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Flexing the slot regime: airport slot coordination in light of evolving market realities: a regulatory perspective

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6 CHAPTER SIX

General Conclusions and Recommendations

6.1 Structure of this chapter

6.1.1 *The principal research questions*

The two central research questions of this dissertation were the following:

- 1) To what extent can the global and specific legal regimes pertaining to airport slot coordination be used as an instrument to influence coordination decisions at super-congested airports?
- 2) What concepts or measures related to slot coordination can be identified to flex the current slot regime to better reflect the socio-economic value of a slot in coordination decisions at super-congested airports?

The first question will primarily be addressed in sections 6.2 and 6.3 below through interpretative, comparative and case study analysis, whereas the second question will primarily be addressed in recommendations section 6.4. Eight sub-research questions were identified to help provide an answer to this dissertation's main research questions, all of which are addressed and answered in the sections below.

Chapter 6 briefly addresses the main conclusions in the research on each of the matters relating to the sub-questions before presenting the overarching general conclusions of the dissertation. It will also provide recommendations based on these overarching conclusions as provided in sections 6.2 and 6.3.

In doing so, notable developments which comprised four main aspects relevant for this dissertation, as identified in Chapter 1 and further contextualized throughout Chapters 2, 3, 4 and 5, are accounted for:

- 1) Rising slot scarcity levels and the emergence of super-congested airports;
- 2) Airport planning and the promotion of environmental protection;
- 3) The apparent mismatch between the functions of slot coordination and market conditions anno 2021;
- 4) Slots as a multifunctional concept.
 - a. As remedial commitments to alleviate competition concerns
 - b. As safeguards for market access
 - c. As collateral in insolvency and bankruptcy cases
 - d. As instruments to attain policy objectives

Besides the four main aspects of slot coordination at super-congested airports listed above, the lessons learned from a series of concepts and measures related to slot coordination, which have been subject to discussion throughout Chapters 1-5 of this dissertation, are also taken into account in the formulation of general conclusions and recommendations.

6.1.2 Overview of the main findings

The main findings presented in Chapters 1-5 of this dissertation are as follows:

- At most airports where demand for air transport services exceeds supply, slot coordination is applied to define a set of rules and priorities to be followed for the declaration, allocation and use of airport capacity (*see* Chapter 2, section 2.1.3).
- The coordination of slots increasingly involves broader policy questions as to how scarce airport capacity at (super-)congested airports can be used to its most optimal level, taking into account concerns related to available infrastructure, the environment, route development and airport access (*see* Chapter 1, section 1.2.5 and Chapter 2, sections 2.3 and 2.4).
- Issuing the capacity declaration determines the supply-side of the coordination process, *id est* how many slots will be made available to airlines. All subsequent steps involve demand-side questions, *id est* whom the available slots will be allocated to (*see* Chapter 2, sections 2.2.2 and 2.2.3).
- In principle, slots are entitlements, not possessions, which are allocated to airlines at no cost and subject to conditions such as utilization thresholds (*see* Chapter 5, section 5.2). The financial default of airlines has raised a number of delicate issues linked to the debate on slot title (*see* Chapter 1, section 1.2.4 and Chapter 5, section 5.3).
- At the time when the Chicago Convention on International Aviation of 1944 [hereinafter: the Chicago Convention (1944), or ‘the Convention’] was drafted, the problem of airport congestion did not exist. Hence, the Convention and its 19 Annexes do not include explicit provisions on slot coordination. The principal provisions of the Convention which affect slot coordination are Articles 1 (sovereignty), 2 (territory), 5 (right of non-scheduled flight), 6 (scheduled air services), 11 (applicability of air regulations), 15 (airport and similar charges), 44 (objectives) and 68 (designation of routes and airports) of the Convention (*see* Chapter 1, section 1.1 and Chapter 3, section 3.1.4).
- Although the International Civil Aviation Organization [hereinafter: ICAO] has not adopted binding rules on slot coordination, ICAO acknowledges that an increasing number of airports will be confronted with excess demand for slots. Therefore, it has provided and continues to provide guidance to States on slot coordination (*see* Chapter 3, section 3.1.6).
- Before an airline can make use of an airport for the operation of international air services, it must first ensure that it acquired two constituents: traffic rights and airport slots (*see* Chapter 3, sections 3.3.1 and 3.3.2). Despite the separation between traffic rights and airport slots, experience has shown that States hold diverging views when it comes to the exercise of traffic rights and slot availability in relation to the ‘equality of

opportunity' clause in air services agreements [hereinafter: ASAs], particularly at super-congested airports (*see* Chapter 3, sections 3.3.3 and 3.3.4).

