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# AIRPORT SLOT ALLOCATION. ENHANCING AND UNLOCKING THE VALUE OF TIME

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SUMMARY: 1. The air transport evolution (from international to regional dimension) – 2. The increased relevance of the economic dimension of air transport – 3. The definition of airport slot – 4. The legal grounds of airport slot – 5. The slot allocation process: from IATA to Reg. 95/93 – 6. The new dimension of air transport – 7. Airport Slots as Airline Asset – 8. The United Kingdom's Aviation Slot Allocation Reform: An Analysis of the 2025 Regulations – 9. Conclusions.

1. – Eighty years have passed since the Chicago Convention (1944) enactment. The document represented the basis for the development of civil aviation [1] and, above all, allowed this technological discovery (and innovation) to be put to the benefit of the entire community, and even though the two World Wars had at the same time revealed the revolutionary potential of the aircraft for warlike ends [2].

But it was precisely this last aspect, in one, perhaps, of the juridical-cultural unpreparedness for the new technology that, on the other hand, had experienced a centuries-old stratification in the field of maritime navigation [3] due to

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[1] On the Chicago Convention, see R. Abeyratne, *Convention on International Civil Aviation. A Commentary*, 2013. For a broader discussion on the different topics before the Chicago Convention and above the Paris Convention in 1919, see A. Giannini, *Saggi di Diritto Aeronautico,* Milano, 1932; H.R. Hazeltine, *The law of the air*, London, 1911; J. W. Garner, *Recent developments in international law*, Calcutta, 1925, p. 141; J.F. Lycklama Nijeholt, *Air sovereignty*, 1910; P. Fauchille, *La circulation aerienne et les droits des états en temps de paix*, Paris, 1910; A.K. Kuhn, *The Beginnings of an Aerial Law, in American Journal of International Law*, 4, 1910, p. 109. For a historical approach to air law, see P. H. Sand, J. de Sousa Freitas, G. N. Pratt, *Historical Survey Of International Air Law Before The Second World War*, in *McGill Law Journal*, 1960, vol. 7, p. 24.

[2] For an analysis of air transport in the evolution of international relations, see J.C. Cooper, *Air Transport and World Organization*, in *Yale Law Journal*, 1945-1946, vol. 55, p. 1191.

[3] For wider considerations see M. Pampaloni, *Sulla condizione giuridica dello spazio aereo e del sottosuolo nel diritto romano*, in *Archivio Giuridico*, 1892, 48, p. 35, F. Lardone, *Airspace Rights in*



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a possible difficulty in fully understanding the innovative scope of the aircraft [4], that led the international community to find a synthesis on a few principles, identifying, instead, in technical issues the only space for more significant and broader collaboration.

Undoubtedly, the Chicago meeting of December 1944 had other, more ambitious objectives, and, in addition to the purely technical and governance issues of civil aviation, it was also desirable to reach an agreement on economic topics [5].

The approval of the Chicago Convention and its two collateral texts, which were opened for signature (the International Air Services Transit Agreement and the International Air Transport Agreement), revealed the difficulties in achieving the result regarding the more strictly economic aspects [6].

Moreover, if we consider that – unlike the principle of freedom recognized in maritime navigation – the Chicago Convention of 1944 (based on what had already been acquired at the Paris meeting of 1919) identified the sovereignty of the airspace of individual States as an inalienable principle [7].

*Roman Law*, in *Air Law Review*, 1931, 2, p. 455; J.C. Cooper, *Roman Law and the Maxim "Cuiuest solum"*, in *International Air Law*, Montreal, McGill, 1952; J.F. Lycklama Nijeholt, *Air sovereignty*, 1910, p. 22.

[4] This consideration could be evident if we remember that in those years, many relevant innovations emerged (such as cars, consumer electricity, communications, etc.). On the other hand, some scholars had clearly understood the benefits that the aircraft would have been able to carry on (see on this aspect S.E. Baldwin, *The Law of Airship*, in *American Journal of International Law*, 4, 1910, p. 101).

[5] J.C. Cooper, *Air Transport and World Organization*, cit., p. 1206.

[6] The two separate texts were based on the so-called "five freedoms of the air" as multilateral permits under Article 6 of the Chicago Convention authorizing (the Transit Agreement) certain privileges of flight over and landing for refueling in the territory of accepting States but that do not constitute rights and, on the other and allowing certain commercial privileges (the Transport Agreement). With these Agreements, air transport would have been able to overcome difficulties related to the legal right of any State to prevent the establishment of world air trade routes through its territory (principle of sovereignty). It is important to underline that the Transport Agreement, heavily supported by the United States, aimed to enhance all the five freedoms, including the commercial ones, contains no provision for rate control or limitation of capacity and frequencies but does include other constraints such as route and airports to be used in national territory as well as in the operation of through services "due consideration shall be given to the interests of the other contracting States so as not to interfere unduly with their regional services or to hamper the development of their through services". On this argument, see M. Milde, *International air law and ICAO*, 2008, p. 105.

[7] See *supra* nt. 1.

In 1944, therefore, civil aviation began on these two foundations:

– uniformity of efforts from a technical point of view

– Assert sovereignty over airspace

At the same time, however, the implementation of air freedoms (at least for the economic part) still required the achievement of agreements at the state level, becoming a matter on which the attempt at a multilateral approach of the Chicago Convention had not had positive effects [8].

Hence, the development of bilateral agreements between the States, which, through negotiations, identified routes, carriers, technical capacities, etc., to start aeronautical connections [9].

In other words, the State established the framework within which air transport could operate, providing airlines with a space for subsequent intervention primarily related to practical issues.

Therefore, the regulation of economic issues (tariffs, etc.) remained in the

[8] Having set aside the Chicago Convention, the economic issues of air transport have had the consequences of leaving State-air carrier relations the task of dealing with them. Air transport – especially at an early stage of development - requires investment in manufacturers, aircraft, infrastructure (airports), and other facilities such as air traffic control services that must be developed at high initial cost by the stakeholders concerned (mainly States and air carriers). Clearly, the airline aims to be "ensured" on the return of the investment and – at the same time, States would foster their respective civil aviation industries. This specific combination of different interests – at the dawn of air transport – has led the stakeholders (carriers and States) to focus on the so-called "scheduled air services". This situation – as rightly highlighted (see B. Cheng, *Studies in International Air Law. Selected works of Bin Cheng*, edited by Chia-Jui Cheng, 2018, p. 84), pointed out the necessity to give a constructive answer to some questions: (*a) To what extent should foreign airlines be permitted to enter a country and operate there commercially? (b) On a route which a foreign airline has been granted permission to operate commercially, how much of the traffic (that is to say, passengers, mail and cargo) along that route should it be allowed to carry? And (c) What are the fares and tariffs which the foreign airline should charge?*

[9] The history of the content and evolution of bilateral agreements would deserve specific attention beyond this paper's purpose. For a general overview of the mentioned topic, see B. Cheng, *The Law Of International Air Transport*, 1962, p. 231. For a critical and evolutionary approach see S. Diamond, *The Bermuda Agreement Revisited: A Look at the Past, Present and Future of Bilateral Air Transport Agreements*, in *Journal of Air Law and Commerce*, 41 (1975), p. 419; O. Lissitzyn, *Bilateral Agreements on Air Transport*, in *Journal of Air Law and Commerce*, 30 (1964), p. 248; H. Lowenfeld, *CAB v. KLM: Bermuda at Bay*, in *Air Law*, 1, 1975, p. 3), H.A. Jones, T*he Equation of Aviation Policy*, in *Journal of Air Law and Commerce*, 27 (1960), p. 243, A.W. Stoffel, *American Bilateral Air Transport Agreements on the Threshold of the Jet Transport Age,* in *Journal of Air Law and Commerce*, 26 (1959), p. 134; E. Turco Bulgherini, *La disciplina giuridica degli accordi aerei bilaterali*, Padova, 1984, *passim*.

background, leaving it to the operators to organize themselves as they did with the birth of IATA [10].

From 1945 to 1980, civil aviation operated globally based on these assumptions, which included a rather specific fact.

If, indeed, on the one hand, the States had affirmed the principle of sovereignty over the airspace, on the other hand, the activity of air transport – with some notable exceptions – remained a largely State "fact".

In fact, the three core components of air transport were under State control (with some exceptions), either directly or indirectly, wholly or partly, but always decisively: airlines, airports, and air navigation control services.

The picture began to change at the end of the 1970s when a significant de-regulation [11] action was initiated from the United States, which eventually migrated to Europe at the end of the 1980s. The creation of the European single market [12], the Maastricht Treaty in particular, significantly boosted the project of liberalizing air transport in Europe, which started with the regulations of the early 1990s and culminated with Reg. 1008/2008 [13].

[10] The failure to deal with the economic issues in the Chicago Convention and in particular, the no-agreement on the set up of international authority able to fix also routes, frequencies, capacity and rates, has left to airline the task. See W.W. Koffler, *IATA: It's legal structure. A critical review*, in *Journal of Air Law and Commerce*, 32, 2, 1966, p. 223, according to whom "*IATA was conceived at Chicago, nurtured at Havana, born at Montreal and emancipated at Bermuda. It was at Bermuda that IATA received the rate-making authority which it continues to exercise today*".

[11] On the de-regulation of air transport see the fundamental contribution by A.E. Kahn, *The economics of regulation 2*, New York, Wiley, 1971; ID. *Airline Deregulation*, in *The Concise Encyclopaedia of Economics*, Library of Economics and Liberty; Id., *The Changing Environment of International Air Commerce*, in *Air Law*, vol. 3, n. 3, 1978a; Id., *Deregulation of Air Transportation – Getting from Here to There, Regulating Business: The Search for an Optimum,* San Francisco, CA: Institute for Contemporary Studies, 1978b; Id., Statement of A.E. Kahn before the Aviation Subcommittee of the House Public Works and Transportation Committee on H.R. 11145, 95th Cong. 2d Sess. 8 (6 March 1978); Aviation Regulatory Reform, Hearings before the Subcommittee on Aviation of the House Committee on Public Works and Transportation, 95th Cong. 2d Sess. 124 (1978c); Id., *Surprises from Deregulation*, in *AEA Papers and Proceedings*, 78, 1988. For a general overview and wider references see P.S. Dempsey, A.R. Goet, *Airline deregulation and laissez-faire mythology*, London, 1992, p. 12 and S. Truxal, *Competition and Regulation in the Airline Industry. Puppets in chaos*, London, 2012, p. 44.

[12] Cf. B. Adkins, *Air Transport and E.C. Competition Law*, London: Sweet and Maxwell, European Competition Law Monographs, 2001, p. 1; J. Balfour, *European Community Air Law*, Butterworths, London, 1995.

[13] Regulation (EC) No. 1008/2008 of the European Parliament and of the Council of 24 Sep-

However, it is clear that both in the United States and Europe, liberalization and deregulation had to take into account the existing legal and economic structures, making the process of opening up to more liberal approaches in air transport gradual.

Leaving aside the American experience and all others in the world, there is no doubt that the air transport system in Europe has now reached a significant degree of maturity, where the principles of competition and liberalization, as well as those of fairness, are fully implemented [14].

Referring to another source for a broader and more considered reflection, it certainly cannot escape the interpreter and the observer that air transport – from a global perspective – has undergone an evolution that can be summarized in this way.

We have moved from an initial phase in which the central theme was international connections (hence the bilateral agreements between States) to a phase in which air transport has progressively taken on a more markedly macro-regional relevance also for connections within the individual State and can satisfy mobility needs that were not even remotely imaginable before [15].

tember 2008 on Common Rules for the Operation of Air Services in the Community, OJ L 293 of 31 October 2008. See also P. Mendes de Leon, *Introduction to Air Law*, 10th edn, Kluwer Law International, 2017, p. 102 and M. Colangelo, V. Zeno-Zencovich, *Introduction to European Transport Law*, 3rd ed, Roma, 2019, p. 34.

[14] It seems worth saying that the aviation industry and air transport have absorbed and implemented different "steps" that regulatory impulses have prompted. From a historical perspective, we moved from the de-regulation (the 1970s) to safety (1980s), and competition (1990s-2010s), including the relevance – in terms of impact on the business model of airlines – of passengers' protection to the environment and new technologies (2010s-onwards). For a broader exam, see R. Abeyratne, *Competition and Investment in Air Transport Legal and Economic Issues*, 2016, p. 6; S. Truxal, *Competition and Regulation in the Airline Industry. Puppets in chaos*, cit., p. 159; P. Belobaba, A. Odoni, C. Barnhart, *The Global Airline Industry*, John Wiley & Sons, 2009, p. 47; R. Doganis, *The Airline Business in the 21st Century*, London: Routledge, 2001, *passim*; Id., *The Airline Business in the 21st Century*, 2nd ed., London, Routledge, 2006; Id., *Flying Off Course: The Economics of International Airlines*, 4th ed., London, Routledge, 2010, p*assim*; C. Findlay, D. Round, *The "Three Pillars of Stagnation": Challenges for Air Transport Reform*, in *World Trade Review*, 5(2), 2006, p. 251; P. Forsyth, D. Gillen, O.G. Mayer, H. Niemeier (eds), *Competition versus Predation in Aviation Markets: A Survey of Experience in North America, Europe and Australia*, Aldershot: Ashgate, 2005, *passim*; D. Starkie, *Airports and Airlines and the Role of Competition and Regulation Aviation Markets*, in *Studies in Competition and Regulatory*, Aldershot, Ashgate, 2008, *passim*.

