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## AIR TRANSPORT MARKET CHALLENGES IN THE SOUTHEAST EUROPE

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**Abstract:** *Air transport industry is one of the very important businesses worldwide. The global recession in the years 2008/2009 and regional economic crisis in the countries of Southeast Europe have caused domestic demand weakening for air travel. At the same time, high increase of competition on the air transport market in the period 2008-2016 made positive influence on flows of people, goods, capital, technology and ideas. State of the economy and air transport industry in the Southeast Europe countries has been analyzed in all-important segments including airlines, airports and air navigation services. Air transport regional market is still undeveloped with relatively weak connections within the region. Financial achievements for selected dominant airlines in the Southeast Europe region are showing negative result and questionable sustainability of the business models in the future. Analysis of air transport infrastructure within the Southeast Europe region shows relatively low level of performance indicators compared to 136 countries worldwide in the year 2017. Implementation of different restructuring measures and strategy improvements are necessary for the future surviving perspective of air transport Southeast Europe regional market.*

**Keywords:** *Air transport, Southeast Europe, competition, restructuring, airlines, airports.*

**JEL classification:** *F15.*

### INTRODUCTION

Airline industry, efficiently and safely, is moving people and products on global level, thus connecting businesses and communities. Thanks to implementation of modern and efficient technologies, innovative changes in business models, air transport in the world is showing continuous growth and more significant traffic results. Liberalization, privatization and consolidation processes throughout the commercial aviation world and especially in Europe, require strategic adjustment in response to market opportunities and challenges. Emerging economies in Southeast Europe with still undeveloped market and insufficient

traffic connection have a lot of potential for progress in different segments of the industry.

## AIR TRANSPORT INDUSTRY GLOBAL TRENDS

Some 1,400 airlines around the world are operating almost 53,000 routes. They serve almost 3,900 airports with scheduled commercial flights through the route network of several million kilometers managed by about 173 air navigation service providers (ATAG, 2016). Airlines worldwide operate in the year 2017 a total fleet of over 28,600 aircraft connecting 19,700 unique city-pairs. Total employment by airlines on global level reach 2.78 million in 2017. With impact on the wider economy, “supply chain” jobs around the world are estimated to rise to 69.6 million (IATA, 2017). Worldwide economic activity is the most powerful driver of growth in commercial air transport industry. Aviation jobs are, on average, 3.8 times more productive than other jobs. Aviation’s global economic impact is estimated to USD 2.7 trillion, equivalent to 3.5% of world Gross Domestic Product – GDP (ATAG, 2016). More than 3.8 billion passengers were carried in the year 2016 reaching annual average growth rate (AAGR) of 5.4 percent in the period 2008 - 2016 (Table 1).

**Table 1.** Selected airline performance indicators 2008-2016

Worldwide airline industry	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total 08-16	AAGR 08-16
<b>REVENUES, \$ billion</b>	570	476	564	642	706	720	767	720	705	5,870	2.7%
Passenger, \$ billion	444	374	445	512	531	539	541	511	501	4,398	1.5%
Cargo, \$ billion	62.6	48.4	66.1	66.9	63.5	60.7	62.4	52.5	47.6	531	-3.4%
<i>Sched passenger numbers, millions</i>	2,493	2,483	2,700	2,864	2,999	3,152	3,328	3,561	3,810	27,390	5.4%
<i>Freight tonnes, millions</i>	45.1	41.1	49.1	49.3	48.8	49.5	51.5	52.2	54.3	441	2.3%
World economic growth, %	1.5	-2.0	4.1	2.9	2.4	2.5	2.7	2.7	2.4	-	-
<b>EXPENSES, \$ billion</b>	571	474	536	623	687	695	732	659	643	5,620	1.5%
Fuel, \$ billion	203	134	151	191	228	231	224	175	133	1,670	-5.1%
Crude oil price, Brent, \$/b	99.0	62.0	79.4	111.2	111.8	108.8	99.9	53.9	44.6	-	-
Flights, million	26.5	25.9	27.8	30.1	31.2	32.0	33.0	34.0	35.8	276	3.8%
Break-even weight load factor, %	62.2	61.8	63.5	64.1	64.7	64.5	63.9	61.2	61.0	-	-
Weight load factor achieved, (WLF) %	62.1	62.0	66.8	66.1	66.4	66.8	67.0	66.9	66.9	-	-
Passenger load factor achieved, (PLF) %	76.1	76.2	78.7	78.5	79.4	79.7	79.9	80.3	80.3	-	-
<b>OPERATING PROFIT, \$ billion</b>	-1.1	1.9	27.6	19.8	18.4	25.3	35.1	61.1	62.1	250	-
% margin	-0.2	0.4	4.9	3.1	2.6	3.5	4.6	8.5	8.8	4.3	-
<b>NET PROFIT, \$ billion</b>	-26.1	-4.6	17.3	8.3	9.2	10.7	13.7	35.9	34.8	99.2	-
% margin	-4.6	-1.0	3.1	1.3	1.3	1.5	1.8	5.0	4.9	1.7	-
per departing passenger, \$	-10.5	-1.9	6.4	2.9	3.1	3.4	4.1	10.1	9.1	3.6	-
<b>Return On Invested Capital, (ROIC) %</b>	1.3	1.9	6.2	4.7	4.6	4.8	5.9	9.9	9.9	-	-

