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State subsidies and aircraft financing in the EU, USA, and China: a balancing act⁺

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Abstract

In the past, the discourse on State subsidies involving commercial aircraft was dominated by allegations of the support granted to aircraft manufacturers Airbus and Boeing, and the respective disputes brought before the Dispute Settlement Body of the World Trade Organization (WTO). While the focus has until now been narrowly confined to Airbus and Boeing and, thus, the European Union (EU) and the USA and the competition between the two, new large commercial aircraft manufacturers have entered the market—notably, those based in China, Russia, and Japan. This article examines the semirecent 'truce' between Airbus and Boeing and what has followed—namely, the introduction of State investment mechanisms and strategies in the EU, USA, and China for commercial airlines seeking to 'green' their aircraft fleets. Against the backdrop of airlines purchasing aircraft and operating services on a global market, this article exposes the lack of harmonization in approach to State subsidies globally and questions the extent to which the State and the market—and, indeed, States or groups of States—perform a balancing act in aircraft financing, an area fraught with complex political and commercial realities.

I. The State and the market for aircraft manufacturing

Boeing was the global market leader and, until the late 1970s, held the *de facto* monopoly in the manufacture of large commercial aircraft. Airbus, which was founded as an aviation consortium already in 1970 by France, Germany, Spain, and the United Kingdom, began to challenge Boeing's position in the late 1980s with the launch of its A320 aircraft.¹ Tensions were high between Boeing and Airbus—and, thus, the European Union (EU), which at the time was the European Economic Community (EEC)—and the USA initiated negotiations at the World Trade Organization's (WTO) predecessor, the General Agreement on Tariffs and Trade (GATT), the proceedings of which resulted in a bilateral agreement between the EU (then the EEC) and the USA—namely, the 1992 Agreement on

⁺ The author is grateful to feedback offered by the attendees of the International Conference on 'Aviation Financing, UNIDROIT and Growing Concerns' organised by the Centre for Aviation and Space Laws, The West Bengal National University of Juridicial Sciences in November 2022, where an earlier version of this paper was presented.

¹ Britannica, The Editors of Encyclopaedia. 'Airbus S.A.S. summary' (*Encyclopedia Britannica*, 24 July 2021) <<u>https://www.britannica.com/summary/Airbus-Industrie></u> accessed 5 October 2023; see also Benjamyn C. Esty and Pankaj Ghemawat, 'Airbus vs. Boeing in Superjumbos: Credability and Preemption', Working Paper 02-061 (Harvard Business School, 3 August 2001) <<u>https://www.hbs.edu/ris/Publication%20Files/02-061_f4baac1e-154f-4312-adc6-334488345d6e.pdf</u>> accessed 5 October 2023.

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Trade in Large Civil Aircraft (TLCA).² The TLCA prescribed limits of allowable categories of direct State subsidies and built upon an earlier plurilateral agreement, the Agreement on Trade in Civil Aircraft, which had eliminated import duties on all (non-military) aircraft, flight simulators, and related parts and components. The Agreement on Trade in Civil Aircraft entered into force in 1980 and at the time of writing had 33 signatories, including the EU, 19 EU Member States, and the USA.³

When Airbus launched its A380 and A350 aircraft model projects in 2004, the USA withdrew unilaterally from the TLCA and filed a case (DS316) against the EU at the WTO, on the allegation that the EU was illegally subsidizing the European aircraft manufacturer, Airbus.⁴ The following year, the EU filed a complaint against the USA (DS317) alleging that the USA provided unlawful support to the American aircraft manufacturer, Boeing.⁵ Each party argued breaches by the other of the WTO Agreement on Subsidies and Countervailing Measures⁶ and the GATT 1994.⁷

In its decisions in 2018 and 2019, the WTO Appellate Body found that the EU and the USA, respectively, had provided illegal aid and permitted each side to take countermeasures. In turn, the USA imposed tariffs on EU exports in 2019, and, in the following year, the EU imposed tariffs on US exports. The value of tariffs included 15 per cent on aircraft and 25 per cent additional on non-aircraft, covering items such as wines and spirits, nuts, tobacco, dairy and cheese, and machinery.⁸

While the EU and the USA were at loggerheads, aircraft manufacturers elsewhere in the world had gained ground, most significantly in China (Comac, established in 2008) and less so in Russia (the United Aircraft Corporation [UAC], consolidating manufacturers Sukhoi and Tupolev in 2006) and in Japan (Mitsubishi Aircraft Corporation, founded in 2008). Although Mitsubishi bowed out of the market in 2023,⁹ the European Aviation Safety Agency (EASA) has, in the meantime, been working on a certification validation process for the Comac C919 aircraft. The C919 was already certified as airworthy by the Chinese authorities in September 2022.¹⁰ Once approved by EASA and the US Federal Aviation Administration, the C919 aircraft is likely to challenge the similarly sized Airbus A320 and Boeing B737 families of aircraft.¹¹

³ WTO, 'Plurilaterals: of minority interest' (World Trade Organization) <https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm10_e.htm#civil> accessed 1 July 2023.

⁴ WTO European Communities and Certain Member States —Measures Affecting Trade in Large Civil Aircraft (6 October 2004) WT/DS316/1.

⁵ WTO, United States-Measures Affecting Trade in Large Civil Aircraft (6 October 2004) WT/DS317/1. This complaint was set aside and replaced by a second complaint, United States-Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (4 December 2006) WT/DS353/1.

⁶ 1869 U.N.T.S. 14.

⁷ 1867 U.N.T.S. 190, 33 I.L.M. 1153 (1994). For thorough discussions on the Boeing–Airbus dispute, see Andreas Knorr, Joörg Bellmann and Rahel Schomaker, 'Subsidies in Civil Aircraft Manufacturing: The World Trade Organization (WTO) and the Boeing-Airbus Dispute' [2012] 11(3) European State Aid Quarterly 585– 600; Jeffrey D. Kienstra, 'Cleared For Landing: Airbus, Boeing, and the WTO Dispute over Subsidies to Large Civil Aircraft' [2012] 32(3) Northwestern Journal of International Law & Business 569–606.

⁸ European Commission, 'EU—US Relations: EU—US Disputes on Large Civil Aircraft' Factsheet 21/3002 https://ec.europa.eu/commission/presscorner/detail/en/fs_21_3002 accessed 7 July 2023.