[15] G. Williams, *The Airline Industry and the Impact of Deregulation*, Aldershot: Ashgate, 1993; ID. *Airline Competition: Deregulation's Mixed Legacy*, Aldershot, Ashgate, 2002; ID., *Comparing the*

Europe has progressively built a model of civil aviation that has no other comparable system in the world, where, in compliance with the principle of national sovereignty and within the framework of the founding Treaties, the European Union negotiates traffic agreements with non-EU states [16], where the concept of "European Carrier" [17] capable of implementing all air freedoms by overcoming the principle of "cabotage" [18] was born, where the principle of freedom in the determination of fares is in force and where, among other things, the phenomenon of low-cost carriers has reached particularly remarkable dimensions and levels of service (also based on critical jurisprudential precedents of the EU Court of Justice), where, finally, there are high levels of competition between the carriers themselves [19].

*Economic and Operating Characteristics of Charter and Low-cost Scheduled Airlines'*, in J.F. O'Connell and G. Williams (eds), *Air Transport in the 21st Century: Key Strategic Developments*, Farnham, Ashgate, 2011; P. Belobaba, A. Odoni, C. Barnhart, *The Global Airline Industry*, cit., p. 55.

[16] K.Button, *The impact of US-EU "Open Skies" agreement on airline market structures and airline networks*, in 15 *Journal of Air Transport Management*, 59, 2009, p. 60; B. F. Havel, *Beyond Open Skies. A New Regime for International Aviation*, Alphen aan den Rijn, 10, 2009, p. 417; A. Kotaite, *Legal aspects of the inter- national regulation of civil aviation*, in *XX Annals of Air and Space Law*, 9, 1995, p. 12; K.H. Böckstiegel, *Current challenges in the legal regulation of civil aviation*, in *XX Annals of Air and Space Law*, 135, 1995, p. 135.

[17] ICAO, Liberalizing Air Carrier Ownership and Control, presented by the Secretariat at the Worldwide Air Transport Conference: Challenges and Opportunity of Liberalization, ATConf/5-WP/7, at paragraph 3.2 (October 21, 2002). See also ICAO, Economic Commission, Tourism and air transport liberalization, presented by the World Tourism Organization (UNWTO) to ICAO Assembly's 36th Session, A36-WP/102 EC/12, at paragraph 3.1 (August 24, 2007).

[18] W.M. Sheenan, *Air Cabotage and the Chicago Convention*, in Harvard Law Review, 63, May 1950, p. 1157.

[19] See for a wider analysis F. Gaspari, T*he EU Air Transport Liberalization and Re-regulation*, in *International and Comparative Law Review*, 2011, Vol. 11., No. 2, p. 13; J. Balfour, *EC external aviation relations: the Community's increasing role, and the new EC/ US agreement*, in *Common market Law Review*, 2008, p. 443; S. Zunarelli and M.M. Comenale Pinto, *Manuale di diritto della navigazione e dei trasporti*, Padova, 2009, p. 15; .F. Ebke, G.W. Wenglorz, *Liberalizing Scheduled Air Transport Within the European Community: From the First Phase to the Second and Beyond*, Den. J. Int.l L. & Pol'y, 19, 494, 1991, p 507; A. Loewenstein, *European Air Law: Towards a new system of International Air Transport Regulation*, Baden-Baden, 1991, p. 58; M.F. Scharpenseel, C*onsequences of E.U. Airline Deregulation in the context of the Global Aviation Market*, in *Northwestern Journal of International Law and Business*, 22, 2001, p. 102; J.R. Platt, *The Creation of a Community Cabotage Area in the E.U. and its implications for the U.S. Bilateral Aviation System*, in Air and Space Law, 17, 1992, p. 183; P.S. Dempsey, *European Aviation Law*, The Hague, 2004, p. 52; A.K-J. Tan, *Liberalizing Aviation in the Asia-Pacific Region: The Impact of the EU Horizontal Mandate*, in *Air &Space*

However, the evolution of the regulatory framework has not always been equally rapid.

If, in fact, in the field of safety, security, ground handling services, airport taxes, new technologies (drones and AI), traffic control services, the European Union has shown itself to be particularly avant-garde and to become a benchmark at a global level, some regulatory frameworks remain linked to another temporal dimension such as, for example, that of passenger assistance (reg. 261/2004) as well as that for which this work is based, i.e., the regulation of airport slots [20].

It is also true, however, that to a large extent and net of the exogenous shocks (the terrorist attack of 11 September 2001 for security, incidents such as Linate and Uberlingen in 2001 and 2002 [21] for safety) that pushed for regulatory adaptation, the side of the discipline just mentioned has remained immune to the impetuous changes that have affected – even if we only want to consider the last twenty years – air transport.

Looking at the data [22], it is impossible not to agree that in the past two decades, the air transport market has experienced unstoppable growth. This growth has created many issues (along with opportunities for related economic and social sectors), including congestion of airspace, infrastructure, connection planning, and the inability to find a workforce capable of meeting the ever-increasing demand.

*Law*, 31, November 2006, p. 443. See also the critical point of view in relation to EU-US relation, D.E. Pitfield, *The assessment of the EU-US Open Skies Agreement: The counterfactual and other difficulties*, in *Journal of Air Transport Management*, 15, 2009, p. 308.

[20] It could be worth highlighting how, in parallel with the evolution of the air transport environment, the regulatory landscape has not adapted, leaving out those areas that seem as critical as the origin showed. For these reasons, we had a bifurcation of the legislation (on the one hand, able to cope with the evolution and increase of air transport demand while, on the other hand, remaining grounded in the past) that could be considered viable in the first years, that could sound not correctly after decades.

[21] For an explanation of the events and for a critical as well as modern approach to the issue of safety see F. Pellegrino, *The Just Culture Principles in Aviation Law Towards a Safety-Oriented Approach*, Springer, 2019, pp. 86-89.

[22] In this sense, data (https://www.eurocontrol.int/our-data) showed a constant increase in air transport growth over the years (https://ec.europa.eu/eurostat/databrowser/product/page/AVIA_GOR_AT). Statistics also highlighted how the number of passengers in Europe moved from 47 million in 1970 to 750 million in 2019 (https://ourworldindata.org/grapher/air-passengers-carried?tab=chart&region=Europe&country=European+Union~OWID_EU27).

Here, then, is the need to consider—in perspective—the further evolution, primarily dictated by new technologies and environmental goals [23], and the repercussions that it may have on regulatory frameworks designed for another era and for another ecosystem of air transport. These leverages will probably reshape the dimension of air transport, highlighting the relevance of its regional dimension, where free market rules are applied, and the above targets are already part of the legislation.

[23] From different sides in Europe has been stressed the necessity to deal with the constant growth (and future one) of air transport demand along with several "bottlenecks" as well as new targets set up at European level and even at international one. For further reading see European Court of Auditors Special Report Number 18 on the "*Single European Sky: a changed culture but not a single sky*", https://eca.europa.eu/Lists/ECADocuments/SR17_18/SR_SES_EN.pdf, 2017; European Court of Auditors Special Report Number 11 on "*The EU's regulation for the modernisation of air traffic management has added value – but the funding was largely unnecessary*", https://www.eca.europa.eu/Lists/ECADocuments/SR19_11/SR_SESAR_DEPLOYMENT_EN.pdf, 2019; "*A proposal for the future architecture of the European Airspace*", SESAR, https://www.sesarju.eu/node/3253, 2019; *Report of the Wise Persons Group on the future of the Single European Sky*, https://ec.europa.eu/transport/sites/transport/files/2019-04-report-of-the-wise-persons-group-on-the-future-of-the-single-european-sky.pdf, April 2019; *Study on Data Services provision carried out by Steer Davies Gleeve on behalf of the European Commission*, DG MOVE, ongoing; "*A high-level vision for achieving the Single European Sky*", https://ec.europa.eu/transport/sites/transport/files/modes/air/single_european_sky/doc/icb/2015-01-22-icb-high-level -vision-for-achieving-ses.pdf, Industry Consultation Body, January 2015 and "*ICB Vision for a Single European Sky* (2nd edition), July 2019; *European Aviation Environmental Report 2019 and its update on ATM*, https://www.easa.europa.eu/eaer/system/files/usr_uploaded/219473_EASA_EAER_2019_WEB_LOW-RES.pdf, March 2020; *Joint stakeholder declaration on future of the Single European Sky*, https://ec.europa.eu/transport/sites/transport/files/2019-09-high-level-conference-future-of-ses-declaration.pdf, September 2019; A. Masutti, *Single European Sky - a possible regulatory framework for System Wide Information Management (SWIM)*, in *Air and Space Law*, Volume 36, Issue 4/5 (2011) p. 275; EUROCONTROL Think Paper n. 21, 22nd August 2023, *The challenge of long-haul flight decarbonisation: When can cutting-edge energies and technologies make a diffference*?; EUROCONTROL Think Paper n. 18, 06th September 2022, *One size fit all – A common unit rate for Europe*?, www.eurocontrol.int; EUROCONTROL and EASA, *Five Pillars for a Green Single European Sky, Joint no-Paper* (2021), www.eurocontrol.int; R. ABEYRATNE, *Aviation and Climate Change. In Search of a Global Market Based Measure*, Springer, 2014, p. 119; L. Budd, S. Griggs, D. Howarth (eds), *Sustainable Aviation Fuels*, Transport and Sustainability Series Editors by Stephen Ison and Jon Shaw, Emerald Group Publishing Limited, 2013, p. 3 R. V. Pilon, *Artificial Intelligence in Commercial Aviation Use Cases and Emerging Strategies*, Routledge, 2024, p. 9. See also the EASA Environmental Report 2022, available at https://www.easa.europa.eu/eco/sites/default/files/2023-02/230217_EASA%20EAER%202022.pdf.

2. – Focusing on the European context, although similar assessments can be conducted in other parts of the world, it is generally accepted that the concerns following the Second World War led the States at the Chicago meeting to be particularly cautious. As a result, the opportunity to assert the principle of airspace sovereignty assertively has now largely receded into the background.

The constant development of air transport, its objective benefits from a social and economic perspective, its vital role in meeting mobility needs traditionally linked to older modes (maritime transport), and its function as one of the drivers of globalisation seem to emphasise the economic aspect over the purely political one.

The consistent rise in air travel demand has changed the locations and routines of hundreds of millions of people.

There is no doubt about the development of air transport when we only consider the last forty years.

Statistics say that the recovery after the 2008 financial crisis led to a new record high of 9.25 million flights in 2019 at EU27+EFTA airports, according to data [24]. Passenger numbers peaked in 2019, with over 800 million passengers flying from EU27+EFTA airports. Increased flights drove this passenger growth, the use of larger aircraft, and a record load factor of 83.3% [25].

According to EUROCONTROL Forecast 2024-2030 [26], the forecast for

[24] A wider data analysis can be seen in the EASA Data Collection at https://www.easa.europa.eu/eco/eaer/topics/overview-aviation-sector/air-traffic#flights-peaked-in-2019-prior-to-covid-19-and-recovered.

[25] See the data provided by EUROCONTROL in the document "Challenges of Growth 2018", edited in 2019 and available at https://www.eurocontrol.int/sites/default/files/2019-07/challenges-of-growth-2018-annex1_0.pdf.

[26] For 2024, the expected number of flights in ECAC is 10.7 million, reflecting growth of 5.1% (±0.7 pp) compared to 2023 (96% of 2019 levels). This is broadly in line with the February 2024 traffic forecast at the network level. Many States, particularly in the Southeast, are experiencing significantly higher recovery rates. For 2025, traffic is expected to grow by 3.7% (±1.7 pp), reaching 11.1 million flights. This reflects the 2024 outturn, an improved economic outlook, and optimistic airline schedules for winter 2024-2025. Overall, traffic should return to pre-pandemic levels but with notable local variation. Beyond 2025, average annual flight growth is expected to be +2.0% (±1.5 pp), reaching over 12 million flights by 2030 in the base scenario. These growth projections remain stable compared to the previous forecast. For the States involved in the SES Performance Scheme, flight growth is expected to average 2.3% annually (±1.5 pp) between 2025 and 2029 (RP4), representing a slight upward revision from the February 2024 forecast. See in this

2050 includes three scenarios for how Europe and European aviation might develop. In the most likely 'base' scenario, flights recover from COVID-19 lows and gradually grow towards 12.2 million flights at EU27+EFTA airports by 2050. This is a historically low average annual growth of 0.9% between 2019 and 2050.

In 2019, the number of city pairs served increased 51% since 2005 to 8,161. Since flight growth was only 15% over the same period, this implies that many lower-frequency connections were added to the network.

The growth of air transport is also reflected in airport usage. The proportion of flights at EU27+EFTA airports arriving during night hours (23:00 to 06:59) has steadily increased to match the proportion of night departures, reaching 5.3% of total airport movements in 2019. Practically, this translates to 240,000 additional night arrivals in 2019 compared to 2005, driven by the increase in air traffic over this period.

EUROCONTROL estimates that for Europe as a whole, the Regulation and Growth scenario (most likely) will have 16.2 million flights in 2040, which is 53% more than in 2017. That is a 1.9% average annual growth per year over the 2017-2040 period, a slower growth rate than before 2008. Indeed, over the 20 years before the economic crisis, the number of IFR movements in Europe doubled from 5 million IFR movements in 1988 to 10 million in 2008 [27].

