

# **THE IMPACT OF GLOBAL RECESSION ON THE SOUTH EAST EUROPE AIRLINE INDUSTRY**

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## **ABSTRACT**

The airline industry is susceptible on global changes which results in instability of revenue and costs trajectories. The air transport sector has undergone a major crisis after the events of September 11<sup>th</sup> 2001 when passenger traffic number first fell sharply and then stagnated afterwards. After 2003 airline industry recovered, until the first part of 2005 when fuel prices have soared and caused another shock for a system. Although, airlines are one of the main players taking part in the global growth and the ones that to a largest extent stimulate employment, economic benefits, trade expansion, leisure travel and social interactions, in 2008/2009 the global recession caused weakening demand for air travel. Result was that airline industry ended up with net loss of almost US\$28 billion in last two years. Airlines are in the constant struggle for market share, and in some cases survival which results in decreasing capacity followed by decreased number of employees.

This paper treats different levels of recession effects on South East Europe air transport system as well as Croatian airline industry as a part of the European air transport network. Effect of recession on air traffic control results, traffic results of airports and airlines of the SEE region are followed by the actual global recession affect on the Croatian airline industry.

## **1 INTRODUCTION**

Air transport is still one of the world's most important industries, driving economic and social progress. The global economic income of aviation industry is estimated to 7.5% of the world Gross Domestic Product. Through the evolution of air transportation at worldwide level it is visible how economic prosperity can bring along greater demand for mobility and with it an increased willingness for air travel. As a result, world economy is now increasingly dependent on air travel. Development in airport capacities at worldwide level is stipulated by tourism and business travel, supporting millions of jobs in both developed and developing countries. Recent economic crisis had a very bad impact on the air transport as whole and on the airline industry especially, which caused wakening demand followed by reducing capacity and finally reducing employment.

Paper also intends to provide background on a number of crucial aspects explaining the impact of the economic crisis on the world, EU and finally South East Europe air transport sector. The current impact of the economic crisis on European, South East European and Croatian airline industry in terms of passenger transport will be analysed, by using a set of

key indicators such as traffic and capacity data, micro- and macroeconomic data, and employment figures. Inclusively some possible scenarios are given, including technological improvements in the air transport sector, for the mid-term development in South East Europe Airline industry in relation to possible developments of the general economic situation.

## 2 STATE OF THE AIR TRANSPORT INDUSTRY

In the year 2009, airlines safely flew 2.2 billion passengers and 35 million tonnes of cargo, equal to 35% of the value of goods traded internationally which is 8% of global GDP.[1] For 2007, the net profit was US\$12.9 billion (2.5% margin) and operating profit was US\$19.7 billion. The industry net loss for 2008 was US\$16.8 billion Drop of passenger carried and particularly the cargo traffic (-13%), witnessed the drop in demand during the year 2009 as a result of heavy turbulences on the global market. World trade is suffering with a 15% downturn depressing economies everywhere. [2]