⁹ Takahashi Kosuke, 'Mitsubishi Scraps Development of Japan's Homegrown Jet' (*The Diplomat*, 8 February 2023) <<u>https://thediplomat.com/2023/02/mitsubishi-scraps-development-of-japans-homegrown-jet/</u>> accessed 1 July 2023 . For the purposes of the present paper, a discussion on UAC is of less relevance.

¹⁰ Sophie Yu and Stella Qiu, 'China certifies C919 jet to compete with Airbus and Boeing' (*Reuters*, 30 September 2022) https://www.reuters.com/business/aerospace-defense/china-certifies-c919-jet-compete-with-airbus-boeing-photos-2022-09-29/> accessed 3 July 2023.

¹¹ See Chen Chuanren, 'China Hopes For Comac C919 EASA Certification In 2025' (Aviation Week, 28 May 2024) https://aviationweek.com/air-transport/safety-ops-regulation/china-hopes-comac-c919-easa-certification-2025> accessed 31 May 2024.

² Agreement between the European Economic Community and the Government of the United States of America concerning the application of the GATT Agreement on Trade in Civil Aircraft on trade in large civil aircraft (adopted 17 October 1992) [1992] OJ L301/32.

On 5 March 2021, the EU and the USA mutually decided to suspend regulatory tariffs connected to the Airbus-Boeing aircraft dispute and to call a 'truce' on the 17-year trade row.¹² The dispute was the longest running dispute in the history of the WTO.¹³ The two sides agreed on a new Understanding,¹⁴ under which tariffs will be suspended for five years, a new working group will be established, and work on a level playing field will be undertaken. Additionally, with this new Understanding, the EU and the USA intend together, *inter alia*, to '[c]onfront the threat ... from China's ambitions to build a sector upon non-market practices'.¹⁵

The role of the State in the market—ranging from involvement to intervention to interference—and, in that connection, the role that the State plays in regulating the wider market economy, including the provision of services, has been studied by economists for the past two centuries, with the 'swings in dominance between state and market' going back even further.¹⁶ This role has been strengthened in some parts of the world, particularly during and following global crises, such as the Second World War and the examples of France, the United Kingdom, and the USA, with nationalizations and State planning processes.¹⁷ In general, the State's role—through intervention—has become more prominent in Statemarket relations also in situations where the market cannot correct problems or distortions of its own, including in crisis situations.

Turning our focus to aviation, it is observed that, in most parts of the world, markets for air services have been liberalized and deregulated, leading to fiercely contested markets covering routes between origin-and-destination city pairs (OND markets). The process of liberalization and deregulation has provided a space for air transport stakeholders—in particular, airlines—relatively autonomously, to innovate and differentiate, so as to survive in the challenging competitive environment.¹⁸ It has been argued by some that liberalization in aviation is being 'rolled back'.¹⁹ States have intervened in the air transport market in response to the crisis caused by the COVID-19 pandemic, by providing State aid to airlines, airports, and other aviation stakeholders and their workers. The EU adopted a State Aid Temporary Framework, which gave EU Member States the flexibility²⁰ to provide \in 34.5 billion to network airlines, \notin 4.3 billion to low-cost carriers, \notin 6.7 billion to airports,²¹ and \notin 90 million to ground handlers between 1 March 2020 and 30 September 2021.²² The

¹⁴ U.S. Trade Representative, 'Understanding on a Cooperative Framework for Large Civil Aircraft', <https://ustr.gov/sites/default/files/FINAL%20Understanding%20on%20Principles%20relating%20to% 20Large%20Civil%20Aircraft.pdf> accessed 8 July 2023.

¹⁵ The White House, 'Fact Sheet: U.S. – EU Understanding on a Cooperative Framework for Large Civil Aircraft' (15 June 2021) https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/15/fact-sheet-u-s-eu-understanding-on-a-cooperative-framework-for-large-civil-aircraft/ accessed 7 July 2023.

¹⁶ Johannes F. Linn, 'State versus Market: Forever a Struggle?' (*Brookings*, 23 October 2006) https://www.brookings.edu/articles/state-versus-market-forever-a-struggle/ accessed 22 September 2023.

¹⁷ For example, in France: OECD, 'Reviews of Regulatory Reform: France—Charting a clearer way forward' (2004) 127.

¹⁸ See Steven Truxal, Competition and Regulation in the Airline Industry: Puppets in Chaos (Routledge 2012).

¹⁹ For such an argument, see Barry Humphreys, The Regulation of Air Transport: From Protection to Liberalisation, and Back Again (Routledge 2023).

²⁰ Note many of these decisions have since been annulled.

²¹ See for instance Euroepan Commission Decision SA.56807, Belgium—COVID-19 aéroports wallons, 11 April 2020, C(2020) 2367 final.

²² C. Routaboul and S. Wainwright, *Study on the impacts of the COVID-19 pandemic on the aviation market*, (Steer, 13 May 2022) <<u>https://fsr.eui.eu/wp-content/uploads/2022/02/Clemence-Routaboul-Steer.pdf</u>> at 7; *see also* Commission, Coordinated economic response to the COVID-19 Outbreak, Communication COM (2020) 112 final, 13.3.2020.

¹² U.S. Trade Representative, 'Joint statement of the European Union and the United States on the Large Civil Aircraft WTO Disputes' (5 March 2021) https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/march/joint-statement-european-union-and-united-states-large-civil-aircraft-wto-disputes> accessed 29 June 2023.

¹³ European Commission, 'EU and US take decisive step to end aircraft dispute' Press release IP/21/3001 (15 June 2021) https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3001 accessed 30 June 2023.

USA created programs to provide financial support to US airlines and aviation contractors for the payment of employee wages, salaries, and benefits by way of the Coronavirus Aid, Relief, and Economic Secuirty (CARES) Act 2020, the Consolidated Appropriations Act 2021, and the American Rescue Plan Act 2021. In total, US \$58 billion was allocated to airlines and US \$5 billion to contractors.²³ China announced that it would provide fiscal subsidies of an undisclosed value to domestic airlines in May 2022.²⁴

While in good times, the market is a guarantor for the State, in times of crisis, it is the State's involvement in the market that serves as a lifeline to the market economy in what is the less usual situation of a State backing the market as guarantor to keep their national economies from floundering. With that said, in the context of air transport, States are relatively constant participants in the sector. A State is nearly always the provider of its national air navigation services, and it may also own and control airports and airlines. Having exited from the COVID-19 pandemic and its aftermath, the question remains: on what conditions will States assist aviation stakeholders in future, if at all?

