

ARE COMMUNITY AIRPORTS MATURE ENOUGH FOR THE INTRODUCTION OF MARKET MECHANISMS CONCERNING THE AIRPORT SLOT ALLOCATION? A SURVEY IN THE GREEK INDUSTRY

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ABSTRACT

The fast growth of the aviation industry over the last decade as shown by the continuous increase in passenger traffic and the constant emergence of new regional carriers and low-cost carriers operating mainly small aircraft have generated such a demand which often exceeds the airport capacity which is scarce, leading thus to a “capacity crunch” which risks jeopardizing the safety, efficiency and competitiveness of those participating in the air transport supply chain. Consequently, an economically sustainable, globally compatible and fair airport slot allocation is crucial for the future of the industry. Therefore, appropriate consultation of all related interested parties is required; hence, the paper uses: i) a questionnaire to collect suitable primary data among the stakeholders in the Greek air transport industry and b) in-depth interviews with experts in the field, as research instruments for qualitative analysis. This paper also aims to assist discussion on the proposal for the possible introduction of commercial market mechanisms at Community airports such as secondary trading for slot allocation. The results of the survey will provide a feedback about the stakeholders’ views regarding the operation of the EC Regulation 793/2004 three and a half years after its entry into force and will be of particular usefulness to transport policymakers in Greece and the EU, the airlines as well as the passengers who may eventually benefit from the pressure exerted on air carriers about the way they manage their slots.

KEYWORDS: slot allocation, Regulation 793/2004, Community airports, primary trading, secondary trading, air transport regulation

1. INTRODUCTION

In January 2004 the Commission, considering that EEC Council Regulation 95/93 with regard to common rules of slot allocation at Community airports should be strengthened and that there should be a fuller and more flexible use of the airport scarce capacity at congested airports, launched a new consultation for its revision. The result of this consultation was the adoption of Regulation (EC) 793/2004 of the European Parliament and of the Council of 21 April 2004 which amends Regulation (EEC) 95/93 of the Council.

Nevertheless, in the preamble of Regulation (EC) 793/2004 it is mentioned that this Regulation is the first step of a comprehensive revision process and in order to keep abreast of developments, particularly with regard to new entrants and market access issues, it should be reviewed after a fixed period of operation. Moreover, pursuant to Article 14a(1) of the Regulation 793/2004, the Commission is obliged to submit to the European Parliament and the Council a report on the operation of this Regulation at the latest three years after its entry into force on 30 July 2004. In fact, on 23 January 2007, the Commission launched a consultation exercise in order to collect the stakeholders' comments with regard to the operation of the Regulation. On 15 November 2007, the Commission adopted the Report on the operation of the amended Regulation 793/2004 where the problems which arose during the implementation of the regulation in the Member States are analysed as well as the stakeholders' views. Furthermore, the Commission examines the possibility of introducing market mechanisms on the slot allocation process at Community airports so that the use of scarce airport capacity is made more efficient and the conditions of competition are improved. The purpose of this paper is, on the one hand, to identify the degree of satisfaction of the air transport industry stakeholders operating in Greece with the current Regulation governing the slot allocation process at EU airports and the possible difficulties they face when implementing it. On the other hand, it seeks to diagnose whether stakeholders believe that Community airports are ready and mature enough today for the adoption of commercial mechanisms, as is the case in congested US airports.

2. THE SLOT ALLOCATION PROCEDURE UNDER REGULATION (EC) 793/2004

The allocation of slots at all of Europe's most congested airports is made by virtue of Regulation (EC) 793/2004 on common rules for the allocation of slots at Community airports, which amended Council Regulation (EEC) 95/93. The current Regulation introduced new and significant provisions, particularly on the definition of a 'slot'¹ (Article 2a), local guidelines (Article 8[5]), slot mobility (Article 8a) and enforcement (Article 14). It also determines the administrative allocation of unused slots ('the slot pool') by an independent slot coordinator and defines the criteria and procedures to be used. Additionally, it describes the supervision and monitoring of the allocated slots by the coordinator. Under the actual Regulation, after slots have been distributed by the coordinator, they can be exchanged, one for one, between airlines to permit greater scheduling flexibility. This means that when there is surplus demand for slots at congested Community airports, coordinators have to apply administrative criteria to decide between competing demands for slots. Moreover, "[d]ue to the regulation of airports landing fees do not reflect market conditions and cannot balance supply and demand" (Langner, 1995: 151). In addition to this, airlines which have been in the waiting list for a long time or are 'new entrants' are given priority when unused slots are allocated. Therefore, the current regulatory slot allocation regime is not really efficient as it does not allow airlines to obtain slots which they value high. In fact, the slot allocation mechanism in force does not "best reflect underlying airline and passenger demands" (CAA, 2006).

