, where the volume of airport charges paid is generally higher and where the implementation costs are less likely to be disproportionate. There is however no economic rationale underpinning the number of 5 million passengers annually. The criterion requiring the largest airport in each Member State to be in scope of the Directive is not conducive to focussing on airports with higher traffic. The evaluation finds that the double threshold can, at best, only be regarded as a very crude proxy for airports with significant market power. The threshold is however easily applicable and very clear.

Effectiveness

The evaluation has found progress towards all the Directive's original objectives. However, measures taken at national level, over and above the requirements of the Directive, have impacted outcomes in a way that makes it difficult to gauge the precise impact of the Directive itself. The evaluation has also highlighted certain elements that appear to be limiting the effectiveness of the Directive.

By providing a common framework for airport charges setting – including requiring regular consultation and greater exchange of information between airports and airlines, requiring the prevention of discrimination and establishing independent supervisory authorities (ISAs) to intervene in case of disagreements – the Directive has contributed to improved transparency and fairness in the way airport charges are set at EU airports. However, the evaluation has also highlighted scope for the Directive to have been more effective in improving the transparency and fairness of airport charges setting, had elements of its requirements relating to consultation and transparency been specified in greater detail.

The ISAs have a critical role in ensuring the correct application of the Directive's principles and requirements. The evaluation has found that leaving to the Member States the decisions on the detailed requirements regarding the independence, powers and duties of the ISAs (especially in relation to how the Directive's requirements apply where aspects of airport charges are fixed by the Member States themselves) has in practice impacted the effectiveness of the Directive in addressing the risk of airports being able to extract prices that would not be achieved in a competitive market.

Assessing whether an airport may have misused significant market power is a very challenging exercise, and undertaking detailed assessments at the airport level would have been disproportionate under this evaluation. Therefore, while the evaluation has identified decisions that appear to have been taken in the absence of effective consultation at certain airports, behaviour that might not be expected of an airport operating in a competitive market, the evaluation cannot draw any conclusions about whether any EU airport has misused any significant market power.

The Directive contains limited requirements relating to the way investment in airport capacity is handled as part of airport charges setting. This has resulted in the handling of investments in airport charges setting being driven primarily by national legislation and the Directive appearing not to have had any significant impact on airports' ability to invest. The evaluation has found that a lack of specificity in the requirements relating to consultation on airport infrastructure investment and to the powers of the ISA to intervene in relation to airport infrastructure, is potentially limiting the effectiveness of the Directive.

The evaluation has found increased differentiation of charges across EU airports, driven primarily by the demands of fast growing low cost airlines but also a greater use of incentive schemes, which are increasingly used by airports to support traffic growth. Different interpretations amongst stakeholders on how to apply the non-discrimination requirement appears to be having an adverse impact on some airports' willingness or ability to offer differentiated charges for differentiated service quality.

The evaluation has also found that the issue highlighted under relevance above – that in certain circumstances, consumer interests are not effectively taken into account in the airport charges setting process – may limit the Directive's effectiveness in ensuring airports can generate sufficient revenues to maintain airport infrastructure at an optimal level, which may negatively impact passengers. However, the evaluation has not established whether this risk has had an adverse impact on airport investment to date.

Efficiency

The evaluation has found that the introduction of the Directive imposed additional costs for industry and Member States' administrations, as compared to a scenario in which no EU legislation on airport charges had been adopted. It has not been possible to quantify the full costs of the Directive, nor has it been possible to quantify its benefits, which are essentially qualitative by their nature. The evaluation has not revealed particularly high or disproportionate costs and no substantial concerns have been raised regarding impacts on SMEs. The evaluation has highlighted the possible scope for the Directive to have been more efficient had it been better targeted at airports with significant market power.

As noted above, the Directive has had a positive impact on the airport charges setting process across the EU. In the absence of the Directive, it is unlikely that any of these benefits would have materialised. The Directive's efficiency has nevertheless been reduced by the limitations to its effectiveness discussed above. A lower than expected effectiveness automatically lowers efficiency, which expresses the ratio of benefits to costs. While it was not possible to quantify the full costs of the Directive or quantify its benefits, it would appear on the basis of all the evidence collected that the overall benefits of the Directive exceed its costs.

Coherence

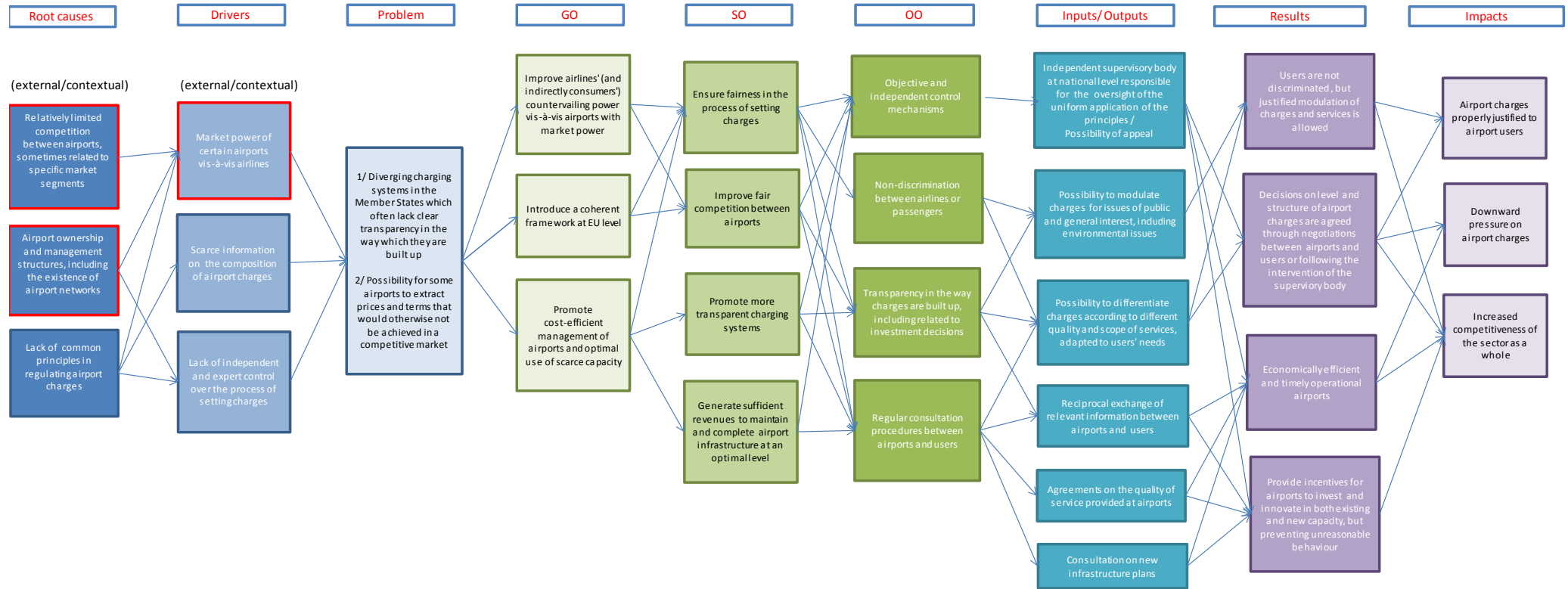
The Directive is generally coherent with other EU legislation affecting airports, in particular with the Regulation 95/93 on slots and the Guidelines on State aid to airports and airlines. The evaluation has identified, however, an internal incoherence, namely

