

ANALYSIS OF FINANCIAL SUPPORT FOR AIR CARRIERS TO COUNTERACT THE EFFECTS OF THE COVID-19 PANDEMIC, WITH PARTICULAR EMPHASIS ON THE EUROPEAN UNION

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Purpose: The aim of the article is to analyse the actions taken in individual regions and countries in the field of state aid for air carriers and to verify its impact on counteracting the effects of the crisis caused by the COVID-19 pandemic, in particular in the European Union.

Design/methodology/approach: The research was mainly based on the comparative analysis of the International Air Transport Association, European Commission and selected air carriers' data.

Findings: The diversity of forms and values of public aid between regions of the world was identified. No links were found between the volume of financial support and the pace of market recovery, both globally and within the European Union. In EU, private-owned unsubsidised entities have been recovering faster than state-owned so-called 'national carriers' which received substantial amount of public funds.

Research limitations/implications: The research was based on limited number of entities and on limited number of operational and financial indicators. Some data comparisons are burdened with error due to inconsistency between reporting (fiscal) periods of selected air carriers.

Originality/value: The research summarizes and describes the different forms of public aid implemented for the air carriers and shows ineffectiveness of government support granted for these entities.

Keywords: aviation market, COVID-19 pandemic, crisis, state aid.

Category of the paper: Research paper.

1. Introduction

The global crisis of unprecedented scale had a significant impact on the situation on the aviation market. The market size, measured by revenues, fell by several tens of percent, in a way inadequate to the economic changes recorded in parallel. The governments of individual countries have implemented administrative bans, which have prohibited air operations. These actions have put air market companies, especially air carriers, in a very difficult situation, preventing them from performing their core activities.

Market entities constantly maintained operational readiness at a high level and looked forward to restrictions lifting and the return of demand. High uncertainty about the development of the market situation created the dangerous phenomenon of so called ‘cash burn’. The implementation of cost reduction could not take place without consequences in the form of a permanent reduction in the potential of a given company. Breaking lease agreements for the use of aircraft and dismissing key employees, such as pilots, whose training is a relatively high cost (not only in terms of funds, but also in terms of time) – would have improved the financial situation, but at the same time would result in a permanent loss of market share. This forced managers to choose between the ability to preserve the potential for a rapid recovery from the crisis and the policy of implementing significant cost cuts necessary for survival. It should also be pointed out that the delayed development of changes in the rules for allocating the slots for subsequent aviation seasons has exposed companies to additional and unreasonable costs in order to maintain the right to operate at a given airport at a certain time in subsequent periods by making ‘empty’ flights.

The aim of this study is to analyse the form and amount of public aid granted in individual regions of the world, with particular emphasis on the European Union countries. To achieve this objective, materials and analytical data prepared by the International Air Transport Association (IATA) and data on state aid published by the European Commission were used and compared.

2. Literature review

According to recent researches (Abate, Christidis, Purwanto, 2020) it should be expected that public aid provided by the governments of individual countries will be directed mainly to state-owned or national enterprises, but not to all carriers operating on the market in a given country. The conclusion was drawn that countries that are unable to provide such support, in particular those in South America and Africa, may permanently lose some air connections. As a result of such developments, an increase in concentration on the market is expected, consisting in an increase in its share of so called ‘national carriers’ and the termination of activity by relatively smaller enterprises. It was also pointed out that the economies of scale and the benefits of the extensive connection network held by market leaders will play to their advantage and will allow them to better cope with the effects of the crisis. Authors also provided for the possibility of directing further development of aviation towards hubs, which are considered by them as an unfavourable solution in terms of the environment. It was also indicated that air carriers are not financially stable and will require further public support, which will have negative effects on competitiveness and, as a result, will increase prices and reduce the supply of services. According to the authors, financial aid addressed to carriers should be

distinguished into the one that is aimed at improving the economic situation and the one that is aimed at balancing the sustainable development of a given enterprise. Thus, the actions and decisions of governments can have a key impact on the future image of aviation.

Other authors (Dube, Nhamo, Chikodzi, 2021) analysed the impact of the traffic drop as a consequence of the outbreak of the COVID-19 pandemic on the global aviation industry. It has been concluded that the recovery process will be slow and will vary between geographic regions. It was emphasized that the crisis caused by the pandemic has grounded air carriers, which in turn has significantly increased the costs of restarting operations and made it necessary to receive recapitalisation. According to the authors, it is vital to ensure affordable financing by private and public institutions, yet they should be directed primarily to ensure sustainable development of aviation. The authors argue that ‘the pandemic cannot be used as an excuse’ and the environmental commitments of the aviation market made before the crisis should be kept. The authors stated that the aviation sector is not well prepared to deal with emergencies and crises, which must change as events similar to the COVID-19 pandemic are likely to occur in the future. They have prepared a solution in the form of making transport offer for passengers more flexible and call for unifying health, safety and sanitary procedures. Authors propose cooperation in this field between air carriers, airports and governments of individual countries.