Furthermore, "the already scarce airport capacity" in most EU congested airports "is not efficiently managed" as it shown by the "late hand-backs"², "no shows"³, and "slot

¹ Regulation 95/93 defined a 'slot' as "the scheduled time of arrival or departure" thus identifying it with a runway movement and failing to acknowledge that at some airports, the runway is not the only binding restriction. Apart from runways, capacity limit factors to be taken into consideration at an airport when coordinating slots are: airport capacity (ramps, taxiways, weather, gates, landside limits such as terminals and road access), airspace capacity (airspace design, controller workload), demand (peak demand, hub & spoke networks), environmental (community noise, emissions [e.g. NOX, CO₂]). New Regulation 793/2004 adopts a Pricewater Cooper recommendation of 2000, and changes this to a permission to use the full range of airport infrastructure necessary for a flight. Nevertheless, the 'slot pool' was not replaced by a 'resource pool' to be compatible with the new definition of a 'slot' (Smith, 2004).

² Slots that were initially allocated during the worldwide scheduling conferences, but not used during the scheduling season and not returned to the slot coordinator by the slot return deadline.

³ A number of slots initially allocated but not eventually operated (actualized in terms of number of movements) at the end of the scheduling season.

babysitting”⁴ (ACI Europe, 2004 in Madas and Zografos, 2008: 204), which do not contribute to the optimal efficient allocation and use of this limited resource at congested airports. Another problem is that due to the existing allocation system used slots are often held by incumbent airlines. This in conjunction with the ‘grandfather rights’⁵ system often blocks new entrants from obtaining slots at the busiest EU airports. Consequently, slots are a restraining factor and are regarded as an obstacle to entry and hinder competition. For example, the Open Skies agreement signed between the United States and the European Union, which has been in force since 1 March 2008, is supposed to promote unrestricted transatlantic competition on the most profitable routes. Nevertheless, this agreement is “unlikely to be fully realised given existing congestion, access and infrastructure issues at Europe’s busiest airports” (Pheasant and Giles, 2007: 30).

3. THE PROPOSED CHANGES TO REGULATION 793/2004

Both the European Commission and air transport experts from Europe and especially the UK, as it is the country most directly concerned because of Heathrow airport, have suggested that slots should be better allocated through commercial mechanisms, including primary trading (e.g. auctions) and secondary trading mechanisms instead of through exclusively administrative rules (ACI, 2007; Mott MacDonald, 2006; AUC, 2004; Oxera, 2003; Boyfield et al., 2003; CAA, 2001a, 2001b, 2004, 2006; CAA & OFT, 2006). What is striking is the fact that “[a]lmost immediately after implementing 793/2004, the EC launched an industry wide consultation on new market mechanisms, including mandatory redistribution of a percentage of slots” (Paylor, 2005). There were strong protests about the proposed changes to Regulation 793/2004 from seven European industry associations: the Association of European Airlines, ACI Europe, European Business Aircraft Association, European Regions Airline Association., European Express Association, International Air Carrier Association and European Union Airport Coordinators Association (Paylor, 2005).

⁴ A practice whereby air carriers use a slot differently from the way it was intended at the time of allocation; usually by operating a slot with a small aircraft instead of a large aircraft or by operating half-empty flights. This is done because on the one hand, airlines do not want to risk reallocation from the pool to a competitor and on the other hand, to reach the 80% threshold for slot usage, as specified by the “use-it-or-lose-it” rule, and thus benefit from grandfather rights over these slots for the next scheduling season.

⁵ The grandfather rights stand for historic slot holdings and signify the right to dispose of a slot of the coming flight schedule period if it has already been used by the respective airline in the current period.

The UK's Civil Aviation Authority justifies the introduction of a secondary market in airport slots as it will allow to:

- ✦ Place an opportunity cost equal to the market price on individual slots and, to the extent that existing allocations are inefficient, identify gains from trade that create pressure from the movement of slots to where the highest value is recognised and the commensurate willingness to pay exists.
- ✦ Confront the users of grandfather slots and those airlines operating marginal flights using valuable capacity with the opportunity cost of slot usage.
- ✦ Identify and make transparent the cost of market entry thereby making for more efficient entry decisions to the benefit of consumers in relevant downstream markets. (CAA, 2001a; 2001b).

➤ **Primary trading**

The initial allocation of slots would be carried out by governments, airport coordinators or authorities who would be authorised to sell (or grant) the rights (or 'permissions' to use).

✦ **Higher posted prices**

Transparent or "posted" prices would permit an airline to check the costs of a particular slot just as it can airport charges. Posted prices would be set at whatever level was required to match demand with supply. The charge would apply on a season-by-season basis and would not automatically imply the right to use the same slot in the following season. Existing grandfather rights would apply only if the carrier were prepared to pay the posted price in each future season.

