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Footwear market in the Visegrad Group countries and the Republic of Croatia

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Abstract:

The main objective of the paper is to analyze the position of relevant countries of the footwear sector at a world and European level in terms of the different variables and evaluate the strategic positioning of the different sector players. The paper offers a comprehensive picture of the footwear industry worldwide, focusing on the main trends at international trade, consumption and production. Also, the paper examines the position of the Republic of Croatia and the Visegrad group countries in the context of international trade, consumption and production of the footwear. The paper is essentially data-driven, and includes a synthetic description and analyse of the structure of the sector and of the different competitive factors affecting the sector's evolution.

Keywords: footwear market; footwear industry; Visegrad Group; Croatia

JEL codes: L67, L81

1. INTRODUCTION

The footwear industry covers a wide variety of materials (textile, plastics, rubber, and leather) and products from different types of footwear products. It is a small manufacturing sector that belongs to the core of light industry (Anić, Rajh, 2008: 223). According to Gottfridsson and Zhang (2015), globalization of the shoe industry has resulted in a supply chain in which processes might be spread all over the world. With the widespread adoption of information and communication technologies, computers and process automation, footwear production modernized, particularly in terms of quality of the manufactured products, flexibility of production, level of control on the various processes, consistency and constancy of the quality of the delivered products (Boer and Dulio, 2007: 7). The global footwear industry has been experiencing rapid expansion over the last five-year period, primarily due to rapid demand for new and innovative footwear products worldwide. The critical driving factor that may dominate the footwear business is an increasing competitive pressure from low labor cost producers, especially from China and the Far East

(Wang and Tseng, 2013: 625), which resulted in a market push toward further diversification and demands for higher-quality products. According to Kieserling (2013: 665) it was easy shifting production sites to places of the cheapest labor, since basic skills are relatively easy to train.

The main objective of the paper is to analyze the position of relevant countries of the footwear sector at a world and European level in terms of the different variables (production, exports, imports and consumption) and evaluate the strategic positioning of the different sector players. Also, the paper examines the position of the Republic of Croatia and the Visegrad Group countries in the context of international trade, consumption and production of footwear.

The paper is organised in three sections. At first, leading global footwear producers and consumers are examined. This part of the paper analyzes the structure and distribution of the global footwear production and consumption. Second part of the paper examined the European Union footwear production, imports and exports. This chapter regroups the latest data describing the main market indicators of the sector. Finally, market indicators of the footwear industry in Visegrad Group countries and Republic of Croatia are analyzed within the third part of the paper. This chapter provides an updated analysis of the footwear sector among listed countries, taking into consideration the most relevant indicators showing the market dynamics in terms of footwear production and consumption, divided in seven sub chapters. The paper is essentially data-driven, and includes a synthetic description and analyse of the structure of the sector and of the different competitive factors affecting the sector's evolution.

2. LEADING GLOBAL FOOTWEAR PRODUCERS AND CONSUMERS

Leading global footwear manufacturers are located in the Far East where the development of the footwear industry was primarily based on a cheap labor. In the 1960s, Japan was the world's main low-cost footwear supplier. The success of Japan allowed the market positioning of the leading footwear manufacturers from the Asian continent over time. Some of the Asian countries were taking on and losing the role of the world's leading footwear manufacturer, such as South Korea and Taiwan. The key reason for losing the market position of those two countries was a disruption in the supply chain that occurred in the late 1990's (Ujević et al., 2015). The consequences of the disorder were inability to supply the US footwear market at the agreed time and the agreed price, which resulted in the fall in consumer loyalty and losing positions in the global footwear market. At the same time, by the liberalization of economic policies China became the world's first footwear manufacturer and exporter.