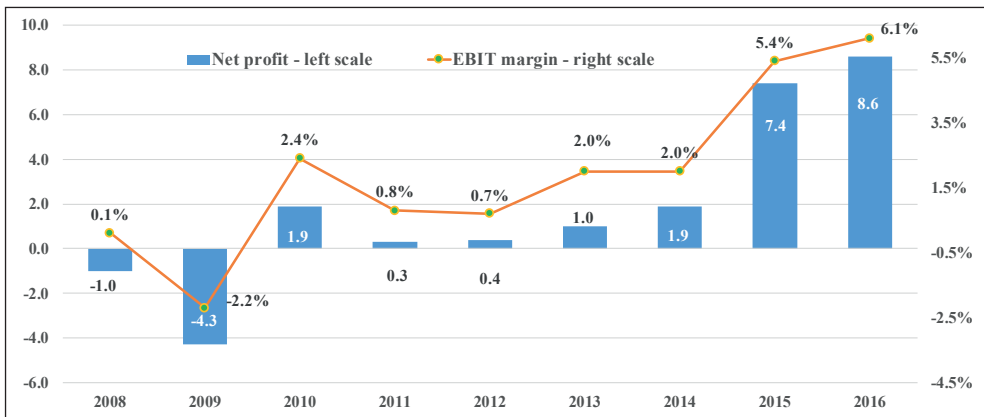
**Source:** According to IATA(2017) modified and prepared by authors.

In the years, 2008 and 2009 airlines achieved total net losses in amount of 30.7 billion USD due to extremely high fuel prices and consequences of global economic recession. Volatile fuel prices is the most important cost component of airli-

ne cash operating costs (COC) and according to Paul Clark (2017: 231) airline management is hostage to movements of prices of oil, which are difficult to forecast. Airlines obviously recovered dominantly due to achieved WLF (66.9 percent) and PLF of 80.3 percent. The most successful business years were 2015 and 2016, both with net profit of approximately 35 billion USD. Excellent financial achievement in the period 2010–2016 is strong evidence that liberalization in the aviation industry has led to increased competition, better frequency, improved load factors and productivity, increased traffic volumes and new route services, followed by decreased average fares. In the period, 2008–2016 airline industry generated net profit of 99.2 billion USD, but the achieved net profit margin was only 1.7%. Interesting fact is that the net profit per departing passenger was only 3.6 USD. A complex airline industry will bring issues, which require diligent responses related to safety, security, environmental protection and sustainability (Ruwantissa Abeyratne, 2012: 397). It is interesting approach of author Nawal K. Taneja (2017a: 124) who emphasizes that air travel has been truly democratized: *“It has become affordable for the masses in more developed societies, fostering inter-cultural exchange, understanding, and international business relations and trade.”*

**European airline industry** saw relatively successful 2015&2016 business years with net profit of total 16 billion USD (Figure 1). However, at the same time achieved EBIT margin (from -4.3 to 6.1 percent) was lower compared to the world average (IATA, 2017). It is obvious that the fragmented European air transport market needs further improvements. Author Taneja (2017b: 49) emphasizes need for the adaptation strategies in four broad areas: (1) consolidation, (2) network alignment to remain competitive, (3) proactive and innovative customer management supported by new technologies and (4) distribution.

**Figure 1.** European airlines EBIT margin and net profit 2008-2016



**Source:** According to IATA (2017) modified and prepared by authors.

In airline industry, there were a lot of mergers and acquisition examples from American model (Delta + Northwest, keeping Delta brand; United + Continental, keeping United brand; American Airlines + US Airways, keeping American Airlines brand) to European model. Latter model assumed keeping the national identity brand of all integrated partners (Mirko Tatalović, Jasmin Bajić and Srećko Šimunović, 2014:298) : (1) Air France / KLM; (2) International Airlines Group (IAG) - British Airways & Iberia; (3) Lufthansa Passenger Airline Group - Lufthansa & Swiss & Austrian Airlines & Brussels Airlines & Germanwings. In the years 2015/2016 IAG and Lufthansa Group scored net profit of 3.8 billion USD each and Air France /KLM 1 billion USD (Airline Business, 2017: 32).

The authors Mirko Tatalović, Ivan Mišetić and Jasmin Bajić (2012) often emphasize that the European national carriers have to find and define their future role in a liberalized and highly competitive European airline market. It is necessary to have in mind that transitional economies are converting into regional economic periphery (Dragomir Sundać and Natalija Nikolovska, 2003: 65). The smaller European airlines are largely acting as feeder carrier for their Alliance partners, (Adria Airways, Croatia Airlines, LOT are part of the Star Alliance, Malev before bankruptcy was Oneworld member, Czech Airlines is Skyteam member...) rather than operating as independent hub-and-spoke network.). The question is can each national carrier create a solid hub that feeds passengers to onward connections. At the basic level, the three alternatives to the current situation would be (Juergen Müller and Volodimir Bilotkach, 2011): a) More independent position within alliance; b) Changing the alliance affiliation; c) Operating independently.