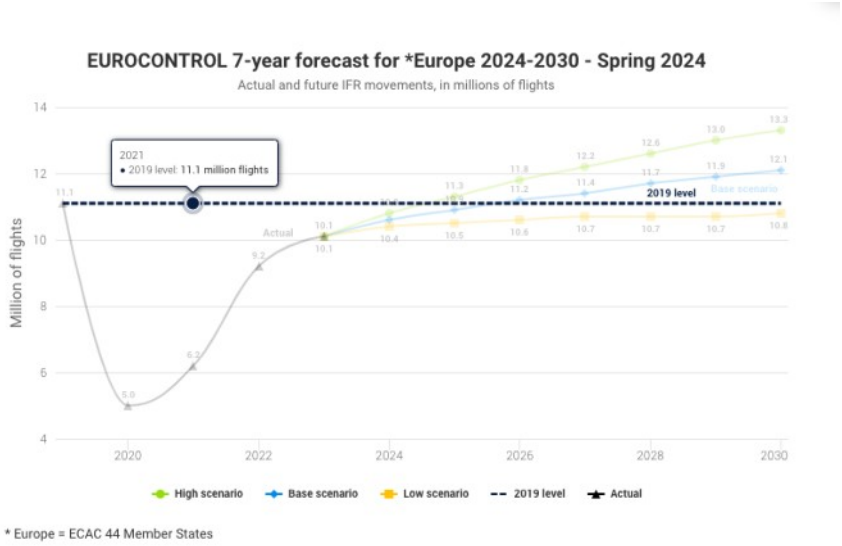
At the ECAC level, the number of flights is expected to reach 10.6 million in 2024, reflecting a growth of 4.9% (±2.3pp) compared to 2023 and representing 96% of 2019 levels. This trend is projected to persist, increasing to 10.9 million (99%) in 2025 and further to 11.2 million (101%) by 2026.

Beyond 2025, flight growth is expected to average 2.0%/year (±1.4pp) and, in the base scenario, reach over 12 million flights in 2030 [28].

sense the EUROCONTROL Forecast 2024-2024(https://www.eurocontrol.int/publication/eurocontrol-forecast-2024-2030-autumn-update).

[27] See EUROCONTROL Forecast 2024-2023, available at https://www.eurocontrol.int/publication/eurocontrol-forecast-2024-2030-autumn-update).

[28] See EUROCONTROL Forecast 2024-2023, cit.




Within the European Union, aviation supports 5.1 million jobs and contributes more than €365 billion, or 2.4%, to the European GDP. This remains a growth area where the expansion is estimated to be 5% annually until 2030 [29].

The evidence of the numbers clearly shows the essential role of air transport, which will continue – even in the future – to be a significant part of our lives.

3. – The figures mentioned above highlight a number of problems that, particularly in Europe, have been felt for about twenty years.

Now, if any congestion in a given port can be resolved by the ship by mooring at anchor with repercussions only on the economic side of the contractual relationship deriving from the delay with which the embarkation/disembarkation and loading/unloading operations will be carried out, without affecting the safety of operations, for air transport the situation is entirely different [30].

[29] See the considerations made by European Commission and availlable at https://transport.ec.europa.eu/transport-modes/air/internal-market.en

[30] From an operational perspective and related issues see P. Goedeking, *Networks in Aviation Strategies and Structures*, Springer, 2010, p. 65.

Once the aircraft has taken off, it must inevitably land, and all activities must be conducted safely, as it should be noted that the air transport contract includes both the obligation to move passengers or cargo from one place to another and to do so safely.

Several factors, including infrastructure (airport), air traffic control services, and the availability of airspace for safe navigation, are necessary to carry out these activities.

The airport slot is essential in this complex process. Practically, it enables the airline to utilise the airport infrastructure and, consequently, meet its obligations.

Since the Second World War, civil aviation has experienced a period of prolonged and steady growth; passengers and cargo transported by air have increased year after year, as well as the digit of airlines that entered the market. Whereas the industry can replace aircraft, providing new models, and passengers can grow as well, on the other hand, aviation has always had to deal with a limited resource: the airports [31].

The right to fly domestic air routes and, in doing so, to serve airports is mainly covered by domestic legislation, and the right to fly international air routes has been left to bilateral agreements at the State level [32]. Usually, the domestic legislation, a part of the European Union Regulation and the United States Federal Aviation Act, does not refer to airport slot allocation.

At the international level and according to the ICAO Convention, Art. 15 [33] refers to the use of airports, avoiding mentioning airport slots in a spe-

[31] For a relevant study on airport infrastructure and management see A. Graham, *Managing Airports. An International Perspective*, Routledge, London, 2018, p. 117; H. Vogel, *Airport privatisation: ownership structure and financial performance of European commercial airports*, in *Competition and Regulation in Network Industries*, 2006, 1(2), p. 142; E. Pels, P. Nijkamp, P. Rietveld, *Inefficiencies and scale economies of European airport operations*, in *Transportation Research Part E*, 2003, 39(5): p. 341; S. Busti, E. Signorini, G.R. Simoncini (eds), *L'impresa aeroportuale a dieci anni dalla riforma del codice della navigazione: stato dell'arte*. Atti del Convegno Bergamo, 13 novembre 2015, Giappichelli, 2016; C. Ingratoci, *La concessione aeroportuale: uno strumento ancora attuale?*, in *Riv. Dir. Nav.*, 2018, I, p. 133.

[32] See supra par. 1.

[33] According to art. 15 of the Chicago Convention, "Every airport in a contracting State which is open to public use by its national aircraft shall likewise, subject to the provisions of Article 68, be open under uniform conditions to the aircraft of all the other contracting States. The like uniform conditions shall apply to the use, by aircraft of every contracting State, of all air navigation facilities,

cific manner, although it is well recognized that the use of airports means the use of slots.

Despite the opening of new ones and the shifting from military to civil use by some of them, airports remain a scarce resource, especially in areas close to the larger cities where there is a massive demand for air transport. This fact has historically led to a situation of congestion at airports where airlines compete for the diminishing capacity available [34].

The scarcity of this type of resource determines its use, and it must be allocated following specific regulations. The solution to this issue has been found in developing the concept of "slot" and its related "procedure for allocation."

From a legal perspective, the slot is generally defined as an amount to the right to use a runway at a specified time on a specified day [35].

including radio and meteorological services, which may be provided for public use for the safety and expedition of air navigation. Any charges that may be imposed or permitted to be imposed by a contracting State for the use of such airports and air navigation facilities by the aircraft of any other contracting State shall not be higher, (a) As to aircraft not engaged in scheduled international air services, than those that would be paid by its national aircraft of the same class engaged in similar operations, and (b) As to aircraft engaged in scheduled international air services, than those that would be paid by its national aircraft engaged in similar international air services. All such charges shall be published and communicated to the International Civil Aviation Organization: provided that, upon representation by an interested contracting State, the charges imposed for the use of airports and other facilities shall be subject to review by the Council, which shall report and make recommendations thereon for the consideration of the State or States concerned. No fees, dues or other charges shall be imposed by any contracting State in respect solely of the right of transit over or entry into or exit from its territory of any aircraft of a contracting State or persons or property thereon". For a comment on this specific provision see R. Abeyratne, *Convention on International Civil Aviation. A Commentary,* cit., p. 227; Id., *Revenue and investment management of privatized airports and air navigation services: a regulatory perspective*, in *Journal of Air Transport Managemen*t, 2001, 7, p. 217.

[34] The theme related to the use of aviation infrastructure has wide explored by literature. See C. Winston, G. De Rus (eds), *Aviation Infrastructure Performance A Study in Comparative Political Economy*, The Brooking Institutions, 2008, p. 36; R. Macário, E. Van De Voorde (eds), *Contemporary Issue in Air Transport, The Air Transportation Industry. Economic Conflict and Competition*, Elsevier, 2022, p. 171; A. Wittmer, T. Bieger, R.Muller (eds), *Aviation Systems Management of the Integrated Aviation Value Chain*, Springer, 2011, p. 83; M. Ivanova, *Air Transport – Tourism Nexus: A Destination Management Perspective*, Zangador, 2017, p. 116.

[35] See European Economic Community, COM (90) 576 final, presented for first reading on the 18.12.1990 (OJ EC 91/C 43/04). Article 2(a) of EU Regulation 95/93, provides the following definition: "[A] "slot" shall mean the permission given by a coordinator in accordance with this Regulation to use the full range of airport infrastructure necessary to operate an air service at a co-

According to the IATA Worldwide Airport Slot Guidelines [36], the international reference document for slot coordination, an airport slot inhabits:

"[...] the permission given by a coordinator for a planned operation to use the full range of airport infrastructure necessary to arrive or depart at a Level 3 airport on a specific date and time".

From the legal definition—at a different level—airport slots could be used and exploited, but this does not prevent them from being considered public goods.

Beyond the legal definition set at different levels [37], it is important to highlight that an airport slot allows an air carrier to perform its essential obligation and can also be considered a relevant asset for the airline itself [38].

Still, there is no doubt that in many cases, the availability and type of slots – especially in some congested airports – constitute one of the determining

ordinated airport on a specific date and time for the purpose of landing or take-off as allocated by a coordinator in accordance with this Regulation". See also M.P. Rizzo, *L'utilizzo della infrastruttura aeroportuale: slot allocation,* in this Rivista, 2026, p. 121; M. Deiana, *Riflessioni sulla slot allocation*, in *Studi Economico-giuridici* – Facoltà di Giurisprudenza, 2005-2008, LXI. Napoli, 2009, p. 173; K. Bernauw, *Airport/Airspace Congestion and Slot Allocation*, in XXVIII *European Transport Law*, 1993, p. 19; K. Bouckaert, *Airport and en Route Slot Allocation*, in *Eur. Transp. Law*, 1993, p. 77; K. Brecke, A*irport Slot Allocation: Quo Vadis, EU?*, in *Air and Space Law*, 36, no. 3 (2011), p. 183; F. Gaspari, *Il diritto della concorrenza nel trasporto aereo. La slot allocation*, Giappichelli, Torino, 2012 (*ibi* for a wider scientific literature); P.G. Bellan, *Slot allocation: problematiche giuridiche*, in G. Silingardi, A. Antonini, B. Franchi, (a cura di), *L'attività di trasporto aereo dopo la liberalizzazione del cabotaggio* (atti del Convegno, Modena, 4 aprile 1997), 1998, p. 53; A. Marino, *Riparto Stato-Regione della potestà legislativa in materia di "trasporto aereo", coordinamento aeroportuale e concessioni di gestione aeroportuale (nota a C. cost. 30 gennaio 2009 n. 18)*, in *Dir. trasp.*, 2009, p. 438.; M.P. Rizzo, *Considerazioni a margine della disciplina dell'attività di coordinamento aeroportuale*, in *Studi in onore di Claudio Zanghì*, a cura di Lina Panella ed Ersilisagrazia Spatafora, Torino, 2011, p. 345.

[36] See International Air Transport Association (IATA), Worldwide Slot Guidelines (WSG) Edition 3 (2023). According to IATA, "the Worldwide Airport Slot Guidelines (WASG) are the foundation of the global slot coordination process. The WASG is jointly published by IATA, Airports Council International (ACI) and the Worldwide Airport Coordinators Group (WWACG). The WASG is built on the pillars of transparency, flexibility, certainty, consistency, and sustainability. Thanks to continual update and revision, the WASG represents the globally accepted best practice and ensures that slots at coordinated airports are neutrally and fairly allocated to airlines using consistent policies, principles, and processes". See the document on the IATA website at https://www.iata.org/en/programs/ops-infra/slots/slot-guidelines/.

[37] See *infra* par. 4.

[38] See B. Vasigh, K. Fleming, and B. Humphreys, *Foundations of Airline Finance Methodology and practice*, Second edition, Routledge, 2015, p. 335.

factors in the economic success of the company itself and, at the same time, is capable of excluding specific competitors who, perhaps also because of this barrier, have been forced to orient their choices towards other terminals [39].

4. – As has been said, the 1944 Chicago Convention does not address the slots issue but contains a simple provision (Article 15) regarding the use of airport infrastructure [40].

In fact, as already mentioned, at that time, air transport activity was not only a strictly national matter but, at the same time, it did not occur on such a scale as to create problems and opportunities surrounding this specific issue.

That situation fully justified the validity of the "first come, first served" rule [41].

However, already at the end of the 60s in the United States, the problem of airport congestion began to arise, and in some airports in North America (Chicago, New York, and Washington areas-specifically John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA), Newark International Airport (EWR), Chicago O'Hare International Airport (ORD), and Washington National Airport (DCA) [42].

[39] K. Boyfield, D. Starkie, T. Bass, B. Humphreys (eds), *A Market in Airport Slots*, The Institute of Economic Affairs, 2003, p. 80.

[40] See *supra* par. 3.

[41] The theme of the "first-come, first-served" rule has different grounds, from socio-ethical considerations to economic ones that law, and regulations have acquired to their knowledge. Moreover, this rule tries to regulate the allocation of scarce resources, rationalizing the "waiting time" according to moral criteria. As it has been considered, "(…) many people seem to regard waiting time or one's place in a queue as morally relevant to one's claim to a resource. "Queue jumping" or "cutting in line" elicits moral disapproval. At the same time, the assertion "I was here first" is commonly advanced as a putative justification for having a greater claim to a good or getting the good first. (See T.M. John, J. Millum, *First Come, First Served?*, in *Ethics*, 130, January 2020, p. 180, The University of Chicago Press). See also I. Sened, W.H. Riker, *Common Property and Private Property: The Case of Air Slots*, in *Journal of Theoretical Politics*, vol. 4, n. 4, 1996, p. 427. For a critique of this rule in the context of aviation and space activities, see J. Sik Jung, *The Origin of Injustice in Air and Space Law. De Facto Property Rights by Virtue of the "First Come, First Served" Rule*, Mindegap Publishing, 2015, p. 64.