To attempt an answer would demand some engagement with the role and agile response of the State in times of crisis, before extrapolating this to the ongoing climate crisis and State intervention in the market by way of the green agenda and industrial policy. In the EU, movement towards linking environmental, industrial, and competition policies began already in 2019-coming from the voices of both European industries and politicians interested to pursue a level playing field through trade diplomacy as well as 'through developing a more active industrial policy and transforming its approach to competition policy'.²⁵ Part of the transformation in Europe has taken the form of a relaxation of the State aid regime under Articles 107 and 108 of the Treaty on the Functioning of the European Union (TFEU)²⁶—for instance, to allow Member States to invest in green technologies and industries and in turn, on the one hand, providing States with 'more flexibility in supporting their economies and strengthen EU industrial policy' and, on the other hand, coupling this with the ability at the EU level to 'investigate foreign subsidies and impose remedies'.²⁷ This has manifested by way of two major sets of EU rules in 2023 on (i) industrial strategy and (ii) foreign subsidies. The European Commission proposed the Net-Zero Industry Act in March 2023, 'to scale up manufacturing of clean technologies in the EU and make sure the Union is well-equipped for the clean-energy transition'.²⁸ The Act builds on the EU Industrial Strategy launched in 2020 and updated in 2021, which together aim 'to drive the transformation to a more sustainable, digital, resilient and globally competitive economy'.²⁹ On 1 January 2023, the Foreign Subsidies Regulation³⁰ entered into force; its aim

²³ U.S. Department of the Treasury, 'Airline and National Security Relief Programs' <<u>https://home.treasury.gov/policy-issues/coronavirus/assistance-for-american-industry/airline-and-national-security-relief-programs</u>> (accessed 31 May 2024).

²⁴ The State Council of the People's Republic of China, 'China to grant fiscal aid to domestic airlines' (26 May 2022), <<u>https://english.www.gov.cn/statecouncil/ministries/202205/26/content_WS628f6a75c6d02</u> e533532b5c3.html> (accessed 31 May 2024). *See also* Stella Qiu and Ryan Woo, 'China will give cash subsidies to airlines for two months' (Reuters, 26 May 2022) <<u>https://www.reuters.com/business/aerospace-defense/</u>china-will-give-cash-subsidies-airlines-two-months-2022-05-26/> (accessed 31 May 2024).

²⁵ Jean-Christophe Defraigne and others, 'Introduction to EU Industrial Policy in the Multipolar Economy: past lessons, current challenges and future scenarios' in Jean-Christophe Defraigne, Edoardo Traversa, Jan Wouters & Dimitri Zurstrassen (eds), EU Industrial Policy in the Multipolar Economy (Edward Elgar 2022) 1, 5. See also Nerina Boschiero and Stefano Silingardi, The EU Trade Agenda—Rules on State Intervention' (2023) 24 German Law Journal 151–78.

²⁶ Consolidated Version of the Treaty on the Functioning of the European Union (adopted 26 October 2012) [2012] OJ C326/47.

²⁷ Boschiero and Silingardi (n 21) 176.

²⁸ European Commission, 'Net-Zero Industry Act: Making the EU the home of clean technologies manufacturing and green jobs' Press release IP/23/1665 (16 March 2023) https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1665> accessed 4 August 2023.

²⁹ European Commission, 'European industrial strategy' <<u>https://commission.europa.eu/strategy-and-pol</u>icy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_en> accessed 29 July 2023.

³⁰ Regulation (EU) 2022/2560 of the European Parliament and of the Council of 14 December 2022 on foreign subsidies distorting the internal market (adopted 23 December 2022) [2022] OJ L330/1. is addressing distortions caused by foreign subsidies and 'ensuring a level playing field for all companies operating in the Single Market'.³¹ We have yet to experience the effectiveness of this new trade defence instrument in the aviation sector.

II. Big players and investments

While the airline industry is fiercely competitive, it is curious that there are only a few manufacturers of the aircraft required to operate their services. Boeing and Airbus have long dominated the global manufacturing market as the only two suppliers of large commercial aircraft. Bombardier, which is based in Canada, and Embraer in Brazil, are the world leaders in manufacturing regional and business jets; it cannot be excluded that one day they may have ambitions to build larger aircraft to rival the incumbents.

In the meantime, new players in large aircraft manufacturing—in particular, Comac are likely to change the market landscape in future. For Airbus and Boeing, and, respectively, the EU and the USA, there is already concern. The two sides have stated in their Understanding that their confrontation with China will include:

Meaningful cooperation on countering (1) investments in the EU and the United States by non-market actors, which can lead to the appropriation of technology; and (2) outward investments into China that are influenced by non-market forces;

Identifying where joint work is needed to take parallel action against non-market practices; [and]

Sharing information regarding these and other areas to forge a common approach in the large civil aircraft sector.³²

The extent to which this new-found EU–USA cooperative spirit—in particular, the 'common approach'—might result in (collaborative or collusive) actions between manufacturers and constitute anti-competitive behaviour is, as yet, unclear. At the same time, questions around the alleged 'non-market' nature of Comac as a new entrant manufacturer on the global market for large aircraft also may raise concerns over transparency and the elusive level-playing field.

Aircraft are expensive, with a new commercial aircraft costing between US \$35 and \$600 million, and military aircraft priced even higher.³³ As moveable, high-value assets, aircraft are also risky investments, making it, at times, difficult to attract private finance. Thus, other forms of investment, not limited to foreign investment, are required alongside creative legal solutions to mitigate investment risk.

The relevant law in this area has also developed to meet the needs and realities of aircraft financing and leasing globally. Most notably, Article 83*bis* of the 1944 Convention on International Civil Aviation³⁴ provides the possibility for the State on whose registry an aircraft is registered, and where the owner is established, to transfer responsibilities and oversight to the operating State, where the operator is active. In addition, the 2001 Convention on International Interests in Mobile Equipment (Cape Town Convention) and the 2001 Protocol to the Convention on Matters Specific to Aircraft Equipment support

³¹ European Commission, 'Competition Policy: Foreign Subsidies Regulation' <<u>https://competition-policy.</u> ec.europa.eu/foreign-subsidies-regulation_en#> accessed 30 July 2023.