✦ **Auctioning**

Slots allocation via auctions⁶ would enable competing players to demonstrate the value they place on a slot through their willingness to pay and would remove the need for an administrator to second-guess the value to the industry and its users of competing demands. However, the problem lies, on the one hand, in the impracticality of this method (many potential players and items) and the cost to organise and participate in and, on the other hand, in the fact that airlines need to be successful in a series of primary bid in order to obtain a workable 'suite' of slots. An alternative approach is to auction 10% of all existing slots each year, in a rolling programme so that each slot came up for auction every 10 years. However, the same difficulties and problems emerge as in the case before.

⁶ An auction includes ascending bids and multiple rounds, each separated by a discrete period to allow assessment and evaluation of bids (NERA, 2004).

Some experts (Boyle, 2006) believe that slot auctions through an open competitive bidding process have some benefits: e.g. make the most efficient use of existing airport capacity, no need for any new runways at any airport, efficiency of airlines with their fuel costs, tax revenue for governments). However, apart from the fact that auctions are highly impractical and expensive (e.g. large number of slots, high number of bidders, heterogeneity and interdependence of slots), Smith (2004) warns against some pitfalls auctions may hide (e.g. endless auctions, possible massive disruption of the international air services network, EU air carriers would be significantly disadvantaged against competitors from outside the EU).

If there are competition concerns about the development of hub-and-spoke network airlines, there are adequate competition remedies already available to deal with this issue. On efficiency grounds, the extension of secondary slot trading - which is compatible with the current slot allocation regime - should allow the benefits of a market-oriented slot regime to be delivered without the upheaval created by undermining the well-established international principle of 'grandfather rights'. Auctioning slots generated by new infrastructure investment could have some merit if the proceeds are ploughed back to offset the environmental costs of airport expansion. However, there are other mechanisms available to ensure that the costs of airport expansion properly reflect environmental externalities. It is difficult to see a compelling case for developing slot auctions - which are likely to disrupt the current international slot allocation regime - purely to deal with these environmental issues. (Sentance, 2003).

Nevertheless, there are concerns about how primary trading could be put into practice producing desirable results. The main problem is that through a primary market mechanism only new or available slots would be allocated, that is unallocated slots or slots which returned to the pool under the use-it-or-lose-it principle. That means that if the grandfather rights principle is retained, the system is unlikely to provide market access to new entrants as it would continue to benefit incumbents which currently possess slots for perpetuity because there would be no incentive or them to return slots to the pool for reallocation. Many argue that only if grandfathered slots are withdrawn and reallocated from the beginning through an auction or a lottery or posted prices, there could be an efficient use of scarce airport slots and increased competition. Experts claim that if a primary allocation mechanism is introduced it should be fair and not arbitrary.

➤ **Secondary trading**

Through secondary trading, the airlines can buy and sell slots to each other. As a secondary mechanism, it only functions after an initial or primary allocation has been done from airport authorities either with administrative criteria, auctions, higher posted prices or lotteries. Furthermore, secondary trading could enhance efficiency as it could serve as a correction mechanism after the primary allocation has taken place. Moreover, secondary trading could also be established without primary trading. However, if historical allocation of slots is maintained, slot illiquidity will persist as only a small number of slots would likely be available for secondary trading.

As for the grandfather rights of the incumbent air carriers at Community airports the proposed changes in the literature are the following:

- ❖ Remain as they are
- ❖ Be redistributed at a specific percentage (e.g. of 5%) of intra-EU slots per scheduling season. This would become effective if requests for particular slots were not satisfied through trading or administrative slot allocation for a period of, for example, three years. Moreover, rather than face forced redistribution, carriers would be inclined to sell slots.
- ❖ Be withdrawn gradually within a certain period of time and redistributed in a non-discriminatory manner
- ❖ Be withdrawn definitively and redistributed in a non-discriminatory manner

However, Smith (2004) underlines the fact that the NERA Report (2004), which considers the introduction of market mechanisms for the primary allocation of airport slots in order to increase slot mobility presents some gaps and inadequacies and the the report as a whole is disappointing and not convincing. For instance, he states that “the relationships between the EU and other states was relegated to an appendix” and that “there was no discussion of the impact of inter-airline competition if one carrier buys a slot but another gets it for free”. Smith also pinpoints the fact that Commission’s early announcement that NERA was not to examine who might get the receipts from primary slot sales completely undermined any impact assessment.

4. THE AIR TRANSPORT INDUSTRY IN GREECE

At present, Greek Airports Coordination (GAC) still belongs organisationally to Olympic Airways-Services S.A. and all staff is Olympic Airways employees. OA management pays its bills and salaries but does not interfere with the slot allocation

process, which is carried out pursuant to the IATA World Scheduling Guidelines and EEC Regulation 95/93 as amended by Regulation 793/2004. GAC is responsible for 33 Greek airports.⁷ Nevertheless, the actual situation in Greece does not seem to be in accordance with the provisions of Article 4(2) which states that the schedules facilitator or slot coordinator should act in an independent, neutral, non-discriminatory and transparent manner guaranteed by an appropriate system of financing and that the coordinator should be separated functionally from any single interested party. It is highly surprising that the actual Greek schedule facilitator/coordinator, belonging organisationally to the biggest Greek incumbent airline is asked to act independently by coordinating the flights of the rival air carriers!