For the European full service network carriers, which are facing strong competition from low cost carriers (LCC) mainly on intra-European routes, additional big competition challenge are the growing airlines from the Middle East and Turkey. Low Cost Carriers model share of total seats within Europe raised from 31 percent in the year 2008 to 38 percent in 2016 (Capstats.com, 2017). In such market environment European airline landscape, except above mentioned merger and acquisition examples, are in the process of restructuring, reducing the number of employees, and optimizing flight network within Europe (Jasmin Bajić, Ivan Mišetić and Mirko Tatalović, 2016: 257-258). Most of the European airlines, which are not part of three big groups like SAS, LOT, Air Baltic, Finnair, Tarom, Montenegro, Croatia Airlines etc., are characterized by restructuring and the search for a strategic partner. Examples of airlines in which strategic partner have already entered are Czech Airlines, Air Serbia, Adria Airways... The European restructuring airline story will continue in 2017.

Air Berlin (net loss 2015/2016 1.4 billion USD) filed for insolvency in August 2017 after the leading shareholder Etihad Airways withdrew its financial support. Second failure of a major European airline in four months was Alitalia's collapse into administration deals in May 2017 after staff rejected rescue plan (Richard Weiss 2017). British air carrier Monarch Airlines filed for bankruptcy at October 2017 after nearly five turbulent years. All operations at the airline have immediately ceased, putting about 2,000 employees out of a job and leaving more than 100,000 passengers stranded at airports. (Grant Martin, 2017).

## **SOUTHEAST EUROPE ECONOMIC AND AIR TRANSPORT TRENDS**

Over the last three decades, the region of Southeast Europe (region map shown in Figure 3), has gone through a period marked by war events, global and regional economic crisis of varying intensity, and more or less successful transition processes (Ružica Škurla Babić, Mirko Tatalović and Jasmin Bajić, 2017: 152). Air transport in the Southeast Europe faces the challenges of market liberalization and growing competition, and in order to look at potential future development of air transport, it is necessary to analyze the region in a wider macroeconomic context (Table 2).

**Table 2.** Selected macroeconomic indicators of SEE region countries 2008 vs. 2016

Country	Population (000)		GDP (USD mill) current prices		GDP per capita (USD at PPP)		Annual inflation %		Unemploy- ment rate %	
	2008	2016	2008	2016	2008	2016	2008	2014	2008	2016
Albania	3,170	2,876	12,683	12,269	8,436	9,517	3.4	1.3	12.6	15.2
Bosnia &	3,911	3,515	18,712	16,324	8,825	9,960	7.5	-1.1	23.4	25.4
Bulgaria	7,602	7,128	52,143	49,364	14,907	15,715	12.0	-1.3	5.6	7.6
<b>Croatia</b>	<b>4,435</b>	<b>4,172</b>	<b>69,679</b>	<b>49,928</b>	<b>21,241</b>	<b>19,145</b>	<b>6.1</b>	<b>-0.6</b>	<b>9.0</b>	<b>13.1</b>
Kosovo	1,805	1,778	5,714	6,471	6,200	8,300	5.3	0.4	40.0	27.5
Macedonia	2,048	2,072	9,890	10,424	11,016	12,284	8.3	-0.2	33.8	23.7
Moldova	3,573	3,553	6,055	6,084	3,720	5,082	11.5	9.8	2.1	4.8
Montenegro	628	622	4,541	4,182	13,687	14,276	7.4	0.1	17.2	17.4
Romania	21,517	19,699	205,790	181,944	16,308	19,035	7.9	-1.1	6.0	5.9
Serbia	7,350	7,058	47,669	37,381	11,361	11,841	11.7	1.1	14.0	15.3
Slovenia	2,040	2,065	55,853	43,791	29,999	27,002	5.5	-0.2	4.4	8.0
<b>Total</b>	<b>58,079</b>	<b>55,449</b>	<b>488,729</b>	<b>418,162</b>						

**Source:** Mišetić, Tatalović and Bajić (2009), IMF (2017), wiiw(2017), prepared by authors.

From table 3 one can conclude that in the year 2016 number of population in the region decreased by more than 2.5 million compared to the year 2008 due to economic problems of inflation and unemployment. The key reasons are migrations from the region to the developed EU countries, dominantly Italy with 1.8 million, Germany and Spain with approximately one million migrants (Borislav Bjelicic, 2013: 52). The most active migrant country is Romania (3 million), followed by Albania and Bulgaria. Structure of Romanian migrants in European countries is: Italy 1,151 thousand, Spain 695 thousand, Germany 444 thousand, Switzerland 268 thousand, United Kingdom 237 thousand, Austria 83 thousand, Belgium 73 thousand Portugal 31 thousand, Hungary 30 thousand, Denmark 22 thousand etc (Eurostat 2017). In the context of air transport specified migrations imply additional potentials. GDP in current prices also decreased, but USD in the year 2008 was on the lowest level (EUR/USD ratio 1.46) compared to the level of 2016 (EUR/USD ratio 1.11). GDP per capita (USD at purchasing power parity - PPP) in the region is showing relatively big difference between the developed countries (Slovenia followed by Croatia and Romania) and undeveloped countries (Moldova followed by Kosovo). The GDP per capita ratio between Moldova and Slovenia is 1:5.4. Annual inflation has better score in the year 2016 compared to the year 2008 (except Moldova). The unemployment rate is very high in Kosovo, Bosnia and Herzegovina and Macedonia.