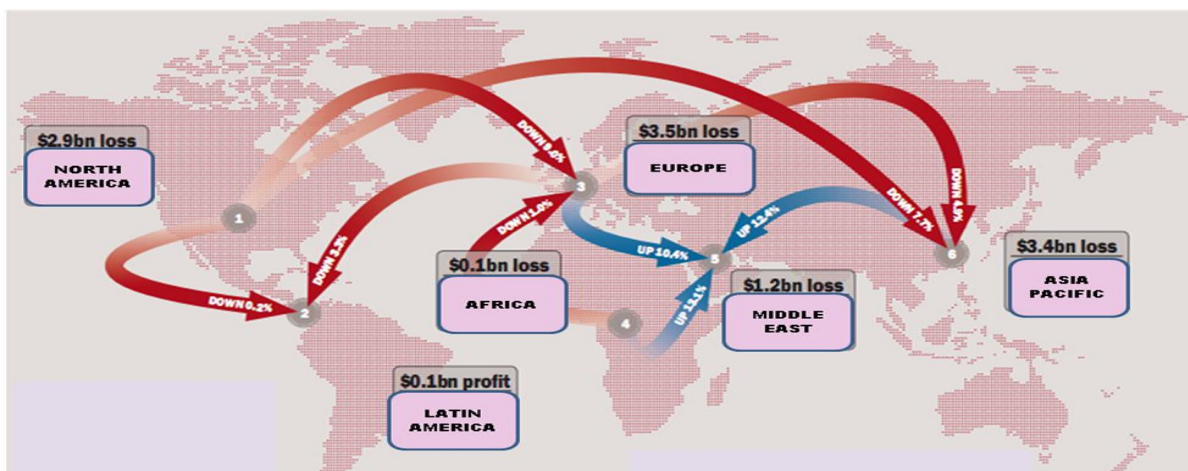


Figure 1: Capacity changes and regional profitability

The air transport industry generates a total of 32 million jobs globally, through direct, indirect, induced and catalytic impacts. Direct jobs represent 5.5 million employees, 4.7 million airline and airport industry, 0.8 million of aircraft systems manufacturers, frames and engines. Indirect jobs represent 6.3 million employees through purchases of goods and services in its supply chain. Induced jobs represent 2.9 million through spending by industry employees. Jobs through air transport's catalytic impact on tourism represent 17.1 million people. [3] Economic recession and its impacts caused increasing number of unemployment. In Europe in 2009 airlines dismissed more than 21,000 employees<sup>1</sup>. In addition other rationalisation and labour cost savings like reduced working hours, pay freezes, unpaid hours of work have been introduced<sup>2</sup>. [4]

Bankruptcies and takeovers used to be rare in the air transport sector during the era of the so-called flag-carriers. More recently, however, such events have become more common and have had a significant impact on the market function and competition. By way of illustration, table provides an overview of recent bankruptcies, mergers and takeovers in the European airlines sector (data of September 2009).

<sup>1</sup> Airlines - AF/KLM, SAS, Aer Lingus, XL Airways, Dalavia, Aeroflot, Austrian Airlines

<sup>2</sup> Lufthansa, British Airways, Finnair, Blue 1, Virgin, Air India, Cathay Pacific, Japan Airlines (Harvey, 2009: 7– 11)

**Table 1:** Recent bankruptcies, mergers and takeovers in the European airlines sector [5]

DATE	AIRLINE	COUNTRY	OPS STARTED	EVENT
17-Jan-09	FlyLAL	Lithuania	1938	Bankruptcy
19-Jan-09	Apatas Air	Lithuania	1994	Bankruptcy
24-Jan-09	Nordic Airways	Sweden	2006	Bankruptcy
27-Apr-09	Air Sylhet	United Kingdom	2007	Bankruptcy
01-May-09	LTU Int Airways	Germany	1955	Merged into Air Berlin
01-May-09	ThomsonFly	United Kingdom	2004	Became Thomson Airways
01-May-09	First Choice Airways	United Kingdom	1987	Became Thomson Airways
06-May-09	Open Skies	United Kingdom	2007	Transferred to Elysair
09-Jul-09	ClickAir	Spain	2006	Merged into Vueling
24-Jul-09	MyAir	Italy	2004	Bankruptcy
01-Sept-09	SkyEurope	Slovakia	2002	Bankruptcy

Current regulatory framework surrounding the ATM system in Europe is highly inefficient and opaque which has negative consequence on airline business performance. Inflating prices of ATM equipment, to the detriment of airspace users who ultimately bear the cost. Significant differences between European ANSPs<sup>3</sup> in terms of efficiency and productivity result in unit rates throughout Europe ranging from some 15 to almost 80 Euro in 2008. The cost of ATM in Europe continues to grow, currently exceeding 7 billion Euro per annum. With falls of up to 20 per cent in revenues in Europe, ANSPs face an unprecedented financial crisis. Moreover, it has been claimed that ANSPs are currently operating with insufficient, making reduction in headcount difficult if not impossible.

The Civil Air Navigation Services Organisation (CANSO) claims that ANSPs have responded to the crisis by:

- Reducing discretionary expenses
- Negotiating concessions with suppliers
- Reviewing level of service, without impacting safety
- Deferring or reducing capital spending
- Extending depreciation/amortisation periods
- Considering financial restructuring and debt financing
- Finding new sources of revenue
- Freezing salaries and wages
- Reducing over-time and vacation leave
- Reducing use of out-sourced/external staff
- Optimising rosters and shift planning
- Reviewing training programs, without impacting capacity
- Adjusting retirement ages
- Converting pension funding to defined contribution [6]

Global passenger traffic dropped to 4.4 billion, the number of international passengers was down 4.2% to 1.8 billion and total aircraft movements fell 5.5% to 63.9 million in 2009. Through the first two months of 2010, global traffic rose 6.1% to 472.3 million passengers. International passenger numbers soared 7.5% to 216.7 million and domestic traffic increased 1.2% to 250.8 million. The overall passenger traffic at European airports for 2009 decreased by -5.9% compared to 2008 in addition. 86% of airports lost traffic in 2009. [7]

The growth in demand in the developing regions such as South East Europe often exceeds the economic growth rates of wealthier countries. Airline alliances are curving up the

<sup>3</sup> ANSP – Air navigation Service Provider

global marketplace and carriers from lesser developed countries can face difficulties in competing routes outside their own borders.