[42] At that time, and to reduce the congestion in the affected airports, the United States Federal Aviation Administration proposed special air traffic rules that would apply to certain airports, which it designated as high-density airports. These rules proposed to limit the number of Instrument Flight Rule (IFR) operations (takeoff and landings) permitted per hour and to require that each operation be supported by a "slot". The FAA proposed to allocate the hourly IFR reservations or "slots" among three classes of users-scheduled air carriers (except air taxis), scheduled air taxis,

The reaction to such an – and unpredictable (?) – situation was to apply a slot allocation mechanism at these airports to rationalize the flow of incoming and outgoing traffic flow.

The US legislation [43] established during the '70 and '80 set up the following key points [44] that are still valid:

a. *acknowledgment of the incumbent carrier* (e.g., grandfather's rule [45]);
b. *slot distinction* (international routes and essential/emergency services);
c. *slot allocation procedure* (new entrant, withdrawn, use-lose-it rule);
d. *slot transferability.*
e. *granted immunity from antitrust policy.*

These results were then adopted, with some modifications, also in Europe with Regulation 95/93 [46].

and all other aircraft operators. These classifications were originally described primarily by reference to the carriers' economic authority. This area at the time was within the primary jurisdiction of the Civil Aviation Board rather than the FAA. For further reading see E.M. Gleimer, *Slot Regulation at High Density Airports: How Did We Get Here and Where Are We Going*, in *Journal of Air Law and Commerce*, 1996, vol. 61, n. 4, p. 869.

[43] M.E. Levine, *The U.S. Experience with Slot Allocation*, in *Eur. Transp. Law*, 1993, p. 69.

[44] E.M. Gleimer, *Slot Regulation at High Density Airports: How Did We Get Here and Where Are We Going*, cit., p. 880; A. Svorenčík, *Allocating Airport Slots - The History of Early Applied Experimental Research*, Center for the History of Political Economy at Duke University, Working Paper, No. 2016-31, November 2016, p. 31.

[45] For a wider explanation on this principle see G. Sieg, *Grandfather rights in the market for airport slots*, Economics Department Working Paper Series, No. 4, 2009, Technische Universität Braunschweig, Institut für Volkswirtschaftslehre, Braunschweig, https://nbn-resolving.de/urn:nbn:de:gbv:084-24464.

[46] See M.P. Rizzo, *L'utilizzo della infrastruttura aeroportuale: slot allocation*, cit., p. 140. It could be worth to consider that the necessity to adopt a European legislation in the field of airport slots allocation was consequence of first wave of deregulation and the creation of European air transport market at the end of 1980s. Before that period, air transport in Europe was based on bilateral agreements (for international routes) and on a national flag carrier monopoly for domestic transport. The slot allocation process was delegated to national airline carriers (in this sense, the Italian approach through the Circular n. 2824 of 29th October 1971 issued by the Ministry of Transport – Civil Aviation General Direction. See on this aspect G. Silingardi, D. Maffeo, *Gli slots. Il caso Italia fra esperienza statunitense e comunitaria*, Torino, 1997, p. 62) that was able not only to provide the timeframe but also to determine the airport capacity as well as the clearance function. In other words, the absence of competition in the domestic market and the strict framework for the international one governed by the bilateral agreements did not require – at that time – any necessity to deal with the issue of slot allocation as well as congestion. On the other hand, in the United States, the activities of several air carriers both at domestic and international level, raised the issue of the

What is important to emphasise for the purpose of this work is the fact that the specific legal regime established by the US and mainly reproduced in the EU has sought to balance the effect of grandfather's rule and the position of the incumbent carriers with other measures, considering the assumption that a carrier would not have the incentive to acquire and use a slot merely to preempt another carrier, since the slot-holding carrier could maximise its profits by selling the slot to another carrier offering a highly valued service and thus willing to pay for the slot, as well as recognising the transitory nature of such provisions.

5. – The need to develop a regulatory framework for slot allocation also arises from the fact that newcomers (e.g., new airlines) are keen to exploit market opportunities and, in simple terms, they probably do not want to fly at times when the existing airlines leave slots free for other airspace and landside users.

For these reasons, in 1991, the European Economic Community (EEC) Commission published a proposal for a regulation on common rules for the allocation of slots at EEC airports, which became the Council Regulation (EEC) 95/93 (EC Reg. 95/93, here referred to in the consolidated version) on common rules for the allocation of slots at Community airports [47].

slot allocation over congested airports. The different situation between United States and Europe is highlighted by the fact that in 1967, a proceeding was instituted by the US Civil Aeronautics Board (CAB) to determine whether the congestion problem could be resolved by requiring airlines to use Washington Dulles International Airport in lieu of Washington Reagan Airport. This proceeding was terminated without final action based, in part, on the existence of the voluntary agreement among the airlines and the issuance of the high-density rule which was believed to reduce the congestion at Washington Reagan Airport (See for further explanation E.M. Gleimer, *Slot Regulation at High Density Airports: How Did We Get Here and Where Are We Going*, cit., p. 879). In other terms, it could be suggested that the air transport market in United States at the end of 1960s has brought out the initial issue of congestion in some airports as well as the necessity to regulate the access to the scarce resource as competition among airlines started to rage. A similar situation would have occurred in Europe thirty years later with the construction of the EU air transport market (see S. Truxal, *Competition and Regulation in the Airline Industry. Puppets in chaos*, cit., p. 65).

[47] On the European Union slot allocation regulation see H. De Croo, *Slot Allocation. An Indispensable Evil*, in *Eur. Transp. Law*, 1993, p. 7; P. Haanappell, *Airport Slots and Market Access: Some Basic Notions and Solutions*, in *Air&Space Law*, vol. XIX., 415,1994, p. 198; E. Giemulla, R. Schmid, *Who owns the Time? Legal Problems Regarding Slots - a German View*, in *Air&Space Law*, vol XVII, p. 1, 1992; P. Girardi, C. Coletta, *La nuova ed attuale disciplina dell'assegnazione delle*

The EC 95/93 seeks to establish a set of rules for allocating access to scarce airport infrastructure, defining slots as 'the permission given by a coordinator in accordance with this Regulation to use the full range of airport infrastructure needed to operate an air service at a coordinated airport on a specific date and time for landing or take-off, as allocated by a coordinator under this Regulation' (Art. 2 as amended by EC Regulation 793/2004).

According to EC 95/93, each Member State can designate a coordinated airport as any airport where, to land or take off, an air carrier or other aircraft operator must have been allocated a slot by a coordinator, excluding State flights, emergency landings, and humanitarian flights (Art. 3). To designate a coordinated airport, the State must conduct a capacity analysis, which must meet several criteria such as: i) carriers representing more than half of the air operations at the facility and/or its management deem the capacity insufficient; ii) new airline entrants face significant difficulties in obtaining and securing slots; and iii) no alternative solutions can be identified after consultation with airport stakeholders.

Once the airport coordinator has established (Art. 4) and ensured that he acts independently, neutrally, without discrimination, and transparently, the slot allocation process can be considered.

Essentially, slot allocation is based on straightforward principles. The first is the so-called principle of "use it or lose it" , and the second is the "grandfather rule", which is closely linked to the first.

Under the first principle, slots are allocated for free to carriers, who pay

*bande orarie negli aeroporti comunitari. Normativa e sviluppi dell'applicazione del regolamento (CEE) n. 95/93 del Consiglio del 18 gennaio 1993*, in *Trasporti*, 64/1994, p. 43; C. Pozzi, *Il ritiro dello slot e della serie di slot nel reg. (Cee) n. 95/93*, in *Dir. trasp.*, 1999, p. 475.; F. Bianca, *Appunti sulla natura giuridica degli slots aeroportuali*, in G. Romanelli, L. Tullio (eds), *Spunti di studio su: Aspetti della normativa comunitaria sui servizi aerei*, Cagliari, 1999, p. 139; M. Colangelo, *L'allocazione degli slots. Regole e modelli*, Roma, 2009; D. Gleave, *Impact Assessment of Revisions to Regulation 95/93*, Final Report (Section 1–12). European Commission, March 2011, p. 2. Online. Available HTTP: <http://ec.europa.eu/transport/air/studies/doc/airports/2011-03-impact-assessment-revisions-regulation-95-93.pdf; E. Van Miert, *Slot Allocation as an Instrument for Optimising Airport and en Route Capacity Utilization*, in *Eur. Transp. Law*, 1993, p. 13; L.M. Van Houten, *Flexing the slot regime: airport slot coordination in light of evolving market realities: a regulatory perspective*, (2021, December 16). Retrieved from https://hdl.handle.net/1887/3247125, Leiden University; G. Silingardi, D. Maffeo, *Gli slots. Il caso Italia fra esperienza statunitense e comunitaria*, cit.; M.P. Rizzo, *L'utilizzo della infrastruttura aeroportuale: slot allocation*, cit.

airport charges only upon effective usage of a given slot (Art. 8). If the air carrier has continuously and effectively used a given slot for a season (reference period), it is entitled to claim that slot in the next equivalent season, thus acquiring so-called grandfather rights [48].

In particular, the air carrier can retain the assigned slot if it has used a series of slots for the operation of scheduled and non-scheduled air services, and can demonstrate to the satisfaction of the coordinator that the series of slots has been operated by that air carrier, as cleared by the coordinator, for at least 80% of the time during the scheduling period for which it was allocated.

Unallocated slots are placed into a "slot pool" (Art. 10), with half of these reserved for new entrants who, according to the same regulation, are defined as either an air carrier requesting, as part of a series of slots, a slot at an airport on any day and, if the request is approved, would hold fewer than five slots at that airport on that day; or an operator requesting slots for non-stop service between two EU airports, where at most two other carriers operate direct services between those airports or airport systems on that day and holding or having been allocated fewer than four slots at that airport for that non-stop service (Art. 2).

The remaining slots should be allocated in a 'neutral, nondiscriminatory, and transparent' manner. If it is not possible to meet all demands, preference must be given to commercial air services (at general aviation's expense) and scheduled and programmed non-scheduled operations. In other circumstances, allocation is at the coordinator's discretion.

The EC Reg. 95/93 also states that in certain cases, if an 80% usage of the series of slots cannot be demonstrated, all slots within that series shall be placed in the slot pool unless the non-utilisation can be justified by unforeseeable and unavoidable circumstances outside the air carrier's control. These include grounds such as aircraft grounding, airport or airspace closures, or interruptions caused by actions aimed at affecting these services, which make it practically and/or technically impossible for the air carrier to operate as planned. Additionally, if there is severe financial damage to a Community air carrier, a temporary licence may be granted by licensing authorities pending financial reorganisation, in accordance with Regulation 1008/2008 (Art. 9.1).

[48] See D. Condorelli, *Efficient and Equitable Airport Slot Allocation*, in *Rivista di Politica Economica*, 2 (2007), p. 81; A. Antonini, *La slot allocation: problemi giuridici*, in *Dir. trasp.*, 2001, p. 321;

The above regulation maintains a legal framework in which the European Union seeks to balance competition with safeguarding the aviation business environment, taking into account the important role that slots play for airlines.

In this sense, the outbreak of Covid-19 has provoked an immediate reaction by the European Union that has extended the exclusion of the rule "use it or lose it" in such a case where, due to pandemic and healthcare measures, the air carrier, for example, deals with a partial or total closure of the border or airspace, or a partial or total closure or reduction of capacity of the airport, during a substantial part of the relevant scheduling period, or a severe impediment to passengers' ability to travel with any carrier on that direct route during a considerable part of the relevant scheduling period including, as well as travel restrictions based on nationality or place of residence, prohibition of all except essential travel, or bans on flights from or to certain countries or geographical areas and restrictions of movement or quarantine or isolation measures within the country or region where the airport of destination is located (including intermediate points) [49].

[49] The European Commission launched between 31 August and 28 September 2020 a public consultation (COM 2020 334) on airport slot allocation considering the COVID-19 crisis. As a result, it published on 16 December 2020 a new proposal to amend the Slot Regulation as regards temporary relief from the slot utilization rules due to the COVID-19 pandemic. While according to the Regulation (EEC) 95/93 airlines must use 80 % of the slots awarded to them to secure their complete slot portfolios for subsequent scheduling seasons, the new proposal reduces this threshold to 40 %. It also introduces several conditions, which aim to ensure that airport capacity is used efficiently and without harming competition after the COVID-19 pandemic. In July 2021, the Commission extended the relief measure to the winter scheduling season, from 31 October 2021 until 27 March 2022, with a 50 % threshold for the "use it-or-lose-it" rule. On 15 December 2021, the Commission extended the slot relief rules for the 2022 summer scheduling season, running from 28 March 2022 until 29 October 2022. Airlines had to use only 64% to retain historic rights in those slots during the ongoing COVID-19 pandemic. The "justified non-use of slots" exception was also extended. On 12 July 2022, the European Commission proposed to allow the airline slot regime to respond more flexibly to unexpected developments in the near future. The Commission proposed to return to a higher slot use rate (80 %, as of 30 October 2022) reflecting the demand, but at the same time, to prolong the possibility to make use of the 'justified non-use of slots' (JNUS) tool created during the pandemic. On 12 September 2022, the committee referral was announced in the Parliament. The Parliament approved on 6 October the revision of the temporary rules on airlines' take-off and landing slots in the EU. The new rules set the minimum slot utilization threshold, as of 30 October, at 75%. The 80% threshold will again be in force for the summer period 2023. This rate may be lowered by the Commission if air traffic falls below 80% of the 2019 level. The different regulatory amendments made by the European Union could be listed as

In these cases, air carriers may justify the non-utilisation of a slot for up to two consecutive scheduling periods.