Other researchers (Scheelhaase et al., 2022) analysed the advantages and disadvantages of granting and not granting government aid to air carriers in various forms. In conclusion, they stated that preferential loans and state guarantees are the best solution, provided that the criteria for granting them to entities would be transparent and non-discriminatory. In the opinion of these authors, such a solution would be the golden mean that would minimise the political impact on the market situation and would maintain a high level of competitiveness between carriers. However, they point out that protracted market problems will result in a significant increase of debt, which may eventually be considered as unstable and the situation will require costly non-repayable state subsidies, directly burdening the public debt and taxpayers.

3. Analysis of state aid granted to air carriers

3.1. Global view

The analysis of the aviation market shows that since the outbreak of the COVID-19 pandemic, the aviation market has not yet recorded very spectacular falls among the largest entities operating on it. This was related to the financial support granted to these enterprises by the governments of individual countries. Its scale depended on the region, which is presented in Figure 1. It is noticeable that the largest public aid was provided in the regions of the world where the largest air carriers mainly operate, i.e. in North America (United States), Asia (China) and in Europe.

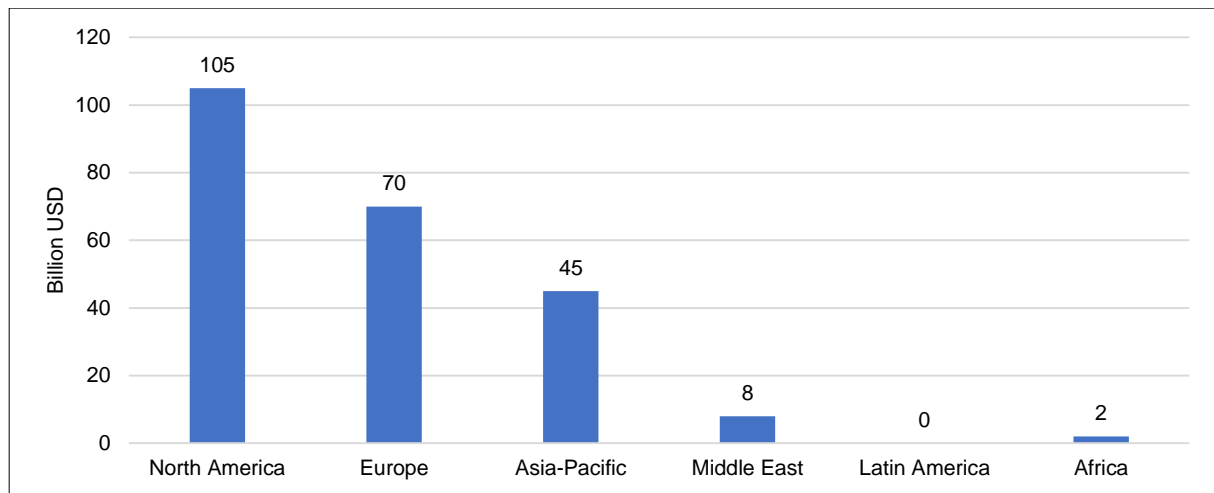


Figure 1. Value of state aid granted to air carriers, broken down by geographic regions (billion USD).

Source: Own elaboration based on data: *IATA Annual Review 2021*. Retrieved from: <https://www.iata.org/contentassets/c81222d96c9a4e0bb4ff6ced0126f0bb/iata-annual-review-2021.pdf>, 30.11.2022.

The International Air Transport Association (IATA) indicated that air carriers around the world could count on a total amount of support of approximately 230 billion USD as the first tranches of assistance provided to them (i.e. for the first year and a half of the crisis caused by the COVID-19 pandemic), of which about half of this value was non-repayable aid. The most popular form of aid in North America (and also worldwide) was wage subsidies, while European countries more often decided to provide direct recapitalization and grant loans on preferential terms. Other forms of assistance included granting loan guarantees and lowering or deferring taxes – such as the reduction of excise duty on aviation fuel and income taxes (IATA Annual Review, 2021). The financial situation of air carriers was also affected by other actions taken by individual countries and organisations, such as revisions of programs aimed at balancing the sustainable development of the aviation market (Szczypiński, 2022). The directions of these are diverse on a global scale and financial effects are difficult to quantify in relation to individual enterprises due to the interregional nature of air carriers' activities.