³² The White House, 'Fact Sheet: U.S. – EU Understanding on a Cooperative Framework for Large Civil Aircraft' (15 June 2021 https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/15/fact-sheet-u-s-eu-understanding-on-a-cooperative-framework-for-large-civil-aircraft/ accessed 7 July 2023.

³³ Estimates include: Airbus A380 (USD 446 million), Boeing 747 (USD 367 million).

³⁴ Convention on International Civil Aviation, (adopted 7 December 1944, entered into force 3 April 1947) 15 UNTS 295 (Chicago Convention 1944).

asset-based financing and leasing for aircraft and engines, which do not have a fixed location, by providing greater legal certainty in the event of a debtor or lessee's default or insolvency. Still, uncertainties may arise in exception situations where a State acts in breach of its Cape Town Convention obligations—notably, Russia—such as giving warning to creditors and their insurers, as well as increasing the risk—and cost—for debtors to secure finance if they are based in non-Cape Town Convention or otherwise risky jurisdictions.³⁵

III. Relevant policy and law on State subsidies

The history of granting State subsidies, on the one hand, and subsidy control, on the other, can be traced back to the beginning of the First World War when '[m]assive subsidies were granted for multiple purposes, including commercial credit, shipbuilding, rail and air transport, exports, and housing'.³⁶ The EU has a comprehensive State aid regulatory regime.³⁷ State aid policy and practice in the EU have evolved over time, from having initially been tightly regulated pursuant to rules on unlawful interventions that tended to be strictly enforced to more flexible approaches, including applying sector-specific guidelines, including for air transport. In general, firms in the EU may be required to repay subsidies and any other favourable loans provided to it by an EU Member State.³⁸ At around the same time that the Single European Market for Air Services was successfully created in 1993, several State aid cases were decided by the European Commission: Sabena,³⁹ Iberia,⁴⁰ Aer Lingus,⁴¹ TAP Air Portugal,⁴² Air France,⁴³ Olympic Airways,⁴⁴ and Alitalia.⁴⁵ Almost three decades later, during the COVID-19 pandemic, certain aviation stakeholders benefitted from State aid payments under the EU's Temporary State Aid Framework.⁴⁶ Many of the European Commission's decisions to allow State aid schemes involving loans, direct grants, capital injections, guarantees, and tax credits were subsequently challenged in the General Court of the CJEU, mostly by low-cost carrier Ryanair.⁴⁷ It should be noted that several decisions were annulled.48

- ³⁵ See Aviation Working Group, 'AWG Statement on Russian State Action Constituting Breach of the Cape Town Convention' (18 March 2022) <<u>http://awg.aero/wp-content/uploads/2022/03/AWG-Statement-Russian-State-Action-Constituting-CTC-Breach-March-18-2022.pdf</u> > accessed 20 August 2023.
- ³⁶ Juan Jorge Piernas López, The Concept of State Aid Under EU Law: From internal market to competition and beyond (OUP 2015) 24.
- ³⁷ Noting that there have also been temporary and crisis rules established in response to the global economic and financial crises and as applied during the Covid-19 pandemic. *See* European Commission, 'State Aid Legislation' <<u>http://ec.europa.eu/competition/state_aid/legislation/temporary.html</u>> accessed 30 August 2023.
- ³⁸ For a detailed examination of State aid to airlines and airports in the EU, *see* Steven Truxal, *Competition and Regulation in the Airline Industry: Puppets in Chaos* (Routledge 2012) 93–102.
 - ³⁹ Commission Decision of 24 July 1991 (C 21/91 Sabena) [1991] OJ L 300/48.
- ⁴⁰ Commission Decision of 22 July 1992 (N 294/92 *Iberia*) [1992] C 236/1; *see also* European Commission, 'XXII Report on Competition Policy' (1993) 269.
 - ⁴¹ Commission Decision of 21 December 1993 (C 34/93 Aer Lingus) [1994] OJ L 54/30.
 - ⁴² Commission Decision of 6 July 1994 (C 94/687 TAP Air Portugal) [1994] OJ L 279/29.
 - ⁴³ Commission Decision of 27 July 1994 (C 94/653 Air France) [1994] OJ L 254/73.
 - ⁴⁴ Commission Decision of 7 October 1994 (C 94/696 Olympic Airways) [1994] OJ L 273/22.
 - ⁴⁵ Commission Decision of 18 July 2001 (C 2349/2001 Alitalia) [2001] OJ 271/28.

⁴⁶ For an overview, *see* European Commission, 'The State Aid Temporary Framework' <<u>https://competition-policy.ec.europa.eu/state-aid/coronavirus/temporary-framework_en></u> accessed 15 August 2023. For a detailed review of State aid applied in the sector, *see* Steven Truxal, 'State Aid and Air Transport in the Shadow of COVID-19' [2020] 45(SI) Air and Space Law 61–82.

⁴⁷ See for example, Case T-238/20, Ryanair v Commission (Sweden; Covid-19) ECLI:EU:T:2021:91 and Case T-259/20, Ryanair v Commission (France; Covid-19) ECLI:EU:T:2021:92, both of which were upheld by the General Court.

⁴⁸ See for example Case T-268/21, Ryanair v Commission (Italie; régime d'aide; Covid-19) ECLI:EU: T:2023:279, in which the General Court annulled the Italian scheme. For examples of decisions granting individual and group aid to airlines and groups of airlines, respectively, that were annulled, see Case T-238/21, Ryanair v Commission (SAS II; Covid-19) ECLI:EU:T:2023:247; Case T-216/21, Ryanair and Malta Air v Commission (Air France; Covid-19) ECLI:EU:T:2023:822; Case T-643/20, Ryanair v Commission (KLM; Covid-19) ECLI: EU:T:2021:286.