Another critical aspect of the slot allocation and the valuable substance of the slot itself is laid down by Art. 8.a of EC Reg. 95/93, which allows the so-called "slot mobility". In other words, lawmakers have acknowledged the slot's relevance from the company perspective, setting up a market (first and second) for slot trading among air carriers [50].

According to this provision, slots may be transferred by an air carrier from one route or type of service to another operated by that same air carrier. An air carrier may also transfer slots between parent and subsidiary companies, between subsidiaries of the same parent company, and exchange them, one for one, between air carriers.

In these cases, the transfers or exchanges must be notified to the coordinator and will not take effect until the coordinator explicitly confirms them. The coordinator will refuse to confirm transfers or exchanges if they do not meet the requirements of this Regulation.

This framework largely follows the approach already outlined by IATA with the Worldwide Airport Slot Guidelines (WASG), which serve as the key tool for "regulating" slot allocation on a global scale.

follow: i) Commission Delegated Regulation (EU) 2020/1477 of 14 October 2020; Regulation (EU) 2021/250 of the European Parliament and of the Council of 16 February 2021; Commission Delegated Regulation (EU) 2021/1889 of 23 July 2021; Commission Delegated Regulation (EU) 2022/255 of 15 December 2021; Regulation (EU) 2022/2038 of the European Parliament and of the Council of 19 October 2022. From an international perspective see N. Ribero, *Slot allocation amidst COVID-19 recovery*, IATA publications, 2022, DOI: 10.13140/RG.2.2.22424.88321.

[50] Y. Wang, M. Wang, W. Xu, M. Hansen, *Secondary trading of airport slots: Issues and challenges*, in *Chinese Journal of Aeronautics*, 2023, 36, p. 2; NERA Economic Consulting. Study to assess the effects of different slot allocation schemes: A report for the European commission, DG TREN. Nera-National Economics Research Associate; 2004; D. Starkie, *The dilemma of slot concentration at network hubs. how to make slot markets work. Airport slots*, New York: Routledge; 2008; M. MacDonald, *Study on the impact of the introduction of secondary trading at community airports*, European Commission, 2006. Report No.:222744; A.R. Odoni, *A review of certain aspects of the slot allocation process at level 3 airports under Regulation 95/93*, Boston: MIT International Center for Air Transportation (ICAT); 2020, Report No.: ICAT-2020-09; A. Ranieri, N. Alsina, L. Castelli (eds), *Airport slot allocation: performance of the current system and options for reform. Towards a comprehensive performance framework*, SIDs 2013, Proceedings of the SESAR innovation days, 2013; D. Sheng, L. ZC, X. YB, et al., *Slot auction in an airport network with demand uncertainty*, in *Transp Res E*, 2015, p. 79.

In practical terms, the IATA Guidelines acknowledge one of the economic aspects that was overlooked by the Chicago Convention and contribute to the advancement of a global airline industry that continues to depend on bilateral agreements within the framework of the 1944 Convention.

Beyond the slot allocation system provided for by European, IATA, and US legislation, it is useful to discuss a common element: the "grandfather's rule".

This rule allows the carrier to retain a certain number of slots that it already has in its batch[51].

What is essential, however, is the fact that such a rule was based on the need to ensure – for a limited period – two objectives:

– ensure the continuity of air transport, given the acquired importance of ensuring connections;

– protect the airlines that had made substantial investments [52].

In other words, the grandfather's rule in the slot allocation process has been regarded as a necessary tool for balancing all interests (from airlines to

[51] See supra par. 4.

[52] In this sense looking at the evolution of slot allocation from United States perspective, it comes out that the grandfather's rule was necessary to avoid the disruption of air traffic as it was not – in practical terms – possible to reset the air transport by freezing the operations in order to begin with a market-based approach (*id est*, auction for slots allocation). At that time the US Department of Transportation (DOT) "(…) acknowledged that grandfathering slots would result in a benefit to incumbent carriers. Although many parties opposed the financial windfall the incumbents would receive as a result of the grandfather provision, the DOT determined that the one-time benefit was necessary to implement the buy-sell system and to minimize the disruption of existing service. See 50 Fed. Reg. 52,180, 52,184. The DOT also believed that such grandfather provisions recognized the "investments and commitments in personnel, equipment, terminal development, and planning by existing carriers". Id. In addition, according to the DOT, the incumbent carriers had already received the value of the slots at no cost and only a marginal increase in value would result from the ability to sell such slots. Id. On reconsideration, seasonal slots and slots for charter carriers were grandfathered to the same degree as scheduled operator slots so that permanent slots that were held and operated by carriers for international service or on a seasonal basis in 1985 at JFK and ORD as evidenced by scheduling committee and FAA records could continue to be used by the carrier. 51 Fed. Reg. 21,708, 21,709, 21,712, 21,715 (1986). The buy-sell rule requires operators that did not receive slots under the grandfather provision for particular operations to make reservations for vacant slots for additional operations generally within 48 hours of use. Id. at 21,712. The revisions to the buy-sell rule issued on reconsideration added a provision for administrative allocation of certain types of vacant slots that will allow charter operators to make reservations weeks or months in advance of use of the slot". See E.M. Gleimer, *Slot Regulation at High Density Airports: How Did We Get Here and Where Are We Going*, cit., p. 888.

passengers) over a specific period.

From both a practical and legal perspective, the grandfather's rule has played (and continues to play) a significant role in shaping the air transport market.

However, within the regulatory framework established in 1944 through bilateral agreements, it could be seen as a minor component given the dominance of national (and political) interests over economic ones. Yet, it is doubtful whether—under certain circumstances—it remains a viable rule that aligns with the altered regulatory and socio-economic landscape.

In the case of the European air transport market, such a provision could have been justified initially when the market was being established, when the flag carrier still played a dominant role and integration regarding the common market and liberalisation was still in its early stages. In subsequent years, maintaining such a rule has perhaps generated several difficulties, especially given the increase in air traffic and the infrastructural characteristics that define the sector in Europe.

6. – Alongside the socio-economic transformation, European aviation addresses some historical issues and new objectives.

Although the liberalisation process within the EU is affected by current legislation at both international and national levels, as well as by historical legacy in aviation, aircraft often follow a patchwork route when flying across the EU. This is because airspace boundaries have remained, whereas land frontiers among EU Member States have ceased to exist. In essence, this means that flights do not follow the shortest straight-line route, but instead undertake a complex and often longer path due to these airspace boundaries and subsequent fragmentation. If these 'legal' restrictions related to territorial boundaries and airspace fragmentation were eliminated, aircraft could utilise airspace more efficiently. In line with environmentally friendly principles, this would potentially save a significant amount of CO2 emissions, amounting to millions of tonnes each year.

Since 2004, the European Union has struggled to reach the ambitious goal of the Single European Sky (SES I), which, in simple terms, means overcoming national airspace fragmentation through functional airspace blocks (FABs) that are not based on national boundaries but on optimizing traffic flow [53].

[53] See on this topic and on the necessity of reform European Court of Auditors Special Report

A regulatory framework (SES II) was established in 2009 to oversee the performance of air navigation service providers concerning safety, capacity, cost efficiency, and environmental impact. This framework incorporates a performance scheme with binding targets, allows free market access for air navigation service providers, and includes detailed provisions for establishing functional airspace blocks (FABs).

Despite efforts initiated in 2004 and supported in 2009, the goals highlighted decades ago have yet to be achieved.

Number 18 on the "Single European Sky: a changed culture but not a single sky", https://eca.europa.eu/Lists/ECADocuments/SR17_18/SR_SES_EN.pdf, 2017; European Court of Auditors Special Report Number 11 on "The EU's regulation for the modernisation of air traffic management has added value – but the funding was largely unnecessary", https://www.eca.europa.eu/Lists/ECADocuments/SR19_11/SR_SESAR_DEPLOYMENT_EN.pdf, 2019; "A proposal for the future architecture of the European Airspace", SESAR, https://www.sesarju.eu/node/3253, 2019; Report of the Wise Persons Group on the future of the Single European Sky, https://ec.europa.eu/transport/sites/transport/files/2019-04-report-of-the-wise-persons-group-on-the-future-of-the-single-european-sky.pdf, April 2019; Study on Data Services provision carried out by Steer Davies Gleeve on behalf of the European Commission, DG MOVE, ongoing; "A high-level vision for achieving the Single European Sky", https://ec.europa.eu/transport/sites/transport/files/modes/air/single_european_sky/doc/icb/2015-01-22-icb-high-level-vision-for-achieving-ses.pdf, Industry Consultation Body, January 2015 and "ICB Vision for a Single European Sky (2nd edition), July 2019, on request; European Aviation Environmental Report 2019 and its update on ATM, https://www.easa.europa.eu/eaer/system/files/usr_uploaded/219473_EASA_EAER_2019_WEB_LOW-RES.pdf, March 2020; Joint stakeholder declaration on future of the Single European Sky, https://ec.europa.eu/transport/sites/transport/files/2019-09-high-level-conference-future-of-ses-declaration.pdf, September 2019; Evaluation of the EU de-centralised agencies in 2009, https://europa.eu/european-union/sites/europaeu/files/docs/body/synthesis_and_prospects_en.pdf, December 2009; EUROCONTROL Think Paper n. 21, 22nd August 2023, The challenge of long-haul flight decarbonisation: When can cutting-edge energies and technologies make a difference?; EUROCONTROL Think Paper n. 18, 06th September 2022, One size fit all – A common unit rate for Europe?, www.eurocontrol.int.; EUROCONTROL and EASA, Five Pillars for a Green Single European Sky, Joint no-Paper (2021), www.eurocontrol.int.; A. Masutti, *Single European Sky - a possible regulatory framework for System Wide Information Management (SWIM)*, in *Air and Space Law*, Volume 36, Issue 4/5 (2011) p. 275; Id., *Il ritardo nel trasporto aereo. Prevenzione e responsabilità*, Torino, 2008, p. 57; A. Antonini, C. Severoni, *L'organizzazione e l'uso dello spazio aereo nel cielo unico europeo*, in *La gestione del traffico aereo: profili di diritto internazionale, comunitario ed interno* (Convegno di studio di Messina, 5-6 ottobre 2007), Milano, 2009, p. 72; R. Ferrari, *L'interoperabilità della rete europea di gestione del traffico aereo*, in *La gestione del traffico ae- reo: profili di diritto internazionale, comunitario ed interno* (Convegno di studio di Messina, 5-6 ottobre 2007), Milano, 2009, p. 111; P. N*isi*, *Il Single European Sky II: verso un sistema più efficiente e sicuro del trasporto aereo*, in *The Aviation & Maritime Journal*, 2/2008, p. 18; M. De Sciscio, *Il Progetto SESAR*

In this regulatory environment, the European aviation industry has gained much experience, and despite failing to resolve issues like the fragmentation of the European Union airspace, the principles and approaches highlighted nearly twenty years ago remain valid.

In this context, issues such as the high costs of air traffic management, delays caused by limited capacity, and inefficiencies leading to congestion—which harms the environment—still persist and must be addressed.

Over the past twenty years, aviation has evolved, demonstrating steady growth in airspace, airport users, and passengers. Congestion in the airspace is rising, necessitating capacity reduction, while new paradigms such as digitalisation and environmental sustainability are amplifying the scale of these issues.

Regulators and policymakers have addressed this expansion of the picture in two distinct ways.

On the first side, in September 2020, also considering the effects of COVID-19 on air transport, the European Commission unlocked the situation by proposing an upgrade of the SES regulatory framework, taking into account recent developments and compromises already achieved [54].

The 2020 proposal no longer included provisions on the mandatory use of FABs. It also proposes integrating a separate EU body—the Performance Review Body (PRB)—into the EASA to oversee the assessment and approval of performance plans and targets for en route air navigation services. Additionally, this proposal introduces the possibility of establishing a common unit rate for en route services across the SES airspace, which aids in addressing fragmentation.

For the specific purposes of this paper, the proposal also introduces the concept of "environmental optimisation" in relation to airspace use, airspace trajectories, and the operation of aircraft.

For the European Commission, air traffic management network functions should contribute to the sustainable development of the air transport system and support the achievement of Union-wide performance targets. They should ensure the sustainable, efficient, and environmentally optimal use of airspace and scarce resources, reflect operational needs in deploying

*(Sistema europeo di nuova generazione per la gestio- ne del traffico aereo)*, in *La gestione del traffico aereo: profili di diritto internazionale, comunitario ed interno,* cit., p. 127; C. Ingratoci, *Verso un sistema europeo di nuova generazione per la gestione del traffico aereo: l'impresa comune SESAR*, in *La gestione del traffico aereo: profili di diritto internazionale, comunitario ed interno*, cit., p. 485.

[54] See COM (2020) 577 final 2020/0264 (COD) on 22th September 2020.

the European air traffic management network infrastructure, and provide support in case of network crises.