The largest part of the above-mentioned amount of financial support was provided for the North American market (105 billion USD) and the European market (70 billion USD). Entities in the Asia-Pacific market could count on smaller amounts (45 billion USD). In the Middle East, Africa and the Latin American region, air carriers received significantly less or even no state aid.

Nevertheless, despite the provision of relatively large public aid, not all carriers were able to continue their operations. According to IATA data (IATA Annual Review, 2021), the number of air carriers that went bankrupt or were subject to administration processes is quite high, but there are no companies among them that are on the top of the lists of the largest global enterprises in this sector. Detailed data are presented in Figure 2. The difficulty in maintaining financial liquidity has been also increased due to the unwillingness of potential lenders to secure debts with pledges on key fixed assets owned by air carriers. The possible cashing of aircraft

during the COVID-19 pandemic would be difficult due to the risk of not receiving an amount consistent with the valuation of the asset under non-crisis conditions. This was due to the low market demand for such assets resulting from the impossibility of their proper use due to administrative restrictions. It should be emphasized that there are some regions of the world where the market model in which air carriers are state-owned enterprises operating in non-deregulated markets still dominates, which changes the approach to the analysis of the possible bankruptcy of such enterprises.

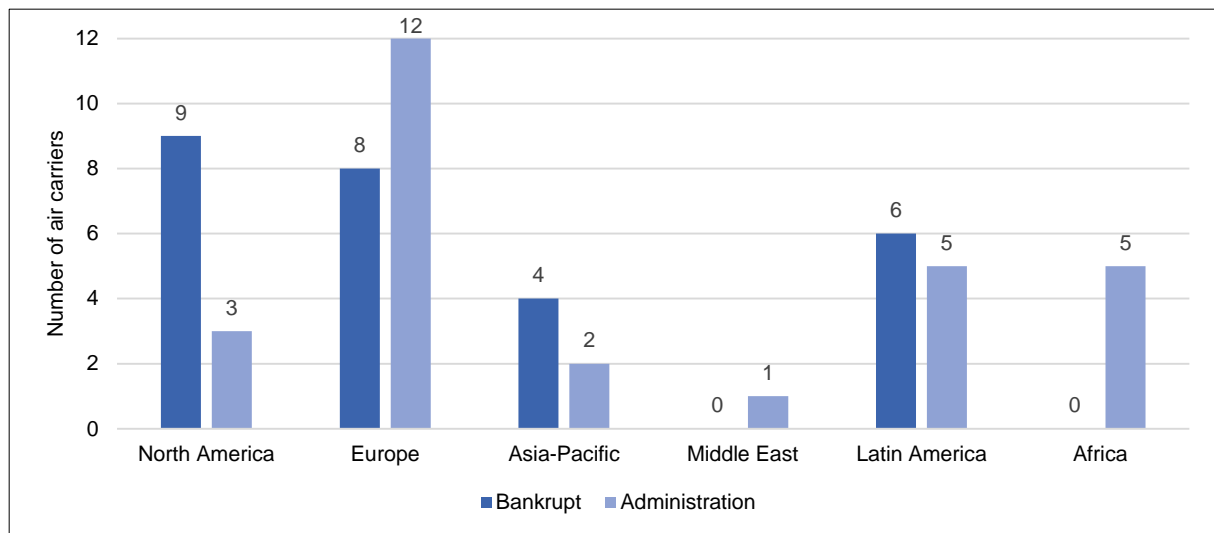
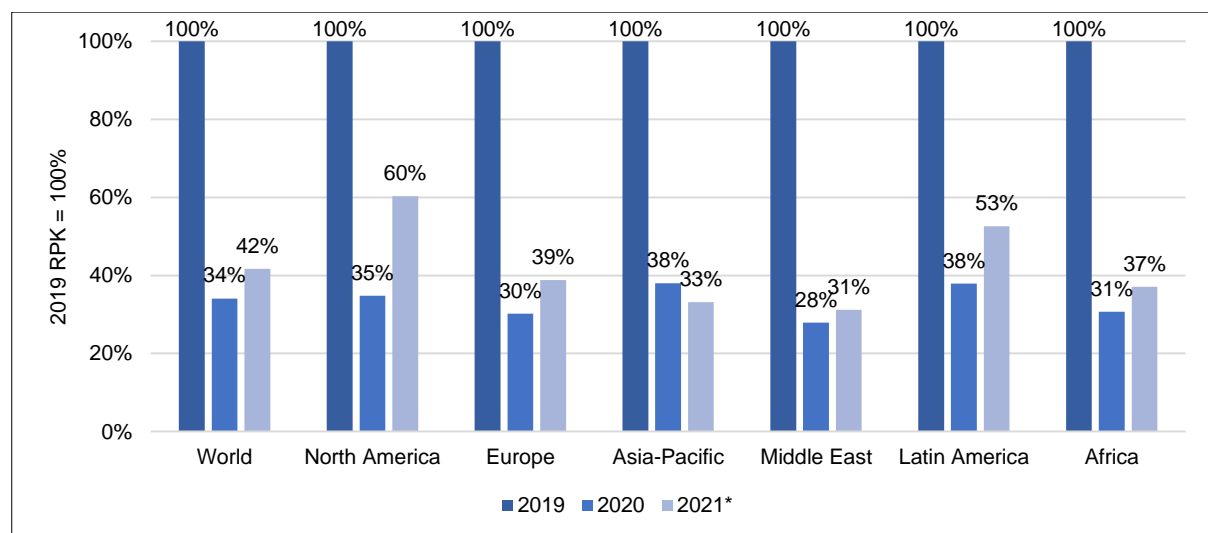


