

# Analysis of the structure of scheduled airline services in Central European countries

## Part one

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### ABSTRACT

The post-pandemic period is particularly important for the European airline market. We can observe new trends of changes that will shape it for many years to come. We can already clearly see that the Central European region has its own specificity, distinguishing it from Western Europe. In the case of our country, analysing the situation and forecasting the future is particularly important, as decisions are currently being taken regarding huge infrastructure investments. The structure of the number of seats offered by scheduled airlines and the changes in it are very good indicators of the strategies of air carriers, the most important players in the market game.

**Key words:** network carriers, low-cost airlines, trends of change

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### Introduction

We are presently in a pivotal period for the European airline market. The Summer 2023 season marks the first time in three years that international travel restrictions related to the pandemic have had minimal impact on the market. Currently, we can observe how the demand situation has changed in comparison to 2019 and what further trends are emerging. We now know that these trends will shape the market structure and competitive positions of airlines for years to come.

The current offerings of scheduled airlines were utilised as our database. It serves as an excellent indication of the strategies of particular airlines and can effectively show the market structure.

For Poland, a thorough analysis of the competitive landscape in our region, with a special focus on PLL LOT [LOT Polish Airlines], is of exceptional significance. Decision-makers have, for several years, assumed that the construction of the STH [Solidarity Transport Hub or Central Communication Port], including a very large, and potentially massive at later stages, airline hub, is already determined. Critics of this project, including the undersigned, have repeatedly emphasized that even during a market boom, establishing a new hub in Europe, to be developed by a medium-sized airline like LOT is a highly risky endeavour<sup>1</sup>.

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<sup>1</sup> For more on airport development and management, refer to the work – *Zarządzanie rozwojem portów lotniczych*, edited by S. Huderek-Glowska.

The ongoing pandemic crisis and resulting market changes render this undertaking destined for failure. Partly due to the project accelerating the process of market consolidation and weakening the position of medium-sized airlines. It also significantly alters the demand structure in favour of price-sensitive traffic served by ultra-low-cost airlines<sup>2</sup>.

This study contains a substantial amount of numerical data. However, their demonstration is necessary for appropriately documenting the presented theses and generalisations. The decision-makers, when justifying massive investments tied to the STH project, rely on unclear slogans and statements often of a propagandistic nature. The use of precise and objective data becomes all the more valuable. I encourage anyone with a deeper interest in these matters to thoroughly study this work.

The first part of the article will subject our entire region and the six largest markets to analysis, while the second part will cover the remaining countries and provide an extensive summary.

All numerical data used in this analysis regarding airline offerings in Central Europe come from the OAG Flight Database & Statistics and are highly precise.

In the analysis, we only study scheduled airlines – network, low-cost, and hybrid business models, sitting in between network and low-cost airlines. Therefore, we must be aware that the case of hybrid airlines, such as Czech Smartwings with a model intermediate between low-cost and charter, is problematic. On most routes, they sell a portion of their offerings to Tour Operators, similar to charter airlines. Some portion is being offered to individual passengers, like scheduled airlines. In our comparisons, we almost entirely exclude these airlines but present their data separately where relevant, such as in the case of the Czechia<sup>3</sup>.

## Market structure in Central Europe and competitive positions of key airlines

### Preliminary remarks

- Due to historical, political, and overall economic reasons, Austria is not included. However, it is important to note that due to geographic reasons crucial for the airline system, Austria and Vienna are part of Central Europe.
- Throughout the study, passenger seat data is presented in thousands.
- For airline groups, total data is provided. However, in the case of groups containing both network and low-cost airlines, they are separated. For instance, data for Lufthansa, Austrian, Swiss, and SN Brussels are provided separately from Eurowings (Table 1, Figure 1).

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<sup>2</sup> For more on airline market consolidation, refer to the work – *Transport lotniczy w rozwoju globalnej mobilności*, edited by A. Hoszman.

<sup>3</sup> For more on airline business models, refer to the work – *Biznes Lotniczy*, edited by A. Hoszman.