between the Directive's provision ensuring the non-discrimination among airport users and the provision allowing Member States to not provide for the possibility to seek the intervention of the ISA at airports where the maximum level of airport charges is determined or approved by the ISA.

EU Added Value

It is likely that Member States would have continued applying their own regulatory systems without any common set of principles and that some Member States would have continued to have no rules in place at all. The evaluation concludes that it is likely that the Directive has added value relative to what would have occurred in the absence of EU level action.

ANNEX 1: INTERVENTION LOGIC



ANNEX 2: ABBREVIATIONS AND GLOSSARY

| <i>Term or acronym</i> | <i>Meaning or definition</i> |
|-----------------------------|---|
| ACI-Europe | Airport Council International – Europe represents the interests of over 500 airports in 45 European countries, including all EU Member States, EEA and Switzerland |
| Aeronautical revenue | The part of an airport’s revenue derived from a number of charges levied on airlines for the use of airport infrastructure and services by passengers and aircraft, for example landing charges, passenger charges, aircraft parking charges, etc. |
| A4E | Airlines for Europe |
| Charter or leisure airlines | These airlines provide charter aircraft specifically for the holidays they sell and/ or respond to ad-hoc demand as opposed to providing a year-round schedule. |
| CO2 | Carbon-Dioxide |
| Dual-till framework | Regulatory framework which focuses solely on costs associated with providing the services for which the charges are regulated |
| EBIT | Earnings before interest and taxes |
| EBITDA | Earnings before interest, taxes, depreciation and amortization |
| EBITDA margin | EBITDA as a percentage of total revenues |
| Ex ante | In the context of airport regulation relates to the determination of price controls, based on forecasted or intended expenditure, rather than actual expenditure |
| FSC – Full Service Carrier | The full service carrier business model is based on sustaining global route networks. As such, full service carriers are based at one or more hub airports where their passengers can connect between a variety of flights. Traditionally full service carriers were national carriers. Most of them are members of one of the three global airline alliances. Full service carriers are also known as network airlines. |
| FTE | Full Time Equivalent (employees) |
| Hub-and-spoke network | In hub-and-spoke networks, airlines and alliances route their traffic through one or more key airports (‘hubs’), with feeder traffic from other airports in the network (the ‘spokes’) supplementing local origin and destination traffic at the hubs. This model allows an air carrier to be efficient by centralising its logistics and achieving economies of scale at the hub and thus saving costs. Passengers making hub connections arguably benefit from closely timed flights, single check-in, more convenient gate and facility locations, and reduced risk of lost baggage. |
| IACA | International Air Carrier Association rebranded in 2017 as Airlines International Representation in Europe (AIRE) |

| | |
|-----------------------------------|--|
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organisation |
| LCC – Low Cost Carrier | Low cost carriers apply a business model that relies on reducing operating costs (for example, by using dense economy-only seating, not providing free in-flight meals, facilitating connections to other flights, discouraging carriage of hold baggage) to provide passengers with relatively cheap tickets. The model has so far been very successful on short-haul routes. |
| Light-handed regulation | A regulatory regime which encourages voluntary agreements between airports and airlines and allows the airport discretion in how it meets the regulatory targets. |
| MTOW | Maximum Take-off Weight. The maximum weight at take-off that the aircraft is certified to operate safely |
| Non-Aeronautical revenues | Revenue derived from commercial services provided by airports, the main categories being retail, food and beverage, car parking and property services. |
| NOx | Nitrogen oxides |
| O/D origin-destination traffic | Passengers travelling between their origin airport and destination airport without connecting at an intermediate airport. Also known as ‘point-to-point’ model; it is different from the hub-and-spoke model and is often associated with low-cost carrier business model |
| Price cap regulation | Regulatory regime where the airport is allowed to recover its forecast, efficient costs through the regulated charges, plus an additional return as a profit or reserve component |
| PRM | Passengers with reduced mobility |
| RAB | Regulated Asset Base is the historic efficient investment in regulated assets by the Regulated company, against which the company is allowed to earn a return. |
| Rate of return regulation | Regulatory framework which allows charges to increase up to a cap that represents an acceptable profit margin for the airport |
| Return on Capital Employed (ROCE) | $EBIT / (Total\ assets - current\ liabilities)$ |
| Return on Total Assets (ROTA) | $EBIT / (Total\ assets)$ |
| Single-till framework | Regulatory framework which has regard to all costs and revenues at an airport |
| Slots | Airport slots are rights allocated to allow airlines and other aircraft operators to schedule a landing or departure at an airport during a specific time period. Slots are allocated to airports operating at ‘Level 3 (coordinated)’ which are defined as those where demand for airport infrastructure significantly exceeds the airport’s capacity. |
| Transfer traffic | Passengers connecting between their origin airport and destination airport through an intermediate airport |

| | |
|---|--|
| SME | Small and Medium-sized Enterprise |
| WACC – Weighted Average Cost of Capital | The WACC reflects the rate of return on the different sources of capital financing made available to the entity, including debt and equity, and the weighting of each in its overall capital structure |