Figure 2. Number of bankrupt and administrated air carriers as a result of the COVID-19 pandemic, broken down by geographic regions.

Source: Own elaboration based on data: *IATA Annual Review 2021*. Retrieved from: <https://www.iata.org/contentassets/c81222d96c9a4e0bb4ff6ced0126f0bb/iata-annual-review-2021.pdf>, 30.11.2022.



* Preliminary data.

Figure 3. Number of passenger kilometres (RPK) performed in 2020-2021 in relation to the value for 2019 (2019 = 100%), broken down by geographic regions.

Source: Own elaboration based on data: *Industry Statistics*. Retrieved from: <https://www.iata.org/en/iata-repository/publications/economic-reports/airline-industry-economic-performance---june-2022---data-tables/>, 30.11.2022.

Operational data do not show a significant correlation of the pace of traffic recovery with the level of financial assistance granted, especially with regard to the number of passengers served in individual regions of the world in 2020-2021 compared to 2019. North America is the leader in both terms, yet the operational data for the European and Asia-Pacific markets (which were the 2nd and 3rd in terms of the level of state aid) are below the global average (as shown in Figure 3) and therefore the issue of granting aid can no longer explain the pace of the traffic comeback. It is also not possible to use this factor to explain the above-average pace of market recovery in Latin America. The right reasons should therefore be sought elsewhere, such as in the local conditions and geography of the regions.

3.2. Situation in the European Union

In accordance with Article 107(1) of the Treaty on the Functioning of the European Union (hereinafter as ‘TFEU’), aid granted to individual entities by Member States is unacceptable if it affects the situation on the internal market, yet there are some exceptions to this rule. European Commission has treated the crisis caused by the outbreak of the COVID-19 pandemic as a *natural disaster or other exceptional occurrence* (Article 107(2)(b) TFEU). European Commission has issued decisions to the Member States enabling the granting of state aid to aviation market entities on this legal basis and on the basis of developed temporary framework. The provided aid should, according to the legal documents, repair damages caused by the COVID-19 pandemic. The rules and conditions for granting state aid have been changed and extended many times, yet their essential part has ended in June 2022.

Table 1 presents the amount of state aid granted by the Member States which was approved and published by the European Commission. The list includes only the aid that was addressed directly to individual enterprises, without taking into account the aid granted to broader groups of air carriers, which is presented in subsequent Table 2. Moreover, it should be taken into account that air carriers also could have been supported through aid addressed to all entities or through other forms of support that did not require notification and consent of the European Commission. Yet, these types of aid would result in a relatively smaller individual support, as it would have to be spread over a significantly larger range of enterprises. The provided list also omitted aid granted to enterprises which core activities are significantly broader than just the provision of air transport (e.g. TUI, which was subsidized by Germany), as well as aid granted directly to airports or other entities of the aviation market, of which air carriers could become indirect beneficiaries.