### 3 AIR TRANSPORT MARKET IN SOUTH EAST EUROPE

Countries in the region over the last twenty years have passed violently through a period marked by war events, and transition processes. Relative political stability has created the conditions of faster economic growth within the region in the last five years. Due to recession trends macroeconomic forecasts are changing very often in the direction average annual growing rates. Year 2009 was obviously very critical.

**Table 2: GDP Growth Rates 2006 – 2014 [8]**

Country	2006	2007	2008	2009	2010	2014
Albania	5.5%	6.3%	6.8%	0.4%	2.0%	6.0%
Bosnia & Herzegovina	6.9%	6.8%	5.5%	-3.0%	0.5%	4.5%
Bulgaria	6.3%	6.2%	6.0%	-2.0%	-1.0%	5.0%
Croatia	4.7%	5.5%	2.4%	-3.5%	0.3%	4.0%
FYR Macedonia	4.0%	5.9%	5.0%	-2.0%	1.0%	2.0%
Montenegro	8.6%	10.7%	7.5%	-2.7%	-2.0%	4.0%
Moldova	4.8%	4.0%	7.2%	-3.4%	0.0%	5.0%
Romania	7.9%	6.2%	7.1%	-4.1%	0.0%	4.1%
Serbia	5.2%	6.9%	5.4%	-2.0%	0.0%	5.5%
Slovenia	5.9%	6.8%	3.5%	-2.7%	1.4%	3.5%

Southeast Europe region is a modest, undeveloped region, which represents only 1.3% passenger transportation in the world scheduled traffic and 1% of the number of international airports in the world. Excluding two biggest and developed countries Greece and Turkey it can be emphasized that Croatia, Slovenia, Bulgaria and Romania have the most developed air transport in the region. At the same time the domestic scheduled air transport exists only in three region states (Croatia, Romania and Bulgaria). The crisis that affected whole air transport industry as well as big commercial airlines has transposed to the SEE region also. [9] It is not visible from the data of air control achievements in the last two years (table 3).

**Table 3: Total number of flights of selected SEE countries measured by Air traffic control [10]**

COUNTRY		2009	2008	Growth rate 2009/2008
1	Slovenia	310 788	324 353	-4,2%
2	Romania	430 888	440 889	-2,3%
3	Croatia	420 613	424 487	-0,9%
4	Bulgaria	474 463	474 970	-0,1%
5	FYROM	124 424	124 436	0,0%
6	Albania	160 586	147 268	9,0%
7	Bosnia and Herzegovina	222 364	215 477	3,2%
8	Serbia-Montenegro	511 008	494 229	3,4%
	Total	2 655 134	2 646 109	+ 0,3 %

The reduced number of passengers is recorded on SEE airports as well as SEE airlines struggle with losses imposed by the global economic crisis. While connections with main European destinations are dominant and all the leading European air carriers are already operating in the region, presently only 10% of all the SEE airlines' commercial activity is realized within the SEE network. [11]

**Table 4:** Number of passengers on primary airports in South East Europe region

AIRPORT		PASSENGERS				
		2009	2008	2007	INDEX 09/07	INDEX 09/08
1	Bucharest OTP	4 483 661	5 064 230	4 978 587	90	89
2	Sofia	3 314 164	3 230 696	2 746 178	121	103
3	Belgrade	2 384 077	2 650 048	2 512 890	95	90
4	Zagreb	2 062 242	2 192 453	1 992 445	104	94
5	Burgas	1 704 634	1 936 853	1 949 198	87	88
6	Bucharest BBU	2 005 694	1 768 000	928 220	216	113
7	Ljubljana	1 434 000	1 673 079	1 524 028	94	86
8	Varna	1 220 181	1 450 192	1 493 267	82	84
9	Tirana	1 394 688	1 267 041	1 107 325	126	110
10	Split	1 115 099	1 203 778	1 190 551	94	93
11	Dubrovnik	1 122 355	1 191 474	1 142 168	98	94
12	Priština	1 191 978	1 130 640	990 259	120	105
13	Timisoara	956 897	957 000	836 518	114	100
14	Chisinau	808 000	847 900	688 800	117	95
15	Cluj	834 400	753 000	390 521	214	111
16	Skopje	599 000	652 339	626 644	96	92
17	Tivat	532 156	568 083	574 011	93	94
18	Sarajevo	530 391	506 398	505 269	105	105
19	Podgorica	450 508	541 030	460 020	98	83
TOTAL		28 144 125	29 584 234	26 636899	106	95