ANNEX 3: AIRPORTS COVERED BY THE AIRPORT CHARGES DIRECTIVE IN 2017¹⁴²

| Country | Airport name | IATA code | Passengers carried in 2017 | Freight and mail on board in 2017 (tonnes) | Name of airport operator | Ownership of airport operator |
|---------|-----------------------|-----------|----------------------------|--|---------------------------------------|-------------------------------|
| BE | BRUSSELS NATIONAL | BRU | 24,792,248 | 504,304 | Brussels Airport Company NV | Mostly private |
| BE | CHARLEROI | CRL | 7,688,360 | 94 | S.A. Brussels South Charleroi Airport | Mostly public |
| BG | SOFIA | SOF | 6,483,530 | 20,864 | Sofia Airport EAD | Fully public Corporatised |
| CZ | PRAGUE | PRG | 15,434,019 | 81,804 | Letiště Praha a.s. | Fully public Corporatised |
| DK | COPENHAGEN | CPH | 29,155,445 | 254,410 | Copenhagen Airports | Mostly private |
| DE | BERLIN/ SCHÖNEFELD | SXF | 12,870,330 | 10,388 | Flughafen Berlin Brandenburg GMBH | Fully public Corporatised |
| DE | BERLIN/TEGEL | TXL | 20,461,554 | 44,170 | Flughafen Berlin Brandenburg GMBH | Fully public Corporatised |
| DE | DÜSSELDORF | DUS | 24,641,554 | 101,921 | Flughafen Düsseldorf GmbH | Equal public & private |
| DE | FRANKFURT | FRA | 64,571,214 | 2,263,039 | Fraport AG | Mostly public |
| DE | HAMBURG | HAM | 17,650,795 | 36,806 | Flughafen Hamburg GMBH | Mostly public |
| DE | HANNOVER | HAJ | 5,882,786 | 19,542 | Flughafen Hannover-Langenhagen GmbH | Mostly public |
| DE | KÖLN/BONN | CGN | 12,388,533 | 854,366 | Flughafen Köln Bonn GmbH | Fully public Corporatised |

¹⁴² Sources: Eurostat for air transport statistics http://ec.europa.eu/eurostat/statistics-explained/index.php/Air_transport_statistics and ACI-Europe for ownership information – *The Ownership of Europe's airports*, 2016 <https://www.aci-europe.org/policy/fast-facts.html>

| | | | | | | |
|----|-------------------|-----|------------|---------|-------------------------------------|--|
| DE | MUNICH | MUC | 44,596,466 | 397,822 | Flughafen München GmbH | Fully public Corporatised |
| DE | STUTTGART | STR | 10,977,204 | 37,435 | Flughafen Stuttgart GmbH | Fully public Corporatised |
| EE | TALLINN | TLL | 2,636,856 | 11,233 | Tallinn Airport Ltd. | Fully public Corporatised |
| IE | DUBLIN | DUB | 29,454,474 | 144,913 | daa | Fully public Corporatised |
| EL | ATHENS | ATH | 21,722,647 | 65,967 | Athens International Airport SA | Mostly public |
| EL | IRAKLION | HER | 7,359,674 | 181 | Hellenic CAA | Fully public Part of public administration |
| EL | RHODES | RHO | 5,298,410 | N/A | * Transferred to Fraport AG in 2016 | Mostly public |
| EL | THESSALONIKI | SKG | 6,349,193 | 4,661 | * Transferred to Fraport AG in 2016 | Mostly public |
| ES | ALICANTE | ALC | 13,672,678 | 2,907 | Aena | Mostly public |
| ES | BARCELONA | BCN | 46,808,026 | 136,900 | Aena | Mostly public |
| ES | FUERTEVENTURA | FUE | 6,033,549 | 817 | Aena | Mostly public |
| ES | GRAN CANARIA | LPA | 12,978,902 | 21,935 | Aena | Mostly public |
| ES | IBIZA | IBZ | 7,888,474 | 3,042 | Aena | Mostly public |
| ES | LANZAROTE | ACE | 7,384,375 | 1,582 | Aena | Mostly public |
| ES | MADRID | MAD | 52,051,415 | 447,197 | Aena | Mostly public |
| ES | MALAGA | AGP | 18,580,480 | 2,982 | Aena | Mostly public |
| ES | PALMA DE MALLORCA | PMI | 27,946,304 | 8,430 | Aena | Mostly public |
| ES | SEVILLE | SVQ | 5,089,731 | 4,351 | Aena | Mostly public |
| ES | TENERIFE SOUTH | TFS | 11,188,488 | 2,459 | Aena | Mostly public |
| ES | VALENCIA | VLC | 6,724,900 | 10,715 | Aena | Mostly public |
| FR | BORDEAUX | BOD | 6,241,621 | 13,057 | SA Aéroport de Bordeaux Mérignac | Fully public Corporatised |
| FR | LYON | LYS | 10,316,158 | 54,794 | Aéroports de | Fully public |

| | | | | | | |
|----|----------------------------|-----|------------|-----------|---|------------------------------|
| | | | | | Lyon SA | Corporatised* |
| FR | MARSEILLE | MRS | 9,080,934 | 57,661 | Aéroport Marseille Provence | Fully public Corporatised |
| FR | NANTES | NTE | 5,538,045 | 10,583 | Aéroports du Grand Ouest | Mostly private |
| FR | NICE | NCE | 13,307,603 | 15,993 | Aéroports de la Côte d'Azur | Fully public Corporatised |
| FR | PARIS/CHARLES DE GAULLE | CDG | 69,509,388 | 2,294,514 | Aéroports de Paris | Mostly public |
| FR | PARIS/ORLY | ORY | 32,538,045 | 127,317 | Aéroports de Paris | Mostly public |
| FR | TOULOUSE | TLS | 9,338,426 | 72,327 | Aéroport Toulouse- Blagnac | Mostly public |
| HR | ZAGREB | ZAG | 3,085,811 | 9,443 | Međunarodna Zračna Luka Zagreb d.d. (MZLZ) | Fully private |
| IT | BERGAMO | BGY | 12,337,376 | 125,857 | SACBO S.p.A. | Mostly public |
| IT | BOLOGNA | BLQ | 8,237,084 | 41,982 | Aeroporto Guglielmo Marconi di Bologna S.p.A | Mostly public |
| IT | CATANIA | CTA | 9,122,111 | 6,686 | S.A.C. Societa Aeroporto Catania SPA | Fully public Corporatised |
| IT | MILAN/LINATE | LIN | 9,505,033 | 13,814 | S.E.A. S.p.A. | Mostly public |
| IT | MILAN/ MALPENSA | MXP | 22,282,939 | 589,534 | S.E.A. S.p.A. | Mostly public |
| IT | NAPLES | NAP | 8,580,159 | 8,642 | G.E.S.A.C. S.p.A. | Mostly private |
| IT | PALERMO | PMO | 5,785,720 | 324 | G.E.S.A.P. S.p.A. | Fully public Corporatised |
| IT | PISA | PSA | 5,227,003 | 10,208 | Toscana Aeroporti S.p.A. | Mostly private |
| IT | ROME/CIAMPINO | CIA | 5,862,017 | 17,042 | Aeroporti di Roma | Mostly private |
| IT | ROME/FIUMICINO | FCO | 41,095,930 | 185,897 | Aeroporti di Roma | Mostly private |