The analysis of the presented data shows that the vast majority of funds collected from taxpayers and furtherly distributed by individual governments was directed to specific companies considered as ‘national carriers’ in these countries. The largest aid in nominal terms was provided to Alitalia (by the Italian government), Air France (by the French government), Lufthansa (by the German government), KLM (by the Dutch government) and TAP (by the Portuguese government) – each of these supports contained at least one tranche exceeding

1 billion EUR. In terms of forms of support, recapitalization and granting loans on preferential terms dominated, which is consistent with IATA data. The practice of supporting the same company multiple times is also visible (Alitalia – 5 times by Italy; Finnair – 4 times by Finland; TAP and its affiliates – 4 times by Portugal; SAS – 3 times by Sweden and Denmark combined; airBaltic – 3 times by Latvia). In particular, the case of Alitalia is worth additional insight, as this air carrier, despite receiving the largest aid, has ceased operations on 15th October 2021. Nevertheless, Alitalia was replaced by the newly established carrier ITA Airways as part of a hybrid reorganization (ITA takes off...).

Much fewer Member States decided to provide aid to a wider group of air carriers, and the total amount of aid provided by all countries for this purpose was significantly lower and did not exceed 700 million EUR. Among the additional and non-standard aid solutions, France was indicated, which decided to defer the payment of certain taxes for air carriers licensed in that country. Romania also opted for unconventional assistance, supporting air carriers resuming operations from specific airports located in this country – in cities of Sibiu, Maramureş, Oradea and Arad.

Table 1.

List of public aid addressed by Member States directly to individual carriers in order to counteract the effects of the COVID-19 outbreak

Date of publication	Subsidising country	Subsidised air carrier	Amount (million EUR)	Legal basis
2020-04-15	Denmark	SAS	137,0	107(2)b TFEU
2020-04-24	Sweden	SAS	137,0	107(2)b TFEU
2020-04-27	Germany	Condor	550,0	107(2)b TFEU
2020-05-04	France	Air France	7000,0	Temporary framework
2020-05-18	Finland	Finnair	600,0	Temporary framework
2020-06-06	Austria	Austrian Airlines	150,0	107(2)b TFEU
2020-06-09	Finland	Finnair	286,0	Temporary framework
2020-06-10	Portugal	TAP	1200,0	107(3)c TFEU
2020-06-13	Netherlands	KLM	3400,0	Temporary framework
2020-06-25	Germany	Lufthansa	6000,0	Temporary framework
2020-08-11	Estonia	Nordica	30,0	Temporary framework
2020-08-17	Sweden	SAS	583,0	Temporary framework
2020-08-17	Denmark	SAS	486,0	Temporary framework
2020-08-20	Romania	Blue Air	62,0	Temporary framework
2020-08-21	Belgium	Brussels Airlines	290,0	Temporary framework
2020-09-04	Italy	Alitalia	199,5	107(2)b TFEU
2020-10-02	Romania	TAROM	19,3	Temporary framework
2020-12-01	Croatia	Croatia Airlines	11,7	107(2)b TFEU
2020-12-11	France	Corsair	106,7	107(2)b TFEU
2020-12-22	Poland	LOT	650,0	Temporary framework
2020-12-23	Greece	Aegan Airlines	120,0	107(2)b TFEU
2020-12-29	Italy	Alitalia	73,0	107(2)b TFEU
2021-03-17	Finland	Finavia	350,0	Temporary framework
2021-03-19	Finland	Finnair	350,0	107(2)b TFEU
2021-03-26	Italy	Alitalia	24,7	Temporary framework
2021-04-06	France	Air France	4000,0	Temporary framework
2021-04-23	Portugal	TAP	462,0	107(2)b TFEU

Cont. table 1.

2021-04-30	Portugal	SATA Air Açores /Azores Airlines	267,5	107(2)b TFEU
2021-05-12	Italy	Alitalia	12835,0	107(2)b TFEU
2021-06-02	Italy	Alitalia	39,7	107(2)b TFEU
2021-06-09	Sweden	SAS	150,0	Temporary framework
2021-06-09	Denmark	SAS	150,0	Temporary framework
2021-06-22	Spain	Air Nostrum	9,0	107(2)b TFEU
2021-06-24	Belgium	Air Belgium	4,8	107(2)b TFEU
2021-06-27	Germany	Condor	525,3	107(2)b TFEU
2021-12-21	Latvia	airBaltic	45,0	107(2)b TFEU
2021-12-22	Portugal	TAP Group	2657,0	107(2)b TFEU
2021-12-22	Portugal	TAP Air Portugal	71,4	107(2)b TFEU
2022-02-10	Finland	Finnair	48,6	107(2)b TFEU
2022-04-30	Romania	TAROM	1,9	107(2)b TFEU
2022-05-02	Greece	Ellinair	6,8	107(2)b TFEU
2022-05-23	Latvia	airBaltic	33,4	Temporary framework
2022-05-23	Latvia	airBaltic	11,6	107(2)b TFEU

Source: Own elaboration based on data: *Factsheet – List of Member State Measures approved under Articles 107(2)b, 107(3)b and 107(3)c TFEU and under the State Aid Temporary Framework*. Retrieved from: https://competition-policy.ec.europa.eu/state-aid/coronavirus_en, 30.11.2022.