Therefore, connections between the individual capitals and major cities of the SEE are underdeveloped which represents a barrier for fast and convenient travel and the opportunity to unleash potential demand which will lead them out of the crisis.

During the year 2009 number of passengers on primary airports in South East Europe region<sup>4</sup> fall by 5 % compared to previous year. Traffic volume ranges from 450 508 passengers in Podgorica up to 5,064,230 passengers in Bucharest OTP. Traffic statistics for the carriers of SEE belonging to the Association of European Airlines (AEA- Olympic Airways, Adria Airways, JAT, Croatia Airlines and Tarom) reveal that passenger numbers fell average by 9% in 2009, which is an about 1 mill passenger less. Turkish Airlines is the only one who had increased of passenger number, about 3 mill more compared to the year 2008 (12.3%) and JAT had the highest passenger numbers drop by 18 %.

The crisis came before the airline industry could recover from the fuel price hike and there is prediction the industry would not see any significant signs of recovery in 2010. An added deterrent for passengers in Europe is the recent wide scale outbreak of the H1N1 virus. Also in airlines of SEE financial results in 2009 are poor. Average of carriers AEA is -18,7 mil €<sup>5</sup>, Croatia Airlines has -27 €, Adria Airways -11€, JAT -15 €, Tarom -22 €, Olympic Airways expected a huge loss because of only 58.5 % passenger load factor, but Turkish Airlines is prosperous in financial results + 278,1 million €.

Other airlines in SEE which are not members of the AEA are not doing any better. BH airlines, had 11.9 % increase of passengers number, but they expect loss, because of hefty decrease of load factor. Montenegro Airlines flew 527,000 passengers, up to 4.6 % from the year earlier, but financial loss is -3 mill €. Air Moldova is stagnating in passengers' number

<sup>4</sup> More than 500 000 passengers per annum

<sup>5</sup> More than 500,000 passengers per annum

like a year before. Albania Airlines is in lost as well, but traffic has been boosted by the arrival of Belle Air, low-cost airline. Bulgaria Air group expected financial loss and one of the reasons are low-cost carriers' competition in Bulgaria. MAT Macedonian Airlines is no longer flying and Kosovo Airlines does not exist.

#### 4 STATE OF THE AIRLINE INDUSTRY IN CROATIA

According to economic theory, air transport growth rates are in high correlation with the adequate GDP increase. There is an economic model starting from GDP vs. traffic demand of passengers equals approximately 1:2. [12] From that fact it was realistic to expect high decrease of air transport indicators in the business year 2009 since GDP dropped for 5,8% Indeed, recent statistic indicators are showing decrease of -12 % in term of passengers carried performed by the Croatian air carriers.

The achievement of Croatia Airlines was much better (-6%) compared to Croatian charter competitors Dubrovnik Airline, Trade Air which dropped for 34 %. Croatian airports recorded also decrease in turns of passengers carried (-6, 6%), aircrafts movements (-3,5%) and freight carried (-3,3% ) compared to the year 2008. [13]

**Table 5:** Passengers (000) in Croatia according traffic category and business model

PAX	2003	%	2008	%	2009	%	INDEX 09/03	INDEX 09/08
<b>Domestic scheduled</b>	471	19.1	543	11.5	492	11.1	104	91
<b>International sched. LCC</b>	0	0.0	1.127	24.0	1.169	26.4	-	104
<b>International sched. FSNC<sup>6</sup></b>	325	13.2	700	14.9	666	15.1	205	95
<b>International sched. OU</b>	796	32.3	1.209	25.7	1.188	26.9	149	98
<b>Charter int. carrier</b>	573	23.3	738	15.7	654	14.8	114	89
<b>Charter dom. carrier</b>	296	12.0	387	8.2	253	5.7	85	65
<b>Total all carriers</b>	2.461	100.0	4.704	100.00	4.422	100.00	180	94
<b>OU total</b>	1.468		1.869		1.750		119	94
<b>OU stake in total</b>	59.7%		39.7 %		39.6 %			

During the year 2003, air carriers on Croatian air traffic market carried 2.46 million of passengers and share of Croatia airlines was almost 60 %. In the year 2009 that share dropped to 40 % with average annual growing rate in the period 2004-2009 of 87 %. In the year 2003 transport score of LCC was zero.