On the other hand, the proposal highlights the need to establish a mechanism for adjusting charges to enhance environmental performance and service quality, particularly through increased use of sustainable alternative fuels, higher capacity, and reduced delays while maintaining an optimal safety level. Having learned the lesson from nearly twenty years of challenges in developing and deploying functional air blocks – in other words, difficulties in achieving the Single European Sky according to the initial regulation – the European Commission has stated that this mechanism for adjusting charges should be implemented at Union-wide level due to the cross-border nature of aviation, leaving national supervisory authorities the option to create mechanisms at local level concerning terminal services.

The proposal for the Single European Sky regulatory framework was discussed in the EU Parliament and Council during the so-called trialogue negotiations that began in 2021 and was approved in April 2024.

From another perspective, in 2021, the European Commission, as part of the 'Fit for 55 package [55]', proposed amendments to the EU ETS Directive 2003/87/EC as regards aviation's contribution to the EU emission reduction target. Among these amendments is one related to the measures to ensure

[55] The 'fit for 55' package, presented in July and December 2021, is a wide regulatory initiative aim to realise the European Climate Law objectives: climate neutrality by 2050 and a 55 % reduction of net greenhouse gas (GHG) emissions by 2030, compared with 1990 levels. In particular, three proposals regard aviation: The Energy Taxation Directive, The ReFuelEU Initiative, and the EU Emissions Trading System (EU-ETS). The Energy Taxation Directive sets guidelines for the taxation of energy products and electricity within the EU. The taxation intends to rank fuels and electricity according to energy content and environmental performance and for member states to tax them, accordingly, helping to ensure that the most polluting energy products bear the most significant amount of tax. The ReFuelEU Initiative is a proposed initiative to increase the use of Sustainable Aviation Fuel (SAF) in order to reduce CO2 emissions from aviation. This Initiative is an essential policy tool designed to increase the uptake of Sustainable Aviation Fuels (SAFs). The EU ETS for aviation is a cap-and-trade system that aims to reduce CO2 emissions from aviation by setting limits on emissions and allowing airlines and general aviation operators to buy and sell emissions allowances. See N. Buissing, *EU Air Transport and the EU's Environmental Agenda Struggle: A Leap of Faith or Can a CBAM Level the Playing Field?*, in *Air and Space Law*, Volume 47, Issue 6 (2022) p. 577; E. Maleviti, *Fundamentals of Sustainable Aviation*, Routledge, 2023, p. 34; J. Buse, *Sustainable Aviation Fuels, Transitioning Towards Green Aviation*, CRC Press, 2024.

equal treatment of airlines on the same routes regarding their obligations with economic impacts.

The same package also includes the proposal for ensuring a level playing field for sustainable air transport and sets minimum obligations for all fuel suppliers to gradually increase the share of sustainable aviation fuel (SAF) in the fuel supplied to operators at EU airports (ReFuel EU). The draft regulation also establishes the obligation for aircraft operators to ensure that the yearly quantity of aviation fuel uplifted at a given EU airport is at least 90% of the annual aviation fuel required, with the aim of preventing fuel tankering practices.

In detail, the "Fit for 55" package provides amendments to the EU ETS Directive concerning aviation, establishing a gradual phase-out of free allowances for airlines, with a steady reduction in the number of aviation allowances auctioned each year from 2023, to achieve full auctioning by 2027.

Currently, airlines offset free allowance costs by passing them on to consumers (pricing) and benefiting from a jet fuel tax exemption. Additionally, the system requires all European airlines to monitor and report their emissions, surrendering allowances annually based on their emissions. This framework excluded flights outside the EU to avoid overlapping or interfering with the ICAO's development of an international offsetting scheme (CORSIA).

Under CORSIA [56], the international airline sector is obliged (with some

[56] CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) is a global market-based measure for any sector and represents a cooperative approach. In detail, it is an international scheme for the regulation of CO2 emissions from Civil Aviation provided for by ICAO Resolution A39-3 adopted by the 39th General Assembly in October 2016. This Scheme aims to stabilize aviation emissions by 2020. Excess emissions will be offset through the purchase of credits (Emissions Units) deriving from programs or projects that generate an environmental benefit. In June 2018, the ICAO Council approved the CORSIA Standard, which constitutes Volume 4 of Annex 16 to the Convention on International Civil Aviation, and which dictates the detailed rules of the scheme. According to ICAO provisions, CORSIA is implemented in three phases: i) pilot phase, from 2021 to 2023 (with voluntary participation); ii) first phase, from 2024 to 2026 (with voluntary participation); iii) second phase, from 2027 to 2035 (with mandatory participation for all participating States, except for exemptions). The CORSIA Scheme applies in the presence of the following conditions: a) the operator has a three-letter ICAO designator, or an AOC issued by the reference State; b) there are aircraft with MTOM greater than 5,700 kg in the fleet; c) these aircraft are used to perform/plan/plan international flights (according to the ICAO definition, i.e. they take off from one State and land in a different one); d) international flights that involve annual CO2 emissions greater than 10,000 tonnes. The activities of the competent authorities and air operators began already in the two-year period 2019-2020, with a preparatory phase in which the States de-

exceptions) to offset any emissions exceeding 2019 (baseline) levels of CO2 emissions on international routes from 2021 onwards. More specifically, offsetting under CORSIA has been possible on a voluntary basis since 2021 and will become mandatory in the year 2027.

According to the "Fit for 55" package, the EU ETS Aviation system should be aligned with the implementation of CORSIA for extra-EU flights and emissions pricing. The proposal requires the application of CORSIA to flights outside the EU ETS that depart from or arrive in countries applying CORSIA.

fined the list of air operators assigned to them and the operators were asked to start monitoring, reporting, and verifying CO2 emissions. The CORSIA pilot phase began in 2021, with the voluntary participation of 88 Member States, which increased to 115 in January 2024. The pilot phase was characterized by abnormal air transport activity, due to the COVID-19 pandemic, which virtually stopped air activity for much of 2020. This unforeseen calamity led the ICAO Council first and the ICAO Assembly in 2022 to modify some key elements of the CORSIA mechanism, which were based on emissions from 2020. The 2nd edition of the CORSIA SARPs is applicable from 1 January 2024, following the conclusion of the first compliance cycle (pilot phase). We have, in effect, entered the first phase of CORSIA, which includes the launch of the compensation mechanism. Due to the pandemic, emissions from international air traffic are estimated to be lower than the baseline, therefore it is not expected that offsetting will be necessary for 2024 either. CORSIA is part of the European framework for regulating air emissions governed by the Emissions Trading system, to which several European and international air operators are already subject. To this end, EU Regulation 2017/2392 was approved, which started the process of integrating the CORSIA system with the Emissions Trading System (ETS) already governed by Directive 2003/87 EC. The monitoring system has been in force since 1 January 2019 in accordance with the provisions of the MRR Regulation (Monitoring and Reporting Regulation) no. 601/2012, as amended by Reg. (EU) 2018/2066, The verification system has been in force since 1 January 2019 according to the provisions of Regulation (EU) AVR (Accreditation and Verification Regulation) no. 2018/2067. This discipline has been implemented by a delegated act of the European Commission, Delegated Regulation (EU) 2019/1603 of 18 July 2019, aimed at implementing the ICAO CORSIA system on all the routes concerned. The Delegated Act defines the purpose of CORSIA for European States and will be amended with the introduction of rules for the monitoring of sustainable fuels (SAF) and for the rules for the cancellation of Emissions Units. The European regulation has been completed with the publication of Directive 2023/958 which modifies the ETS Directive for the aviation part. With this regulation, the CORSIA offsetting mechanism, Sustainable Aviation Fuels (SAF) are introduced into the European context, with an incentive mechanism for their use (free quotas are foreseen to be allocated to EU operators who will use SAF), the progressive reduction of free quotas for aviation, which will disappear from 1 January 2026, leading to the complete purchase of quotas at auction or on the financial markets, and the application of the MRV system also for the effects of emissions other than carbon dioxide (non-CO2 emissions). B.P. Kerr, *Regulating the Environmental Integrity of Carbon Offsets for Aviation*, in *Carbon & Climate Law Review*, Vol. 14, No. 4 (2020), p. 255. For a critical consideration above the ICAO Programme and the European

Also, in 2021, EUROCONTROL and EASA made a joint no-paper put on the light issues that avoided reaching the European Green Single European Sky [57].

For both entities, the benefits of digitalisation and automation are not fully realised due to the fragmented grounded infrastructure of air traffic management, as well as the lack of coherence in governance, since there is no uniform approach to steer the path towards sustainable aviation. Both public entities also emphasised the need to develop new indicators that, from a regulatory perspective, will enable the monitoring of environmental and climate performance targets.

To address old and emerging issues (and goals), particularly within a climate-neutrality framework, EUROCONTROL and EASA have proposed several approaches, such as i) expanding the impact of SES updates to other areas (like noise pollution); ii) offering "green trajectories" to airspace users; iii) providing incentives to promote efficient flight paths.

The forecast concerning air traffic growth, innovation, digitalisation, strikes, war crises, and meteorological events will undoubtedly put pressure on the current European airspace management. The need to align air transport with environmental objectives and ensure the EU aviation industry remains competitive with non-EU counterparts also highlights the importance of future development.

In this regard, after twenty years, the regulatory framework on SES should be revised considering the lessons learned (e.g., the difficulties on FABs, fragmentation, technological evolution, and innovation, etc.) and that alongside safety, cost-efficiency, increased capacity, scalability, we also include environmental sustainability as a key emerging issue.

Simultaneously, introducing concepts like "the sustainable, efficient and environmentally optimal use of airspace" alongside existing ideas could create a "chokepoint" in considering the overlap of legislation and regulation. This includes rules affecting ground infrastructure (such as airports and their

Union initiative on sustainable aviation see U.M. Erling, *How to Reconcile the European Union Emissions Trading System (EU ETS) for Aviation with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)?*, in *Air and Space Law*, Volume 43, Issue 4/5 (2018) p. 371; M. Jaśkowski, *External Aspects of the EU ETS in Aviation in Light of CORSIA*, in *International Community Law Review*, Online Publication Date: 29 Jun 2021.

[57] See *supra* par. 2

role in implementing sustainable aviation fuel practices) and the legacy of national borders and restrictions that the State might impose on air navigation.

Accelerating certain areas of the aviation industry, such as air traffic management, through the core idea of sustainability could introduce other risks, including conflicts with other branches of aviation regulation that do not advance simultaneously or that struggle to coordinate all stakeholders.

In this sense, applying the principle of sustainability in aviation will affect areas already regulated by aviation law beyond those associated with air traffic management.

These batches of regulations do not appear to address the need to update or align the slot regulation with the aviation industry's emerging targets and issues.

7. – From a legal perspective and in accordance with Art. 2 of EU Reg. 1008/2008, 'air service' refers to a flight or a series of flights transporting passengers, cargo, and/or mail for remuneration and/or hire.

To do an air service, the airline must have (art. 3) an operating license, which means an authorization granted by the competent licensing authority to an undertaking, permitting it to provide air services as stated in the operating license.

To hold an operating licence and operate air services, the airline must have (art. 4) an 'air operator certificate (AOC)', which is a certificate issued to an undertaking confirming that the operator possesses the professional competence and organisation needed to ensure the safety of operations specified in the certificate, as set out in the relevant provisions of Community or national law, as applicable.

At the national level, each Civil Aviation Authority has established specific regulations to ensure that domestic airlines uphold these skills. This includes balance sheets, going concern, and other aspects related to the commercial and financial side of the airline.

Also, the EU Reg. 95/93 contains a specific definition [58] of "air carrier" ac-

[58] This definition has been amended by Regulation (EC) No 793/2004 of the European Parliament and of the Council of 21 April 2004 amending Council Regulation (EEC) No 95/93 on common rules for the allocation of slots at Community airports. The original text did contain a simple provision according to which "'Community air carrier' shall mean an air carrier with a valid operating licence issued by a Member State in accordance with Council Regulation (EEC) No 2407/92 of 23 July 1992 on licensing of air carriers."

cording to which (Art. 2) it "(…) shall mean an air transport undertaking holding a valid operating license or equivalent at the latest on 31 January for the following summer scheduling period or on 31 August for the following winter scheduling period; for the purpose of Articles 4, 8, 8a, 10 and 10a, the definition of air carrier shall also include business aviation operators, when they operate according to a schedule; for the purposes of Articles 7 and 14, the definition of air carrier shall also include all civil aircraft operators".

These provisions seem to reflect the necessary link between air carrier operations and slot usage, especially considering air traffic congestion and (commercial) relations with third-country carriers [59].

But beyond this aspect, the commercial perspective of air transport has—in practical terms—highlighted the relevance of airport slots more than its regulatory aspect.

There is no doubt that the single European market for air transport has brought significant benefits to consumers, including a wider choice of air services such as new routes and lower fares. However, increased price competition between carriers has been accompanied by several airline insolvencies. Between 2000 and 2010, nearly 100 European airlines operating scheduled services went insolvent. Some of these were small airlines, but others were larger scheduled airlines, causing notable issues for passengers. These include the insolvencies of Air Madrid, SkyEurope, Air Berlin, Monarch, and Alitalia.

'Insolvency' and 'bankruptcy' are terms used to describe procedures followed in EU Member States when an undertaking – including an airline – cannot pay its creditors. Regulation 1346/2000 - and its Recast Regulation 848/2015 - on insolvency proceedings have introduced common rules for cross-border bankruptcy.

The most important provisions of the Regulation in the event of airline bankruptcy are those that establish a duty to inform creditors in other Member States. This information should be provided in a standardised form.