Table 1. Airline offerings in Central European countries for Summer 2023  
Comparison with 2019. Without domestic travel

Country	Summer 2023	Index to Summer 2019	Share (%)	Remarks
Poland	30,247	101.20	26.64	Share of Chopin Airport 36.0% (-6.3 pp)
Romania	14,524	96.48	12.79	Share of Bucharest (OTP) 61.1% (-3.9 pp)
Hungary	10,391	86.16	9.15	Share of Budapest 98.0%
Croatia	10,206	101.70	8.99	Share of Zagreb 29.1%
Serbia	8,456	124.50	7.45	Share of Belgrade 80.4%
Czechia	8,109	68.80	7.14	Without Smartwings – hybrid airline (see description of the Czech market) Share of Prague 97.9%
Bulgaria	6,529	108.70	5.75	Share of SOF 71.8% Excluding QS and only 25% of FB (see market analysis)
Latvia	5,266	87.70	4.64	
Albania	5,266	213.20	4.64	
Lithuania	3,841	88.90	3.38	Share of Vilnius 69.7% (-5.2 pp)
Macedonia	2,439	147.30	2.15	
Bosnia and Herzegovina	2,122	139.40	1.87	
Estonia	1,979	83.60	1.74	
Montenegro	1,953	94.60	1.72	
Slovakia	1,314	82.90	1.16	
Slovenia	927	59.20	0.82	
<b>Total</b>	<b>113,560</b>	<b>98.88</b>		

Source: Author's analysis based on data from the OAG Flight Database & Statistics

As we can see, our entire region has returned to pre-pandemic offering levels after three years of market downturn. According to current analyses, including Eurocontrol's forecasts, this recovery is notably faster than that of the entire European market. Eurocontrol currently forecasts that flight operations in Europe will not return to 2019 levels until 2025.

The question of why the aviation market in Central Europe is recovering significantly faster than in Western Europe will be addressed in further sections of this analysis.

Here, we highlight a few critical phenomena:

- The situation in different countries is highly diverse, with Poland maintaining its share in the entire region and remaining a decisive leader.
- The situation in South-Eastern European countries, which is focused on tourism, is great.
- Considerable declines were observed in the Czechia and Slovenia. It was primarily due to the exit of CSA and Adria airlines from their markets, which had been based there previously.

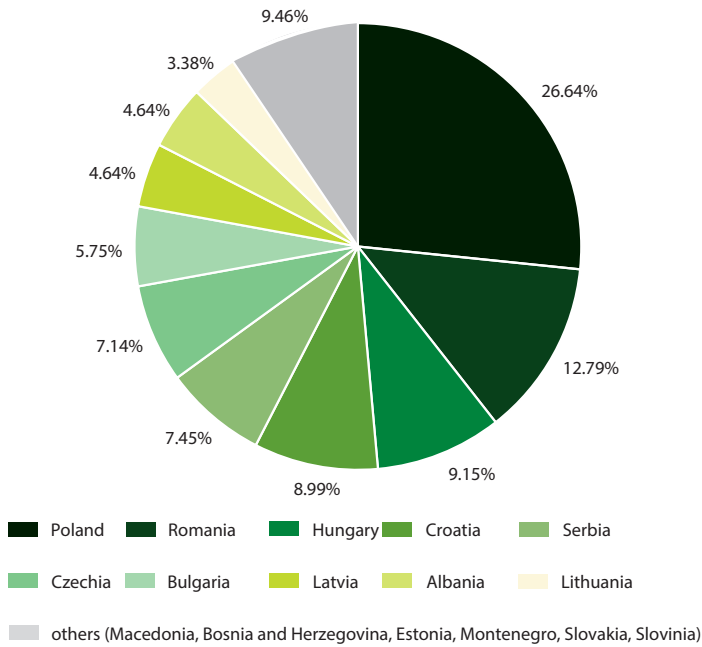


Fig. 1. Airline offerings in Central European countries for Summer 2023  
Source: Own work

Table 2. Offerings in the region – largest low-cost airlines  
Comparison with 2019. Total offerings of low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in the total market (%)	Change in share (pp)
Wizz Air	30,206.00	122.50	26.60	+4.70
Ryanair	26,388.00	145.00	23.30	+7.00
easyJet	3,162.00	74.95	2.80	-1.05
Eurowings	2,482.40	115.40	2.20	+0.30
Norwegian	1,866.30	72.90	1.64	-0.63
<b>Total</b>	<b>64,104.70</b>	<b>123.55</b>	<b>56.55</b>	<b>+10.46</b>
<b>All low-cost airlines</b>	<b>68,945.00</b>	<b>121.06</b>	<b>60.80</b>	<b>+10.20</b>

Source: Author’s analysis based on data from the OAG Flight Database & Statistics

This table is of paramount importance, showcasing the significant shift in market structure in favour of low-cost airlines (Table 2, Figure 2).

Specifically:

- Two ultra-low-cost airlines, Wizz Air and Ryanair, dominate the market and are growing.

- The Hungarian airline remains the leader, but its lead over the Irish airline has notably diminished.
- Ryanair is investing in the region significantly, expanding faster than in Western Europe. The competition between these two giants is becoming fiercer. Together, they hold nearly fifty percent of the entire market already. Detailed insights into this competition will be presented together with country-specific analysis.
- As further analysis indicates, countries where these leaders are highly active are emerging from the crisis and developing their markets much faster. Once again, the notion that an aggressive pricing policy generates new demand is confirmed<sup>4</sup>.