- Although not legally binding *per se*, the Worldwide Airport Slot Guidelines [hereinafter: WASG] are published in order to provide the global air transport community with a single set of standards as a best practice guide for the management of airport slots (*see* Chapter 3, section 3.4.1). States or regional jurisdictions that have adopted national or regional regulations on slots may draw on the guidelines set forth by the WASG (*see, inter alia*, Chapter 4, section 4.2). Yet, the variance in measures adopted by States around the world to address slot coordination at (super-)congested airports are illustrative of the non-binding nature of the WASG guidelines (*see* Chapter 4, section 4.6).
- In States and regional jurisdictions where the WASG apply, the allocation of slots is the responsibility of the independent slot coordinator, who ensures slot allocation takes place through a system of fair, non-discriminatory and transparent rules, with little to no economic considerations playing a role in the declaration, allocation and use of airport capacity (*see* Chapter 5, section 5.4 and section 5.6.1).
- Despite the direct applicability of EU Regulation 95/93, as amended [hereinafter: the Slot Regulation], European Union [hereinafter: EU] Member States are free to adopt national measures on slot coordination, including national laws, local guidelines and local procedures, provided they do not interfere with the proper functioning of the common organization of the market (*see* Chapter 4, section 4.3.5).
- Nonetheless, the fact that slots cannot be earmarked or reserved for a certain use in the EU, apart from services covered by Public Service Obligations [hereinafter: PSO's] (*see* Chapter 4, section 4.3.3), two-year usage restrictions for new entrant slots (*see* Chapter 5, section 5.5.2) and slot commitments (*see* Chapter 5, section 5.7), may constitute a potential barrier to national laws, local guidelines and local procedures as potential instruments to effectively influence allocation decisions (*see* Chapter 4, section 4.3.4).
- Slots are available for allocation from the slot pool or potentially through the alternative means of secondary slot trading (*see* Chapter 5, section 5.6) or slot commitments (*see* Chapter 1, section 1.2.2 and Chapter 5, section 5.7) and are attached to the capacity of one particular airport, but are not attached to any specific route, aircraft or flight number (*see* Chapter 2, section 2.1.2).
- The fact that airlines effectively 'compete' for the same scarce slots at super-congested airports does not identify such behavior as 'competition' within the meaning of the competition rules, as the slot pool at a specific airport does not qualify as a 'relevant market' for air transport services on which competition takes place (*see* Chapter 5, section 5.7).

Chapter 2 extensively elaborated on the connotation of airport slots in contemporary air transport and this dissertation does not aim to repeat what has already been discussed. In excess of what has been discussed in Chapter 2, section 6.1.3 below elucidates the need for a flexing of the slot regime at super-congested airports in light of the evolving market realities observed, building on the multiple findings and observations provided in Chapters 3, 4 and 5.

6.1.3 *The need for a flexing of the slot regime*

Fueled by deregulation and, more so, liberalization measures,¹³⁵⁰ the freedom to enter and exit airports combined with a growing world population, rising disposable incomes, urbanization and globalization is increasingly moderated by continuing capacity constraints in terms of the availability of slots that limit or preclude entry at the airport level (*see* Chapter 2, section 2.3.1). Illustrative of the growing slot scarcity levels is that the number of Level 3 slot coordinated airports worldwide also continues to increase: 136 in 2000, 155 in 2010 and 197 in 2021.¹³⁵¹

Slot scarcity at airports represents the inability of an airline to obtain the slot they want in order to operate a specific route (*see* Chapter 2, section 2.3.). More importantly, half of global air traffic is concentrated at just 4% of the largest 100 airports.¹³⁵² At this newly emerged category of super-congested Level 3 airports, a deepening of slot scarcity levels is observed, to such an extent that these airports have little to no slots available for coordination (*see* Chapter 2, section 2.4.2).

Growing excess demand for slots will be among the set of developments that will affect the global air transport industry most in the decades ahead. The lack of slots has thus become a prominent feature of congested, and especially super-congested airports, where all slots are covered by incumbents' historic rights, and is expected to become an even more critical issue for airlines, airports and coordinators alike in the near future (*see* Chapter 2, section 2.3).

The congestion levels faced by super-congested airports such as London Heathrow (*see, inter alia*, Chapter 5, sections 5.6.2 and 5.6.4), Tokyo Narita International Airport (*see* Chapter 3, section 3.2.4), Mexico City Benito Juárez Airport (*see* Chapter 4, section 4.6.2.1) and Amsterdam Airport Schiphol (*see, inter alia*, Chapter 4, section 4.4.3.3 and Chapter 5, section 5.7.4) already provide a first outlook at the consequences of extreme scarcity. Although these airports share their slot scarcity levels, each airport is constrained for a different reason and will have different needs and coordination parameters for the management of slots (*see* Chapter 2, section 2.2.2).

Although the slot regime set forth by the WASG, and by extension the EU Slot Regulation (*see* Chapter 4, section 4.1.2), very much welcomes competitive entry in spirit, in practice competitors of incumbent airlines, that is, airlines holding a substantial portfolio of historic slots, are regularly not able to enter a market due to their inability to acquire airport slots. Slot availability rather than the possession of traffic rights now has the greatest potential for causing allocative inefficiencies and hamper airport access, as slots are an essential input for airlines wanting to compete (*see* Chapter 3, section 3.5 and Chapter 5, section 5.7.6).

Yet, the slot regime provided for by the WASG and as implemented in, among others, the EU Slot Regulation (*see* Chapter 4, section 4.1.2) still reflects the pre-liberalization situation which has evolved into a more liberalized and congested world (*see* Chapter 2, section 2.3). The slot regime does not provide any guidance to slot coordinators as to how to allocate slots according to their socio-economic value. The 2021 edition of the WASG pursues the following prime objective of slot coordination:

¹³⁵⁰ *See* Chapter 1, n.10, for an explanation of both terms, including differences as between them.

¹³⁵¹ *See* IATA, *supra* note 261.

¹³⁵² *See* Gelhausen et al., *supra* note 271, at 6; Graham and Guyer, *supra* note 191, at 178.

“The prime objective of airport slot coordination is to ensure the most efficient declaration, allocation and use of available airport capacity in order to optimize *benefits to consumers*, taking into account the interests of airports and airlines.” [italics added]¹³⁵³

In the author’s view, it is questionable if the WASG guidelines for the declaration, allocation and use of slots at super-congested airports are an adequate reflection of consumer needs and overall socio-economic value (see Chapter 2, section 2.1.3). In fact, the current rules were never written to provide a solution to the fundamental problem of a lack of airport capacity (see Chapter 2, section 2.3.2), and have seen only marginal changes (see Chapter 3, section 3.4.4 and Chapter 4, section 4.1.4).