| | | | | | | |
|----|------------|-----|------------|-----------|---|---------------------------|
| IT | VENICE | VCE | 10,362,433 | 56,477 | SAVE S.p.A. | Mostly private |
| CY | LARNAKA | LCA | 7,881,713 | 30,146 | Hermes Airport Ltd. | Fully private |
| LV | RIGA | RIX | 6,097,556 | 21,204 | SJSC Riga International Airport | Fully public Corporatised |
| LT | VILNIUS | VNO | 3,763,103 | 14,965 | Lithuanian Airports | Fully public Corporatised |
| LU | LUXEMBOURG | LUX | 3,553,823 | 893,588 | Société de l'Aéroport de Luxembourg S.A. | Fully public Corporatised |
| HU | BUDAPEST | BUD | 13,061,494 | 87,277 | Budapest Airport Zrt. | Fully private |
| MT | LUQA | MLA | 6,007,717 | 16,146 | Malta International Airport plc | Mostly private |
| NL | AMSTERDAM | AMS | 68,650,068 | 1,778,168 | Schiphol Group | Mostly public |
| NL | EINDHOVEN | EIN | 5,747,260 | 0(?) | Eindhoven Airport NV | Mostly public |
| AT | VIENNA | VIE | 24,525,423 | 256,570 | Flughafen Wien AG | Mostly private |
| PL | KRAKOW | KRK | 5,830,002 | 0(?) | Paul II Kraków-Balice International Airport Ltd | Fully public Corporatised |
| PL | WARSAW | WAW | 15,757,010 | 93,670 | Polish Airports State Enterprises | Fully public Corporatised |
| PT | FARO | FAO | 8,713,720 | 73 | ANA - Aeroportos de Portugal S.A. | Fully private |
| PT | LISBON | LIS | 26,525,449 | 112,884 | ANA - Aeroportos de Portugal S.A. | Fully private |
| PT | PORTO | OPO | 10,768,522 | 33,099 | ANA - Aeroportos de Portugal S.A. | Fully private |
| RO | BUCHAREST | OTP | 12,804,150 | 34,966 | Aeroporturi București S.A. | Mostly public |
| SI | LJUBLJANA | LJU | 1,682,705 | 12,057 | Aerodrom Ljubljana d.o.o. | Fully private |

| | | | | | | |
|----|--------------------|-----|------------|-----------|---|---------------------------|
| SK | BRATISLAVA | BTS | 1,950,240 | 27,089 | Letisko M.R. Stefanika - Airport Bratislava | Fully public Corporatised |
| FI | HELSINKI | HEL | 18,982,325 | 185,210 | Finavia Corporation | Fully public Corporatised |
| SE | GOTEBORG | GOT | 6,794,513 | 17,058 | Swedavia AB | Fully public Corporatised |
| SE | STOCKHOLM /ARLANDA | ARN | 26,719,563 | 107,619 | Swedavia AB | Fully public Corporatised |
| UK | BELFAST | BFS | 5,836,645 | 19,509 | Airports Worldwide | Fully private |
| UK | BIRMINGHAM | BHX | 12,974,571 | 41,457 | Birmingham Airport Limited | Mostly private |
| UK | BRISTOL | BRS | 8,245,598 | 0(?) | Bristol Airport Limited | Fully private |
| UK | EDINBURGH | EDI | 13,411,706 | 40,781 | Edinburgh Airport Limited | Fully private |
| UK | GLASGOW | GLA | 9,901,073 | 15,751 | AGS Airports Limited | Fully private |
| UK | LONDON/GATWICK | LGW | 45,540,805 | 101,173 | Gatwick Airport Limited | Fully private |
| UK | LONDON/HEATHROW | LHR | 78,037,972 | 1,788,815 | Heathrow Airport Limited | Fully private |
| UK | LONDON/LUTON | LTN | 15,991,434 | 21,727 | London Luton Airport Operations Limited | Mostly private |
| UK | LONDON/STANSTED | STN | 25,902,967 | 254,889 | Manchester Airports Group (MAG) | Mostly public |
| UK | MANCHESTER | MAN | 27,878,368 | 122,174 | Manchester Airports Group (MAG) | Mostly public |
| UK | NEWCASTLE | NCL | 5,302,491 | 6,550 | NIAL Group Ltd | Mostly public |
| IS | KEFLAVIK | KEF | 8,322,327 | 52,870 | Isavia | Fully public Corporatised |
| NO | BERGEN | BGO | 6,009,023 | 5,515 | Avinor | Fully public Corporatised |
| NO | OSLO | OSL | 27,349,690 | 162,105 | Avinor | Fully public Corporatised |

| | | | | | | |
|----|--------|-----|------------|---------|------------------------------|------------------------------|
| CH | BASEL | BSL | 7,254,920 | 64,665 | Aéroport de Bâle Mulhouse | Fully public Corporatised |
| CH | GENEVA | GVA | 17,274,643 | 44,249 | Genève Aéroport | Fully public Corporatised |
| CH | ZURICH | ZRH | 29,387,619 | 380,012 | Flughafen Zürich AG | Mostly private |

ANNEX 4: PROCEDURAL INFORMATION

DG MOVE is the lead Directorate General for the evaluation of Directive 2009/12/EC on airport charges (the Airport Charges Directive).

The evaluation was validated in the Agenda Planning on 26/08/2016 under reference 2017/MOVE/012.