Footwear manufacture is one of the most globalized industries (Markkanen, 2009: 6). Geographically highly concentrated world footwear production reached 23 billion pairs in 2015. This can be supported by the fact that 86.8% of the total world footwear production in 2015 was produced in Asian countries, mainly in China and India. But, it is important to emphasize that the market share of China fell to a record low 59.1% of the world production in 2015 (APICCAPS 2016: 3). Most of these

shoes are synthetic (over 60%) and of low quality and price (Global Footwear Analysis and Jordan, 2012: 1). Table 1 contains information on the leading footwear manufacturers and their shares in the world footwear production in 2015.

Table 1. Leading 10 global footwear producers in 2015

Rank	Country	Million pairs produced	Share in the production	
			Leading 10	World
1.	China	13,581	66,84	59,04
2.	India	2,200	10,82	9,56
3.	Vietnam	1,140	5,61	4,95
4.	Indonesia	1,000	4,92	4,34
5.	Brazil	877	4,31	3,81
6.	Pakistan	366	1,80	1,59
7.	Bangladesh	353	1,73	1,53
8.	Turkey	350	1,72	1,52
9.	Mexico	251	1,23	1,09
10.	Thailand	200	0,98	0,86
Leading 10		20,318	100,00	88,33
World		23,000		

Source: own work on the basis of the: <https://www.statista.com/statistics/227256/leading-10-global-footwear-producers-by-country/> (accessed 23. September 2016).

It is evident from the Table 1 that India, Vietnam and Indonesia reinforced their positions. There is now no European country in the table of the top 10 world footwear producers because Thailand replaced Italy at the bottom of this table. The growth in the import of shoes in the European countries is a reason for concern. For example, in traditional shoe making nations like Italy and Spain, shoe imports grew at between 8% and 10%, with the result that increasing amounts of Asian shoes were consumed every year in countries with a long tradition in shoe making and a still-active footwear industry. In Italy, for example, for the first time in 2004 the amount of the shoes imported exceeded those exported, which created a negative trade balance, which occurred as a consequence of the progressive repositioning of Italian shoe production towards the upper segments of the market (Boer and Dulio, 2007: 14). Except Brazil and Mexico (with 6% share in the top ten world producers) all other are Asian countries. The majority of the world footwear production is located in Asia, with high 94.42% in top ten world producers. The strengthening of world footwear production is confirmed by the 84% increase in ten year period, from 12.5 billion pairs in 2002 to 23 billion pairs produced in 2015.

The concept of “big three” in global footwear industry refers to countries such as China, India and Indonesia. The data contained in Table 1 shows that Vietnam took the third position by produced pairs of footwear in 2015 ahead of Brazil and Indonesia. Indonesia is the fourth country in the “big four”. These concepts are related to the value of exported footwear produced in each of these countries. The share of “big three” represented just over 2/3 of total world production in 2015. China achieves a continuous increase in the value of footwear exports and its share in the “big four” was 75.8% and 59% in the world footwear production.

When talking about the category of footwear consumption, the world's largest consumer of footwear is China. China appears in a double role: (1) as the world's largest footwear producer and (2) as the world's largest footwear consumer. With the share of 15.9% in 2011 and 17.3% in 2012 China occupied the first position in the global footwear consumption. Table 3 shows the footwear consumption in the top ten countries in 2015.

Table 2. Leading 10 global footwear consumers in 2015

Rank	Country	Million pairs consumed	Share in the consumption (leading 10)
1.	China	3,800	30,33
2.	US	2,442	19,49
3.	India	2,196	17,53
4.	Indonesia	826	6,59
5.	Brazil	786	6,27
6.	Japan	660	5,26
7.	UK	560	4,47
8.	Germany	445	3,52
9.	France	422	3,36
10.	Russian Federation	390	3,11
Leading 10		12,527	100,00

Source: <https://www.statista.com/statistics/227287/share-of-the-leading-10-global-footwear-consumers-by-country/> (accessed 23. September 2016).