Hence, slot coordination as we know it may not constitute the right means to manage scarce infrastructure and evokes questions as to the qualifications of the current slot regime to govern the declaration, allocation and use of slots at airports where significant slot scarcity is of a long-term or permanent nature. Based on the reasoning above, the author deems it unlikely that the current slot regime is fit for purpose in ensuring the efficient use of increasingly scarce capacity from a socio-economic perspective (see Chapter 2, section 2.3.2).

Furthermore, quality-of-life factors increasingly influence the economic development of air transport, including slot coordination. The negative environmental externalities of air transport, notably in the form of aircraft noise exposure and emissions of pollutants affecting local air quality and emissions of carbon dioxide and other greenhouse gases are affecting air transport’ societal license to continue to grow its activities and unlock more slots to enhance market access for expanded or new services allocation (see Chapter 2, section 2.3).

Environmental concerns go hand in hand with a societal debate regarding how the airport capacity can be used optimally to the benefit of the socio-economic welfare of States and regions. One reasoning in the public debate is that if airport capacity is used for those flights that deliver most socio-economic value, there is no or less need for airport expansion. A growing socio-political focus on limiting the negative externalities of air transport may culminate into discussions as to how a flight’s environmental footprint could be reflected in the declaration, allocation and use of airport capacity.

In conclusion, a little over seventy-five years after the signing of the Convention in 1944, a very different geopolitical, social and economic landscape with different angles on the development of air transport has appeared.¹³⁵⁴ As further elaborated upon in sections 6.2 and 6.3 below, the current global and specific legal regimes for airport access analyzed in Chapters 4 and 5 respectively offer limited scope to influence coordination decisions from, *inter alia*, a socio-economic perspective. Besides the need to meet evolving market realities, the WASG guidelines have more impact on the air transport industry than they did at the time they were conceived as capacity falls short of demand at an increasing number of airports.

A paradigm shift may be required in order for the slot regime to shy away from its seemingly growth-oriented focus in order to bring it more in line with market conditions anno 2021 and balance the legitimate interests of all stakeholders for the benefit of consumers, regions and the environment. In other words: the time may have come for socio-economic considerations¹³⁵⁵ to play a role in the regulatory regime in place for slot coordination at super-congested airports.

¹³⁵³ ACI, IATA and WWACG, *Worldwide Airport Slot Guidelines (WASG) Edition 1* (2020), *supra* note 8, at 1.2.1.

¹³⁵⁴ See, among others, Mendes de Leon and Buissing, *supra* note 318.

¹³⁵⁵ Socio-economic considerations are, for the purposes of this dissertation, understood to mean the balancing of the positive and negative externalities of air transport, which includes topics as sustainability in a broad sense, including aircraft noise exposure, air quality, employment levels, the business climate and competitive relations.

6.2 General conclusions as to flexing the slot regime based on the global regime for slot coordination

6.2.1 *The Chicago Convention (1944)*

The Chicago Convention (1944) and its 19 Annexes do not provide a global framework for the economic regulation of air transport, including slot coordination, save for an indirect link provided by Article 15 of the Convention as referred to below. At the time when the Convention was conceived, the problem of airport congestion did not exist, and the drafters were primarily concerned with questions related to safety, including technical aspects of air transport (*see* Chapter 3, section 3.1).

The Convention does, however, include basic concepts regarding access to airports that may be linked to slot coordination. The Convention affects slot coordination via Article 1 in conjunction with Articles 2, 5, 6, 11, 15, 44 and 68 of the Convention (*see* Chapter 3, section 3.1.4). The main body of Chapter 3 studied the aforementioned provisions relevant for the analysis carried out in this dissertation from the perspective of access to airports in terms of traffic rights and, more specifically, airport slots. An airline holding traffic rights is not guaranteed the necessary airport slots, because slots are allocated separately, that is, under a different legal regime and at a later stage (*see* Chapter 3, section 3.3).

Nonetheless, slot coordination forms part of a broader process, including the exchange of traffic rights on the basis of Article 6 of the Convention, and the imposition of airport charges pursuant to Article 15 of the Convention (*see* Chapter 3, section 3.3.1). Henceforth, although slot coordination may not be regulated directly under the Convention, access to airports is. Article 15 of the Convention deals with the use of airports, which is generally interpreted as encompassing the use of slots (*see* Chapter 3, section 3.1.5). Accordingly, the sovereign rights of States to adopt national rules on slot coordination pursuant to Article 1 of the Convention can be made subject to Articles 6 and 15 of the Convention.

6.2.2 *ICAO guidance on slot coordination*

ICAO has not yet adopted Standards and Recommended Practices [hereinafter: SARPs] in the field of slots supplementing the Convention, whereas there are no other rules from ICAO on slot coordination. Although ICAO has produced guidance documents on slot coordination, often with reference to the WASG, these do not equate to binding and uniform rules or procedures on slot coordination for States and industry stakeholders to use.

Policy guidance relevant to slot coordination developed by ICAO includes the 2001 ICAO Circular 283-AT/119 on Regulatory Implications of the Allocation of Flight Departure and Arrival Slots at International Airports, a Manual on the Regulation of International Air Transport, the reports to ATConf/5 and ATConf/6, and the ICAO model clause for optional use by States in their ASAs. ICAO emphasizes that its contracting States should adhere to the legal framework for slot coordination, comprising of the Convention, obligations under ASAs as well as regional and national rules for the coordination of slots (*see* Chapter 3, sections 3.1.6 and 3.2.3).

6.2.3 *Provisions of the Worldwide Airport Slot Guidelines*

In the absence of ICAO rules on the matter, the WASG provide the global air transport community with a single set of guidelines as a best practice guide for the management of airport slots at coordinated airports. The WASG guidelines attempt to mitigate concerns over national treatment and non-discrimination by requiring the coordinator to allocate slots to airlines in a “neutral, transparent and non-discriminatory way” (*see* Chapter 3, section 3.4.1). The WASG also describe quite clearly the details and rules of how the process of slot coordination should

work, allowing for a more or less universal approach by slot coordinators around the world (see Chapter 4, section 4.2.3).