Table 2.

List of public aid addressed by Member States to all carriers in order to counteract the effects of the COVID-19 outbreak

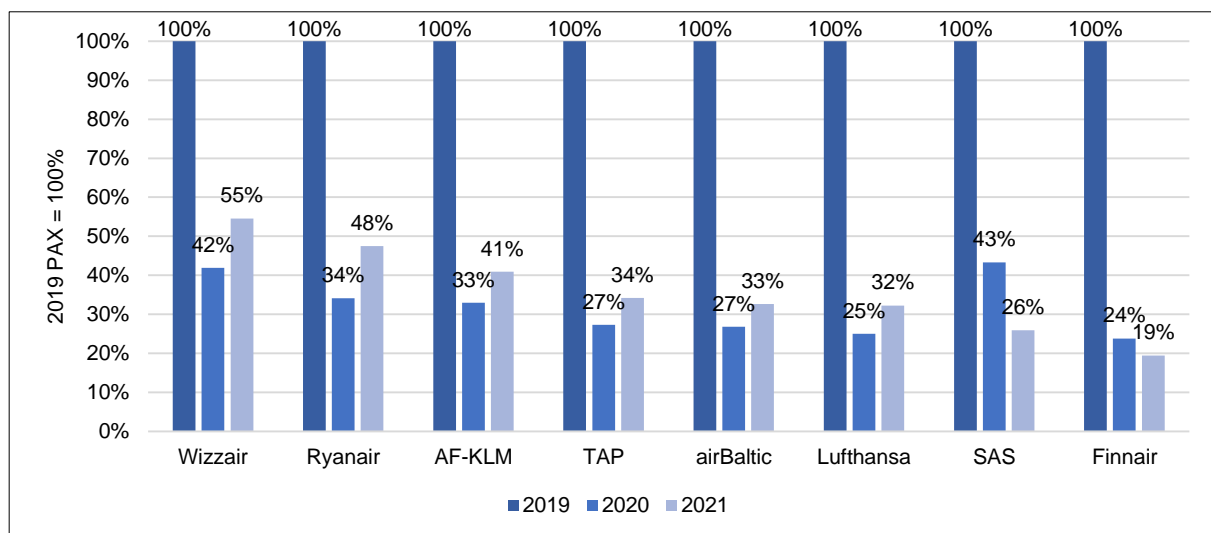
Date of publication	Subsidising country	Subsidised group of air carriers	Amount (million EUR)	Legal basis
2020-04-11	Sweden	All air carriers	455,0	Temporary framework
2020-06-01	Cyprus	All air carriers	6,3	Temporary framework
2020-06-27	Romania	Air carriers at Oradea airport	1,0	Temporary framework
2020-09-02	Denmark	All air carriers	24,0	Temporary framework
2020-11-27	Denmark	All air carriers	6,0	Temporary framework
2020-12-22	Italy	All air carriers	130,0	107(2)b TFEU
2021-06-06	Romania	Air carriers at Maramureş airport	1,2	Temporary framework
2021-09-29	Romania	All air carriers	1,2	Temporary framework
2021-11-19	Romania	Air carriers at Sibiu airport	1,7	Temporary framework
2021-12-10	Romania	All air carriers	10,3	Temporary framework
2022-02-17	Cyprus	All air carriers	6,1	Temporary framework
2022-03-02	Slovenia	All air carriers	7,0	Temporary framework
2022-03-17	Bulgaria	All air carriers	30,7	Temporary framework
2022-03-23	Slovakia	All air carriers	3,0	Temporary framework
2022-03-31	France	All air carriers	Deferral of certain taxes	107(2)b TFEU
2022-04-04	Romania	Air carriers at Arad airport	1,0	Temporary framework
2022-11-17	Slovenia	All air carriers	5,0	Temporary framework

Source: Own elaboration based on data: *Factsheet – List of Member State Measures approved under Articles 107(2)b, 107(3)b and 107(3)c TFEU and under the State Aid Temporary Framework*. Retrieved from: https://competition-policy.ec.europa.eu/state-aid/coronavirus_en, 30.11.2022.