Actually, the Greek State established a Flights Coordination Authority for the allocation of slots at Greek airports by virtue of the Law 3534/2007 (Government Gazette 40/A/23.2.2007). The Authority has administrative and financial autonomy and is supervised by the Ministry of Transport. It is governed by a Board consisting of the Chairman and six members (two from the Hellenic Civil Aviation Authority, one from the Athens International Airport, two from the two biggest Greek incumbent airlines and one from the Association of Greek Airlines). The appointment of the members of the Board was made on 15 June 2007 for a mandate of three years. The Board has met several times since then but has not undertaken yet the role it should have pursuant to Article 5 of the Regulation 793/2004 with regard to the Coordination Committee.

For the IATA Northern Winter Period 2007-2008, all Greek airports, with the exception of Thessaloniki (SKG) which was designated as Coordinated or Level 3, were designated as Schedule Facilitated airports (EC) or Level 2⁸ (IATA), whereas for the IATA Northern Summer Period 2008, 21 out of 33 Greek airports are designated as Coordinated (EC) or Level 3 (IATA). Athens International Airport remains schedule facilitated throughout the year for the time being.

5. THE EMPIRICAL STUDY

5.1 Survey method

A qualitative method of data collection was used and as research instruments a self-administered attitudinal survey questionnaire on a five-point Likert scale followed by

⁷ Source: <http://www.euaca.org/> (accessed on 10 March 2008)

⁸ At Level 2 airports, airlines have to make a Schedule Movement Advice (SMA) to the schedule facilitator of the airport, while at Level 3 airports, airlines have to make a Slot Clearance Request (SCR) to the slot coordinator of the airport.

‘semi-structured’/‘depth’/‘exploratory’ interviews with a group of experts from the Greek air transport industry were used. We selected this specific research tool for two reasons:

First, because semi-structured interviews are associated with ethnographic research where the aim is to understand the perspective of the interviewee and the meanings that the interviewee attaches to situations and contexts important to him or her. (Finn *et al.*, 2000: 75) Second, because of the very technical nature of the subject, only experts in this field could be interviewed and answer the questionnaire.

The interviews had three objectives: Firstly, to develop a dialogue between the interviewer and the expert about the process of airport slots allocation. Secondly, to identify the weaknesses and strengths on the implementation of Regulation 793/2004 and how they influence the process of slots allocation at Greek schedule facilitated and coordinated airports. Thirdly, to identify the attitudes and the opinions of the Greek professionals, policy-makers and government officials about whether they think the introduction of commercial mechanisms into Regulation 793/2004 could encourage competition between airlines on the one hand, and make the most efficient use of scarce airport slots at congested Community airports, on the other hand. The views of air transport experts are vital in obtaining an accurate picture of how EC Regulation 793/2004 is implemented on a daily basis at the Greek airports and the difficulties encountered. The expert survey provides insights that the larger adult population survey cannot, and, as a result of this, is instrumental in the process of making policy recommendations such as the possible revision of the Regulation in force. Expert judgment is considered to be accurate on complex technical specialized matters such as the process of airport slots allocation. Expert in-depth knowledge and experience were necessary in order to answer the questions asked.

The questionnaire consisted of 15 questions. The survey took place in Athens, Greece from 1st April 2008 to 6th May 2008. After the drafting of the questionnaire a pilot test was conducted with two experts, which allowed us to identify some ‘problematic questions’, reformulate them and correct some mistakes. The questionnaire was anonymous and confidentiality was maintained. Analytically, the methodology of the empirical study conducted consisted of:

- A questionnaire of 12 close questions on a Likert scale: from 1=Very little to 5=Great Deal), one question with five policy options, one question with six policy options and one open question.

- The questionnaire was distributed to:
 - the national slot coordinator
 - the two Greek incumbent airlines operating in Greece
 - experts in the air transport sector
 - the Greek Civil Aviation Authority

5.2 *The results of the survey*

The respondents were first asked to provide some information on a number of sociodemographic characteristics. According to Table 1, the composition of the experts is as follows: the national slot coordinator, three experts from the two incumbent Greek airlines, one expert from airport authorities and one expert from the public sector.

Table 1

Sector of activity of the interviewees' organization

Sector	Frequency
Airlines	3
Slot Coordinator/Schedule Facilitator	1
Airport Authority	1
Hellenic Civil Aviation Authority	1
Public sector	1
Total	7

According to Table 2, the experts consisted of five managers, one slots specialist, and one Airport Division officer.

Table 2

Position of the interviewees

Manager/ Head of Division	5
Slots specialist	1
Airport Division Officer	1

According to Table 3, the working experience of the interviewees varied from six to ten years to over 25 years, which indicates that they have a deep knowledge and expertise in their field.