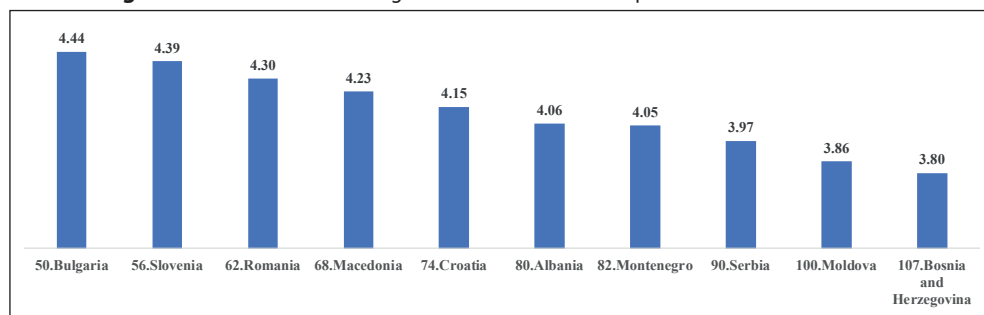
International Monetary Fund GDP growth forecasts (Table 3) are relatively solid, but it is evident that Slovenia and Croatia are at the bottom with the lowest dynamic rate of growth 2018-2022.

**Table 3.** GDP growth forecast rates (%) for SEE region countries 2008-2022

Southeast Europe	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Albania	7.5	3.4	3.7	2.5	1.4	1.0	1.8	2.2	3.4	3.7	3.7	3.8	3.9	3.9	4.0
Bosnia and Herzegovina	5.6	-0.8	0.8	0.9	-0.9	2.4	1.1	3.0	2.0	2.5	2.6	2.7	2.7	2.8	3.0
Bulgaria	6.0	-3.6	1.3	1.9	0.0	0.9	1.3	3.6	3.4	3.6	3.2	2.9	2.7	2.5	2.5
Croatia	2.1	-7.4	-1.7	-0.3	-2.2	-1.1	-0.5	2.2	3.0	2.9	2.7	2.5	2.3	2.2	2.1
Kosovo	4.5	3.6	3.3	4.4	2.8	3.4	1.2	4.1	3.4	3.5	3.5	3.6	3.7	3.8	4.0
FYR Macedonia	5.5	-0.4	3.4	2.3	-0.5	2.9	3.6	3.8	2.4	2.5	3.2	3.4	3.6	3.6	3.8
Moldova	7.8	-6.0	7.1	6.8	-0.7	9.4	4.8	-0.4	4.3	4.0	3.7	3.8	3.8	3.9	3.9
Montenegro	6.9	-5.7	2.5	3.2	-2.7	3.5	1.8	3.4	2.5	3.0	2.8	2.7	2.2	3.0	3.1
Romania	8.5	-7.1	-0.8	1.1	0.6	3.5	3.1	3.9	4.8	5.5	4.4	3.8	3.3	3.3	3.3
Serbia	5.4	-3.1	0.6	1.4	-1.0	2.6	-1.8	0.8	2.8	3.0	3.5	3.5	4.0	4.0	4.0
Slovenia	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.0	2.3	3.1	4.0	2.5	2.1	1.8	1.8	1.8

Source: IMF (2017).

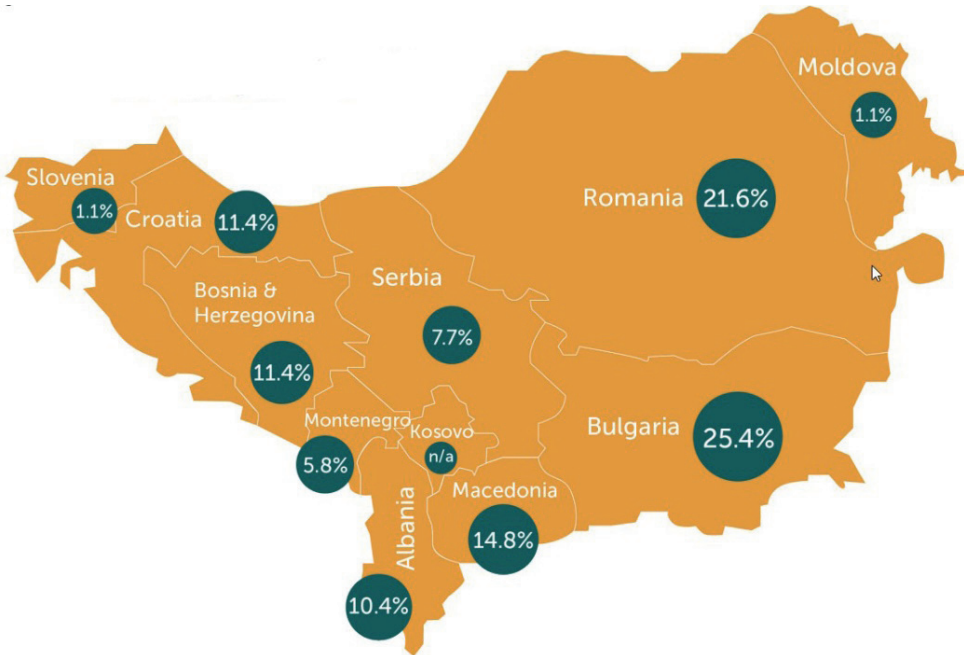
According to the World Economic Forum, leading country in the region in term of global competitiveness is Bulgaria followed by Slovenia. The worst score belongs to Moldova and Bosnia and Herzegovina.