Yet, although the wider cross industry participation as per the 2020 edition of the WASG may result in a more balanced set of guidelines going forward, there is also a risk of watered-down guidelines from negotiated outcomes (see Chapter 3, section 3.4.2). Clear guidance may henceforth be better formulated by the local regulator rather than relying on the industry.¹³⁵⁶

The WASG are not legally binding *per se*. Indeed, the WASG recognize in its Preface that national regulations on slot coordination may take precedence over the WASG guidelines. Since air transport may also be subject to local regulations depending on local circumstances that are different from and/or additional to the principles incorporated in the WASG, slot coordination may work differently to varying extents in different parts of the world, as the overview of the process of slot coordination in selected jurisdictions illustrates in section 6.3 below.

6.2.4 Concluding remarks

Since slot coordination takes place within the territory of State in which the congested airport is located, oftentimes with the intervention of an independent coordinator (see Chapter 5, section 5.4), the process for the coordination of airport capacity in terms of slots is subject to the principle of complete and exclusive aerial sovereignty vested in Articles 1 and 2 of the Convention (see Chapter 3, section 3.1.4.2). Hence, based on Articles 1 and 2 of the Convention, *in principle* States have the freedom to adopt national rules on slot coordination, including rules aimed at influencing coordination decisions.

Nonetheless, slot coordination can be considered part of the process concerning access to airports, States that have ratified the Convention must ensure that their rules on slot coordination are compliant with the principles of national treatment and non-discrimination vested in Article 11 respectively Article 15 of the Convention. It follows that, although States may apply and enforce slot coordination rules against all foreign and national aircraft in its territory, States are not allowed to discriminate as to the nationality of any airline (see Chapter 3, section 3.1.4.3). Consequently, local airlines must be treated in the same way as non-local airlines when local, national and regional slot coordination rules are applied and enforced with the aim of influencing coordination decisions.

Global guidelines in the field of slot coordination are provided by ICAO and the WASG (see Chapter 3, sections 3.1.7 and 3.4). The ICAO guidance documents on slot coordination mentioned in section 6.2.2 above merely provide an overview of the process of slot coordination and do not target ways or instruments to flex the slot regime. Save for local guidelines and procedures, explicit references to tailor-made policy approaches to slot coordination affecting the declaration, primary allocation and use of slots have also not been made by the WASG. Yet, the WASG do not ‘stand in the way’ of States or regional jurisdictions wanting to adopt national or regional rules on slot coordination other than the guidelines provided for in the WASG, irrespective of the objectives States or regions would like to achieve, *exempli gratia* a flexing of the slot regime.

¹³⁵⁶ See ACL International, *supra* note 711.

6.3 General conclusions as to flexing of slot regime based on the specific regimes for slot coordination

6.3.1 *The application and implementation of the global slot regime in domestic jurisdictions*

The main body of Chapter 4 studied the specific regimes for slot coordination in selected jurisdictions, including the EU, the United Kingdom [hereinafter: UK], the United States [hereinafter: US], China, Mexico and Australia, with a prime focus on the EU Slot Regulation. The research conducted in Chapter 4 shows that States or regional authorities that have adopted domestic regulations on slots often draw on the principles enshrined in the WASG, making the global air transport industry largely subject to the same regulations. In some instances, the WASG guidelines have been incorporated into national or regional law (*see* Chapter 4, section 4.1.2) making the provisions directly enforceable by the State or jurisdiction concerned.

6.3.2 *Slot coordination in the EU*

The EU Slot Regulation provides legally binding rules for slot coordination, although slot coordination is not regulated exclusively at EU level (*see* Chapter 4, section 4.3). Depending on the local situation, the Slot Regulation may require further specification in national laws of the EU Member States through the adoption of national laws, local operational rules pursuant to Article 19(1) of EU Regulation 1008/2008 or local guidelines proposed by the coordination committee (*see* Chapter 4, sections 4.3.1, 4.3.2 and 4.3.3.1).

It is imperative that the non-discrimination and national treatment principles as embodied in the Convention and by the general principles governing the freedom to provide air services as spelled out in the Court of Justice of the EU's [hereinafter: CJEU] case law are complied with by national authorities. Any national laws, operational restrictions or local guidelines may not discriminate on grounds of nationality or identity of the air carrier, or as between destinations inside the EU (*see* Chapter 4, section 4.1.5).

The prohibition of non-discrimination should also be observed by the coordinator when making allocation decisions or when adopting local procedures affecting allocation decisions. Consequently, when making allocation decisions, comparable slot requests may not be treated differently, and different slot requests may not be treated alike unless such decisions can be objectively justified. Any national measures must furthermore be warranted by mandatory requirements in the public interest (*see* Chapter 4, section 4.1.5).

To the extent that national laws, operational restrictions, local guidelines and/or local procedures are not in conflict with EU law (*see* Chapter 4, section 4.3.5.2), EU Member States and coordinators can thus adopt such measures to influence allocation decisions. However, in practice, the leeway Member States and coordinators have to effectively influence allocation decisions is very limited, because the legally binding allocation priorities set forth by the Slot Regulation need to be complied with, which by and large resemble the priorities laid down in the WASG (*see* Chapter 4, sections 4.2.2 and 4.2.3.1). Although local procedures comprising additional criteria may be able to influence allocation decisions at the margin, they are no game changer (*see* Chapter 4, section 4.3.4).