Table 3
Working experience of the interviewees

6-10 years	1
11-15 years	2
16-20 years	1
21-25 years	1
Over 25 years	2

In some of the closed questions (1-14) the respondents felt the need to comment on their choice and make some remarks where they thought this was necessary in order to make their opinions more explicit. These comments and remarks are included in the analysis of the survey.

The interviewees were first asked whether the procedure of slot allocation has improved since 2004 when Regulation (EC) 793/2004 was introduced compared with the regime in force before 2004 under Regulation (EEC) 95/93. Their answers varied from 'Very little' to 'Much'.

Very little: 1

A Little: 3

Quite: 1

Much: 2

Then the interviewees were asked whether since 2004 onwards airlines have complied to a higher degree with Regulation 793/2004, which provides for penalties or taking the appropriate measures if there is slot abuse (Article 14). Their replies ranged from 'Very little' to 'A Great Deal'.

Very little: 2

Quite: 2

Much: 2

A Great Deal: 1

Then the interviewees were asked what should be the degree of revision of the Regulation 793/2004 with regard to the slot allocation procedure. Their replies varied from 'Not at all' to 'Much'.

Not at all: 1

A Little: 2

Quite: 3

Much: 1

To the question whether Article 2 of the Regulation 793/2004 with regard to the new entrants has influenced positively up to now their competition with the dominant airlines at community airports, the answers of the respondents ranged from 'Very little' to 'Much', while one did not respond.

Did not respond: 1

Very little: 3

Quite: 1

Much: 2

One respondent commented that, in theory, new entrant status should work but in practice, it is very hard to check the slot allocation process carried out by the slot coordinators.

Then, the experts were asked whether Article 4 of the Regulation 793/2004 concerning the role of schedules facilitator/slots coordinator is adequately implemented in Greece. Their replies ranged from 'Not at all' to 'A Great Deal'.

Not at all: 1

Very little: 2

Much: 3

A Great Deal: 1

An expert argued that the Greek air transport industry is still behind in both areas of independence and quality of coordination. Another expert argued that the newly established Hellenic Slot Coordination Authority is considered to be the Hellenic Slot Coordinator/Facilitator and not the former Olympic Airways Services.

To the question whether the 80%-20% use-it-or-lose-it rule currently in force for air carriers should be reinforced by increasing the minimum percentage of slot to 85% or 90%, the respondents' answers varied from 'Very little' to 'A Great Deal'.

Very little: 3

A little: 1

Quite: 2

A Great Deal: 1

A respondent underlined that it needs to be determined what the margin of error is in calculating the 80% adherence (is it 15 minutes, 30 minutes or what?). In general, he stated that scheduled airlines operate a very high percentage of held slots (i.e. over 95%) so he thinks there is no reason as to whether the 80%-20% use-it-or-lose-it rule currently

in force for air carriers should be reinforced by increasing the minimum percentage of slot that should be used.

Another question asked the experts whether the local guidelines provided for by the Regulation 793/2004 can add greater flexibility for adaptation to the local conditions. Their replies ranged from 'Very little' to 'Much'.

Very little: 1

Quite: 1

Much: 5

A respondent claimed that the local guidelines to his knowledge have been used to add inflexibility by adding parameters instead of increasing flexibility. He believes that the local guidelines are a loophole given to governments to increase regulation.

Then to the question whether Community airports are ready or mature enough for the introduction of market mechanisms, as in the USA, with relation to the slot allocation procedure, four of the respondents answered that community airports are very little ready or mature for this, two experts said that they are quite ready or mature while one did not respond.

Did not respond: 1

Very Little: 4

Quite: 2

A respondent thought that the US airports are different from EU airports although most of them are coordinated. The fact that market mechanisms have been introduced in the allocation of slots at congested airports in the USA does not mean that they should also be adopted by the EU airports. Each European airport should be examined on an ad hoc basis as to whether it is mature enough for this regime.

As for the grandfather rights of the incumbent air carriers at Community airports five respondents said that they should remain as they are, one said that they should be gradually withdrawn within a certain period of time and redistributed in a non-discriminatory manner and one answered that they should be redistributed at a percentage of 10% of intra-EU slots per scheduling season. One respondent argued that an asset cannot be removed from an airline, especially if money has been paid for it as that would be called expropriation which is not acceptable. Any suggestion for redistribution has a lot of practical problems and needs to be very well thought out or it could create a massive mess.

With regard to the question which market mechanisms could be appropriate for slot allocation at community airports, three experts suggested secondary trading, two experts suggested higher posted prices and secondary trading, while two experts answered that none of the market mechanisms proposed are appropriate at all. An interviewee wondered that in case commercial mechanisms for slot allocation were adopted, who would get the money: the airline, the airport or the government? In his opinion, the whole issue lies in the ownership regime of slots. Furthermore, the question which arises is if the airlines had to pay for the slots, this would mean an additional cost for the airlines which might be transferred to passengers who might be obliged to buy more expensive air fares.