**Figure 2.** SEE Countries Ranking and Score on Global Competitiveness Index 2016-2017

Source: WEF (2017a).

In the Southeast Europe, the fastest growing markets in terms of departing seats capacity in 2016 were Bulgaria and Romania (Figure 3). The main driver to this growth are low cost carriers in both Bulgaria and Romania in 2016.

**Figure 3.** Annual Increase in Departing Seats in SEE Countries in 2016



**Source:** SeeNews (2017).

Growth of capacity in Southeast Europe region resulted in very solid airport passenger growth. In the period 2008 to 2016 number of passengers increased from 30.5 millions to 50.7 millions with achieved AAGR of 6.6 percent (Table 4). The biggest contribution to the above mentioned growth is coming from Romania (7 million) followed by Croatia and Bulgaria. The fastest growth scored Moldova and Macedonia due to relatively low starting point. The only negative growth was recorded by Slovenia.

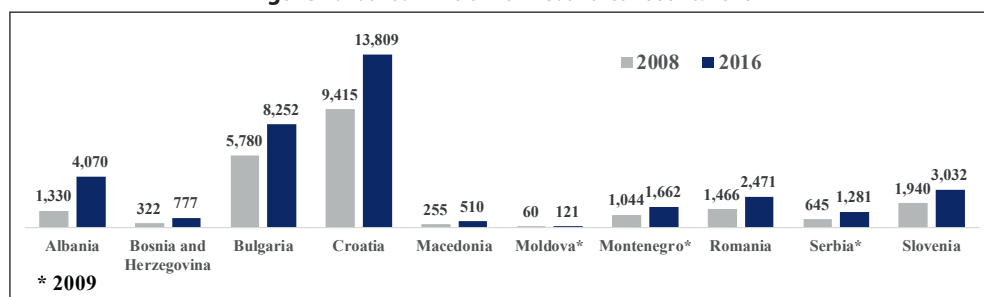


**Table 4.** Passengers in SEE countries 2008-2016

Southeast Europe	Passengers (Thousand)										2016/2008		
	2008	2009	2010	2011	2012	2013	2014	2015	2016	+/-	Index	AAGR	
Albania	1,267	1,395	1,537	1,817	1,665	1,757	1,810	1,977	2,195	+928	173	7.1%	
Bosnia & Herzegovina	510	534	563	605	584	727	861	1,032	1,150	+640	225	10.7%	
Bulgaria	6,618	6,059	6,418	6,910	7,069	7,304	7,733	7,848	9,549	+2,931	144	4.7%	
Croatia	5,163	4,839	5,136	5,579	5,960	6,304	6,703	7,176	8,111	+2,948	157	5.8%	
Kosovo	1,131	1,192	1,306	1,424	1,527	1,629	1,427	1,579	1,757	+626	155	5.7%	
Macedonia	652	658	681	764	836	984	1,211	1,456	1,653	+1,000	253	12.3%	
Moldova	848	809	938	1,046	1,220	1,321	1,781	2,219	2,206	+1,358	260	12.7%	
Montenegro	1,109	982	1,193	1,259	1,362	1,589	1,612	1,638	1,856	+747	167	6.6%	
Romania	8,833	8,713	9,766	10,366	10,278	10,192	11,071	12,743	15,773	+6,940	179	7.5%	
Serbia	2,650	2,401	2,722	3,150	3,391	3,565	4,640	4,812	5,056	+2,406	191	8.4%	
Slovenia	1,673	1,434	1,303	1,287	1,168	1,268	1,307	1,438	1,405	-268	84	-2.2%	
<b>Total</b>	<b>30,455</b>	<b>29,016</b>	<b>31,565</b>	<b>34,206</b>	<b>35,062</b>	<b>36,639</b>	<b>40,157</b>	<b>43,920</b>	<b>50,711</b>	<b>+20,256</b>	<b>167</b>	<b>6.6%</b>	

**Source:** anna.aero (2017) prepared by authors.

Tourist arrivals in Southeast Europe countries increased from 22 million in 2008 to 36 million in 2016 (Figure 4). The leading tourist country in the region is Croatia with 38.4 percent share which is 114 times more compared to Moldova-vaachievement.

**Figure 4.** Tourist Arrivals in SEE Countries 2008 vs. 2016

**Source:** According to Bjelicic (2013: 54) and UNWTO (2012, 2017) prepared by authors

Six different elements of air transport infrastructure are shown in Table 5. World Economic Forum in his edition “The Travel & Tourism Competitiveness Report 2017” is ranking countries analyzing different performances. Best score from 136 countries recorded Croatia followed by Montenegro. Bosnia and Herzegovina is on the bottom of the list.