Under Articles 107–9 of the TFEU, the European Commission has the power to deal with State aid that distorts or threatens to distort competition in the internal market.⁴⁹ Article 107(1) of the TFEU provides that:

Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.⁵⁰

The European Commission created three sets of specialized guidance for the granting of State aid to airports and airlines in 1994, 2005, and 2014.⁵¹ The 2014 State Aid: Guidelines on Aid to Airports and Airlines (2014 Guidelines), the most comprehensive to date, replace all previous versions. The 2014 Guidelines distinguish between start-up aid and operating aid, allowing aid if it satisfies a set of 'compatibility conditions'. This includes, for airlines: (i) contribution to a well-defined objective of common interest;⁵² (ii) the need for State intervention; (iii) appropriateness of the aid measure; and (iv) the incentive effect.⁵³ As the 2014 Guidelines are set to expire in April 2024, the European Commission has proposed a three-year prolongation of the current period.⁵⁴

By contrast, in the USA, there is no direct equivalent to the EU's Article 107(1) of the TFEU on State aid.⁵⁵ With that said, in response to the challenges brought about by the COVID-19 pandemic on the aviation sector, for example, the US Government created a number of programs through which the US Treasury could provide support, including the previously mentioned CARES Act,⁵⁶ the Consolidated Appropriations Act,⁵⁷ and the American Rescue Plan Act.⁵⁸ Combined, these programs provided significant amounts of aid to passenger air carriers, cargo air carriers, and contractors.⁵⁹ For the sake of good order, it should be mentioned that Chinese airlines also received US \$22.5 billion in State subsidies for the damage caused by the reduction in traffic during the COVID-19 pandemic.⁶⁰

In the EU, under the 2030 Climate and Energy Framework, the European Commission has set a 2030 greenhouse gas emissions reduction target of at least 55 per cent compared

⁵² This refers to aid of social dimension under the Treaty on the Functioning of the European Union (TFEU), a rt 107(2)(A).

⁵³ European Commission, 'Guidelines on State aid to airports and airlines' Communication from the Commission of 4.4.2014 [2014] OJ C99/03, para 79.

⁵⁴ European Commission, 'State aid—Prolongation of transitional period provided for in the 2014 Aviation Guidelines concerning regional airports' <<u>https://competition-policy.ec.europa.eu/public-consultations/2023-avi</u> ation-guidelines_en> accessed 22 August 2023.

⁵⁵ See Deborah H. Schenk, 'The Cuno Case: a Comparison of U.S. Subsidies and European State Aid' [2006] 5(1) European State Aid Quarterly 3–8.

- 57 Pub. L. 117–328 (2021).
- ⁵⁸ Pub. L. 117–2 (2021).

⁵⁹ For a detailed breakdown of the different aid measures, *see* U.S. Department of the Treasury, 'Airline and National Security Relief Programs' <<u>https://home.treasury.gov/policy-issues/coronavirus/assistance-for-ameri</u> can-industry/airline-and-national-security-relief-programs> accessed 28 August 2023.

⁶⁰ See Elsie Guan, 'China prepares massive state aid for aviation' (2022) Airfinance Journal https://www.airfinancejournal.com/articles/3587234/china-prepares-massive-state-aid-for-aviation accessed 27 August 2023.

⁴⁹ See also European Commission, 'State Aid procedures' <<u>http://ec.europa.eu/competition/state_aid/overview/state_aid_procedures_en.html</u>> accessed 5 October 2023.

⁵⁰ TFEU Art 107(1); OJ C115/91, 9 May 2008.

⁵¹ See European Commission, 'Community guidelines on the application of Articles 92 and 93 of the EC Treaty and Article 61 of the EEA Agreement to State aids in the aviation sector' [1994] OJ C350/5; European Commission, 'Guidelines on financing of airports and start-up aid to airlines departing from regional airports' Commission Communication of 9.12.2005 [2005] OJ C312/1; European Commission, 'Guidelines on State aid to airports and airlines' Communication from the Commission of 4.4.2014 [2014] OJ C99/03 (2014 Guidelines).

⁵⁶ Pub. L. 116–136 (2020).

to 1990 emissions levels. The 'Fit for 55' package of legislative proposals, includes—as relevant for aviation—reform of the EU's Emissions Trading System,⁶¹ the introduction of a Carbon Border Adjustment Mechanism,⁶² and a ReFuel Aviation Regulation⁶³ and may include an Energy Taxation Directive.⁶⁴ All of this is part of European Green Deal financing worth €1.8 trillion.⁶⁵ The European Climate Law sets a legally binding target of net-zero greenhouse gas emissions by 2050;⁶⁶ this is the EU's framework for climate neutrality. EU Institutions and the Member States are bound to take the necessary measures at the EU and national levels to meet the target while taking into account the importance of promoting fairness and solidarity among Member States. In the process, the EU is moving towards becoming a 'climate-neutral economy' and implementing the Union and Member States' United Nations Framework Convention on Climate Change Paris Agreement 2015 commitments.

To achieve the (legally binding) objective under the European Climate Law to be carbon neutral by 2050, the transport sector must reduce at least 90 per cent of its emissions by 2050.⁶⁷ This is underlined in the EU Green Deal and is the rationale behind the sustainability pillar of the 'Sustainable and Smart Mobility Strategy' initiative.⁶⁸ The State Aid Guidelines for Climate, Environmental Protection, and Energy (CEEAG Guidelines)⁶⁹ introduce a new framework for assessing State aid for funding environmental initiatives. The CEEAG Guidelines contain specific implications for the industry and take into account the challenges the industry faces.

From the perspective of airlines, State aid will be permitted for the acquisition of clean vehicles and clean mobile service equipment and aid for the deployment of recharging or refuelling infrastructure for clean vehicles could be allocated.⁷⁰ Clean vehicles, in the context of aviation, are defined as vehicles that have zero direct carbon dioxide emissions, but this also includes aircraft with substantially improved performance compared to aircraft currently available on the market with the same take-off mass.⁷¹ Thus, if an airline wishes

⁶¹ Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system (adopted 16 May 2023) [2023] OJ L130/134.

⁶² Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism (adopted 16 May 2023) [2023] OJ L130/52.

⁶³ Regulation (EU) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable air transport (ReFuelEU Aviation) (adopted 31 October 2023) [2023] OJ L, 2023/2405.

⁶⁴ European Parliament, 'Revision of the Energy Taxation Directive: Fit for 55 package' Members' Research Service PE 698.883 (January 2022) https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/698883/EPRS_BRI(2022)698883_EN.pdf> accessed 1 July 2023.