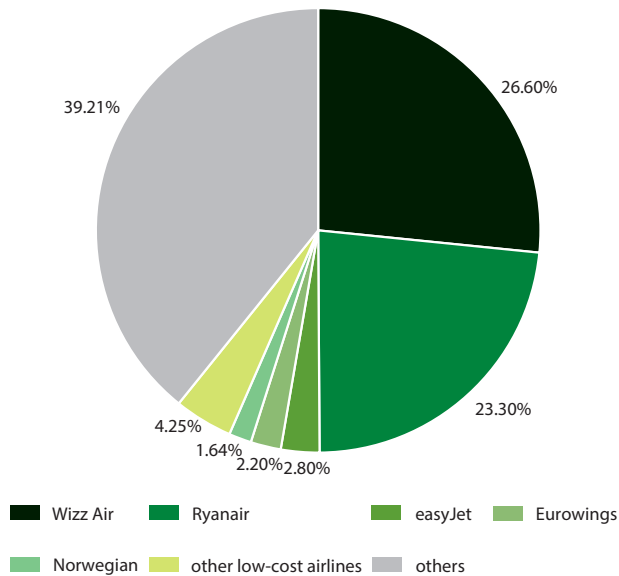


Fig. 2. Offerings in the region – largest low-cost airline

Source: Own work

As observed, the market share of network airlines has notably declined in favour of ultra-low-cost airlines.

Regarding their competitive situation, noteworthy points include:

- The Lufthansa Group remains the undeniable leader, but its advantage over other European global groups has decreased. The reasons for this will be explored further. This table alone highlights the dominance of the group in the network segment of the market.

<sup>4</sup> For more on the growth potential of low-cost airlines, refer to the work – *Biznes Lotniczy*, edited by A. Hozzman.

- LOT remains as the vice leader, though its gap to the Lufthansa Group has significantly grown. The Polish airline’s share in the entire market has dropped. When analysing LOT’s position, it’s crucial to remember that it’s the sole airline with a base/hub in the region. As such, it possesses an extensive network of direct connections, while its competitors primarily offer transit connections through hubs located outside the region. This case is further illustrated in the subsequent table.
- Turkish Airlines has benefitted from the pandemic and the Ukrainian conflict in a unique manner. Istanbul has become a preferred hub for a substantial portion of traffic to Asia, following the closure of the Trans-Siberian route. The airline also benefitted from the surge in holiday-tourism traffic from Europe.
- Global competitors of the Lufthansa Group have developed at a remarkably similar pace, returning to pre-pandemic offering levels.
- The distribution of market shares between low-cost and network airlines in the region underlines that medium-sized airlines, often with hybrid, combining network and low-cost model features, suffered the most significant losses due to the pandemic crisis. Some even suspended their operations altogether.

It’s worth exploring the competitive situation among network airlines in third countries, excluding Poland. This primarily concerns the ability to generate transit and international traffic through their hubs, such as the Lufthansa Group via FRA, MUC, VIE, ZRH, and BRU, and LOT via WAW (Table 3, Figure 3).

Table 3. Network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
The Lufthansa Group	9,536	94.30	8.41	-0.57
LOT	7,438	80.40	6.56	-1.66
Turkish Airlines	3,026	125.00	2.67	+0.46
The Air France/KLM Group	2,565	101.90	2.26	+0.02
The IAG Group (BA)	1,887	101.50	1.66	-0.02
Emirates and flydubai	1,233	103.00	1.09	+0.03
<b>Total key network airlines</b>	<b>25,685</b>	<b>93.90</b>	<b>22.66</b>	<b>-1.64</b>

Source: Author’s analysis based on data from the OAG Flight Database & Statistics