**Table 5.** SEE Countries Ranking by Air Transport Infrastructure 2017

Air transport infrastructure Rank / 136 Countries	Croatia	Montenegro	Slovenia	Bulgaria	Romania	Serbia	Macedonia	Moldova	Albania	Bosnia and Herzegovina
Quality of air transport infrastructure	78	81	70	77	100	92	51	93	68	131
Available seat kilometres, domestic millions	63	105	105	73	58	105	105	105	105	105
Available seat kilometres, international millions	83	120	123	81	60	88	121	107	124	127
Aircraft departures /1.000 pop.	49	34	38	89	79	57	105	78	103	129
Airport density airports/million pop.	21	12	34	88	52	87	41	98	100	33
Number of operating airlines	33	86	114	46	51	51	109	101	94	106
<b>Rank / 136 Countries</b>	<b>52</b>	<b>54</b>	<b>76</b>	<b>80</b>	<b>82</b>	<b>84</b>	<b>93</b>	<b>110</b>	<b>109</b>	<b>123</b>

**Source:** WEF(2017) prepared by authors.

## SOUTHEAST EUROPE AIRLINE, AIRPORT AND AIR TRAFFIC CONTROL TRENDS

In the Southeast Europe region, most scientific papers are showing many difficulties in airline strategic positioning. Connections with main European destinations are dominant in the region.

Low cost carriers are more and more present but with dominant connections to the most developed European markets. *Within Europe, the LCC geography remains largely Western-oriented, despite some expansion to the East Central Europe, and mainly serves larger cities as well as both urban and seaside tourist destinations*(Frédéric Dobruszkes, 2014: 177). Researches by authors (Mišetić, Tatalović and Bajić, 2009: 263),(Sanja Steiner, Mirko Tatalović and Jasmin Bajić, 2010: 536), (Jasmin Bajić, Mirko Tatalović and Krešimir Kučko: 91-92) and (Bajić, Mišetić and Tatalović, 2016: 269) made conclusions that Southeast Europe air transport market is undeveloped with weak connections within the region and increasing competition on the main traffic directions with stable demand. Namely, number of routes within the region stagnated(27) and weekly frequencies within region even decreased (247 to 223) comparing years 2008 and 2014 (Tatalović, Mišetić and Bajić, 2017: 166). Authors Ana Šimecki, Sanja Steiner and Olja Čokorilo (2013: 363) concluded that new air connections within the Southeast Europe region could considerably improve mobility and accelerate economic integrations and cooperation processes. Dynamic financial achievements for six dominant airlines in the region (Adria Airways, Air Serbia /JAT, Bulgaria Air, Croatia Airlines, Montenegro Airlines and Tarom) is showing very negative overall net losses level of over 1.2 billion USD (Table 6) in the period 2008-2016. In addition, before the bankrupt BH Airlines scored net losses of 60.7 million USD in the period 2008-2011.

**Table 6.** Total net profit/loss - selected airlines in the SEE region 2008-2016

In thousand USD	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	Average
Adria Airways	-4,767	-18,814	-83,617	-15,988	-13,882	-3,817	1,222	-10,202	3,578	<b>-146,286</b>	<b>-16,254</b>
Bulgaria Air	-44	627	102	1,192	-21,208	85	N.A.	-4,789	-3,984	<b>-28,019</b>	<b>-4,003</b>
Croatia Airlines	-18,077	-37,620	-29,010	-14,199	-83,447	117	1,313	2,015	1,182	<b>-177,727</b>	<b>-19,747</b>
Air Serbia / JAT	-128,759	-17,940	-47,574	-45,532	-47,931	-98,473	3,583	4,400	1,100	<b>-377,127</b>	<b>-41,903</b>
TAROM	27,950	-82,036	-103,186	-90,991	-72,879	-45,666	-32,900	-6,842	-11,557	<b>-418,106</b>	<b>-46,456</b>
Montenegro Airlines	-1,026	-5,539	-4,875	-10,058	-7,251	-6,870	-12,630	-11,518	-12,616	<b>-72,383</b>	<b>-8,043</b>
<b>Net profit / loss</b>	<b>-124,723</b>	<b>-161,322</b>	<b>-268,161</b>	<b>-175,576</b>	<b>-246,598</b>	<b>-154,623</b>	<b>-39,412</b>	<b>-26,935</b>	<b>-22,297</b>	<b>-1,219,648</b>	<b>-149,669</b>

**Source:** IATA WATS (2009, 2010, 2011, 2012, 2013, 2014, 2015), [www.adria.si](http://www.adria.si), [www.air.bg](http://www.air.bg), [www.tarom.ro](http://www.tarom.ro), [www.croatiaairlines.com](http://www.croatiaairlines.com), [www.airserbia.com](http://www.airserbia.com), [www.montenegroairlines.com](http://www.montenegroairlines.com) (prepared by authors).

From the Table 6 it is obvious that level of net loss is improving in the period 2014-2016 compared to the period 2008-2013. TAROM is leading carrier in the region in terms of losses level in total amount of 418.1 million USD. It is not clear how the company operates in such negative business and financial conditions with reported loss nine years in a row. It is interesting to emphasize that there are six European countries with no home airline, three of them are from Southeast Europe region – Bosnia and Herzegovina, Macedonia and Kosovo (Airline Leader, 2017: 61).