Among the top ten global footwear consumers in 2015, four countries were from the Asian continent with 7.4 billion pairs of shoes (almost 60% of footwear consumption among top ten global consumers): China, India, Japan and Indonesia. According to the World Bank (2015), those countries had 3.066 billion inhabitants in 2015. The largest single footwear consumer was China with 3.8 billion pairs of shoes followed by the USA with 2,442 billion pairs and India with 2,196 billion pairs. Also, three European countries were among the top ten world's leading footwear consumers: Germany, France and the United Kingdom. Their share in a top ten global footwear consumption was 11,35% or 1.427 billion pairs of shoes.

The level of concentration of the top ten footwear consumers is significantly lower than the achieved level of concentration among the top ten footwear producers in total world footwear production. Four of the ten leading footwear consumers are also on the list of top ten footwear producers, such as: China, India, Brazil and Indonesia. For instance, India produces around 2,200 million pairs of different categories of footwear and exports around 115 million pairs. Thus, nearly 95% of its production goes to meet its own domestic demand (Vanimireddy et al., 2014: 9825).

Table 3 shows the distribution of the world's footwear consumption by continent from 2010 to 2015. There is significant geographic concentration in the global footwear consumption. As the most populous continent, Asia covered 49% of the total world footwear consumption in 2010, or 53% in 2014. In 2010 Europe occupied the second place with a 20% share in global consumption, while the second position in 2014 shared Europe and North America with 16% share in global foot-

wear consumption. North American countries participated in global footwear consumption with a 17% share, South American and African countries with 7% and Oceania with a 1% share in global footwear consumption.

Table 3. Share of the world's footwear consumption from 2010 to 2014 by continent

Continent	2010	2011	2012	2013	2014
Asia	49%	47%	50%	51%	53%
Europe	20%	21%	17%	17%	16%
North America	17%	17%	15%	15%	16%
South America	8%	8%	8%	7%	7%
Africa	5%	6%	9%	9%	7%
Oceania	1%	1%	1%	1%	1%

Source: <https://www.statista.com/statistics/227281/share-of-the-worlds-footwear-consumption-by-continent/> (accessed 23. September 2016).

It can be noted that footwear production significantly exceeds footwear consumption only for the Asian market (87% share in world production compared to 53% share of world footwear consumption). All other continents have significantly higher footwear consumption in relation to its production.

The share of the European market in the world footwear consumption was 16% in 2014. Europe had 7 times higher share in the world footwear consumption than in footwear production. The share of North America in the world footwear consumption (16%) was 8 times higher than its share in the world footwear production. South America and Africa participated in the world footwear consumption with a 7% share or twice as much as in the world footwear production. Therefore, it can be concluded that there are significant differences in the spatial distribution of the world's population and its spatial concentration, which ultimately affects the footwear consumption. Table 4 shows the footwear consumption in the top ten countries at the continental level and their index deviations from the average of the top ten global consumers.

Table 4. The footwear consumption of the top 10 global consumers grouped at the continental level in 2015

Countries	Number of citizens in millions	Number of pairs consumed in millions	Number of pairs consumed per capita
Asia (China, India, Japan, Indonesia)	3 066	7 482	2,44
North America (USA)	321	2 442	7,60
Europe (Germany, France, UK)	213	1 427	6,69
South America (Brazil)	207	786	3,79

Source: own study.

It is understandable that the world's footwear consumption measured in available pairs per capita predominantly affects the purchasing power of the population. Table 4 shows that the United States dominated with an average of 7,60

pairs per capita, followed by the three EU member states (Germany, France, UK) with 6,69 pairs of shoes per capita. As the largest footwear consumer market, Asia had only 2,44 pairs of shoes per capita. Therefore, it can be concluded that the majority of footwear production is located in the Asia and the bulk of consumption is located in Europe and the North American countries.

On the list of the top 15 footwear exporters (Table 5) China was in the first place according to the number of exported footwear (9,878 million pairs) and its share in the total value of the world footwear exports (40,4%). Nine countries on the list are the European countries (Italy, Belgium, Germany, Netherlands, Spain, France, Portugal, UK, and Romania). They participated in the world footwear exports with 27.2% in 2013. But, significantly smaller proportion in the physical export in relation to the share in the value of exports is the result of higher average unit price of exported shoes of European producers in relation to China as the dominant exporting country.