Organisation and timing

The evaluation of the Airport Charges Directive was coordinated by an Inter-Service Steering Group (ISSG), which was established early in the evaluation process. Representatives from Secretariat General (SG), Legal Service (LS), Directorate-General for Mobility and Transport (MOVE), Directorate-General for Competition (COMP), Directorate-General for Environment (ENV), Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW), Directorate-General for Climate Action (CLIMA), Directorate-General for Energy (ENER), Directorate-General of Regional and Urban Policy (REGIO), Directorate-General for Taxation and the Customs Union (TAXUD) were appointed to the Steering Group.

| Date | Activity |
|-------------------|--|
| 18 July 2016 | 1 st meeting of the Inter-Service Steering Group: kick-off, mandate, draft roadmap |
| 1 September 2016 | Publication of the Evaluation Roadmap on Better Regulation portal |
| 16 September 2016 | 2 nd meeting of the Inter-Service Steering Group: terms of reference for the external support study and consultation strategy |
| 1 January 2017 | Start external support study by independent contractor (Steer Davies Gleave) |
| 19 January 2017 | 3 rd meeting of the Inter-Service Steering Group: kick-off meeting with external contractor |
| 16 February 2017 | 4 th meeting of the Inter-Service Steering Group: inception report external study |
| March – July 2017 | Targeted stakeholder consultation |
| 14 June 2017 | 5 th meeting of the Inter-Service Steering Group: intermediate report external study |
| 17 June 2017 | Executive Symposium in Florence |
| 20 September 2017 | 6 th meeting of the Inter-Service Steering Group: draft final report external study |
| 20 December 2017 | Publication of external support study |
| April – June 2018 | Open public consultation |

| | |
|------------------------------------|---|
| 28 May 2018 | Seminar in Florence |
| 11 September 2018 | 7 th meeting of the Inter-Service Steering Group: draft Staff Working Document |
| 21 December 2018 – 28 January 2019 | Inter-service consultation on the Staff Working Document |
| Q2 2019 | Adoption by the Commission |

Exceptions to the Better Regulation Guidelines

None.

Consultation of the RSB

This evaluation was not selected for assessment by the Regulatory Scrutiny Board.

Evidence, sources and quality

The evaluation relies to a large extent on the external support study to the evaluation prepared by Steer Davies Gleave.

Evidence was also gathered from the reporting requirements of national independent supervisory authorities, the works of the Thessaloniki Forum, the implementation of the Directive, and also from direct consultations of Member States and stakeholders.

ANNEX 5: STAKEHOLDER CONSULTATION

This stakeholder consultation synopsis report provides a summary of the outcomes of the stakeholder consultation activities which were carried out as part of the review of the Airport Charges Directive and related market context. It provides a basic analysis of the responses of stakeholder groups involved in the consultation process and a summary of the main issues which they raised. Stakeholder involvement was vital for the evaluation in order to collect facts and data, to identify possible problems with the existing legal framework and, on this basis, to assess the impacts of the Directive as well as gather views on potential options for future action.

The consultation strategy was developed from the start of the project in September 2016 and included as key stakeholders the following groups:

- Consumers (passengers traveling by air and owners of freight transported by air);
- Airports and their trade associations;
- Airlines and their trade associations;
- Member States' authorities: the relevant ministries and the independent supervisory authorities.

Other stakeholders with potential interest in the topic were also identified, namely: tour operators and car rental companies, airport retailers, environmental NGOs, academics and experts.

As part of the initial feedback mechanism, stakeholders had the opportunity to provide feedback on the Evaluation Roadmap via the relevant website. 23 replies were received: 13 from airports and their associations, 3 from airlines associations, 3 from ISAs and 4 from national ministries/authorities in charge of transport. Comments received within the first 4 weeks after publication were considered for the finalisation of the terms of reference for the selection of the external contractor and during the subsequent phases of the evaluation.

Two main types of consultation activities were undertaken, namely:

- A targeted stakeholder consultation conducted by Steer Davies Gleave as part of the support study, which started in April and lasted until October 2017 (with the bulk of the activities concentrated in April-June). As part of the targeted consultation, the Commission organised in collaboration with the European University Institute / Florence School of Transport Regulation two dedicated events which took place in Florence on 17 June 2017 and 28 May 2018 respectively;
- An open public consultation organised by the Commission services which was launched on 3 April 2018 and lasted until 26 June 2018.

Targeted consultation

The main pole of the consultation strategy was represented by extensive targeted consultation activities tailored to the needs of the stakeholder groups directly involved in the application and enforcement of the Directive's provisions and affected thereby, namely Member States authorities, airports and airlines. The aim was to gather detailed, fact-based information on various aspects linked to the practical implementation of the Directive's requirements. Stakeholders also had the opportunity to provide their opinions regarding the achievements of the Directive, as well as to raise issues and concerns and potentially make suggestions for the future.

The contractor started the work by undertaking four pilot interviews over the course of two weeks during the inception phase of the study with the European Commission, ACI-Europe, A4E and the Irish ISA. These interviews allowed for an early insight into the key issues arising from the implementation of the Directive and used in the drafting of the questionnaires that were issued to stakeholders across Europe.

4 types of questionnaires tailored to each category of stakeholders were prepared by the contractor and validated by the ISSG and used during the survey. The questionnaires were distributed directly by the contractor and aimed to collect data and views. The table below shows a breakdown of responses received:

| Stakeholder type | Questionnaires distributed | Responses received | Rate of reply |
|---|----------------------------|--------------------|---------------|
| ISAs (EU + IS + CH + NO) | 41 | 33 | 80% |
| Ministries in charge of transport in the 31 countries (where different from the ISAs) | 19 | 7 | 37% |
| Individual airports and airport groups + ACI-Europe | 62 | 47 | 76% |
| Individual airline and airline associations | 42 | 17 | 40% |
| Others (passengers associations, travel agencies, car rental companies) | 6 | 2 | 33% |

The overall quality of the stakeholders' responses to the survey was good. Regarding the representativeness of the responses, as virtually all airports covered by the Directive and almost all airlines responsible for almost the entire passenger traffic in Europe are members of at least one of the trade associations who have submitted a reply, we can in confidence say that almost 100% of the industry operators concerned have provided an input to the consultation. We consider that on ISAs side, the response rate has also been very good.

Additionally, during the support study the external contractor has conducted more than 40 interviews (either face-to-face or over the phone) with representatives of the ISAs (7), airports and their associations (12) and airlines and their associations (8).

The data and information collected during the targeted consultation has been used by the contractor across all tasks performed, in particular formulating replies to all evaluation questions, drafting country reports for all 31 countries covered by the report (EU28 + Iceland, Norway and Switzerland) and the 8 case studies which targeted specific airports or airport networks.