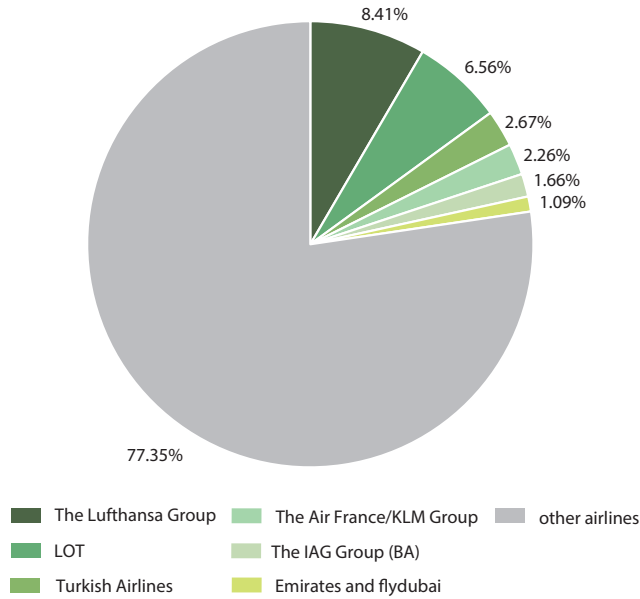


Fig. 3. Network airlines  
 Source: Own work

### Competitive position of network airlines in third countries

Table 4. Network airlines – operations in third countries, excluding Poland

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
The Lufthansa Group	7,685	101.20	46.76	-0.12
Turkish Airlines	2,855	121.90	17.37	+2.94
The Air France/KLM Group	1,839	102.80	11.19	+0.20
The IAG (BA) Group	1,635	101.40	9.95	+0.01
LOT	1,474	78.85	8.97	-2.55
Emirates and flydubai	945	91.90	5.75	-0.59
<b>Total network airlines</b>	<b>16,433</b>	<b>101.30</b>		

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

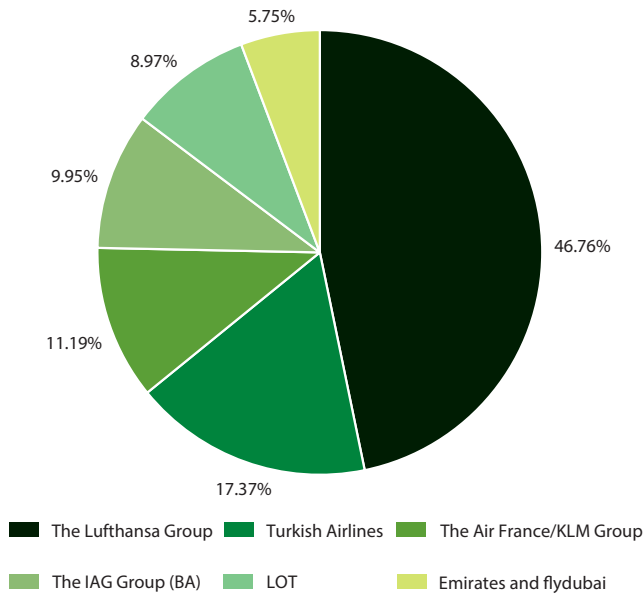


Fig. 4. Network airlines – operations in third countries, excluding Poland  
 Source: Own work

Here we observe the dominance of the Lufthansa Group in these countries. It holds almost a fifty percent market share in this region. Geography plays a decisive role here. Its hubs are much better positioned than those of its competitors. When we look at the map, we see that they form a specific barrier between Central Europe and the main competitors' hubs. In the case of a considerable part of Central-Eastern Europe, only Istanbul is significantly better positioned in terms of transit traffic to Asia, the Middle East, and Africa (Table 4, Figure 4).

LOT has suffered a substantial decline here. This is likely due to a conservative approach to offerings driven by the need to optimise financial results. Prior to the pandemic, LOT heavily invested in the market. In Europe, it was mainly in our region. Now it must change its approach as it faces the repayment of significant financial obligations, not only credit-related.

The three European global groups, including Lufthansa, developed at a very similar pace. This implies that the decline in the Lufthansa Group's offerings in the entire region is a result of a significant reduction in offerings to and from Poland. We analyse this phenomenon in more detail in the later part of the article.



## Market structure and competitive situation in specific countries

### Preliminary remarks

- Due to necessity, this part of the analysis is developed in a very synthetic manner. For a deeper understanding of the Polish market, I encourage you to review the three-part report on offerings to and from Poland in the Summer of 2023, published on the Pasażer.com portal.
- International connections are included in the comparisons.

### Situation on the Polish market

Table 5. Major Network Airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
LOT	5,964.00	80.80	19.71	-4.99
The Lufthansa Group	1,851.40	73.40	6.12	-2.32
The Air France/KLM Group	726.00	98.80	2.40	-0.06
Emirates and flydubai	288.00	171.40	0.95	+0.39
The IAG Group	254.00	102.90	0.84	+0.01
SAS	222.00	53.90	0.73	-0.65
Turkish Airlines	171.00	216.50	0.56	+0.30
<b>Total network leaders</b>	<b>9,476.40</b>	<b>82.09</b>	<b>31.30</b>	<b>-7.32</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 6. Major low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
Ryanair	11,036.00	142.40	36.48	+10.55
Wizz Air	7,643.00	105.80	25.27	+1.10
Norwegian	523.50	77.50	1.37	-0.89
easyJet	342.00	51.70	1.13	-1.08
Jet2.com	102.40	92.50	0.34	-0.03
<b>Total low-cost airlines</b>	<b>19,777.00</b>	<b>118.51</b>	<b>65.38</b>	<b>+9.54</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