⁶⁵ European Commission, 'A European Green Deal: Striving to be the first climate-neutral continent' <<u>https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en#:</u>-:text=The %20European%20Green%20Deal%20is,finance%20the%20European%20Green%20Deal> accessed 3 July 2023.

⁶⁶ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/ 1999 (adopted 9 July 2021) [2021] OJ L243/1 ('European Climate Law').

⁶⁷ European Commission, 'Mobility Strategy: A fundamental transport transformation: Commission presents its plan for green, smart and affordable mobility' <<u>https://transport.ec.europa.eu/transport-themes/mobility-strategy_en></u> accessed 16 August 2023.

⁶⁸ European Commission, 'Sustainable and Smart Mobility Strategy' https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12438-Sustainable-and-Smart-Mobility-Strategy_en accessed 16 August 2023.

⁶⁹ European Commission, 'Communication from the Commission—Guidelines on State aid for climate, environmental protection and energy 2022' (adopted 18 February 2022) [2022] OJ C80/1.

⁷⁰ ibid s 4.3.

⁷¹ ibid para 187, which reads: 'As regards air transport, where appropriate to mitigate particularly distortive effects of the aid, including having regard to the market position of the beneficiary, or to increase the positive effects of the measures, the Commission may require that the beneficiary decommissions an equivalent number of less environmentally-friendly aircraft of a similar take-off mass as the aircraft acquired or leased with State aid.'

to renew its fleet with aircraft that boast better environmental performance and emit significantly less carbon dioxide, it may apply to a Member State for State aid to (at least, in part) fund a fleet order. This is, of course, subject to the capacity and willingness of the Member State in question to award State aid to the carrier. In addition, it will be possible for airlines to request State aid to cover the costs of retrofitting existing vehicles or mobile service equipment. For example, if an engine manufacturer produces a more sustainable engine for the specific type of plane the airline is operating, this 'retrofitting' of the existing fleet would reduce the emissions of the airline in question, and thus may be allowable State aid under the CEEAG Guidelines.⁷² If the beneficiary of the State aid holds significant market power, the Commission may require the airline to 'decommission less-environmentally friendly aircraft' that the airline keeps in its fleet in order to mitigate the disproportionate effect of the aid.⁷³

In the USA, President Joe Biden signed the Inflation Reduction Act (IRA) into federal law in 2022⁷⁴ to provide US \$739 billion in spending, of which US \$369 billion is earmarked for investment in energy security and combatting climate change.⁷⁵ Under Section 40007 of the landmark IRA, a new grant program is established, which has the aim of fuelling aviation's sustainable transition through sustainable aviation fuels and low-emission technology, with a focus on enhancing aircraft design and aircraft and engine technology.⁷⁶ For aviation, the key objective of the IRA is to 'make investments to accelerate the development and demonstration of low-emission aviation technologies in line with U.S. aviation climate goals to reduce aviation carbon emissions.'⁷⁷ Projects eligible for public funding under the IRA include low-emissions aviation technologies, defined in Section 40007 as 'technologies, produced in the United States, that significantly—(A) improve aircraft fuel efficiency; (B) increase utilization of sustainable aviation fuel; or (C) reduce greenhouse gas emissions produced during operation of civil aircraft.'⁷⁸ Between 2022 and 2031, US \$297 million will be available in the form of grants.⁷⁹

In China, the Civil Aviation Administration of China initiated a policy and action plan in this area in 2022: the China Civil Aviation Green Development Policy and Action.⁸⁰ The Civil Aviation Development Fund will be used to 'support energy-saving campaigns of domestic airlines and plane manufacturers'.⁸¹ The extent and duration of the subsidies available remain unclear.

IV. Final thoughts

1. Background

While it is undisputed that both Airbus and Boeing have received State subsidies over the years for the design and production of their large commercial aircraft—notably, the A320

- ⁷² ibid para 163.
- ⁷³ ibid para 187.
- ⁷⁴ Public Law 117-369, 136 Stat. 1818 (2022).

⁷⁵ European Parliament, 'State aid in the wake of the pandemic, war and foreign subsidies' Members' Research Service PE 747.106 (April 2023) https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747106/EPRS_BRI[2023]747106_EN.pdf> accessed 29 July 2023.

⁷⁶ U.S. Department of Transportation, 'Inflation Reduction Act (IRA) Section 40007 FAST Program Briefing' (14 December 2022) https://www.transportation.gov/sites/dot.gov/files/2022-12/IRA-Section-40007-FAST-Program-Briefing.pdf> accessed 15 August 2023.

⁷⁸ Public Law 117-369, 136 Stat. 1818 (2022), Sec. 40007.

⁷⁹ U.S. Congress, 'Inflation Reduction Act of 2022 (IRA): Provisions Related to Climate Change' Congressional Research Service (3 October 2022) https://crsreports.congress.gov/product/pdf/R/R47262> accessed 15 August 2023.

⁸⁰ CAAC, '2002 China Civil Aviation Development Policy and Action' (2002) https://www.caac.gov.cn/en/GDTPXW/202212/P020221230453792879929.pdf> accessed 5 October 2023.

⁸¹ 'Subsidies for Going Green in Aviation' (China.cn.org, 22 August 2022) <http://www.china.org.cn/busi ness/2012-08/22/content_26302422.htm> accessed 5 October 2023.

⁷⁷ ibid.

and B737, respectively—studies show that Comac received between US \$49 and 72 billion in State subsidies for its C919 aircraft.⁸² As Airbus and Boeing have, for now at least, decided mutually to put their differences aside and through their common Understanding aim together to confront the rise of Comac and the threat to the status quo in the global manufacture of large commercial aircraft, the balancing act—or struggle—between the duopoly players becomes disrupted. Will the joining of forces by the EU and the USA now tip the balance and squeeze China's Comac out of the market or delay its advances?

With the long experience of State subsidies granted to the two aircraft manufacturers, the large amounts of aid provided to airlines during the COVID-19 pandemic, and the dawn of 'green' avenues for EU State aid and US tax credits for aviation stakeholders that will directly or indirectly come to benefit the manufacturers, too, it is difficult to discern a global level-playing field for aviation anytime soon. The EU, US, and Chinese economies— and others, of course—have faced major challenges over the past three or so years. In the wake of the pandemic, war, and foreign subsidies, it is likely that self-interest and protection of economies, industries, and workers will prevail in the EU, USA, and China alike. So, looking to the future, how do we balance the State subsidies provided to large commercial aircraft manufacturers in the three?