These provisions significantly aid the competent court in considering all passenger claims in the event of airline bankruptcy. However, the outcome of such insolvency proceedings is often unfavourable due to insufficient assets. Additionally, other creditors, such as airline staff or financial institutions, may have preferences or secured claims, making it more difficult to

[59] See in this sense Recitals n. 05 and n. 13 of Reg. 793/2004.

satisfy passengers' claims. Ultimately, insolvency proceedings do not resolve the issue of repatriating stranded passengers, which remains the most urgent concern in the event of a sudden operational halt.

On the other hand, as we mentioned, financiers want to secure commitments from the operator, including i) preserving aircraft and maintaining their value, and ii) keeping aircraft within a jurisdiction that effectively enforces their security.

There is no doubt that in cases of insolvency where resuming the going concern is impossible, winding up all assets remains the sole solution for creditor relief.

But, if an air carrier doesn't have any aircraft due to termination of leasing agreements, case law has shown that slots could be considered as a "safe asset" [60].

[60] One of the prominent cases in this field has retained the Monarch Airline bankruptcy. Monarch, by the legal framework, obtained slots for the winter period 2017/2018 at Gatwick, Luton, Birmingham, and Manchester Airports. Those slots were allocated on 1 June 2017. On 26 September 2017, Monarch applied to the Airport Coordinator ("AC") to allocate the Summer 2018 slots at the same airports. The anticipated date by which the Airport Coordinator would have allocated the Summer 2018 slots was 26 October 2017. During this time, Monarch was experiencing financial difficulties due to high operating costs and competition. On 1st October 2017, an application was made to appoint administrators for Monarch. A witness statement was made by the director of Monarch. He explained that attempts had been made to sell Monarch as a going concern, but those attempts had failed. The statement recorded that the directors of Monarch had concluded that, with the forecast trading losses and with little or no prospect of Monarch being able to secure new investment or being sold, Monarch was likely to be unable to pay its debts in the coming weeks. He went on to say that the purpose of this proposed administration was to achieve a better result for the respective creditors of the companies. The secondary purpose was to realize property to make a distribution to one or more of the secured creditors. He did not state that one of the purposes of the proposed administration was to rescue Monarch as a going concern. For company administrators, it will be possible to achieve a better result for the company's creditors as a whole than would be likely if the company were wound up. On 1 October 2017, Monarch has been placed into administration. Repatriation of around 110.000 Monarch passengers out of the UK by British Gov. took effect. On 2 October 2017, knowing that Monarch was in administration and following investigations, the Civil Aviation Authority (CAA) found that Monarch could no longer meet certain EU law requirements for the continued validity of its Air Operator Certificate. Monarch could no longer demonstrate that all its activities could be financed and carried out in accordance with applicable requirements. The CAA, therefore, provisionally suspended the Air Operator Certificate. On the same day, the CAA also notified that it proposed revoking Monarch's operating license pursuant to Regulation (EC) No. 1008/2008. The reasons given were that the CAA had carried out a detailed assessment of Monarch's financial problems. The CAA understood that the purpose of the administration was to achieve a better result for creditors, realize property to

From a different perspective, slot availability within airline assets, especially for legacy carriers that can count on the historic and most valuable slots due to the grandfather's rule, has attracted interest from competition [61] and business law [62].

All these cases have revealed the fundamental role that slot played in a situation of airline insolvency as well as in the case of a merger and acquisition with apparent consequences on the aviation legislation framework due to the capability that both instances must shape the air transport market [63].

make a distribution to secured creditors, and not seek to rescue Monarch as a going concern. There was no reasonable prospect of Monarch being able to meet its actual and potential obligations over a 12-month period, and the primary position on the application for revocation was that "there is no basis on which the company will in the future be in a position to provide public transport operations to any person" and so Monarch's Operating License should be revoked. Going back to the position of the Airport Coordinator, on 6 October 2017, it wrote to Monarch's administrators stating that they understood from an announcement made by the administrators that Monarch's Air Operator Certificate had been suspended and that the airline's aircraft would no longer be flying. They indicated that they understood that the vast majority of Monarch's employees, including pilots, had been made redundant and Monarch's 35 aircraft, which were leased, were being returned to the lessors. Due to this situation, on 24 October 2017, the Airport Coordinator informed Monarch's administrators that it was not under a duty to allocate slots for the summer of 2018, pointing out that Monarch had no aircraft or pilots and appeared to have no prospect of carrying on any further business as an air carrier. In those circumstances, the Slots Regulation did not require the allocation of slots to that undertaking. It expressed the view that the objectives of the Slots Regulation would be frustrated if it agreed to allocate slots to a defunct airline, which was formally insolvent and was incapable of future operations as an air transport undertaking. On the other hand, Monarch has considered as a fundamental right the allocation of Summer 2018 slots because – in its purposes – it was still an air carrier (even insolvent), and then, according to the legal framework as already described, it can sell or exchange slots once they were allocated. How we can imagine from the interpretative solution - if Monarch was or was not an air carrier -depended on the ability to make profits through the use of slots. The judicial application of this case has had different outcomes. For the High Court, Monarch was not an air carrier within the meaning of the Slots Regulation, and consequently, the Summer 2018 slots were to be placed in the slot pool. Monarch has indeed lost its shape as the air carrier. On the contrary, the Court of Appeal held that "As a matter of language, a collapsed airline, even one that has "no realistic prospect of resuming [air transport services]," can perfectly well be referred to as an "air transport undertaking." It may be a failed "air transport undertaking," but that need not stop it being an "air transport undertaking". In short, for the Court of Appeal, Monarch was still an "air carrier" when slots fell to be allocated and, in fact, remains one now, and even Monarch had no more pilots and aircraft and, above all, no possibility to resume its business. This solution allowed Monarch to sell its slots related to Summer 2018 for almost £ 60 million with a clear creditors' relief. For further reading on the specific case see G. Gabassi, *Assignment and sale of airport slots: The Monarch Airlines case*, in *Rivista italiana di Diritto del turismo*,

8. – Beginning in 2024, the United Kingdom embarked on a comprehensive public consultation process regarding aviation slots regulatory reform, culminating in the enactment of the Airports Slot Allocation Regulations 2025 (S.I. 2025/158). This statutory instrument, which came into force on February 13, 2025 [64], marks a pivotal moment in UK aviation policy, representing the nation's first significant independent legislative divergence from the assimilated European regulatory framework governing airport slot allocation since the country's departure from the European Union.

While maintaining the fundamental architecture of the inherited system, these regulations introduce targeted modifications designed to enhance both competition within the aviation sector and systemic resilience against future global disruptions. The reforms, though incremental in nature, signal the UK's intent to chart its own regulatory course while strategically aligning with international industry standards rather than maintaining strict adher-

24/2018, p. 498. For an overview of airline bankruptcy, see P. Benintendi, *Bankrupt in Europe: A Case Study of Three Recent Airline Insolvencies*, in *Air and Space Law*, Volume 44, Issue 3 (2019) p. 241.

[61] V. De Boe, *Allocation of Slots to Airlines: What Role for Competition Law?*, in *Competition and Regulation in Network Industries*, Volume 6, December 2005, Issue 4, p. 293; T. Aras, *Article 102 TFEU to the rescue: filling the legal gaps of the airport slot regulation*, in *European Competition Journal,* Volume 18, 2022 - Issue 3, p. 658.

[62] Y. Park, *Structural Remedies in Network Industries: An Assessment of Slot Divestitures in the American Airlines/US Airways Merger* (October 12, 2020). Available at SSRN: https://ssrn.com/abstract=3710262 or http://dx.doi.org/10.2139/ssrn.3710262; A. Naumovich, *Domestic Airline Mergers and Defining the Relevant Market: From Cities to Airport*s, in Journal of Air Law and Commerce, 83, 2018, p. 839. See also the several cases handled by the EU DG Competition: Case No COMP/M.3280 – Air France/KLM. Regulation (EEC) No 4064/89 Merger Procedure, Article 6(2) NON-OPPOSITION, 11 February 2004; EE Case No COMP/M.7333 – Alitalia/Etihad. Regulation (EC) No 139/2004 Merger Procedure, Article 6(1)(b) in conjunction with Article 6(2), 14 November 2014; Case No M.7541 – IAG/Aer Lingus. Regulation (EC) No 139/2004 Merger Procedure, Article 6(1)(b) in conjunction with Article 6(2), 14 July 2015; Case M.9287 – Connect Airways/Flybe. Regulation (EC) No 139/2004 Merger Procedure, Article 7(3), 21 February 2019; Case No COMP/M.5440 – Lufthansa/Austrian Airlines. Regulation (EC) No 139/2004 Merger Procedure, Article 9(2), 28 August 2009, and the latest one Case M.11071 Merger, Deutsche Lufthansa / MEF / ITA.

[63] It is perhaps useless to point out that airline bankruptcy and merger affect the air transport stakeholders and first passengers but also airports, air traffic service providers, handlings, etc.

[64] The text is available at https://www.legislation.gov.uk/uksi/2025/158/pdfs/uksiem_20250158_en_001.pdf.

ence to the European model.

The UK's airport slot allocation system has historically been governed by Council Regulation (EEC) No 95/93, which established the fundamental principles for slot distribution at congested European airports. This framework, which became part of UK law through the European Union (Withdrawal) Act 2018 [65], created a system based on administrative allocation rather than market mechanisms, with the cornerstone 'grandfather rights' principle allowing airlines to retain slots they have historically operated, provided they meet the 80:20 'use-it-or-lose-it' rule.

The assimilated framework has long been subject to criticism from various stakeholders, including competition authorities, environmental advocates, and new market entrants. Critics have highlighted its tendency to entrench incumbent advantages, its failure to incorporate environmental considerations, and its lack of flexibility in responding to extraordinary circumstances—deficiencies that became particularly acute during the COVID-19 pandemic.

The journey toward the 2025 Regulations began with a comprehensive consultation process initiated in 2024. This consultation engaged a broad spectrum of stakeholders, including established carriers, new entrants, airport operators, regulatory bodies, and consumer representatives. The process revealed deep divisions within the industry regarding the pace and scope of reform, with some advocating for fundamental restructuring while others cautioned against destabilizing changes.

Enacted under the powers conferred by the Retained EU Law (Revocation and Reform) Act 2023 [66], the resulting statutory instrument reflects a deliberate policy choice favoring targeted adjustments over comprehensive reform. This approach aims to address the most pressing issues identified during consultation while maintaining stability and continuity for the aviation sector.

The first principal modification addresses competition dynamics within the aviation sector by expanding the definition of a 'new entrant' airline. Under the revised framework, a new entrant is now defined as an air carrier holding fewer than seven slots per day at a given airport, representing a significant expansion from the previous threshold of fewer than five slots.

[65] See at https://www.legislation.gov.uk/ukpga/2018/16/contents.
[66] See at https://www.legislation.gov.uk/ukpga/2023/28.

This adjustment directly responds to extensive consultation feedback indicating that the previous definition constituted a significant barrier to market entry. Under the former threshold, new carriers frequently found themselves unable to obtain sufficient slots to establish commercially viable operations. The limitation often restricted them to just two daily rotations—insufficient to spread fixed costs effectively or build sustainable route networks.

By expanding the new entrant definition, the regulations aim to marginally improve the competitive position of smaller airlines, potentially enabling them to establish more robust operations at congested airports. This provision carries additional strategic significance as it aligns UK legislation with the Worldwide Airport Slot Guidelines (WASG), signaling a deliberate pivot toward global, industry-led standards rather than maintaining strict adherence to the legacy European framework.

The practical implications of this change are expected to manifest gradually. New entrants will have access to a larger pool of slots from the coordinator's pool, theoretically enabling them to build more comprehensive route networks. However, the effectiveness of this measure will depend on various factors, including the actual availability of slots at specific airports and the commercial strategies of incumbent carriers.

The second, and arguably more consequential, provision introduces a permanent statutory mechanism for slot alleviation, directly addressing lessons learned from the COVID-19 pandemic. This change represents a fundamental enhancement to systemic resilience, acknowledging that extraordinary global events can render the traditional 80:20 'use-it-or-lose-it' rule both impractical and economically destructive.

The COVID-19 pandemic exposed critical inflexibilities within the existing slot allocation framework. As international travel collapsed and governments imposed unprecedented restrictions, airlines faced an impossible choice: operate empty or near-empty flights to retain valuable slots or forfeit these assets potentially worth millions of pounds. The situation necessitated a series of ad-hoc temporary waivers, enacted through emergency powers including those provided by the Air Traffic Management and Unmanned Aircraft Act 2021.

These emergency measures, while necessary, highlighted the absence of permanent provisions for addressing extraordinary circumstances. The lack of a structured framework created uncertainty for airlines, airports, and reg-

ulators, complicating planning and potentially delaying recovery efforts.

S.I. 2025/158 formalizes a comprehensive solution by strengthening the 'Justified Non-Utilisation' (JNU) provisions. This permanent mechanism empowers the government to grant slot alleviation—effectively suspending or modifying the 80:20 rule—in the event of future pandemics, epidemics, or other disease outbreaks that significantly impact aviation operations.

The activation of this alleviation mechanism is contingent upon specific, clearly defined government-imposed triggers, which include: a) flight bans or comprehensive border closures affecting international or domestic aviation; b) Mandatory quarantine or self-isolation requirements that substantially reduce passenger demand; c) official government advice against all but essential travel to affected regions; d) ther extraordinary circumstances that fundamentally disrupt normal aviation operations.