As previously stated, the growth index for offerings to/from Poland was almost the same as that for the entire region. However, its structure changed even more significantly:

- The share of low-cost airlines increased by 9.54 pp, while network leaders decreased by 7.32 pp. This is a fundamental shift. It is tied to a massive decline in Chopin Airport's share – by 6.32 pp<sup>5</sup> (Table 5, 6).
- The share of two ultra-low-cost airlines increased immensely, reaching 61.75 pp. An increase of 11.85 pp. Here, we can speak of dominance in several highly price-sensitive market segments.
- Ryanair and Wizz Air practically marginalised the other low-cost airlines. There are only minimal chances for this situation to significantly change in the future.
- Remarkably, Ryanair's offerings increased significantly, despite encountering growth limitations in the Warsaw metropolitan area due to the capacity of Modlin Airport.
- Similar to almost all major markets in Central Europe, here we can observe a considerable advantage of one of the low-cost leaders – either Ryanair or Wizz Air. Only in Hungary is the competition relatively balanced.
- The Hungarian airline, if it does not want to accept the weakening of its competitive position on the largest market in the region, must counterattack in the future.
- The position of the two network leaders significantly diminished.
- In the case of LOT, such a significant loss of market share partially results from the closure of three Eastern markets but also from the dwindling demand for business travel and the necessity of financial results optimisation. The latter applies to the Lufthansa Group as well. However, in their case, it's a conscious strategy.
- The Lufthansa Group, despite reducing the offerings at regional airports significantly, maintained its core offerings for the highest-paying and transit traffic. However, in the largest metropolitan areas, it must reckon with strong and growing competition from the AF/KLM Group, particularly the Dutch airline.
- The weak position of Turkish Airlines is not due to its actual capabilities, but rather contractual limitations – intergovernmental obligations requiring coordination of the flight program with LOT, which defends itself against the competitor's aggressive market strategy. Most countries in the region provide ample opportunities for this airline development.

Note: If we want to analyse the combined transit capabilities of LOT in Poland and the entire region, we should also take into account about 50% of the domestic offerings of the Polish airline. In Summer 2023, this amounts to 1,316 thousand seats.

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<sup>5</sup> More about historical changes in the structure of the Polish airline market in the work – *Poland's Transportation System*, edited by J. Pieregud.

## Romanian market

Table 7. Largest low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)	Comments
Wizz Air	8,289.00	132.30	57.07	+15.45	
Ryanair	2,115.00	139.02	15.56	+5.45	
Eurowings	80.60	125.16	0.56		
Blue Air	-		0	-15.11	Blue Air suspended its operations
<b>Total low-cost airlines</b>	<b>10,698.00</b>	<b>104.70</b>	<b>73.66</b>	<b>+5.78</b>	

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 8. Largest network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
The Lufthansa Group	1,216.00	92.90	8.37	-0.33
Tarom	1,090.40	65.60	7.51	-3.53
Turkish Airlines	399.20	107.95	2.75	+0.29
AF/KLM	379.00	91.78	2.61	-0.07
LO	195.40	114.00	1.35	+0.21
British Airways	148.00	91.36	1.02	-0.06
Qatar	105.60	78.22	0.70	-0.20
flydubai	92.60	108.18	0.64	-0.07
<b>Total network leaders</b>	<b>3,626.20</b>	<b>84.19</b>	<b>24.97</b>	<b>-3.64</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

In the price-sensitive segment, only two airlines with the lowest cost structure remain. Together they hold over 72% of the market share, which is a unique situation among the large markets in our region. This results from a significant level of permanent and temporary labour migration from Romania. The Hungarian airline dominates on this market. This is also a unique situation among the large markets in our region. Thanks to Hungary, Wizz Air still holds an advantage over Ryanair in Eastern Europe. The Hungarian airline continues to invest in the Romanian market, believing that ethnic-labour mobility favours a culturally similar airline. The cheap tourist travel from Western Europe, which prefers Ryanair, is limited when compared to other large markets in the region (Table 7).

Until the pandemic came, a large local low-cost airline operated in the Romanian market, Blue Air, which services were much larger than those of Tarom. In 2022, Blue Air suspended its operations, and Wizz Air and Ryanair effectively replaced them, leading to an increase in the overall traffic of low-cost airlines in 2023.