If consensus cannot be reached bilaterally—or, here, trilaterally—and while there is no agreement at the international level on State subsidies, and aside from manufacturing the air transport sector falls largely outside of the WTO framework, the matter could fall best within the purview of the International Civil Aviation Organization (ICAO) forum, as the UN specialized agency for aviation. On this, the ICAO notes that '[a]ny aid or subsidies granted by a State or through State resources may distort or threaten to distort competition or create inefficiencies by benefitting certain competitor(s)².⁸³ States have developed laws and regulations to define State subsidies. Thus, it remains a State practice (at the national level), increasingly viewed as hostile by other States, which take actions to combat foreign subsidies, often as we have seen through granting subsidies to national—or in the case of the EU, regional—firms as countermeasures.

The Worldwide Air Transport Conference (AT/Conf 5), held in Montreal in March 2003, concluded that:

while general competition laws may be an effective tool in many cases, given the differences in competition regimes, the differing stages of liberalization among States and the distinct regulatory framework for international air transport, there may be a need for aviation-specific safeguards to prevent and eliminate unfair competition in international air transport.⁸⁴

Two decades later, there is no common approach to 'fair' competition, including State subsidies for aviation. Instead, States have, in the meantime, further developed national (and regional) competition laws and policies and determined conditions under which to allow State subsidies. Indeed, the last Worldwide Air Transport Conference, held in March 2012, recommended that the 'ICAO should develop a compendium of competition policies and practices in force nationally or regionally',⁸⁵ so as to bring together in one location the

⁸² Euractiv, 'Behind Airbus—Boeing truce lies a common rival: China' (21 June 2021) <<u>https://www.euractiv.com/section/aviation/news/behind-airbus-boeing-truce-lies-a-common-rival-china/></u> accessed 15 July 2023.

⁸³ ICAO, 'Anticompetitive Behaviours: ICAO's approach to anticompetitive behaviours' <<u>https://www.icao.int/sustainability/Compendium/Pages/1-2-Anticompetitive-Activities.aspx</u>> accessed 20 August 2023.

⁸⁴ ibid.

⁸⁵ ICAO, 'ICAO Competition Compendium' <<u>https://www.icao.int/sustainability/compendium/Pages/0-de</u> fault.aspx> accessed 20 August 2023 . *See* Recommendation 2.4/1g, Worldwide Air Transport Conference (AT/ Conf 6), 'Sustainability of Air Transport' <<u>https://www.icao.int/meetings/atconf6/Pages/default.aspx></u> accessed 20 August 2023.

different approaches taken worldwide. A comprehensive list of competition rules, cooperation in the field of competition, and competition practices—though not relating to State subsidies—are available on the ICAO's website.⁸⁶

The introduction of State subsidies to meet 'green' objectives is novel across the board, and, for aviation, it certainly makes good sense. Will the EU, the USA, and China each accept that the others provide subsidies not only for the manufacture of greener aircraft but also for their purchase? Looking forward, workable cooperation between the parties in this area will be helpful.

2. EU and China

First in this triangle is a reference to bilateral relations between the EU and China—notably, between the European Commission and the Chinese State Administration for Market Regulation, which includes a memorandum of understanding (MoU) on a dialogue in the area of State subsidy control signed in 2012.⁸⁷ While this MoU focuses mainly on exchanging views and experiences it, together with the subsequent 2020 EU–China Comprehensive Agreement on Investment, forms the basis for greater cooperation and transparency on State subsidies not only for goods within the WTO framework but also for services.⁸⁸

3. EU and USA

Second, after considerable surprise in the EU following the introduction of the US IRA, it was decided to relax the State aid rules in Europe and introduce the Green Deal Industrial Plan in February 2023.⁸⁹ The EU and the USA agreed in March 2023 to open a dialogue—the Clean Energy Incentives Dialogue—as part of the EU–USA Trade and Technology Council.⁹⁰ This Council is a forum for the EU and the USA 'to coordinate approaches to key global trade, economic, and technology issues and to deepen transatlantic trade and economic relations based on these shared values'.⁹¹

4. USA and China

Finally, the trade relations between the USA and China are contentious.⁹² With that said, the two have had fruitful exchanges in the past in the context of the USA–China Clean Energy Cooperation, including on the Electric Vehicles Initiative.⁹³ More recently, it has been reported that the two sides aim to revive their climate cooperation/climate diplomacy.⁹⁴

⁸⁶ See ICAO, 'Competition Laws by State' https://www.icao.int/sustainability/Compendium/Pages/1-3-CompetitionRules.aspx accessed 21 August 2023.

⁸⁷ European Commission, 'Competition Policy: Bilateral relations with Peoples' Republic of China' <https:// competition-policy.ec.europa.eu/international-relations/bilateral-relations/china_en> accessed 5 October 2023; for the MoU, see the *Memorandum of Understanding on Cooperation in the area of anti-monopoly law between the European Commission and the National Development and Reform Commission and the State Administration for Industry and Commerce of The Peoples' Republic of China*, (20 September 2012) <https:// competition-policy.ec.europa.eu/system/files/2021-06/China-EU_memorandum-of-understanding_2012_en.pdf> accessed 5 October 2023.

⁸⁸ Agreed in principle, see European Commission, 'Trade: EU–China agreement in principle' <<u>https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/china/eu-china-agreement/</u> eu-china-agreement-principle_en> accessed 5 October 2023.

⁸⁹ European Commission, 'The Green Deal Industrial Plan: putting Europe's net-zero industry in the lead', Press release IP/23/510 (1 February 2023) https://ec.europa.eu/commission/presscorner/detail/en/ip_23_510 accessed 5 October 2023.

⁹⁰ European Commission, 'EU–US Trade and Technology Council' https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/eu-us-trade-and-technology-council_en accessed 5 October 2023.

⁹¹ ibid.