Table 5. Market share of the world's leading 15 footwear exporters (2013-2015)

Rank	Country	Million pairs exported in 2015	Share in the world export value (%) in 2013
1.	China	9,878	40,4
2.	Italy	207	9,0
3.	Vietnam	1,041	8,4
4.	Hong Kong	208	4,1
5.	Belgium	239	3,9
6.	Germany	238	3,7
7.	Indonesia	192	3,2
8.	Netherlands	-	2,7
9.	Spain	-	2,6
10.	France	-	2,3
11.	Portugal	-	1,9
12.	India	206	1,9
13.	UK	194	1,6
14.	Romania	-	1,1
15.	US	-	1
-	Turkey	180	-

Source: <https://www.statista.com/statistics/227359/market-share-of-worldwide-leading-footwear-exporters/> (accessed 26. September 2016).

3. THE EUROPEAN UNION FOOTWEAR PRODUCTION, IMPORTS AND EXPORTS

The European Union production of footwear shows a sharp trend of decline in recent years. Main reason is the strong Asian competition with China being currently the world number one footwear producer (Scheer, 2009: 8). On the other side, Europe represents the world's leading import market for footwear and related products. The share of European exports of footwear and related products in total imports was 66.8% for the five-year period, from 2009 to 2013. The attitude of European exports and imports ranged from the lowest 1:1,96 EUR in 2013 to the highest 1:2,81 EUR in 2010. In the observed period Europe continuously had a negative balance of ex-

ports in relation to the imports. Table 6 shows the trends in EU-27 (2011.-2012.) and EU-28 (2013.-2015.) footwear imports and exports from 2011 to 2015.

Table 6. Imports and exports of footwear, gaiters and the like (in thousands of €)

Year	Imports (in thousands of €)	Exports (in thousands of €)	Balance (in thousands of €)
2011	15,012,421	6,217,195	-8,795,226
2012	15,667,220	7,451,235	-8,215,985
2013	15,665,802	8,067,898	-7,597,905
2014	17,373,284	8,302,922	-9,070,363
2015	12,321,988	5,533,897	-6,788,091

Source: adapted from European Commission - Enterprise Directorate, Trade report comparison per year (yearly totals).

The growth of European imports in relation to the growth in footwear exports was significantly slower, especially in 2013 when imports increased by 9.1% and exports increased by 52.6% in comparison to 2009. A consequence of slower growth of imports compared to exports is continuous reduction of the negative balance of footwear exports over imports. The slowdown in footwear imports is partly a consequence of the recession in the European market. The negative balance in 2013 decreased by 17.2% compared to the observed base year and increased by 19.3% in 2014 compared to previous year. Finally, the negative balance decreased by 10.6% in 2015 compared to 2014.

Table 7. Imports and exports of footwear, gaiters and the like (in thousands of kg)

Year	Imports (in thousands of kg)	Exports (in thousands of kg)	Balance (in thousands of kg)
2011	1,531,211	179,367	-1,351,844
2012	1,356,951	224,781	-1,132,170
2013	1,679,275	237,410	-1,441,865
2014	1,539,805	233,792	-1,306,013
2015	921,059	145,239	-775,820

Source: adapted from European Commission-Enterprise Directorate, Trade report comparison per year (yearly totals).

Export and import markets are more or less remote. Therefore, transporters must take into account the weight of shoes that must be transported. In the observed period from 2011 to 2015 Europe has continuously achieved negative balance of exports over imports according to the weight of imported and exported footwear. The negative balance amounted 1,441 million tons of footwear in 2013. The data in Table 7 shows that the weight of the exported footwear from EU-27 (2011.-2012.) and EU-28 (2013.-2015.) grew faster than the weight of imported footwear.

Among the top five most important EU import footwear markets are the “big four” Asian countries: China, Vietnam, India and Indonesia. The EU footwear demand is covered with over 62% of the footwear production in the EU member

states. Table 8 shows detailed information on the top five footwear purchasing markets for the EU-27 (2011.-2012.) and EU-28 (2013.-2015.) countries.