**Table 6:** Dynamic of competitors' growth on Croatian air transport market

PERIOD	COMPETITION AAGR <sup>7</sup>	CA AAGR	LEGACY CARRIERS AAGR	LCC AAGR
<b>1996 - 2003</b>	2 %	10 %	2 %	-
<b>2003 - 2009</b>	33 %	7 %	13 %	87 %
<b>1996 - 2009</b>	16 %	9 %	7 %	-

<sup>6</sup> FSNC - Full Service Network Carrier

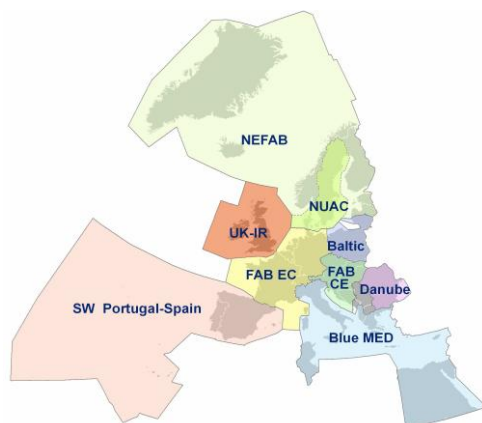
<sup>7</sup> AAGR – Average Annual Growing Rate

Competition structure completely changed by intense arrival of LCCs to the Croatian air traffic market, and the number of competitors doubled in the first decade. The year 2009 recorded decrease of passengers carried for the first time in the decade. Out of 30 air companies operating international scheduled traffic during summer season of 2008/2009, half of them are seasonal, while the rest of them fly during the whole year, part of them with reduced frequency.

## 5 AIRLINE COSTS REDUCTION IN SOUTH EAST EUROPE BY FAB IMPLEMENTATION

Europe's airlines first formally proposed the 'Single European Sky' concept to the European Commission in the mid-1990s but it was not until around a decade later that the EC<sup>8</sup> embraced it. Many states have been determined to maintain sovereign control of their airspace and SES<sup>9</sup> implementation has been, and still is, a painfully slow progress devoid of any real sense of urgency despite the EC's efforts. Meanwhile airlines have been compelled to fly excessive route distances caused by the uncoordinated evolution of the European airspace and the need to meet military requirements. The introduction of Functional Airspace Blocks, the SESAR project<sup>10</sup> and other SES measures ought ultimately to improve the overall efficiency of the system.

The size of the existing FAB initiatives varies significantly. The geographical scope covers the 27 EU States as well as Croatia, Norway, Switzerland, Serbia and Montenegro, FYROM and Albania. FABs that comprise South East European states are FAB CE, FAB Danube and Blue Med FAB. FAB CE is a joint initiative of seven States and ANSPs from Central and South East European area. Participating States are Austria, Bosnia & Herzegovina, Croatia, Czech Republic, Hungary, Slovakia and Slovenia. Danube FAB comprise, as observers or associated members, Bulgaria and Romania, while Blue Med FAB associates in addition to European states non-EU States, such as Egypt and Tunisia, which are important interfaces of the SES.



**Figure 2: FABs in Europe**



**Figure 3: FAB CE**

Due to a wide range of approaches and quality in cost-benefit Analyses, it is not easy to assess and compare the magnitude, timing and robustness of expected improvements from FAB initiatives. In FABs - FAB EC, FAB CE and Blue Med are currently visible significant differences between operational concepts which is a potential cause of delay in effective

<sup>8</sup> EC – European Commission

<sup>9</sup> SES – Single European Sky

<sup>10</sup> Single European Sky ATM Research

implementation. But the largest relative benefits are identified for FAB CE and the Danube FAB.