As indicated above, the summaries do not take into account the total aid granted to all air carriers. For example, Poland, apart from supporting its national carrier LOT with an amount of 650 million EUR (State aid: Commission approves €650 million...), consisting of a subsidized loan of 400 million EUR and a recapitalization of 250 million EUR in the form of subscriptions for newly issued shares taken up by the State Treasury, also has granted a liquidity

loan through the state-owned entity Polski Fundusz Rozwoju to the private carrier Enter Air, but its amount, equal to 287 million PLN (Powzięcie informacji dotyczącej podjęcia decyzji...), was significantly lower than the aid granted to LOT.

The state aid activities met with the opposition from private carriers (especially Ryanair and Wizzair), who did not receive direct support from their home countries (i.e. the governments of Ireland and Hungary, respectively). They sued the state aid granted to other air carriers, accusing them of destroying competition on the air transport market and have won some of the disputes (Ryanair gets rare wins in EU court...). Figure 4 presents a comparative summary of operational data in terms of the number of passengers served in 2019-2021. What is important, the ability of air carriers not supported by public support to rebuild their operations in 2020-2021 was significantly greater than in the case of those entities that have received the highest levels of public aid. In addition to that, the preliminary operating results of Ryanair and Wizzair for third quarter of 2022 indicate that the number of passengers carried by these air carriers was higher than in the corresponding period of 2019, by 5% and 12%, respectively, which can be considered as another step in the process of emerging from the crisis.



Data for Alitalia/ITA Airways unavailable.

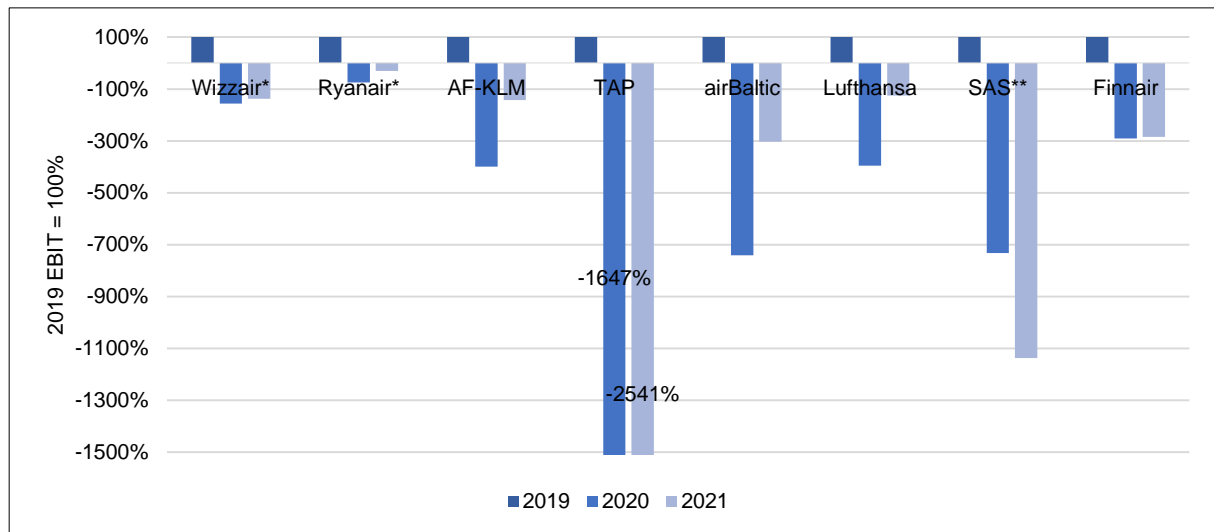
Figure 4. List of the number of passengers served (PAX) by selected air carriers in 2020-2021 in relation to the value for 2019 (2019 = 100%).

Source: Own elaboration based on operational data of air carriers.

Similar results come from the analysis of financial data. Figure 5 presents a comparison of the operating result (EBIT) of air carriers in 2020-2021 with the earnings achieved by them in 2019. Data analysis shows that the non-subsidized private carriers Wizzair and Ryanair were able to minimize losses caused by the COVID-19 pandemic in a significantly more optimal way¹. The ability of these entities to achieve such results cannot be explained solely by the low-

¹ Comparative analysis of data is burdened with the problem of their incomparability due to the variety of reporting periods adopted by individual carriers. Nevertheless, based on the determination of the size of the difference between individual entities, the legitimacy of such a statement was recognized.

cost nature of their operations (LCC), as Latvian airBaltic, which is on also on the presented list, also uses such business model.