The experts were also asked whether congestion pricing mechanism with regard to slot allocation should be introduced at Community airports in order to give the airlines incentives to fly during off-peak hours. Their responses varied from 'Very little' to 'A Great Deal'.

Very Little: 2

Quite: 1

Much:

A Great Deal: 1

A respondent thinks that a congestion pricing mechanism would be a good idea not necessarily as per slots but as per landing fees. In his opinion, the problem, on the one hand, is that the fee would have to be significant enough so that an airline is made to alter its behaviour and on the other hand, the congestion fee would not take into account issues such as airport curfews/scheduling windows (especially affecting long-haul flights) which make certain times of the day busier inherently and not by choice. For example, some European airports close during the night because of the noise of the aircraft so that quietness in the neighbouring residential areas is maintained.

The experts were then asked whether a cap should be imposed on the percentage of slots that a dominant incumbent carrier may hold at an airport.⁹ Their answers ranged from 'Very little' to 'Much'.

Very little: 3

A little: 1

⁹ The rationale is that if there is an airline failure, its slots are returned to the slot pool and the 50/50 rule applies. The dominant incumbent carrier will pick up half of these slots and thus may prevent a carrier from obtaining a sufficient number of slots in order to open a base at a specific airport.

Quite: 1

Much: 2

An interviewee answered that such a measure would lead to over-regulation and that the more complicated things get, the more distortions will occur while transparency will disappear. He thinks that placing a cap will imply creating an area where dominant incumbent air carriers would seek indirect ways in order to secure the slots they want.

To the question whether the introduction of market mechanisms in the slot allocation procedure at Community airports will contribute to the more efficient use of the limited airport capacity, the experts' answers varied from 'Very little' to 'Much'.

Very Little: 3

A Little: 1

Quite: 2

Much: 1

An interviewee thinks that market mechanisms should be introduced in the European legislation in order to legalize what is already occurring (e.g. the 'grey' market in the UK). Moreover, he believes that commercial criteria should only apply to selected EU airports and that this cannot be applied across the board.

The experts were also asked whether by introducing commercial mechanisms in the slot allocation procedure at Community airports there is a risk for the creation of a monopoly, greater concentration and increase in the market power of the airlines. There was a consensus among the experts that there is indeed a high risk for greater concentration.

Quite: 1

Much: 1

A Great Deal: 5

A respondent said that this is what will naturally occur as there will be a crowding out effect. At London Heathrow airport last summer the big air carriers bought slots from small and weak players, which does not foster competition but leads finally to the creation of a monopoly and greater concentration.

Finally, the experts were asked whether in the Greek reality there are some idiosyncratic features on which special attention should be given with regard to the slot allocation rules at the Greek airports. An expert said that due to high traffic seasonality in Greece, the airport infrastructure at Greek airports needs to be optimised in order to accommodate varying traffic flows. So the question is not to increase airport capacity but

rather improve current premises and functionality. Furthermore, an expert mentioned that the Greek regional airports have some peculiarities, such as seasonality, hours of operation, lack of resources, etc. Another expert pinpointed the following:

- a) The need for a Greek independent slot coordinator to be established soon.
- b) The concern that market mechanisms might lead to monopolistic situations.
- c) The need for the introduction of a mechanism which will encourage air traffic during off-peak hours.

Another interviewee answered that in several occasions, it has been proved that market mechanisms (which have been successful in the USA) are not equally efficient in the EU and especially in Greece. He added that, on the contrary, in the Greek and EU reality several distortions of the market mechanisms have been noted so far, which may lead to the creation of monopolies.

Another interviewee from an airline also made the following remarks:

1. Different countries are at different levels of implementation of the Regulation 793/2004 so there is no uniformity in implementing it. In particular, Eastern European countries are quite a long way from actually applying the regulation as is the case in Greece. Different countries also interpret differently the regulations.
2. The EU regulations have no power outside the EU. This causes discrimination in the treatment of EU carriers where fair rules may apply for an extra-EU carrier operating in the EU. This fairness is not necessarily reciprocated for EU carriers trying to operate in countries outside the EU. There coordinators behave completely arbitrarily. Slots are used as another “permission” and barrier of entry.
3. There is a key issue as per establishing airport capacity. Articles do exist in the EU Regulations 95/93 and 793/2004 covering this issue. In very many cases the requirement to establish capacities objectively is not followed – nor such calculation is available to the users (e.g. the airlines). Capacities are frequently influenced by different criteria other than what is physically possible at an airport.
4. The EU Regulations provide for a “Coordination Committee”. Actually it only works in the Athens airport while it does not operate in the other Greek airports. Decisions are not taken at this level, while many problems could be resolved during the sessions of this committee.
5. Regulation 793/2004 provides for special/local rules. However, there is no adequate justification about their necessity from the involved parties (at the

Coordination Committee level). As a result Regulators/Airports use this clause as a way to impose even more constraints on the airlines because of “special circumstances”.