Florence events organised in collaboration with the European University Institute / Florence School of Transport Regulation

On 17 June 2017, an executive symposium chaired by Commissioner Bulc was organised. The symposium gathered a number of 17 leading figures of airports and airlines and their trade associations. The participants agreed there was a need for consultation to address both short term and long term issues and noted that airports tended to take a longer term perspective than airlines. It was agreed that the focus should be on the interests of the passenger, since the consumers were not clearly at the forefront of the Directive and the group recognised a need to agree how best to achieve this in practice. Airlines and airports representatives stressed that regulatory intervention should be targeted according to the market power of each individual airport and noted that greater use of market power tests could help to improve the current situation. There was also common agreement that significant airport investments are focus of political scrutiny and that one can consider that efficient investments are of the right size, are delivered at the right time and provide value for money, whilst ensuring some flexibility to recognize that circumstances may change. The contributors did unsurprisingly disagree as to whether competition among EU airports is currently sufficient.

On 28 May 2018, a technical seminar was organised, which was attended by airlines and their associations (10 delegates), airports and their associations (10 delegates), ISAs (3 representatives) and academia (4 professors/experts). The Commission presented the emerging conclusions for each of the five evaluation criteria, followed by a debate and discussions on the impact assessment exercise. The overarching conclusion of the debate was that all stakeholders present agree that the Directive is useful, although it has not improved the situation as much as it could/should have.

Open public consultation

To collect evidence from the wider public, and in accordance with the Better Regulation guidelines, a public consultation was undertaken as part of the evaluation. The public consultation enabled the Commission to listen first and foremost to the views of the categories of stakeholders that have a low level of influence and various degrees of knowledge on the legal provisions of the Directive, but which are ultimately affected by the level of airport charges and airport service quality, either as individuals or as businesses. All citizens and organisations were welcomed to contribute to this consultation.

The public consultation¹⁴³ took place between 3 April and 26 June 2018 and thus had a duration of 12 weeks. The questionnaire of the public consultation was made available online on the Commission's Public Consultation Portal.

The questionnaire included both open and closed questions addressing evaluation and impact assessment aspects and it was available in all EU languages. The summary below refers exclusively to the questions related to the evaluation of the Directive.

The questionnaire contained a set of questions related to the individuals' travel preferences and experiences and another set of questions related to the evaluation as such.

The survey was answered by a total of 62 respondents, 28 of which were individuals and 34 of which were replying on behalf of an organisation. For the respondents that replied on behalf of an organisation the category that described best their main activity was as follows:

| Main activity | No. of replies |
|---------------------------------|-----------------------|
| Private airport investor | 1 |
| Research/Academia | 1 |
| Other | 5 |
| Public authority | 7 |
| Airport or airport association | 10 |
| Airline or airlines association | 10 |

Of the five organisations that specified their main activity as "other" there were a worker interest group, an air sports association and three aircraft noise and environmental impact campaign groups. Respondents came from 17 Member States and Norway. 20 respondents selected Germany as their country of residence.

Seminars and events organised by industry

In addition to the consultation activities described above, Commission services and in particular DG MOVE has attended, since the beginning of this evaluation, workshops, seminars and other events organised by stakeholders (airlines and airports). These events have been very good opportunities for the Commission services to understand the different positions and concerns of the stakeholders regarding different aspects of the airport charges setting process and discuss them openly.

Succinct analysis of the stakeholders' main views

Airports: The general view of airports that participated in the open public consultation was that the Directive has brought some improvements and harmonisation to the charges setting process. This contrasts with the views expressed by airports in the targeted consultation that the Directive did not bring any improvements compared to the situation

¹⁴³ https://ec.europa.eu/info/consultations/public-consultation-charges-use-airport-infrastructure_en

before the application of the Directive but made the consultation process more time-consuming and airlines more demanding. Both the open public consultation and the targeted consultation showed though that airports believe that they do not possess significant market power and do not want any further regulation.

Airlines: The general view of airlines involved in both consultations was that the Directive has brought some improvements and is a good starting point but that the Directive is inadequate in its current form and more economic regulation is needed. According to airlines, the Directive merely addresses procedural issues surrounding charges consultation rather than addressing excessive airport charges.

Independent Supervisory Authorities/public authorities: The general view of authorities involved in both consultations was that the Directive is an improvement to the previous situation. At the same time public authorities share the view that the Directive lacks substantive requirements and improvements could be made.

Others/Citizens: Individuals and citizen groups were of the opinion that the airport market has changed significantly over the past 10 years. But a large majority of them felt that the main provisions of the Directive (namely the establishment of an ISA, consultation on airport charges requirement to share information and airline non-discrimination) were still needed. The majority of respondents in this group felt that the Directive did not meet three of its objectives, i.e. enhancing airport competition, ensuring more transparent charging systems and a clearer and fairer process for setting charges.

ANNEX 6: METHODS AND ANALYTICAL MODELS

Table 4: Top 25 airports in EU/EEA and Switzerland in 2009 and 2017

| Ranking | Airport | Passengers in 2009 | Airport | Passengers in 2017 |
|---------------------------------|-------------------------|--------------------|-------------------------|--------------------|
| 1 | London Heathrow | 66.165.021 | London Heathrow | 78,037,972 |
| 2 | Paris Charles de Gaulle | 57.688.772 | Paris Charles de Gaulle | 69,509,388 |
| 3 | Frankfurt | 51.230.043 | Amsterdam | 68,650,068 |
| 4 | Madrid | 48.084.468 | Frankfurt | 64,571,214 |
| 5 | Amsterdam | 43.620.093 | Madrid | 52,051,415 |
| 6 | Rome Fiumicino | 34.193.504 | Barcelona | 46,808,026 |
| 7 | Munich | 32.699.373 | London Gatwick | 45,540,805 |
| 8 | London Gatwick | 32.423.537 | Munich | 44,596,466 |
| 9 | Barcelona | 27.277.711 | Rome Fiumicino | 41,095,930 |
| 10 | Paris Orly | 25.087.342 | Paris Orly | 32,043,932 |
| 11 | Zurich | 21.989.328 | Dublin | 29,454,474 |
| 12 | Palma de Mallorca | 21.151.075 | Zurich | 29,387,619 |
| 13 | Dublin | 20.507.456 | Copenhagen | 29,155,445 |
| 14 | London Stansted | 19.964.006 | Palma de Mallorca | 27,946,304 |
| 15 | Copenhagen | 19.697.092 | Manchester | 27,878,368 |
| 16 | Manchester | 18.818.478 | Oslo | 27,349,690 |
| 17 | Oslo | 18.186.307 | Stockholm Arlanda | 26,719,563 |
| 18 | Vienna | 18.146.987 | Lisbon | 26,525,449 |
| 19 | Düsseldorf | 17.819.463 | London Stansted | 25,902,967 |
| 20 | Milan Malpensa | 17.745.568 | Brussels | 24,792,248 |
| 21 | Brussels | 17.172.196 | Düsseldorf | 24,641,554 |
| 22 | Athens | 16.211.283 | Vienna | 24,525,423 |
| 23 | Stockholm Arlanda | 16.129.536 | Milan Malpensa | 22,282,939 |
| 24 | Berlin Tegel | 14.200.538 | Athens | 21,722,647 |
| 25 | Lisbon | 13.042.024 | Berlin Tegel | 20,461,615 |
| Percentage of total (cumulated) | | 53% | - | 58% |