In regard to network airlines (Table 8), it's worth noting:

- The significant dominance of the Lufthansa Group stems from the geographic location of its hubs. This is true for almost every market in the region. The only exception is the Baltic countries, where Warsaw is the best strategically positioned. This has also been the case for Ukraine in the past, and hopefully in the near future.
- Tarom, which is included here, is not truly a network airline anymore. It suspended all long-haul connections and drastically reduced its entire network. It focuses on direct flights and relatively low-cost travel. Its future is very uncertain.
- Turkish Airlines holds a strong position. It benefits from the previously mentioned strong position in transit travel, mainly to Asia, and the strong demand for tourist travel.
- LOT has a good transit offering to and from Bucharest (3 times daily) and a limited offering to and from Cluj – once daily. For comparison, the Lufthansa Group has 12 flights to and from Bucharest, 3.5 to Cluj, 5 to Timisoara, 3 to Sibiu, and 1 to Iasi.

## Hungarian market

Table 9. Largest low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
Wizz Air	3,510.00	86.85	33.78	+0.27
Ryanair	2,838.00	142.40	27.31	+10.78
Eurowings	313.60	75.02	3.02	-0.45
easyJet	224.40	38.20	2.16	-2.68
Norwegian	203.00	64.20	1.95	-0.67
<b>Total low-cost airlines</b>	<b>7,470.00</b>	<b>93.46</b>	<b>71.89</b>	<b>+5.61</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 10. Largest network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)	Comments
The Lufthansa Group	1,050.40	85.70	10.11	-0.05	
AF/KLM	484.40	85.90	4.66	-0.02	
The IAG Group	362.00	86.01	3.48	-0.08	
Turkish Airlines	261.60	128.10	2.61	+0.92	
LOT	225.60	55.70	2.17	-1.17	Including flights to SEL In 2019 USA as well.
Emirates and flydubai	215.40	134.00	2.07	+0.74	
Qatar	56.40	31.26	0.54	-0.96	
<b>Total network leaders</b>	<b>2,655.80</b>	<b>83.83</b>	<b>25.56</b>	<b>-0.71</b>	

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 11. Long-haul offerings

Airline/Group	Connection	No. of flights per week	Offering	Index	Comments
LOT	Seul	4	69.00	802.30	Launched in September 2019
Korean Air	Seul	3	49.40	-	No flights in 2019
Shanghai Airlines	Szanghaj	3	51.00	142.90	Launched in June 2019
Air China	Hainan	1	18.00	-	CA operated to Beijing in 2019
<b>Total</b>			<b>187.40</b>	<b>53.40</b>	<b>In 2019, flights to the USA (JFK, ORD – LOT, AA from PHL, AC from YYZ)</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

On this market, the headquarters of Wizz Air, low-cost airlines have increased their share, but mainly thanks to the Irish giant. It reduces the competitor's advantage. Other low-cost airlines have been marginalised to a significant extent. These two leaders dominate the entire market, holding 60% of it, and the share of all low-cost airlines is higher than in the entire region (Table 9).

The three network leaders have reduced their offerings and in a similar manner. Leading, as everywhere, is the Lufthansa Group, but its advantage over competitors is slightly smaller than in other large markets. LOT also significantly lost its share in Hungary. The radical reduction of intercontinental offerings contributed to it the most. It suspended operations to the USA and offered connections to Seoul, despite having a good occupancy rate, and already having a Korean competition. The Turkish airline is dramatically increasing its offering. It is larger than that of the Polish airline, despite the distant location of its hub.

Hungary is one of the four markets in the region that, far behind Poland but ahead of the Czechia and Serbia, has noteworthy long-distance offerings. However, wide-body aircraft are no longer based there, and the total offering is almost 85% smaller than in Poland (Table 10, 11).

## Croatian market

Table 12. Largest low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
Ryanair	2,318.60	273.90	22.72	+14.29
easyJet	1,358.40	95.57	13.31	-0.84
Eurowings	694.80	81.45	6.81	-1.69
Wizz Air	384.00	455.00	3.76	+2.92
Norwegian	340.40	58.49	3.34	-2.46
Jet2com	292.40	75.28	2.86	-1.01
Transavia	274.00	107.00	2.68	+0.13
Vueling	271.00	83.75	2.66	-0.56
Volotea	205.60	82.90	2.01	-0.46
<b>Total low-cost airlines</b>	<b>6,146.00</b>	<b>121.75</b>	<b>60.20</b>	<b>+10.00</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 13. Largest network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
The Lufthansa Group	834.00	95.86	8.17	-0.62
The IAG Group	467.00	86.48	4.58	-0.80
The AF/KL Group	293.00	170.00	2.87	+1.69
Turkish Airlines	193.00	78.00	1.89	-0.57
LOT	116.00	74.64	1.14	-0.41
flydubai	61.00	37.65	0.60	-1.01
Qatar	56.40	45.48	0.55	-0.69
<b>Total network leaders</b>	<b>2,020.40</b>	<b>88.47</b>	<b>19.80</b>	<b>-2.95</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Note: In the analysis of the Croatian market, it should be noted that the local airline – Air Croatia is based there, with a 12.86% of its share. Its operations have decreased by 15.2% to a level of 1312.0.