Possible solution for connectivity improvement within the region is approved rights to operate regulated and/or subsidized routes. The most prominent examples of these schemes are the Essential Air Service (EAS) program and the Small Community Air Service Development Program (SCASDP) in the US, the Remote Air Services Subsidy (RASS) Scheme in Australia and the European Public Service Obligation (PSO) air service mechanism (Rico Merkert, 2017: 351). Possible implementation of PSO within the region would increase economic activities level among the regional countries, economic development and progress, political stability, continuation of the European integrations. However, in any case airlines in the Southeast Europe for future sustainable business need significant improvement in underperforming field of airline e-commerce art and science. To compete effectively in cyberspace airlines need fast transformation and appropriate e-commerce strategy (Michael Hanke, 2016: 566). According to Taneja (2016, 181) main airline challenges and opportunities in future would be: (1) changing consumers, (2) changing competitors and (3) changing collaborators.

List of the biggest airports in the Southeast Europe region by traffic volume with minimum 500 thousand passenger criteria in 2016 is shown in Table 7.

**Table 7.** Passengers on dominant airports in the SEE region 2008-2016

Airport	Passengers (Thousand)									AAGR %	Runaway (m)
	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Bucharest OTP	5,064	4,481	4,803	5,049	7,102	7,643	8,317	9,283	10,983	10.2	3,500
Sofia SOF	3,231	3,135	3,297	3,475	3,467	3,504	3,815	4,089	4,981	5.6	3,600
Belgrade BEG	2,650	2,384	2,699	3,125	3,364	3,543	4,639	4,776	4,931	8.1	3,400
Burgas BOJ	1,937	1,684	1,873	2,229	2,357	2,456	2,530	2,360	2,879	5.1	3,200
Zagreb ZAG	2,192	2,062	2,072	2,319	2,342	2,300	2,431	2,588	2,766	2.9	3,252
Split SPU	1,204	1,115	1,220	1,300	1,426	1,582	1,753	1,955	2,290	8.4	2,550
Chisinau KIV	848	809	938	1,044	1,221	1,321	1,781	2,219	2,206	12.7	3,590
Tirana TIA	1,267	1,395	1,537	1,817	1,665	1,757	1,810	1,977	2,195	7.1	2,750
Dubrovnik DBV	1,191	1,122	1,270	1,350	1,480	1,523	1,584	1,694	1,993	6.6	3,300
Cluj Napoca CLJ	753	834	1,029	1,005	932	1,035	1,182	1,488	1,885	12.2	2,200
Pristina PRN	1,131	1,192	1,306	1,422	1,527	1,629	1,427	1,579	1,757	5.7	2,500
Varna VAR	1,450	1,207	1,199	1,164	1,211	1,308	1,387	1,399	1,690	1.9	2,500
Skopje SKP	652	658	681	760	829	984	1,211	1,456	1,653	12.3	2,950
Ljubljana LJU	1,673	1,434	1,389	1,369	1,199	1,321	1,307	1,438	1,405	-2.2	3,300
Timisoara TSR	957	974	1,138	1,201	1,036	757	735	924	1,162	2.5	3,500
Tivat TIV	568	532	542	647	725	868	911	889	983	7.1	2,500
Iasi IAS	144	149	160	184	173	232	273	377	881	25.4	2,400
Podgorica TGD	541	450	652	612	620	681	702	749	873	6.2	2,500
Sarajevo SJJ	506	530	563	600	580	666	710	773	839	6.5	2,600
Zadar ZAD	158	216	275	285	371	473	497	488	521	16.1	2,500
<b>Total</b>	<b>28,118</b>	<b>26,362</b>	<b>28,640</b>	<b>30,958</b>	<b>33,628</b>	<b>35,584</b>	<b>39,002</b>	<b>42,502</b>	<b>48,871</b>	<b>7.2</b>	

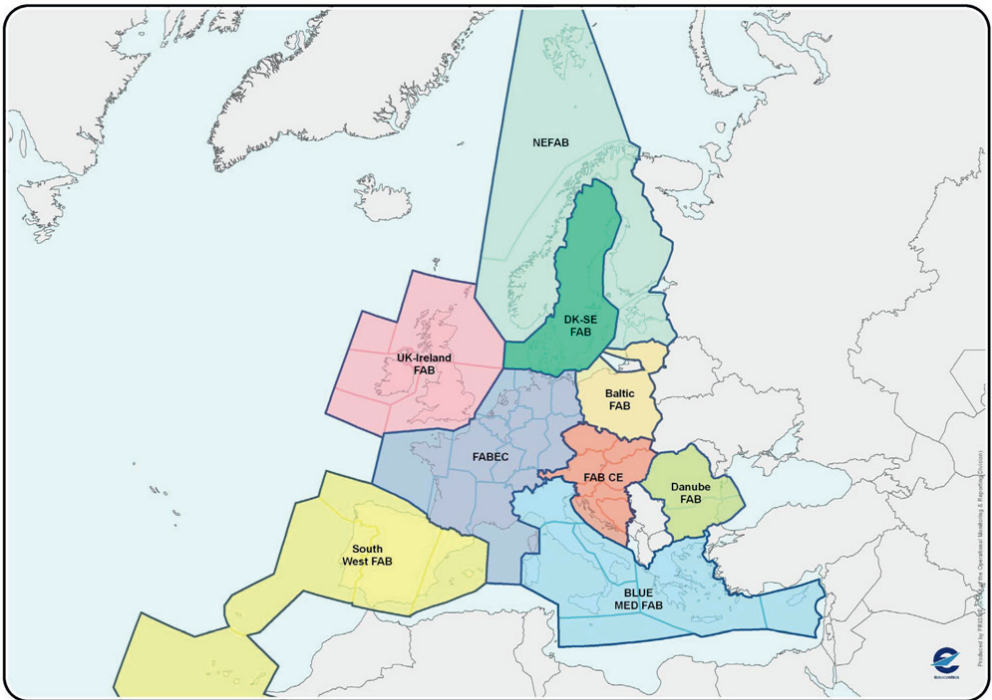
Source: anna.aero (2017) prepared by authors.