Moreover, apart from services covered by PSO's (*see* Chapter 4, section 4.4.4), two-year usage restrictions for new entrant slots (*see* Chapter 5, section 5.5.2) and slot commitments (*see* Chapter 5, section 5.7), slots cannot be earmarked or reserved for a certain use under the Slot Regulation. However, even where Member States and coordinators can effectively influence allocation decisions for the attainment of certain policy considerations, airlines are still free to swap slots in line with their own commercial strategies immediately after the slots are allocated

to them (*see* Chapter 2, section 2.1.2). Hence, as long as airlines are given this flexibility and unless a provision enabling the coordinator to monitor slot use for compliance with the conditions imposed on their allocation, the effective influence of Member States and coordinators on allocation decisions appears to be short-lived.

6.3.3 *Slot coordination in the US*

The US proposed a myriad of techniques to flex the slot regime with the aim of enhancing market access and improve slot mobility, including lotteries and the initiation of plans by the Federal Aviation Administration [hereinafter: FAA] and the US Department of Transportation in 2007 and 2008 to auction slots (*see* Chapter 4, section 4.5.4). Moreover, a separation between domestic and international flights was made under the High Density Rule with the aim of always having slots available for airlines designated under ASAs by other contracting States (*see* Chapter 4, section 4.5.3). It follows that ‘international slots’, as well as slots for ‘essential air services’ and general aviation have been earmarked and exempt from the secondary trading system (*see* Chapter 4, section 4.5.3).

6.3.4 *Slot coordination in the selected jurisdictions of China, Mexico and Australia*

Similar to the US, the Civil Aviation Administration of China [hereinafter: CAAC] also places slots for domestic and international flights into separate pools in order to safeguard slots for remote regions and to encourage airlines flying internationally to improve their route networks. Furthermore, and as opposed to the WASG and the Slot Regulation, slots are route and aircraft-type specific, unless prior authorization by the CAAC to alter the usage of the slot has been obtained. The order of allocation criteria follows a pre-determined formula, according to which airlines with high operating efficiencies will win high scores (*see* Chapter 4, section 4.6.3.2).

In Mexico, national law introduces a special regime for slot allocation at so-called ‘saturated’ airports. Part of this special regime is an increase of the use-it-or-lose-it rule to 85%, as well as a slot auctioning system for slots withdrawn in observance of the 85% threshold. Slots can furthermore not be allocated or transferred to air carriers that accumulate more than 35% of total slot holdings in the same timeslot (*see* Chapter 4, sections 4.6.2.1 and 4.6.2.2).

Although the national rules on slot coordination in Australia have been developed with reference to the WASG guidelines for slot coordination, it also provides for additional rules, including policy responses in relation to aircraft size and the ringfencing of slots for regional services across New South Wales (*see* Chapter 4, sections 4.6.4.2, 4.6.4.3 and 4.6.4.4).

6.3.5 *Concluding remarks*

It can be concluded that, outside the EU, States have more leeway to influence coordination decisions because of the absence of any international and/or regional binding rules for slot coordination. The WASG is not currently followed across the world with States such as the US, China, Mexico and Australia operating different regimes (*see* Chapter 4, sections 4.5 and 4.6). These States have flexed the slot regime set forth by the WASG to attain certain policy objectives, which could potentially serve as examples for a future and flexed slot regime for super-congested airports. Nonetheless, the attempts made by the aforementioned four States, as well as the EU as a regional jurisdiction, epitomize the shared global quest for a slot regime that alleviates the specific challenges faced by super-congested airports around the world.

Drawing on the general conclusions provided in sections 6.2 and 6.3 on the extent to which the global and specific legal regimes pertaining to airport slot coordination can be used as an instrument to influence coordination decisions at super-congested airports, Section 6.4 below

identifies measures to flex the slot regime by means of a reflection of the socio-economic value of a slot in the declaration, allocation and use of airport capacity.

6.4 Recommendations

6.4.1 Preliminary remarks

The declaration of capacity and the resulting allocation of slots carries many aspects and considerations, *exempli gratia* of an operational, commercial or environmental nature, which need recognition and regulation, including re-regulation. Since the key principles guiding the WASG and the Slot Regulation have been laid down decades ago (*see* Chapter 1, section 1.1 and Chapter 4, section 4.1.1), it is questionable whether they are equipped for reconciliation with the multi-faceted role of slots in contemporary society.

Combined with the severity of political, geographic and institutional constraints in matching airport capacity supply with demand as illustrated throughout Chapter 2, a purely supply-side approach does not seem realistic. Hence, the coordination of slots increasingly involves broader policy questions as to how capacity is used to its most optimal level, taking into account both operational and environmental concerns, as well as the compatibility of liberal airport access provisions with high slot scarcity levels, imposing insuperable entry barriers.

The below sections turn attention to recommendations to flex the slot regime with the aim of better reflecting the socio-economic value of a slot in coordination decisions at super-congested airports. The following topics are addressed and supplied with recommendations:

- 1) Optimal declaration, allocation and use of slots as prime objective
- 2) Enhancing the use of existing capacity
- 3) The inclusion of airport-specific strategic objectives
- 4) Measures to ease airport access
- 5) The role of States vis-à-vis the role of the slot coordinator and air transport industry stakeholders in a ‘flexed’ slot regime

6.4.2 Recommendations as to an optimal declaration, allocation and use of slots as prime objective of slot coordination

At super-congested airports in particular, slots are valuable resources to society at large as they safeguard public functions such as connectivity and airport access (*see* Chapter 2, sections 2.3 and 2.4). Accordingly, the coordinator should ensure that scarce slots are declared, allocated and used in a way that is reflective of these public functions.