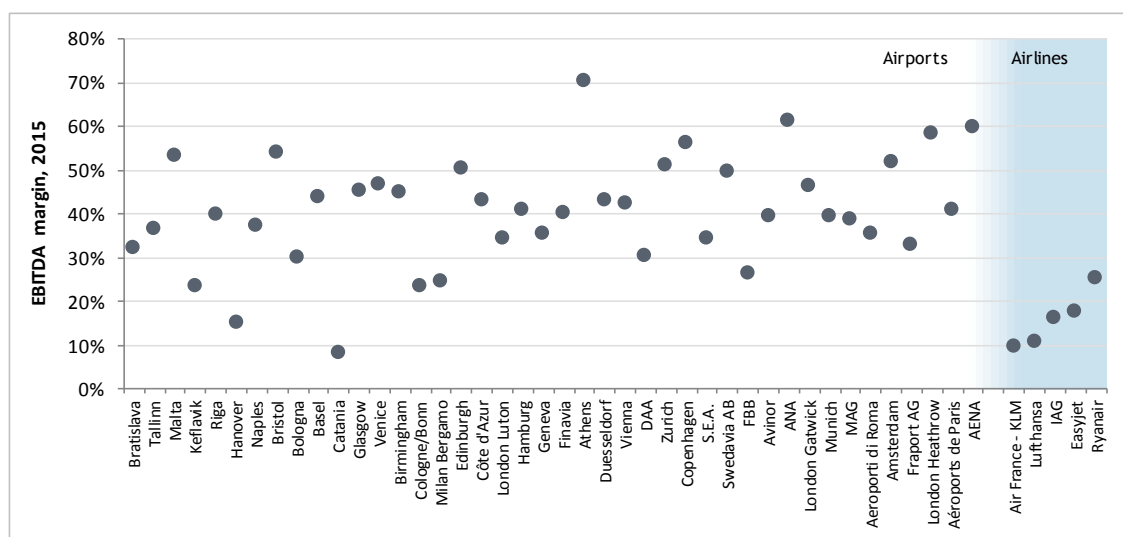
External Study Analysis of Airports' and Airlines' profitability

The external study compared the profitability of airports in scope of the Directive against the profitability of major European airlines and airline groups. As shown in figures 6, 7 and 8 below, this comparison was performed using three alternative measures of profitability:

- EBITDA margin which is calculated as $\text{EBITDA} / \text{Total Revenue}$
- Return on Capital Employed (ROCE) which is calculated as $(\text{EBIT} / (\text{Total Assets} - \text{Current Liabilities}))$;
- Return on Total Assets (ROTA) which is calculated as $(\text{EBIT} / \text{Total Assets})$.

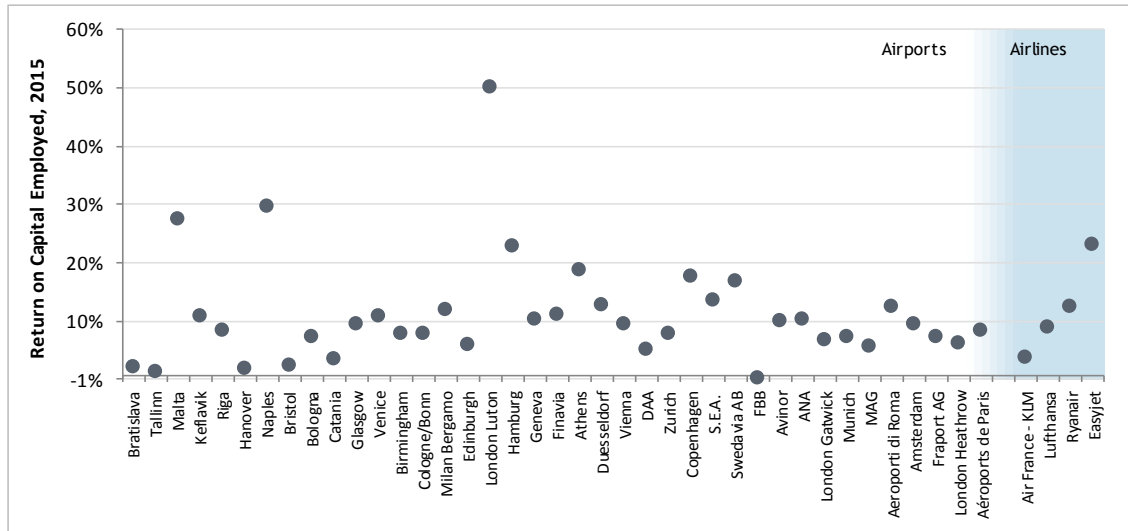
These ratios were estimated for airports covered by the Directive based on their annual accounts. For those airports that are part of an airport group the ratios have been estimated for the whole group, as it was not possible to isolate the financial statements for the airports in scope of the Directive. The analysis was performed for 2015 as this was the latest year for which financial accounts were available at the time.