Annual average growth rate in the period 2008-2016 is very solid (7.2 percent) and the leading airports in the region are Bucharest followed by Sofia and Belgrade. Analyzing those results in the context of overall passenger traffic at European airports it is obvious that Bucharest is ranked at 47th position, Sofia at 86th position and Belgrade at 88th position (anna.aero, 2017). In addition, the Tuzla International Airport (2017) from Bosnia and Herzegovina with the passenger traffic increase of 74 percent in the period January-September 2017 (406,668 passengers) is very close to the entry to the list in Table 7, for the year 2017. It is interesting that the Tuzla International Airport (2017) started with the commercial operation in 2011 and traffic of 4,527 passengers.

In the context of European Air Traffic Management (ATM), the sectorization of airspace is still based on national borders, and the sky above Europe is fragmented. The European Commission's Single European Sky (SES) initiative aims for the unification of European airspace. Single European Sky ATM Research (SESAR) is a collaborative project to completely overhaul European airspace and its ATM with performance goals for 2020 (Dawna L. Rhoades, 2014: 292-293): (1) Increase in Europe airspace for 27 percent; (2) Reduction in accident risk per flight for 40 percent; (3) Reduction per flight in environmental impact for 2.8 percent; (4) Reduction in cost per flight for 6 percent. The creation of Func-

tional Airspace Blocks would optimize airspace usage and capacity, making the flow of air traffic over Europe more efficient. Southeast Europe region countries are members of three different FABs. Bosnia & Herzegovina, Croatia and Slovenia are members of FAB Central Europe, Bulgaria and Romania are members of Danube FAB and Albania belongs to FAB Blu Med. The rest of Southeast Europe countries are not part of the FAB concept. It is obvious that the region is over fragmented and irrational.

**Figure 5.** Functional Airspace Blocks (FABs) Map



**Source:** European Commission (2014).

Eurocontrol seven years forecast of instrumental flight rules (IFR) movements for the Southeast Europe region is analyzed in Table 8. The forecast is derived from the most recent traffic statistics (over the 2012-2016 period) and relevant up-to-date information in terms of traffic trends and recent air industry related events.

**Table 8.** Forecast of the number of IFR Movements (thousands) per State

IFR Movements (thousands)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 23/16
	actual					forecast							
Albania	195	201	198	202	187	190	196	202	209	214	221	227	2,8%
Bosnia and Herzegovina	268	262	298	311	319	325	333	342	352	360	368	377	2,4%
Bulgaria	540	551	683	767	758	777	801	826	851	873	897	921	2,8%
Croatia	495	492	520	535	540	563	580	596	613	626	641	656	2,8%
Macedonia	113	113	146	152	146	148	152	157	161	165	169	173	2,5%
Moldova	64	74	56	45	42	47	49	51	53	54	56	58	4,7%
Romania	487	513	598	635	621	654	674	694	714	732	751	771	3,1%
Serbia&Montenegro*	535	518	554	605	619	637	653	672	691	707	724	741	2,6%
Slovenia	346	329	348	347	353	364	376	385	395	403	412	421	2,5%
Total	3.043	3.053	3.401	3.599	3.585	3.705	3.814	3.925	4.039	4.134	4.239	4.345	2,8%

\*Serbia & Montenegro & appear together as their airspace is merged for operational purposes; Serbia and Montenegro Air Traffic Services (SMATSA) is a jointairnavigationsserviceprovider for thosetwostates.

**Source:** According to Eurocontrol(2017: 69-72) modified and prepared by authors.

## CONCLUSIONS

Analysis of Southeast Europe economy and air transport infrastructure shows that there is a lot of space for improvement. Obviously, the Southeast Europe air transport market is undeveloped with weak connections within the region.

Low cost carriers are more and more present, increasing competition level, but with dominant connections to the most developed European markets.

Profitability analysis of dominant airlines in the Southeast Europe market for the period 2008-2016 indicated negative overall net losses result of over 1.2 billion USD, questioning the sustainable business in the future. Consequently, airlines in the region are implementing restructuring programs, covering staff reductions, increasing productivity, network and flight frequencies optimization, with intention to implement the privatization processes. Fitting the fleet and service to the regional air transport market must include and harmonize operational, financial and strategic development policies.

Migration trends from the Southeast Europe are generating new air transport market potentials.

Sky above Southeast Europe is over fragmented and irrational with existing initiatives for further rationalization and optimization.

Possible implementation of Public Service Obligation connectivity model within the region would increase economic activities among Southeast Europe, with positive impact on political stability, mobility, economic integrations and cooperation processes.

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