Table 8. Imports from 5 main suppliers (in thousands of €)

Suppliers	Year				
	2011	2012	2013	2014	2015
EU	19,897,620	20,722,437	22,189,231	25,084,716	17,346,607
China	7,523,031	7,864,089	7,729,873	8,263,356	5,684,597
Vietnam	1,824,784	2,113,581	2,189,699	2,777,814	2,163,869
Indonesia	1,026,472	1,237,838	1,212,672	1,256,286	988,739
India	1,236,901	1,110,485	1,176,759	1,349,252	884,086
Total first 5 suppliers	31,508,808	33,048,430	34,498,234	38,731,424	27,067,898

Source: adapted from European Commission-Enterprise Directorate, Trade report comparison per year (yearly totals).

Table 9. Imports from 5 main suppliers (in thousands of kg)

Suppliers	Year				
	2011	2012	2013	2014	2015
EU	927,342	969,890	1,136,460	1,215,609	762,637
China	1,050,184	909,216	1,224,620	1,011,268	576,068
Vietnam	138,982	133,347	137,051	166,877	113,116
Indonesia	69,603	75,574	75,665	78,305	59,177
India	75,676	63,645	67,726	78,554	46,516
Total first 5 suppliers	2,261,787	2,151,672	2,641,521	2,550,613	1,557,514

Source: adapted from European Commission-Enterprise Directorate, Trade report comparison per year (yearly totals).

Table 9 provides information on the top five footwear suppliers for the EU-27 (2011.-2012.) and EU-28 (2013.-2015.) market according to the weight of imported footwear. With the exception in 2012, China was a leading supplier for EU footwear market according to weight of imported footwear with 36-46% share among the top five suppliers. 85-89% of the total weight of shoes sold on the EU market between 2011 and 2015 originated from Europe and China. European Union market is the main market for footwear and similar products produced in EU Member States. There is a high level of concentration of footwear produced in the European Union on the EU market, with 41-48% share among the top five suppliers between 2011 and 2015.

With the exception of 2013, the US market was in a second place for footwear produced in EU, with approximately 4% of total value of footwear exported to top five markets. The exception was 2013, the year in which Russian market achieved a 4,8% share in sales value of the top five markets for footwear produced in the EU-27 (2011.-2012.) and EU-28 (2013.-2015.) countries (Table 10).

It can be seen from the Table 10 that the actual sales of footwear produced in the EU Member States in the first five sales markets continuously increased from 2011 to 2014, while 2015 showed significant drop of almost 30% compared to 2014.

The realized value of footwear sales is an indicator of the significance of individual sales markets. Furthermore, the significance of individual sales market can be

measured according to weight of footwear distributed to individual sales markets. The majority of footwear produced in the EU Member States is sold on the same market, with the share of 91-93% in the observed period from 2011 to 2015. Table 11 shows the distribution of footwear produced in the EU-27 (2011.-2012.) and EU-28 (2013.-2015.) countries among five leading retail markets in the observed period.

Table 10. Main 5 markets for footwear produced in EU (in thousands of €)

Markets	Year				
	2011	2012	2013	2014	2015
EU	22,871,308	23,096,350	24,936,841	27,866,887	19,045,896
USA	1,069,117	1,193,246	1,274,827	1,445,013	1,255,480
Switzerland	920,461	1,063,362	1,118,457	1,192,730	1,195,473
Russia	913,067	1,128,466	1,290,914	1,051,390	565,770
Hong Kong	329,340	399,262	434,066	514,314	388,881
Total first 5 markets	26,103,293	26,880,686	29,055,105	32,070,334	22,451,500

Source: adapted from European Commission-Enterprise Directorate, Trade report comparison per year (yearly totals).