**Table 7:** Summary of quantified benefits from available Cost Benefit Analysis

	<b>2013 benefits in M€</b>	<b>2013 benefits as % of 2006 total economic costs</b>	<b>% from flight efficiency or delay</b>	<b>2018 benefits in M€</b>	<b>2018 benefits as % of 2006 total economic costs</b>	<b>% from flight efficiency or delay</b>
<b>Blue Med</b>	14 – 49	1 – 5%		14 – 71	2 – 7%	
<b>Danube</b>	29 – 52	12 – 22%	99%	29 – 52	12 – 22%	99%
<b>FAB CE</b>	6	1%	53%	21 – 30	4 – 6%	55%

Due to the current crisis airline industry is unlikely to see a full recovery until 2013, but it is needed to look at capacity now to be ready for a new upturn in traffic when it comes. The environmental benefits from these efficiencies could amount to annual fuel burn reductions of 265.000 tons by 2013. Cost efficiencies are also needed urgently. Furthermore, the average unit cost of flying is 70% higher in the EU than in the US so an improved performance-based, system-wide approach is necessity.

In the short-to-medium term, the progressive implementation of FABs is probably the most significant tool to help airlines to achieve cost savings, customer benefits and revenue enhancements.

## 6 CONCLUSION

The global economic recession pushed airline industry to the bottom. The erosion of yields, accelerated by the loss of business traffic and lower levels of consumer spending on leisure travel will not recover in short term period. At the moment (2010), liquidity and cash flow management become the most important subjects of the different airline projects. Banks are still not able to finance business, while US\$1 trillion is still needed to re-capitalize. Airlines need to reduce debt and that means less cash to spend. With stronger economic growth in 2010 and oil price forecast to US\$75 a barrel. Airlines will continue to create a losses (IATA prediction for 2010 is approximately 5 billion USD). Unsustainable is business model in which all participants in the value chain operate profitably (Airports, Global Distribution Systems Providers, Air Traffic Control, Manufacturers..) except those who directly perform air transport service of passenger and cargo. It is necessary to restructure the entire value chain of air transport industry calling for action at all levels of professional associations, institutional organisations as well as economic and political support at the global level.

From the point of view of single airline, most important task is to optimise business model which respects competition, cooperation and sustainable development. One of the threats to the recovery of the industry is also video conferencing which is now a stronger competitor.

The opportunity to raise number of frequencies and passengers on regional airports is through making connection to the world biggest hubs. Government regulations, labour contract provisions, and financial agreements as well as insurance restrictions of the financial community prevent management from achieving the benefits.

New air links within the SEE region could considerably improve mobility and accelerate economic integration and cooperation processes. Specific Croatia Airlines items additionally affecting its business are: seasonality, average flight distance, price elasticity, living standard in Croatia and interest burden.



## REFERENCES

1. Bisignani, G. IATA, 15 September 2009
2. Netherlands Bureau for Economic Policy Analysis (CBP)
3. I. Mišetić , M. Tatalović, J. Bajić, "Airlines odysse in the first decade of a century Croatia airlines challenges", proceedings from the 5<sup>th</sup> International Conference "An Enterprice Odyssey", Opatija, 2010
4. G. Harvey, P. Turnbull, "The impact of financial crisis on labour in the civil aviation Industry", Final report, Sectoral Activities Programme, 2009
5. R. Macario, E. Van de Voorde: "The impact of the Economic crisis on the EU air transport sector", European parliament, Directorate General for internal Policies, 2009
6. A. Kuile, "Economics & Charges the ANSP perspective", Informal briefing to the ICAO Council 12 May 2009 Secretary Genera
7. B. Straus ACI, " Second-half rebound helps limit recession's impact on global Traffic" April 2010
8. IMF World Economic Outlook, April, 2009
9. S.Steiner, M.Tatalović, J.Bajić, "Competition and cooperation on European Southeast air transport market", Seventh international conference Economic integrations, competition and cooperation, Opatija, 2009
10. European Organisation for the Safety of Air Navigation, Central Route Charges Office Report on the Operation of the Route Charges System in 2008
11. I. Mišetić, M. Tatalović, J. Bajić, "Public Service Obligation Model on European Southeast Air Transport Market, Proceedings from the Third International Conference: Regional Cooperation and Economic Integration, Skopje, 2009.pag 261.
12. V. Kandžija, A. Kumar , A., "50 Years of European Union", I. Mišetić, I.MalovićBeganović, "Croatian Air Traffic Market in Light of Actual Economic Integration Processes", Rijeka 2008. pag. 320
13. Republic of Croatia, Central Bureau of Statistics, Report no 5.1.5/4, Zagreb, February 2010, page 1
14. Eurocontrol, 2<sup>nd</sup> FAB Central Europe (FAB CE) Stakeholders and 2<sup>nd</sup> SD Workshop Conclusions and Minutes, 25<sup>th</sup> November 2009