Solving the debate on slot title by clarifying that slots are essentially public goods which are allocated as entitlements could contribute to making the above recommendation work (*see* Chapter 5, section 5.2.5). The US FAA explains that slots are operating privileges subject to government control (*see* Chapter 5, section 5.2.3). This explanation may well serve as an example for how the legal title to slots could be defined in, *inter alia*, the WASG and other national or regional laws on slot coordination. After all, States are ultimately responsible for the designation of airports within their territories per Article 68 of the Convention, both from the perspective of designating airports under ASAs as well as the designation of airports as slot coordinated. An independent coordinator should, nonetheless, be appointed to allocate slots to airlines as entitlements to use the available infrastructure, as to which *see* section 6.2.6 below.

Paragraph 1.1.1 of the WASG lists the “efficient use of airport infrastructure” as the prime function of slot coordination. However, this phrase should not be understood as purely

operational efficiency in terms of maximizing airport throughput. Instead, the prime objective of slot coordination included in the WASG should be extended to state that slot coordination strives for a better balance between the legitimate interests of all stakeholders involved, *inter alia*, regulators, airports, incumbent and new entrant airlines, local residents and citizens.

Central to the coordination process should be a declaration, allocation and use of slots in the most optimal way appropriate to specific airport characteristics, and ultimately to the benefit of society. Such an amended prime objective of slot coordination also addresses the existing heterogeneity of airport infrastructure, which reduces the likelihood of finding general capacity declaration or slot allocation principles matching the particular situation of each and every airport (see Chapter 2, section 2.2.2). To account for the qualitative and quantitative differences between ‘regular’ Level 3 airports and ‘super-congested’ airports, the addition of a new Level 4 category of airports could be explored. After all, where excess demand is greatest, there exists greater potential for an inefficient coordination of slots (see Chapter 2, section 2.4.3).

6.4.3 Recommendations as to enhancing the use of existing capacity

Capacity increases require capital intensive solutions with significant implementation times, and are often subject to heated political debates (see Chapter 2, sections 2.3 and 2.4). Hence, demand-side solutions that are based on the optimum declaration, allocation and use of existing capacity are needed to offer immediate relief to super-congested airports. In order to get the most out of existing airport capacity, following the example of the super-congested airport of London Heathrow (see Chapter 4, section 4.3.3.1) and depending on the specifications of airport capacity limits in legislation, it may be helpful to allocate more slots than specified in the capacity declaration where coordinators would be able to predict that a certain share of slots would not be used (‘overbooking’).

Also, the current and seemingly growth-oriented slot rules provide limited scope for structural solutions to accommodate (temporary) reductions in capacity caused by contingencies, nor does it provide for procedures to return to normal operations thereafter, if applicable. Declared capacity should presumably be at least equal to the declared capacity in the previous year, since the slot regime set forth by the WASG does not deal with long-term reductions of capacity anywhere in the document (see Chapter 2, section 2.2.2). Hence, the slot rules appear to be only reflective of ‘the way up’, *id est* the provision of more capacity.

If anything, the COVID-19 pandemic occurring in 2020/2021 has shown that the resilience of the Slot Regulation to quickly and effectively respond to the needs of the market under extraordinary circumstances such as a significant drop in demand for air services should be improved. *Inter alia*, the WASB and the European Commission [hereinafter: the Commission] have quickly implemented regime changes by exempting airlines from the *use-it-or-lose-it* rule because of the drastic reduction in flights, since the WASG and the Slot Regulation do not provide adequate structural solutions for capacity reductions (see Chapter 2, section 2.2.3). Besides solutions targeting temporary reductions in demand, guidance for permanent reductions in slot supply could be helpful for airports faced with permanent capacity reductions, *exempli gratia* because of environmental limitations such as night closures. Future proofing any legislation for events such as significant political events and other special events is also important.¹³⁵⁷

¹³⁵⁷ See ACL International, *supra* note 711.

6.4.4 Recommendations as to the inclusion of airport-specific strategic objectives in the allocation and use of slots

At the world's most congested airports servicing global political, cultural and social centers, it is highly likely that a balance needs to be sought between conflicting objectives in terms of which slot requests can and will be accommodated, and which will not. To account for today's challenges, coordinators should be enabled to apply airport-specific strategic criteria related to, *inter alia*, sustainability, airport access and route development, as part of the secondary, and perhaps also the primary, criteria for slot allocation.

Currently, in States where the WASG guidelines are applied, slots are flexible concepts which can be flexibly changed by airlines according to their business plan. Hence, slots can be used on any route of their choice (see Chapter 2, section 2.1.2 and Chapter 5, section 5.7.1). The introduction of slot earmarking in a general sense,¹³⁵⁸ a practice where slots are essentially 'labelled' by the coordinator for a certain use, would enable coordinators to monitor and potentially enforce the 'proper' use of slots if slots are used contrary to any conditions imposed upon initial allocation. Accordingly, earmarking would help ensure that slots, as valuable resources for society at large as mentioned above, are used in line with the conditions imposed upon initial allocation, including their effective operation by the airlines to whom the slots were allocated. Slot earmarking would also enable competition authorities to better monitor competitive impacts on specific routes (see Chapter 5, section 5.7.5).

Moreover, it should be possible to reserve slots, also known as 'ringfencing', in case there are compelling reasons, appropriate to the specific functions of an airport to society, to do so. For instance, at super-congested airports, and as airports become more congested in general, it is likely that operators of non-scheduled operations will not be able to obtain *ad hoc* slots to operate. Examples include general aviation, business aviation and full freighter operators, for whom it is difficult to build history over slots due to the irregular nature of their operations.