The situation on this market is as follows:

- Inbound tourism dominates here, especially during the summer season. This is indicated by the significant share (exceeding 70%) of airports serving regional clusters such as Dubrovnik and Split. The strong performance of UK airlines suggests that Croatia is very popular in this country.
- Ryanair made a significant leap, overtaking easyJet as the leader among low-cost airlines. Wizz Air, which focuses more on outbound travel from the region, is less active here. The considerable diversity of offerings among low-cost airlines is noteworthy

as it uncommon in our region. This is due to the interest in outbound tourism to Croatia among many Western European countries.

- As everywhere, the Lufthansa Group is a definitive leader among network airlines, but its advantage is relatively smaller. This is due to the mentioned market characteristics. LOT's share is similar to that in other countries in this part of the region, not exceeding 1.5%. Turkish Airlines is less active here, primarily focusing on outbound travel, largely transit, from the country.
- The seasonal operations of United from Newark to Dubrovnik are a point of interest. This airline and Air Croatia belong to Star Alliance (Table 12, 13).

## Serbian market

Table 14. Largest network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
JAT	3,519.00	148.23	41.62	+6.66
The Lufthansa Group	822.20	100.00	9.72	-2.39
Turkish Airlines	428.00	171.20	5.06	+1.38
flydubai	142.00	252.67	1.68	+0.85
The AF/KLM Group	86.40	139.35	1.02	+0.08
LOT	65.20	113.79	0.77	-0.07
Qatar	52.00	62.88	0.61	-0.61
<b>Total network leaders</b>	<b>5,114.80</b>	<b>138.00</b>	<b>60.49</b>	<b>+5.90</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

Table 15. Largest low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
Wizz Air	1,643.40	209.10	19.35	+7.77
easyJet	366.60	132.30	4.34	+0.26
Eurowings	271.60	104.10	3.21	-0.63
Pegasus Airlines	176.20	147.10	2.08	+0.33
Air Montenegro	176.00	-	2.08	+2.08
Chair Airlines	159.60	143.80	1.89	+0.26
Ryanair	109.00	118.20	1.29	-0.07
Norwegian	95.00	93.50	1.12	-0.36
<b>All low-cost airlines</b>	<b>3,056.00</b>	<b>145.40</b>	<b>36.14</b>	<b>+5.18</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

In 2019, several smaller low-cost airlines operated to and from Serbia, which do not have offerings in the summer of 2023. Hence, the relatively smaller increase in the combined market share of all low-cost airlines (Table 14, 15).

### Long-haul offerings

JAT: During peak season, daily flights to New York/JFK and up to three times a week to Chicago. One weekly flight to China – Tianjin.

Hainan Airlines: Flights from Beijing twice a week.

Total long-haul offering: 163.6 thousand (+147.9%).

It should be noted that:

- The considerable offerings in Serbia are largely due to the fact that a small airline with a model similar to a network airline (JAT) is based in Belgrade. Even though it has a limited long-haul offering. This airline is significantly larger than Tarom and other airlines with such a business model in the region. It holds the position of vice leader, far behind LOT. JAT benefits from the fact that there is no local network airline of significance in the Balkans except for them. Adria has gone bankrupt, and Air Croatia’s offering is over 62% smaller than its Serbian competitor.
- The market is highly consolidated, with only JAT, Wizz Air, the Lufthansa Group, and Turkish Airlines being the most important. Turkish Airlines leverages the proximity of its hub and the very limited competition.
- The relatively small share of the low-cost airline market is primarily due to Serbia not being a part of the EU, and thus, them not having full operational freedom. The market strength of JAT also plays a role here.
- As in almost every country in the region, the Lufthansa Group’s share is almost 10%, while LOT’s share is several times smaller. In countries more distant from Poland, it only slightly exceeds 1% and is sometimes even lower.