6. European governments (even local governments in some countries) have a tendency to vote laws that are not necessarily compatible with the EU regulations and do pass laws that bypass and ignore the EU regulations. The most recent example is a local law by the region of Lombardy in Italy covering Malpensa airport (MXP). Here the use-it-or-lose-it provisions are not applied, the slots are allocated by the local government via the coordinator and the slot deadlines are ignored. Therefore, such practices tend to undermine the EU regulatory status.
7. In some Community airports like Paris Orly (ORY) and Düsseldorf (DUS) slot capacity is constrained via regulation (because of curfew or environmental restrictions) and not by the physical capacity of the airports.
8. A key issue is the match between Airport and ATC (Eurocontrol-CTOC¹⁰) slots. In many cases there is mismatch both in slots as well as capacity, which leads to bottlenecks. Although runways slots are confirmed the Air Traffic Control refuses an airline permission to take off.
9. Airlines account for slot misuse, which means that they have to explain themselves when something goes wrong) while there is no accountability for airports and other stakeholders.
10. The single EU regulation is trying to regulate issues for disparate range of airports, from highly congested airports (such as LHR) to airports with no congestion at all. Consequently, the regulation seems to apply the same articles for all Community airports which, nevertheless, present a lot of individual particularities. For example, the Greek small airport of Sitia in Crete does not have the same problems to face as Frankfurt’s airport.
11. In Greece the problem of congestion at the airports is not yet so intense. It only exists at a few airports during certain periods (about 2 months in summer) and that only at certain times and days. This results primarily from the nature of the incoming tour operator charter flights, which peak on certain days at different destinations. The coordination committee could address this problem by

¹⁰ Computed time of take-off.

persuading tour operators to operate on a different day and time providing them with some incentives, for example lower landing fees.

12. The problems in Greece are:

- a. Lack of investment in key items (such as Identification Landing Systems) for Heraklion airport in Crete, which would permit more flights than currently possible. It should be noted that Heraklion airport has 12-13 movements per hour when a single runway with parallel taxiway should be able to do at least twice this number.
- b. Procedural improvements could make better use of scarce facilities. A good example is the whole “pushback” discussion, where existing ramp space could be used more efficiently if aircraft pushback was practiced and aircraft did not require space to taxi-out of parking positions. Pushback only takes place in ATH presently.
- c. Inflexibility in capacity parameters. For example Athens nominally has a capacity of 60 movements per hour but this is inflexibly limited to 30 landings and 30 take-offs per hour. During certain times of day (i.e. in the morning between 08:00-09:30), runway congestion occurs on departures, while the second runway effectively remains idle. Firstly, this happens because there is incompatibility between capacity parameters (i.e., runway, ramp and terminal). For example there are airports which have ramp space but never fill in because the runway movements are fewer. In this case the airport appears as congested in slot terms but in reality this may not be the case. Secondly, there is excessive coordination in many airports where this is not necessary, while there is inadequate coordination in some other airports. Too many airports are assigned as coordinated (as per EU regulations). A re-evaluation of which airports need to be really slot coordinated should take place and try to draw the attention of the coordinator. What is surprising and problematic is the fact that 32 Greek coordinated airports in the summer account for one fourth of all the coordinated Community airports when there are only about eight coordinated airports in Germany.
- f. The operation of the “Independent Coordinator”, which should have taken place since 1993, is still pending.

Proposed amendments to the (EC) Regulation 793/2004

1. It needs to be simple and flexible.
2. It needs to be applied uniformly across the EU.
3. Opportunity for conscious misinterpretation and loopholes should be reduced
4. Coordinators absolutely need to be independent

5. One thought would be to have 3-5 pan European coordinators independent from each EU Member State. This could improve impartiality and eliminate nationality bias that evidently occurs. This would also improve transparency and oversight and would also encourage investment in know-how and technology in doing the coordination.
6. Strict/specific criteria are needed for capacity determination
7. Strict/specific criteria should be determined for specifying when an airport needs to be coordinated. Today the procedures designed for Charles de Gaulle airport are used for airports such as Santorini.
8. Intentional slot abuse should be discouraged and be the objective of any sanctions.
9. The relevant bodies (Coordination Committees) need to have a meaningful role established by law. If all interested parties participate, then acceptance could improve. Recommendations need to be made and observed. Such a committee has an operational/technocratic role and does not/should not be interpreted differently.
10. The option to combine ATC slots (CTOT) with Airport Runway slots should be examined. The trouble with CTOT is that they change due to changing weather or other airspace requirements.
11. Parameters of coordination should be specified more strictly as too many conflicting parameters reduce capacity.
12. Market mechanisms should be possible (they de facto exist, above the counter in the UK and under the counter in other countries)
13. If a slot fee was established in congested airports, it should replace the landing fee and not be added to it as this would affect the final fare price. This means though that airports “own” the slots – this is another big discussion as to how airports would behave – some could have an interest in curtailing capacity in favour of higher slot fees.
14. Peak pricing should be possible but the peaks need to be determined by demand. For any market mechanism to succeed it is absolutely important that coordinators are functioning correctly and impartially. In any other case there would be major problems. One possibility would be to add another airport category to those used in the regulation. The fourth group (let us call it “slot marketed”) would be only the airports such as LHR, LGW, FRA etc. Thus the possibility of an expensive, complicated market mechanism being applied to non-congested airports is eliminated. Any market mechanism should consider that airlines at congested airports have sometimes paid very high amounts to secure slots. These amounts cannot be eliminated by a law. A gradual/transitional approach would be required instead. It is doubtful whether any market mechanism would