The above situation may be addressed by allowing coordinators to reserve slots for these segments following the example of the current slot reservation possibilities for, *inter alia*, PSO's in the EU (see Chapter 4, section 4.3.3) and the ringfencing of regional slots in Australia and domestic slots in the US (see Chapter 4, sections 4.5.4 and 4.6.4.3), provided that a reservation of slots for these segments results in an efficient use of the capacity of the specific airport from a productive and/or allocative, in terms of added socio-economic value, perspective. Whether or not a reservation targets productive and/or allocative efficiency depends on the specific airport functions.¹³⁵⁹ UK-based coordinator Airport Coordination Limited [hereinafter: ACL] has previously advocated the introduction of separate slot pools for non-historic operations to give greater flexibility to allocate slots at short notice, without risking these slots to become historic.¹³⁶⁰ Alternatively, the introduction of separate slot pools – as applied by the US and China to effectuate a separation between international and domestic flights (see Chapter 4, sections 4.5.3 and 4.6.3.2) could be considered, provided such a separation can be substantiated from the viewpoint of added socio-economic value.¹³⁶¹

¹³⁵⁸ On top of current slot earmarking practices in the three instances of PSO's, priority allocation for new entrants and slot commitments, as mentioned above.

¹³⁵⁹ In the context of the present dissertation, allocative efficiency means that slots are used for those destinations which are most highly valued by society. Productive efficiency means that the total number of slots at each airport is maximized, and that each slot is being used to move the maximum amount of passengers possible.

¹³⁶⁰ See ACL International, *supra* note 711.

¹³⁶¹ The Commission appears to have already acknowledged the potential existence of multiple pools through its statement that "... [t]he Slot Regulation also provides for the setting up of "pools". . ." [parentheses added]. See,

Thought could also be given to the question pertaining to the justification of the protection of domestic slots or slots used for short-haul routes in light of the availability of alternative transport modes, as well as to their place in the allocation order. In 2001, the Commission already appeared to be ‘ahead of its time’ with its proposed amendment to introduce additional slot allocation criteria that would give lower priority to slot requests for intra-EU routes where other satisfactory modes of transport, such as high-speed rail, exist.¹³⁶²

6.4.5 Recommendations as to measures to ease airport access

The relationship between implied barriers to airport access and slots primarily exist via the notion that slots create a barrier to entry under the current administrative slot system, of which grandfather rights form the basis. Slots are valuable resources to society at large for which ‘competition’ among airlines is fierce, in particular at super-congested airports. This section provides recommendations for amendments to the new entrant rule and secondary slot trading.

The allocation process set forth by the WASG and the Slot Regulation holds that a portion of slots is set aside for new entrants to stimulate competitive entry. In practice, however, it is questionable whether the new entrant rule is fit for the pro-competitive purpose it was designed to achieve (see Chapter 5, section 5.5).

Among others, the long-standing practice of placing *change-to-historic* requests via the concept of ‘grandfather rights’, ahead of new entrant requests in the primary allocation order (see Chapter 2, section 2.2.3), offers incumbent airlines an additional competitive advantage over new entrants, since it attains priority for incumbent airlines to optimize their slot portfolios and to adjust them as market developments evolve. The flexibility offered by large slot portfolios has also been confirmed by the Commission in its assessment of mergers and alliances cases (see Chapter 5, section 5.7.5).

The WASG already amended the slot allocation priority rules in a way that changes-to-historic requests and new entrant requests will have equal priority. The EU should follow suit by reversing the allocation priorities. Dispensing precedence to new entrants over change-to-historic requests would offer new entrants enhanced opportunities to obtain access to the slots they are most interested in at airports that still have capacity left. Moreover, the existing limit of 5% of total slot holdings for new entrants should be increased, and the ‘airport system qualifier’ of 4% should be removed in order to reflect that airports within an airport system may serve entirely different markets and functions. It should also be possible to differentiate thresholds between, *inter alia*, intra-EU and extra-EU routes, or international and domestic routes.

In light of the continued consolidation among airlines, joint ventures, codeshares and alliances, it should also be considered to draw up a new entrant rule so as to prevent circumvention of the present new entrant rule (see Chapter 5, section 5.5.2). A 2012 legislative resolution by the European Parliament to amend the Slot Regulation already included a limitation for airline groups to attain new entrant status if an airline (group) holds more than 10% of the total number of slots allocated on the day in question in a given airport, or if it has transferred slots obtained by it as a new entrant in order to reacquire that status (see Chapter 5, section 5.5.3).

among others, Case M.8672 – easyJet/certain Air Berlin assets, *supra* note 57, paragraph 32; Case M.8633 – Lufthansa/certain Air Berlin assets, *supra* note 980, paragraph 38.

¹³⁶² See European Commission, *supra* note 54, paragraph 16.

However, the new entrant rule depends on the ready availability of slots in the pool in order to function (*see* Chapter 5, section 5.5.3) It thus appears questionable whether, for instance, upgrading the priority assigned to new entrant requests by placing them ahead of change-to-historic requests, or on an equal footing, or increasing any threshold, will be helpful from an airport access perspective at super-congested airports with no available slots to accord new entrant priority to in their allocation to airlines.

At super-congested airports where the effects of a strict application of the new entrant rule would frustrate other objectives of the slot rules, such as the most optimal use of scarce airport capacity, the application of a broader set of rules governing new entrants could be considered. Depending on the competitive dynamics of each airport, coordinators should have the possibility to opt out on the new entrant rule and endorse local solutions instead.

The author suggests that further analysis is carried out to examine whether a new entrant rule at route level could be a feasible and effective solution. For instance, the application of the new entrant rule designed to vary by route could be explored in order to more closely reflect the frequencies required for a route to be competitive. Privileges could be given to airlines operating key new destinations to widen passengers' travel options, or to frequency increases on objectively pre-determined under-served routes, rather than continuously increasing competition on existing routes.