Figure 6: EBITDA margin airports, airport groups and airlines, 2015



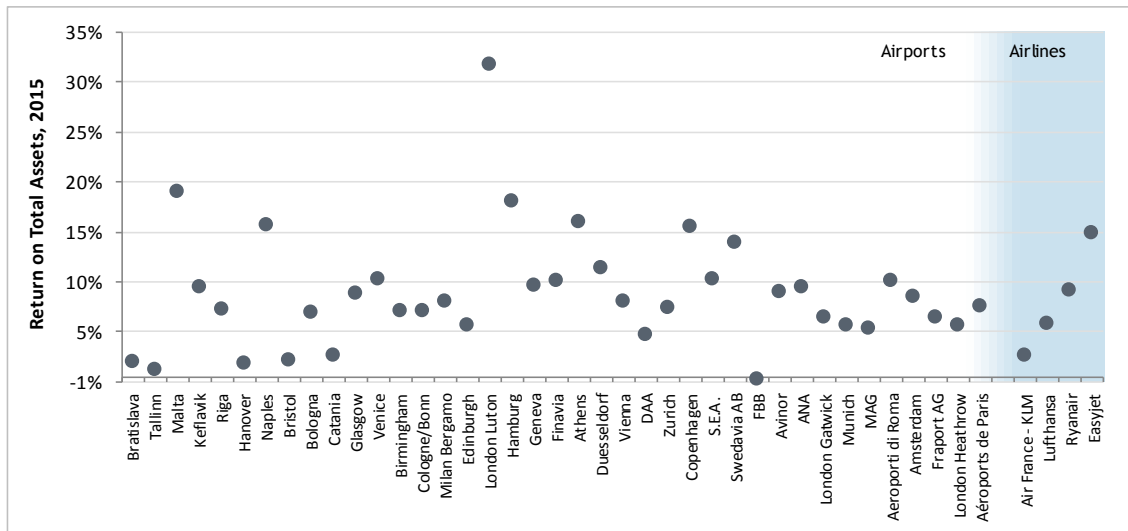
Source: Airport and airline annual accounts, Steer Davies Gleave analysis

Figure 7: Return on Capital Employed, airport groups and airlines, 2015



Source: Airport and airline annual accounts, Steer Davies Gleave analysis

Figure 8: Return on Total Assets, airport groups and airlines, 2015



Source: Airport and airline annual accounts, Steer Davies Gleave analysis

External Study analysis of Airports' published charges

The external study found that the structure of charges varies considerably between airports. It is not possible then to compare charges between airports based simply on their published charges schedules. In addition, the unit charges were not directly representative of the total charges paid by airlines, which, for example, vary depending on the size of aircraft, passenger mix and menu of services used at the airport. Therefore, in order to allow for airport charges to be compared in meaningful ways, the external study defined four turnaround scenarios to estimate the charges paid by airlines. The four turnaround scenarios were:

Scenario 1: a full service carrier (FSC) flight within EU28+3.

- The A320 was the most frequently deployed aircraft type for intra-European flights by FSCs (approx. 20% of seats and 15% of flights in the years between 2009-2016), based on analysis of airline schedules (OAG). The average A320 seat capacity for FSCs was 165 in 2016.

Scenario 2: an international long-haul FSC flight from/to outside EU28+3.

- The US is the busiest international destination to/from Europe. During the period since the Directive has been in force, the aircraft serving the most seats between Europe and North America changed from the Boeing 777 to the Airbus A330, based on analysis of airline schedules (OAG). However, both aircrafts continued to serve a considerable share of the market. Of flights between Europe and Asia, the Boeing 777 served considerably more seats than any other aircraft, therefore to ensure the broad applicability of the scenario selected, the study used this aircraft type. There is considerable variation in the seat capacity of Boeing 777 aircraft. Analysis of KLM, British Airways and American Airlines seat configurations shows a capacity of 275 is an appropriate assumption for a transatlantic FSC flight.

Scenario 3: a low cost carrier (LCC) flight within EU28+3.

- The Boeing 737-800 was consistently the most utilised aircraft type (approx. 40% of seats and 35% of flights in the years between 2009-2016) by LCCs, based on analysis of airline schedules (OAG). The average 737-800 seat capacity was 189 in 2016.

Scenario 4: a regional carrier flight within EU28+3.

- The De Havilland DHC-8-400 Dash 8 was the most frequently deployed aircraft by regional carriers (approx. 16% of seats and 17% of flights in the years between 2009-2016), based on analysis of airline schedules (OAG). The average Dash 8 seat capacity was 78 in 2016.

Other scenario assumptions were based on typical operations, aircraft technical specifications and the ICAO Airports Air Quality Manual.

The characteristics of the four representative scenarios used for the calculation of charges are outlined in the table below.

Table 5: Published charges analysis, Scenarios 1-4

| | Scenario 1 Short-haul Full service carrier | Scenario 2 Long-haul Full service carrier | Scenario 3 Short-haul Low cost carrier | Scenario 4 Regional Regional carrier |
|--|--|---|--|--|
| Aircraft | A320-200 | 777-200 | 737-800 | DHC-8 |
| MTOW (tonne) | 74 | 247 | 79 | 27 |
| Parking time (min) | 45 | 225 | 25 | 35 |
| Stand | Contact | Contact | Remote (bus) | Contact (no boarding bridge) |
| Load factor | 80% | 80% | 90% | 65% |
| Total passengers | 132 | 220 | 170 | 51 |
| ...of which transfer | 26 | 77 | - | 10 |
| Checked bags (dep.) | 66 | 154 | 51 | 20 |
| Season | Summer | Summer | Summer | Summer |
| Time of day (arrival) | 07:30 | 05:00 | 10:00 | 07:30 |
| Noise chapter (cumulative margin) | Chapter 4 (16.7 dB) | Chapter 3 (20.5 dB) | Chapter 4 (13.7 dB) | Chapter 3 Heavy Prop (24.7 dB) |
| NOx kg per LTO | 9.012 kg | 52.810 kg | 12.298 kg | 4.240 kg |

Source: Steer Davies Gleave analysis

The analysis of airports' published charges was based on data from the IATA Airport, ATC and Fuel Charges Monitor (October 2009) and the IATA Aviation Charges Intelligence Center (accessed February 2017). This is a database of aeronautical charges, including landing/take-off, lighting, parking, passenger service, security, PRM, emissions and noise. Where this data was not sufficient or required clarification, the study used individual airports' schedules of charges from their websites or other public records (e.g. Gazzetta Ufficiale della Repubblica Italiana for charges at Italian airports in 2009). Charges for terminal navigation service provision and passenger taxes levied directly by states that do not relate to airport services (e.g. UK Air Passenger Duty) were collected, but were not included in the analysis, as the study found that these were not consistently recorded.

Results are presented in real €2016 terms in the external study, using average national inflation and applicable exchange rates from Eurostat. It is important to note that this analysis is based on airports' published charges and does not correspond directly to the actual received aeronautical yield per passenger at airports, which include the effect of passenger mix along with the impact of incentives and commercial arrangements.