This framework provides greater certainty and predictability for the aviation sector while maintaining necessary flexibility to respond to unforeseen global events. The clear delineation of triggering conditions aims to prevent arbitrary application while ensuring swift action when genuinely required.

On the other hand, the 2025 Regulations are as notable for their omissions as for their inclusions, reflecting a deliberate policy choice favoring incrementalism over fundamental reform. These omissions reveal important insights into the UK government's approach to aviation regulation and the political economy of slot allocation reform.

Perhaps the most conspicuous omission is the absence of any market-based mechanisms for slot allocation. Despite the UK Competition and Markets Authority (CMA) explicitly making the case for market-based approaches in its consultation response [67], the regulations maintain the administrative allocation system inherited from the European framework.

The CMA and other advocates of market mechanisms have long argued that auctions or other price-based systems would improve efficiency by ensuring slots are allocated to airlines that value them most highly. Such systems could potentially generate revenue for public purposes while promoting more dynamic and competitive markets. The decision to eschew these mechanisms suggests concerns about disruption to established operations, poten-

[67] For UK Competition and Markets Authority see https://www.gov.uk/government/publications/cma-response-to-airport-slot-allocation-system-reform-consultation.

tial impacts on route connectivity, and resistance from incumbent carriers who benefit from the current system.

Equally significant is the regulations' silence on environmental sustainability. The new framework fails to integrate any criteria related to emissions reduction, noise mitigation, or the use of sustainable aviation fuels into the slot allocation process. This omission is particularly striking given the UK's stated commitment to achieving net-zero emissions by 2050 and the aviation sector's substantial contribution to greenhouse gas emissions.

The regulations leave, also, the 'grandfather's rule'—the central pillar that rewards historic slot users—entirely untouched and by preserving this rule, the 2025 Regulations maintain the fundamental character of the slot allocation system as administrative, non-economic, and historically-based.

The 2025 Regulations represent a nuanced approach to post-Brexit regulatory independence. Rather than pursuing dramatic divergence from European standards, the UK has chosen selective modification combined with strategic alignment to global industry guidelines. This approach suggests a pragmatic recognition of the international nature of aviation and the importance of regulatory compatibility.

The alignment with WASG standards is particularly significant, potentially positioning the UK as a bridge between European and global regulatory approaches. This could enhance the UK's influence in international aviation governance while maintaining operational compatibility with both European and global partners.

The economic implications of these reforms will likely unfold gradually. The expanded new entrant definition may facilitate marginal improvements in competition at UK airports, potentially leading to increased route options and competitive pressure on fares. However, the retention of grandfather rights and the absence of market mechanisms suggest that fundamental market structures will remain largely unchanged.

The permanent slot alleviation mechanism provides important insurance against future disruptions, potentially reducing financial risks for airlines and supporting sector stability. This enhanced resilience could improve investor confidence and support long-term planning, though its actual value will only be tested in future crisis scenarios.

The failure to incorporate environmental considerations represents a

missed opportunity and potential future liability. As international pressure for aviation decarbonization intensifies, the UK may find itself needing to revisit slot allocation rules to align with climate commitments. The current framework's environmental neutrality could become increasingly untenable as other jurisdictions implement green slot allocation criteria.

The 2025 Regulations thus represent not an endpoint but rather an initial phase in an ongoing process of regulatory evolution. Their success will be measured not only by their immediate effects on competition and resilience but also by their ability to provide a foundation for future reforms that address the deeper structural challenges facing aviation slot allocation. The UK's approach—incremental, pragmatic, and internationally aware—may prove either prudent or insufficient, depending on how rapidly and dramatically the aviation landscape changes in the coming years.

As the global aviation sector grapples with post-pandemic recovery, climate imperatives, and evolving market dynamics, the UK's regulatory choices will be closely watched. The 2025 Regulations demonstrate that even modest reforms can be politically complex and technically challenging. They also underscore the enduring tension between stability and change, between protecting established interests and promoting competition, and between national regulatory autonomy and international coordination.

9. – The development of air transportation from an elitist phenomenon to a mass phenomenon appears to have been solidified in this direction.

Projections for the future of civil aviation indicate a steadily rising number of passengers, with external factors like financial crises, wars, and health shocks seeming only to cause temporary disruptions that, nevertheless, do not hinder the global population from continuing to travel by air.

Improving the living conditions of hundreds of millions of inhabitants will increase traffic flows.

Although technological innovation has enhanced air transport conditions, the mechanics of flight remain unchanged.

However, the needs of passengers have evolved.

To illustrate an evolutionary progression, we have moved from the demand for safety to de-regulation, then to security, followed by liberalisation, and finally to "claim" to fly economically, from any airport to any other, now

in an environmentally sustainable and interconnected manner.

Similar considerations have already resulted in the saturation of airspace capacity and, additionally, airport infrastructure.

Therefore, it is essential to reassess the regulations regulating airport slot allocations.

A regulation – that of 1993 as far as the European Union is concerned – related to a series of entirely changed socio-economic conditions and, by necessity, had to be interpreted through the principle of transitory nature.

Transitioning from a closed system, like the one before 1992, to an open, deregulated, and liberalised one, as outlined in European legislation, required temporary measures to guide the historic flag carriers towards a new and different direction at that time.

Therefore, using the grandfather's rule at that time could be justified. At the same time, it does not seem possible to avoid the allocation mechanism referred to in the IATA Guidelines for international connections.

However, the situation is different after more than thirty years, considering the evolutions and new objectives required for air transport.

The air transport market in Europe has completely transformed.

Similar reasoning could also be confirmed by the fact that in itself, the legal nature of the airport slot – that is, of a public good – should lead to a maximization of the utility for the entire community that would be obtained not only through the assignment of the same according to tender mechanisms with no or limited operation of the grandfather's rule, but also through the selection of the most efficient carriers and therefore capable of better realizing the opposing interests (mobility of passengers and goods on the one hand and profit for the airline) [68].

[68] For contribution to discussion on slot allocation regulation reform see A. Czerny, P. Forsyth, D. GILLEN, H-M. Niemeier, (eds) *Airport Slots. International Experiences and Options for Reform* (G.E.R.S. 2008); A.I. Czerny A, X. Fu, , Z. Lei, T.H. Oum, *Post pandemic aviation market recovery: Experience and lessons from China*, in *Journal of Air Transport Management C*, 2021, p. 1; P. Dempsey, *Airport landing slots: barriers to entry and impediments to competition*, in *Air & Space Law*, 2001, p. 20; European Airport Coordinators Assn., Summary of Steer Davies Gleave Impact Assessment into the EU Slot Regulation (on the occasion of a corresponding European Airport Coordinators Association (EUACA) Seminar on Sept. 29, 2011) http://euaca.org/; P. Frühling and W. Eyskens, *Current and Future Issues Relating to Slot Management and Mobility in the European Union*, in *Air and Space Law*, vol. xxix/2 (April 2004), p. 29; J. Kociubińsk, *Regulatory challenges of airport slot allocation in the European Union, in Wroclaw Review of Law*, in *Administration & Economics*,

The achievement of environmental targets, the tendency towards liberalization and deregulation of air traffic control services, which could lead to a shift towards "on-demand" services, the impossibility of opening new airports (both due to spatial limitations and objective difficulties in infrastructure), and the ever-increasing demand for "door-to-door" and multimodal transport all militate towards a possible incompatibility of a regime—that of slot allocation—designed for a transitional period and for a civil aviation era that is now over [69].

February 2014, p. 28; P. Mendes de Leon, *Some questions on the relationship between slots and traffic rights*, in *Papers of the European Air Law Association twelfth annual conference in Athens – European air transport law and policy recent developments*, Kluwer Law, 2002, p. 137; Id., *A Multifunctional Approach Towards Slot Allocation*, in *Air and Space Law*, 4, 2013, p. 553; C. Naumann, *New Proposal to Amend the System of Airport Slot Allocation in the European Union*, in *Air and Space Law*, 37, no. 3, 2012, p. 185; J. Naveau, *Airport Slots and Traffic Rights*, in *Eur. Transp. Law*, 1993, p. 61; A. Odoni, *Airports*, in Peter Belobaba, Amadeo Odoni and Cynthia Barnhart, *The Global Airline Industry*, Wiley, 2009, p. 343; Id., *A Review of Certain Aspects of The Slot Allocation Process at Level 3 Airports Under Regulation 95/93*, Report No. ICAT-2020-09, MIT International Center for Air Transportation (ICAT) Department of Aeronautics & Astronautics Massachusetts Institute of Technology; M. Olbrich, G. Brosel, G. Hasslinger, *The Valuation of Airport Slots*, in *Journal of Air Law and Commerce*, Volume 74, Issue 4, Article 4, 2009; PricewaterhouseCoopers, Study of certain aspects of Council Regulation 95/93 on common rules for the allocation of slots at community airports, Final Report, 20 May 2000; D. Starkie, *Allocating airport slots: a role for the market?*, in *Journal of Air Transport Management*, 1998, p. 111; P. P. C. Haanappel, *Slots: Use It or Lose It*, in *Air and Space Law*, Volume 45, Special issue, 2020, p. 83.

[69] Could we consider to not have any kind of impact the environmental goals of aviation on slot allocation procedure? And again, are we sure that no issues will arise from the digitalization of air control traffic services on aircraft and airport operations? Ultimately, how the set of these regulations will affect (or not) the aviation competition in Europe and what could be the role of a (revisited?) regulation on slot allocation?

*Abstract*

Fin dall'inizio della moderna aviazione civile, il trasporto aereo ha conosciuto una crescita costante. Ogni anno osserviamo un aumento del numero di passeggeri e merci trasportati per via aerea, l'apertura di nuovi aeroporti e la nascita di nuove compagnie aeree. Questo progresso è stato reso possibile, tra gli altri fattori, da nuove tecnologie (aeromobili e motori più efficienti), procedure migliorate (maggiore efficienza nella gestione del traffico aereo) e un processo di deregolamentazione avviato negli Stati Uniti alla fine degli anni '70. Questo processo è stato poi adottato in Europa parallelamente alla liberalizzazione, che ha anche aumentato la concorrenza.
Uno degli elementi in questa complesso sistema è il c.d. "slot aeroportuale", definito come "autorizzazione concessa da un coordinatore per un'operazione pianificata a utilizzare l'intera gamma di infrastrutture aeroportuali necessarie per arrivare o partire da un aeroporto in una data e un orario specifici". In questi termini, è chiaro quanto sia importante regolamentare l'assegnazione degli slot, poiché questo processo vitale influenza notevolmente il trasporto aereo. Nel contesto europeo, le regole per l'assegnazione degli slot sono delineate nel Regolamento 95/93 del Consiglio (il Regolamento).
La genesi degli slot aeroportuali così come la relativa gestione ed il ruolo che giocano nel Sistema del trasporto aereo, hanno affascinato molti studiosi di diversa estrazione. Sono state esplorate diverse proposte di modifica (e riforma) e la questione degli slot rimane una preoccupazione mondiale (IATA, WASG, Edizione 3, 2023).
Allo stesso tempo, è altrettanto chiaro che, dopo trent'anni, il quadro normativo eurounitario sull'assegnazione degli slot debba essere rivisto sulla base degli insegnamenti tratti e che, oltre alla sicurezza e all'efficienza dei costi, anche la sostenibilità ambientale debba essere riconosciuta come una questione emergente da considerare.
Al contrario, l'accelerazione di alcuni settori del settore dell'aviazione ha introdotto il rischio di conflitti con diversi rami della regolamentazione aeronautica che non progrediscono di pari passo o faticano ad allineare tutte le parti interessate.
Il seguente contributo mira a evidenziare le criticità derivanti dal Regolamento CE 95/93 in merito alla regolamentazione di una risorsa scarsa causata da una domanda eccessiva, dai colli di bottiglia creati dal Regolamento stesso e dalle inefficienze nello sfruttamento.

Since the civil aviation era began, air transport has grown steadily. Each year, we observe an increase in passengers and goods moved by air, the opening of new airports, and the establishment of new air carriers. This progress has been made possible, among other factors, by new technologies (more efficient aircraft and engines), improved procedures (enhanced air traffic management efficiency), and a deregulation process that started in the US at the end of the 1970s. This was later adopted in Europe alongside liberalisation, which also increased competition.
One of the elements in this image is an airport slot, defined as "permission given by a coordinator for a planned operation to use the full range of airport infrastructure necessary to arrive or depart at an airport on a specific date and time". In these terms, it is clear how important it is to regulate slot allocation, as this vital process greatly influences air transportation.
Within the European context, the rules for slot allocation are outlined in the European Council Regulation 95/93 (the Regulation).
It is evident to these authors that the subject of this paper has intrigued many scholars from diverse backgrounds. Several suggestions for amendments (and reform) have been explored, and the slot issue remains a worldwide concern (IATA, WASG, Edition 3, 2023).
At the same time, it is also clear that, after thirty years, the regulatory framework on slot allocation should be revised based on the lessons learned, and that alongside safety and cost-efficiency, environmental sustainability should also be recognised as an emerging issue to consider.
Conversely, accelerating certain areas within the aviation industry has introduced the risk of conflicts with various branches of aviation regulation that do not progress in tandem or struggle to align all stakeholders.
The paper aims to highlight the critical issues arising from EC Reg. 95/93 concerning the regulation of a scarce resource caused by excessive demand, the bottlenecks created by the same Regulation, and inefficiencies in exploitation.