Chapter 5, section 5.6.3 explored the legality of slot leases and slot transfers as alternative sources of slots at airports where no slots are readily available from the pool. However, it was concluded that, under a mechanism of secondary slot trading, there may be a poor correlation between the amount of profit an airline is able to make and the amount of social surplus. Hence, allocation decisions may become based on an airlines' willingness to pay and the divesting carrier's view of how it can best protect its competitive position at an airport, rather than an independent assessment undertaken by the coordinator of the fairest allocation outcome to ensure the most optimal distribution of slots at the airport concerned and the best outcome for consumer choice, and eventually the public interest.

Based on the research undertaken in this dissertation (*see* Chapter 5, section 5.6), it is suggested to let States decide for themselves whether or not they wish to permit a secondary slot market – subject to clear rules and conditions to prevent the identified risks associated with the practice – to fit within their local market circumstances in terms of airport access and airport functions.

6.4.6 *Recommendations as to the role of States vis-à-vis the role of the slot coordinator and air transport industry stakeholders in a 'flexed' slot regime*

At super-congested airports with thousands of slots on the no-slot waitlist, the coordinator may feel compelled to oversee capacity utilization and take into account a broader set of conflicting government objectives, such as the airport's route network or the reduction of carbon emissions and noise pollution. However, coordinators often lack the human and/or financial resources for a full overview of the relationship between government policy, airline network strategies and the needs of airports.¹³⁶³

Allocation decisions will be increasingly difficult to be made, especially when the majority or all of the airlines have acquired the underlying traffic rights to operate international air services to and from the airport it concerns (*see* Chapter 3, section 3.3). The current administrative rules do not prescribe solutions for severe capacity shortfalls, and are therefore not helping coordinators in their decision-making process. As a result, the role of the

¹³⁶³ See Finger et al., *supra* note 18, at 7.

coordinator has shifted from a merely technical role in which all slots are allocated as close as possible to their requested timings submitted by airlines, to more of a policymaking one. In essence, the coordinator appears to have been handed a role it was never intended to perform (see Chapter 5, sections 5.4 and 5.8).

A future slot regime should be cognizant of the shifted role of the coordinator from performing merely technical functions to that of a policymaker, so to say. *First*, the independent coordinator needs to be accorded a vital degree of flexibility and discretion when it comes to the interpretation of the slot regime and subsequent allocation decisions in order to respond to ever-changing market realities (see Chapter 5, section 5.4.3). The objectives of the WASG involve interpretation and should provide a great deal of latitude to the coordinator to make allocation decisions depending on the local situation.

Second, given the risk of increased judicial review of allocation decisions (see Chapter 2, section 2.2.4), States should take measures to protect coordinators with regard to claims for damages relating to their functions performed under the applicable slot regime. *Third*, States could contemplate to appoint an advisory board to the slot coordinator, consisting of independent academic and/or industry experts in the field of air transport, to assist the coordinator in making the most optimal allocation decisions from the perspective of overall socio-economic value.

Given the role of the government with respect to the designation of airports (see Chapter 2, section 2.2.1) and in defining the functions of an airport, for example through the use and applications of Traffic Distribution Rules [hereinafter: TDR's] and PSO's (see Chapter 4, sections 4.4.2, 4.4.3 and 4.4.3), the coordinator should, however, also *take into account*, though should not be forced to apply, relevant public interest objectives as defined by government authorities. Any form of industry or government guidance should not be binding upon the coordinator to preserve its independent function. UK-based coordinator ACL (2019) appropriately advised that any government guidance should not be overly prescriptive to alleviate concerns related to an erosion of the independency requirement and, subsequently, the air transport industry's trust in fair allocation if no reservations on coordinator discretion are made.¹³⁶⁴

6.4.7 General recommendations

Since the slot situation at one end of a route may impact the slot situation at the other end (see Chapter 2, section 2.1.2), internationally established deadlines are paramount. Moreover, given that air transport is global in nature, harmonized slot coordination standards at both the origin and destination airports appear helpful to optimize an airport's efficient use of resources.

In the author's view, global compatibility does not imply that the same rules for the coordination of slots must apply around the world. A coherent global approach to slot coordination, and more generally airport access under ASA's, does not exist and airlines navigate all the variations in place today (see Chapter 3, section 3.2 and the various sections of Chapter 4).

Although there are clear benefits in terms of scheduling consistency if the coordination process is applied consistently across all coordinated airports, there should be freedom to diverge from any such global guidelines in order to optimize the capacity of each airport considering the specific local issues and patterns of air transport activity, particularly at super-congested airports. ACL (2020) says it diverges from the WASG where it finds that an

¹³⁶⁴ See ACL, *supra* note 118, at 3.

alternative approach achieves more efficiency. Indeed, the WASG comprise generic, worldwide guidelines and may lack the specificity to manage local issues.¹³⁶⁵

Provided that any criteria used to declare, allocate or use slots in a general sense, are equally applicable to the aircraft of all contracting States, it appears that the national treatment principle is not breached. Differential treatment can only be supported on the equation “giving equal treatment to equal situations” using relevant and objective criteria, or put differently, where it concerns “unequal situations” and provided these differences in situations can be adequately proportioned (*see* Chapter 3, section 3.1.5).

In sum, national laws and local guidelines and procedures are justified to reflect local market conditions, for instance due to variances in size, functions to society, the nature of the capacity constraints and prevailing competitive conditions (*see* Chapter 2, sections 2.3 and 2.4). Hence, States would benefit from global guidelines for super-congested airports, to the extent that these do not impede on the sovereign rights of States to introduce tailor-made solutions, as applied via the independent coordinator as to which *see* section 6.4.6 above.

In the well-founded words of ACL (2020), “as with any interpretation (of the slot regime set forth by the WASG) this can differ depending on what that person (or jurisdiction, for that matter) is trying to achieve” (*parentheses added*).¹³⁶⁶

¹³⁶⁵ *See* ACL International, *supra* note 711.

¹³⁶⁶ *Id.*