⁹² For a detailed review, see Anshu Siripurapu and Noah Berman, 'The Contentious U.S.–China Trade Relationship' (Council on Foreign Relations, 26 September 2023) <<u>https://www.cfr.org/backgrounder/contentious-us-china-trade-relationship</u>> accessed 5 October 2023.

⁹³ U.S. Department of Energy, 'U.S.-China Clean Energy Cooperation' (January 2011) https://www.cfr.org/backgrounder/contentious-us-china-trade-relationship> accessed 5 October 2023.

⁹⁴ Valerie Volcovici, 'US, China aim to revive climate cooperation as tensions simmer' (*Reuters* 17 July 2023) https://www.reuters.com/world/us-china-aim-revive-climate-cooperation-tensions-simmer-2023-07-16/ accessed 5 October 2023.

5. A balancing act

With the scent of cooperation seemingly in the air, on the one hand one might expect trilateral dialogue and progress. On the other hand, given the joining of forces of the EU and the USA as linked to the calling of a truce on their long-standing Airbus–Boeing disputes, what will the future hold for State subsidies for greener aircraft manufacturing and airline fleet renewals? If these 'big three'—the EU, the USA, and China—all grant and accept that the other does the same for aircraft manufacturing and fleet renewals in the spirit of 'going green', not only at home but globally, then this would appear to be a win for the manufacturers and operators.

Nonetheless, distortion of competition between the manufacturers is likely to arise, leading to aggravation within the triangle. Thus, in time, we are likely to see State-to-State disputes over subsidies in aircraft manufacturing brought again within the WTO forum. Will Boeing become frustrated with EU Member State support to airlines' purchases of new, greener aircraft under the CEEAG Guidelines, or perhaps only if the European carriers use the money—if forthcoming—for the purchase of Airbus aircraft? Or will EU Member States place conditions on the brand of aircraft that may be bought through public investment? And might Comac argue that now is its entitled chance to gain from State subsidies, just as its two biggest competitors have done for years?

Already some resistance has arisen in the EU, brought by campaigners arguing that aircraft that use jet fuel should not be classified as green investments under the EU rules for sustainable finance—rather than EU State aid rules.⁹⁵ To include such aircraft would amount to 'greenwashing', environmentalists argue.⁹⁶ This reaction to the EU's 'green taxonomy' shows discord already mounting in the EU,⁹⁷ whereas, in the USA, new partnerships between airlines and manufacturers with sustainability-liked finance have been established.⁹⁸

In any case, if no workable balance is reached between the big three—the EU, the USA, and China—and the WTO is not the most efficient solution, the ICAO would be an appropriate forum in which to pick up the matter and mediate through its 193 Member States on this matter of subsides for aircraft manufacturing. As this is an area that is complex for both political and commercial reasons, and it indirectly affects all States involved in aviation activities with significant passenger traffic, some harmonization of State subsidy rules or a multilateral agreement convened in the seat of the ICAO—in Montreal, Canada—initially at least between the big three—may be the best way forward to a new status quo.

Progress is already being made in the scaling up of investments for the development and commercialization of sustainable aviation fuels, including for the necessary infrastructure on the production and delivery sides, not only within the EU, the USA, and China but also at the international level, by way of encouragement by the ICAO.⁹⁹ Whether this may serve as a useful foundation on which to build a dialogue—within the ICAO forum—on green investment in aircraft remains to be seen.

⁹⁵ Alice Hancock, Philip Georgiadis and Sylvia Pfeiffer, 'Aviation sector pushes EU for green investment status' (*Financial Times* 17 February 2023) https://www.ft.com/content/96d6d00d-ab3f-45dc-a65d-845f74987561> accessed 5 October 2023.

⁹⁶ ibid.

⁹⁷ Sean Goulding Carroll, 'Lawmakers criticise green taxonomy investment rules for aviaton, maritime' (*Euractiv* 12 May 2023) https://www.euractiv.com/section/aviation/news/lawmakers-criticise-green-taxon omy-investment-rules-for-aviation-maritime/> accessed 5 October 2023.

⁹⁸ Lucia Waldner, 'Aviation: Set for Green Investment' (*Forbes* 30 May 2023) https://www.forbes.com/sites/forbesfinancecouncil/2023/05/30/aviation-set-for-green-investment/?sh=401c76dd8097 accessed 5 October 2023.

⁹⁹ See ICAO Secretariat and the Solar Impuse Foundation, 'Boosting the adoption of green innovation for aviation', *Aviation & Environmental Outlook* (ICAO 2022) https://www.icao.int/environmental-protection/ Documents/EnvironmentalReports/2022/ENVReport2022_Art8.pdf> accessed 5 October 2023; Chinga Mazhetese, 'SAF Financing' (ICAO 23 May 2023) https://www.icao.int/ESAF/Documents/meetings/2023/ ICAO%20CASSOA%20-%20RCAA%20ENVIRONMENT%20Workshop%2023-26%20May%202023/ PPT05_B-%20SAF%20Financing.pdf> accessed 5 October 2023.

As markets for air services have been deregulated and liberalized over the past many decades, the challenge for States has been to work towards a goal of 'competitive neutrality',¹⁰⁰ while, in many parts of the world, previously State-owned and controlled national flag carriers have been privatized and markets opened-even though subject to a State's requirements on national ownership and control of airlines-to foreign direct investment. As the current pivot to green and industrial growth strategies is underway, as has been shown in this article by using the EU, the USA, and China as examples, one imagines a possible new wave of concern over the elusive level-playing field between State-owned (or at least subsidized) enterprises and private businesses in a quest 'to use resources effectively within the economy and thus achieve growth and development'. The goal of competitive neutrality within the scope of aircraft manufacturing until now-Airbus and Boeing-is difficult to reconcile with the practice of State subsidies. With the entry of 'green' into the equation, and the rise of a third edge of the triangle—China and Comac—questions arise around future market liberalization versus State interference in the market. If even for environmental aims, these questions will continue to trouble State and non-State actors in international civil aviation. In the meantime, the EU, the USA, and China continue to perform a balancing act in producing and supporting the purchase of greener Airbus, Boeing, and Comac aircraft.

¹⁰⁰ OECD, 'Competitive Neutrality: Maintaining a level playing field between public and private business' (2012) https://www.oecd.org/competition/competitiveneutralitymaintainingalevelplayingfieldbetweenpublicandprivatebusiness.htm>.

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