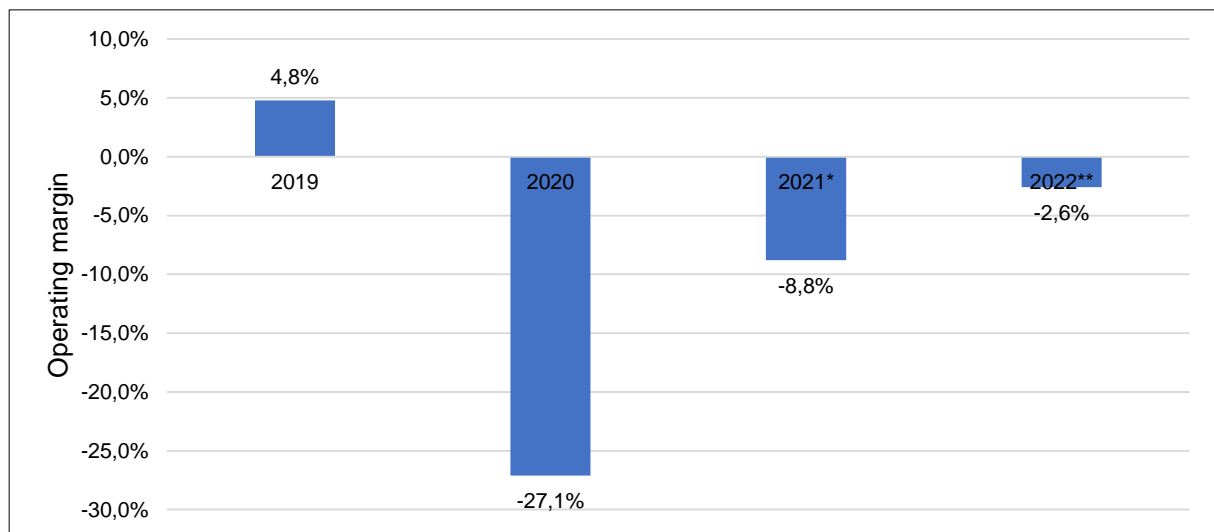


* Fiscal year from April to March

** Fiscal year from November to October

Figure 5. Operating result (EBIT) in 2020-2021, in relation to the value for 2019 (2019 = 100%).

Source: Own elaboration based on financial data of air carriers.



* Preliminary data

** Forecasted data

Figure 6. Operating margin of European carriers, 2019-2022.

Source: Own elaboration based on data: *Industry Statistics*. Retrieved from: <https://www.iata.org/en/iata-repository/publications/economic-reports/airline-industry-economic-performance---june-2022---data-tables/>, 30.11.2022.

Figure 6 shows the historical and projected operating margins generated by European carriers. According to IATA forecasts, in 2022 European carriers will still fail to generate a positive operating result on a regional basis. At the same time, taking into account the need to service relatively high levels of debt at high interest rates, it may turn out that carriers who have survived only due to the received aid, will require further funding.

4. Summary

The analyses carried out indicate that the amount and form of state aid were not unified among the geographic regions of the world. A positive correlation between the granting of public aid and the ability to quickly return air traffic to pre-crisis levels caused by the outbreak of the COVID-19 pandemic cannot be demonstrated at the regional level.

Research has shown that in the European market, the concerns presented by some researchers were partially confirmed. The European Union countries focused on providing assistance to their national carriers, rather than to the air transport market as a whole. Aid granted to all market participants provided on a relatively equal basis was marginal comparing to all of the granted support. Western European countries opted for the greatest state aid, while other Member States provided less support, resigned from such activities or did not have an air carrier of such 'national' nature. The largest enterprises were supported several times by the governments of their home countries. No evidence was found that this aid was granted primarily in order to provide sustainable development. However, in the times when air carriers are unable to achieve a positive operating result for several periods, expectation of implementing costly 'green investments' should be considered as irrational.

What is more, the high level of state aid granted cannot be considered as a factor that improved the value of operational indicators. Europe as a region (in the geographical division used by IATA) has recorded the world's largest total number of bankrupt or administrated enterprises, despite being the second in the world ranking in terms of the level of support provided to air carriers. The analysis of operational indicators showed that the level of passengers transported in 2020-2021 in comparison to 2019 values was below the global average. As the analysis ended on 2021 data, the difference between Europe and other regions of the world cannot be explained by the armed conflict in Ukraine as the new stage of it has begun in February 2022. Among the analysed enterprises and indicators attributable to them, the best results were recorded by private LCC entities, which had no grounds to expect receipt of public aid and had to take immediate and rational actions from the point of view of the faced market situation. Similar conclusions were drawn from the analysis of financial data based on the generated EBIT margin.

The research was based on limited number of entities and on limited number of operational and financial indicators. Some data comparisons are burdened with error due to inconsistency between reporting (fiscal) periods.

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