Table 11. Main 5 markets for footwear produced in EU (in thousands of kg)

Markets	Year				
	2011	2012	2013	2014	2015
EU	993,941	890,603	988,563	1,104,786	680,462
Switzerland	20,793	21,012	21,785	21,766	19,262
USA	19,340	20,138	20,494	23,459	18,496
Russia	19,786	24,917	30,325	25,248	13,892
Turkey	10,972	11,647	15,521	15,411	13,207
Total first 5 markets	1,064,832	968,317	1,076,688	1,190,670	745,319

Source: adapted from European Commission-Enterprise Directorate, Trade report comparison per year (yearly totals).

4. MARKET INDICATORS OF THE FOOTWEAR INDUSTRY IN VISEGRAD GROUP COUNTRIES AND REPUBLIC OF CROATIA

Footwear export – import ratio in the analyzed countries

The information contained in Table 12 shows that the five countries analyzed can be divided into two groups according to the export – import ratio. Hungary and Slovakia are in the first group that had more footwear export than import. Slovakia is at the forefront with the value of footwear export 85.8% higher than the recorded value of imports in 2011. The second group of countries contains two member states of the Visegrad Group (the Czech Republic and Poland) and Croatia. The lowest coverage of imports by exports was in Poland that had 49.3% lower export than import i.e. realized coefficient of import-export coverage was 50.7%. These results confirmed Cieslik et al. (2016, pp.21) estimations that the probability of exporting in Poland depends on the sector of economic activity, where the largest probability of exporting exists in technology sectors such as electrical equipment, motor vehicles or transport equipment.

Visegrad countries had a total import-export coverage ratio at the level of 94.8%, which is significantly better than the Croatian ratio (84.7%) in 2011. Poland and the Czech Republic achieved higher export of footwear in 2015 compared to 2011. Their growth in exports of footwear was higher than their growth in import. Both countries have increased the coverage of imports by exports in 2015 compared to 2011. Hungary and Slovakia reduced the value of exports in 2015 compared to 2011 and increased the value of imports of footwear. Hungarian export of footwear decreased by 12.5% and imports increased by 30.4%, reducing the export-import ratio from 128.8% in 2011 to 86.4% in 2015. Slovakia has reduced the value of exports of footwear by 8.1%, while the value of imports in the same period increased by 27%. This is the only member of the Visegrad Group whose imports of footwear were covered by exports. The coverage of imports by exports decreased from 185.8% in 2011 to 134.7% in 2015.

Table 12. Some indicators of footwear industry in the countries of the Visegrad Group and the Republic of Croatia in 2011 and 2015

Country	Exports (million USD)		Imports (million USD)		Imports covered by exports, %	
	2011	2015	2011	2015	2011	2015
Hungary	385	337	299	390	128,8	86,4
Czech Republic	570	785	790	816	72,2	96,2
Poland	543	955	1070	1475	50,7	64,7
Slovakia	1122	1032	604	766	185,8	134,7
Total: V4	2620	3109	2763	3447	94,8	90,2
Croatia	160	187	189	242	84,7	77,3

Source: adapted from APICCAPS: World Footwear 2012 Yearbook data up to 2011 (pp. 34, 35, 47, 68 and 75) and APICCAPS: World Footwear 2016 Yearbook data up to 2015 (pp. 52, 54, 69, 93 and 101).

The coverage of imports by exports decreased for the Visegrad countries from 94.8% to 90.2%. In the period from 2011 to 2015 the Republic of Croatia reduced the coverage of imports by exports from 84.7% to 77.3%. One can conclude that in the period 2011-2015 significant changes have occurred regarding actual exports and imports of the analyzed countries (for details see Table 12). There are great expectations of the footwear industry in the Croatian economy, since Croatian industrial strategy states that the Croatian footwear exports will amount to 60% of the total industrial activity by 2020, followed by exports of other leather products (Renko et al., 2015: 187).

The consumption of footwear in the analyzed countries

Data on consumption of footwear in the V4 countries and the Republic of Croatia in 2011 are contained in Table 13. The consumption of footwear is measured by footwear per capita. Average consumption of footwear in V4 countries in 2011 was 4.7 pairs of shoes per capita. There were significant deviations from the average consumption of footwear in the V4 countries.