improve slot mobility. Any market mechanism would probably lead to slot concentration. The big airlines would have the resource to buy out the small airlines. Any market mechanism would probably benefit long-haul large aircraft flights where the slot value can be amortized. This is the most efficient use of a valuable slot. Placing a cap on the slots held by a single airline at any one airport would probably cause more inefficiency and distortion in favour of indirectly securing slots. Hub carriers consider their competition at other hubs and not the competition of other airlines at their own hub so imposing a cap would not necessarily mean an increase in competition.

Care needs to be taken with slot market mechanisms because they can evolve into a derivatives market. This would be a great distortion of what a slot actually is (i.e. a time to land and take-off from an airport developed to make sure your flight does not overlap with somebody's else flight). Any slot mobility ideas such as periodically removing slots from airlines, slot lottery etc, are not wise ideas. They would create havoc with an airlines' schedule and especially on flights between coordinated airports would create a domino of effects as such ideas ignore the complexity of the airline operations and how closely interlinked flights at one place are with a seemingly completely irrelevant destination.

6. Conclusions

From the survey conducted among the Greek air transport experts about the weaknesses and strengths on the implementation of Regulation 793/2004 in Greece with regard to the slot allocation procedure and whether the introduction of commercial mechanisms into Regulation 793/2004 could possibly encourage competition between airlines and make the most efficient use of scarce airport slots at congested Community airports, several interesting conclusions were drawn.

Firstly, different countries are at different levels of implementation of the Regulation 793/2004 so there is no uniformity in implementing it. Moreover, different countries interpret differently the regulations.

Secondly, although the EU Regulation provides for a "Coordination Committee", it only works in the Athens airport. Decisions which should be taken during the sessions of this committee are not taken, and consequently, many problems affecting the air transport industry remain unsolved.

Thirdly, verification of flight plans against airport slots does not take place systematically, causing interferences in the optimal use of airport slots at congested Greek airports mainly during the summer.

Fourth, while the airlines account for slot misuse, that is they have to justify themselves, the airport authorities and the other stakeholders are not required to do so, even if they are to blame indirectly for slot misuse.

Fifth, the EU regulation is trying to regulate the slot allocation at a heterogeneous range of Community airports, from highly congested airports (such as AMS) to airports with no congestion at all.

Sixth, the current Greek Airport Coordinator should be immediately replaced by an independent coordinator, provided for in the Regulation 95/93 as it was amended by Regulation 793/2004, for reasons of objectivity, impartiality, transparency and greater efficiency, thus contributing to enhance competition between the airlines.

Seventh, the parameters of coordination should be made more specific because too many conflicting parameters often constrain capacity and lead to ‘artificially’ congested airports, although in reality they are not.

Eighth, market mechanisms could be possible in a number of Community airports which face real congestion due to limited physical capacity. The United Kingdom has already been buying and selling slots for a long time but this practice should not be used as a model and transferred indiscretely to all Community airports because there are totally different idiosyncratic features among them. Moreover, the interviewees were extremely concerned that the introduction of market mechanisms to the slot allocation procedure would probably lead to greater slot concentration, as the big airlines would have the power to buy out the small ones.

The results of the survey seem to be consistent with the views of the EC stakeholders during the hearing on the EC Report on the functioning of slot allocation of 29 January 2008, launched by the DG TREN of the European Commission (2008). The conclusions and recommendations of this hearing refer to the need to ensure better implementation in a number of areas where particular difficulties exist as well as the need to clarify certain provisions as interpretation of the Regulation differs among Member States. For this reason, the EC aims at ensuring a homogeneous implementation of the Regulation by Member States and facilitating the involvement of the stakeholders and the Member States in further developments regarding slot allocation.

Finally, there does not seem to be a consensus among Greek experts about the degree of revision of Regulation 793/2004. Three of them believe that there is not at all or a little need to do this while the other four consider that a certain degree of revision is quite or much necessary. However, what emerged from the in-depth interviews is that the current Regulation is quite satisfactory as long as all its articles are implemented and interpreted uniformly across all the Community airports. The Commission relies on each Member State's responsibility to apply thoroughly the Regulation and the discrepancies which appear in its implementation across Community airports should disappear so that there is fair competition between the airlines and the air transport market is not distorted.

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