### Czech market

Table 16. Largest low-cost airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
Ryanair	1,809.60	104.90	22.32	+7.70
Eurowings	702.00	326.20	8.66	+6.84
Wizz Air	646.00	509.46	7.97	+6.79
easyJet	585.60	69.11	7.22	+0.03
Transavia	256.00	240.00	3.16	+2.25
Vueling	243.00	86.48	3.00	+0.17
<b>All low-cost airlines</b>	<b>4,575.00</b>	<b>112.20</b>	<b>56.42</b>	<b>+21.84</b>

Source: Author’s own elaboration based on data from OAG System – Flight Database & Statistics



Table 17. Largest network airlines

Airline/Group	Summer 2023	Index to Summer 2019	Share in total market (%)	Change in share (pp)
The Lufthansa Group	902.40	80.73	11.13	+1.65
The AF/KL Group	508.60	107.30	6.27	+2.25
The IAG Group	429.40	81.02	5.30	+0.81
Turkish Airlines	220.20	98.74	2.71	+0.82
Emirates and flydubai	217.60	60.41	2.68	-0.37
LOT	198.60	121.80	2.45	+1.07
Finnair	150.00	87.21	1.85	+0.39
Qatar	56.60	34.22	0.70	-0.70
<b>Total network leaders</b>	<b>2,683.40</b>	<b>83.71</b>	<b>33.09</b>	<b>+5.91</b>

Source: Author's own elaboration based on data from OAG System – Flight Database & Statistics

When analysing the situation and development of the Czech market, several important elements should be taken into account (Table 16, 17):

- CSA withdrew from the market during the pandemic crisis and now operates only two flights a day to Paris/CDG. Its offering in the summer of 2019 was 2,232 thousand.
- Smartwings is based within this market. Its offering in Summer 2023 is 2,111 thousand, a decrease of 24.1%. We do not include it in the above comparisons since it is a hybrid airline, of which around 50% of its offering, and possibly even more, is sold in the form of charter flights. One can conduct simulations by adding half of Smartwings' offering to the total scheduled offerings and low-cost airlines.
- Long-haul offerings have decreased by 76.0%. Currently, these are seasonal daily flights from New York/JFK, four weekly flights from Seoul, and new flights from Taiwan starting in July 2023 – twice a week. In the Summer of 2019, there were connections to the USA, Canada, and China available.
- When evaluating the Czech market situation, it can be observed that:
- Even if half of Smartwings' offering is taken into account in the analysis, the total scheduled offerings to and from the Czechia is surprisingly small. It is nearly 11.8% smaller than that of Hungary. The disappearance of CSA from the market played a significant role here, with no airline taking its place. Neither network nor low-cost airlines filled the gap. This is a textbook example of the importance of the presence of an airline with an extensive network of direct connections based on the market. In Hungary, Wizz Air gradually filled the gap left by Malev.
- Low-cost airlines with limited offerings are still relatively inactive here, especially when considering the country's wealth and tourist attractiveness. This is influenced by the lack of dedicated, budget-friendly infrastructure at the Prague Airport. Their significant growth in the market share is largely due to CSA's departure and the substantial reduction of Smartwings' offering.

- To estimate the activity of low-cost airlines here, simply compare the combined offerings of Ryanair and Wizz Air: in Poland – 18.75 million, in Hungary – 6.35 million, and only 2.45 million in Czechia. Ryanair’s offering is over 34% higher in Krakow alone and 3.7% higher in Modlin.
- The offerings of network airlines are highly diversified. The Lufthansa Group is the leader here as well, but its advantage is relatively small, particularly over the Air France/KLM Group. As in Poland, the Dutch airline is very active and will offer up to five flights a day from Amsterdam starting in September.
- Both network and low-cost airlines have a diverse geographic offerings. Three Caucasian countries, the Persian Gulf region, and new flights to Saudi Arabia are worth mentioning.

The second part of the article will present the situation in smaller markets in the region and provide an extensive summary.

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## Analiza struktury oferowania rozkładowych linii lotniczych w krajach Europy Środkowej

Część pierwsza

### STRESZCZENIE

Okres postpandemiczny jest szczególnie ważny dla europejskiego rynku lotniczego. Możemy obserwować nowe trendy zmian, które będą go kształtowały przez kolejnych wiele lat. Widzimy już wyraźnie, że region Europy Środkowej ma swoją specyfikę, odróżniającą go od Europy Zachodniej. W przypadku naszego kraju analizowanie sytuacji i prognozowanie przyszłości jest szczególnie ważne, gdyż podejmowane są obecnie decyzje dotyczące ogromnych inwestycji infrastrukturalnych. Struktura liczby oferowanych przez rozkładowe linie lotnicze foteli oraz zmiany w niej zachodzące są bardzo dobrymi wskaźnikami strategii przewoźników lotniczych, najważniejszych uczestników gry rynkowej.

**Słowa kluczowe:** oferowanie, przewoźnicy sieciowi, tanie linie, trendy zmian

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