Czech Republic has the highest consumption of footwear with 12.8 pairs of shoes per capita, and Hungary with 2.4 pairs is on the bottom of the V4 countries. The ratio of consumption of footwear in the Czech Republic and Hungary is 5.33:1.00. With 5.8 pairs of shoes per capita Croatia occupied second place. The consumption of footwear in Croatia was 23.4% higher than the average consumption of footwear in the V4 countries.

Table 13. The consumption of footwear in the countries of the Visegrad Group and the Republic of Croatia in 2011 and 2015

Country	Million pairs		Population in millions	Pairs of shoes per capita		Deviation from the average V4 = 100 %	
	2011	2015		2011	2015	2011	2015
Hungary	24	24	10	2,4	2,4	51,06	85,71
Czech Republic	141	44	11	12,8	4,0	272,34	142,86
Poland	108	99	38	2,8	2,6	59,57	96,86
Slovakia	26	11	5	5,2	2,3	110,64	82,14
Total: V4	299	178	64	4,7	2,8	100,00	100,00
Croatia	23	18	4	5,8	4,5	123,40	160,71

Source: created by authors on the same source as in Table 13.

The Czech Republic had the highest GDP per capita in 2011, 20,444 USD, followed by Slovakia with 17,644 USD, Croatia with 14,457, Hungary with 14,050 and Poland with 13,540 USD. The amount of disposable income affects consumption. Czech Republic with the highest GDP per capita had the highest consumption of footwear per capita.

There have been significant changes in the consumption of footwear in 2015 compared to 2011 in all of the analysed countries except for Hungary. Hungary retained consumption of footwear at the same level in 2015 as in 2011. In all other countries, the consumption of footwear decreased significantly which resulted in the reduction of the average consumption of footwear per capita. Thus, the average consumption of the Visegrad countries decreased from 4.7 pairs of shoes per capita in 2011 to 2.8 pairs in 2015. In Croatia consumption of footwear decreased from 5.8 pairs in 2011 to 4.5 pairs per capita in 2015 (for details see the information contained in Table 13). The recession and different spending priorities could be the causes of the above mentioned movements.

The relation between production and consumption of footwear in the countries of the Visegrad Group and the Republic of Croatia

All of the V4 countries and the Republic of Croatia are both producers and consumers of footwear. Data on production and consumption of footwear and the coverage of consumption by production are presented in Table 14. The coverage of consumption of footwear by the production in V4 countries was 27.1%. There are significant deviations from this average by individual countries. The lowest coverage of consumption by own

production of footwear had the Czech Republic with only 2.8% in 2011. Hungary had the highest coverage rate with 95.8% followed by Slovakia with 84.6%.

Table 14. Relation between production and consumption of footwear in million of pairs in 2011 and 2015

Country	Production (millions of pairs)		Consumption (millions of pairs)		Consumption covered by production, %	
	2011	2015	2011	2015	2011	2015
Hungary	23	11	24	24	95,8	45,8
Czech Republic	4	4	141	44	2,8	9,1
Poland	32	35	108	99	29,6	35,4
Slovakia	22	9	26	11	84,6	81,8
Total: V4	81	59	299	178	27,1	33,1
Croatia	10	4	23	18	43,5	22,2

Source: the same as for the previous table.

Croatia had significantly higher coverage of consumption by own production compared to the average of V4 countries (43.5%) or 60.5% more (index = 160.5). It is evident that important changes occurred in the actual production and consumption of footwear in the analyzed four years period from 2011 to 2015. With the exception of Poland that increased production of footwear and the Czech Republic which remained on the same production, all other analyzed countries reduced their production. Visegrad countries have reduced the total production of footwear from 81 million pairs in 2011 to 59 million pairs in 2015, or by 27.2%. Croatia reduced the production of footwear by 60% in the same period.

Only Hungary retained the consumption of footwear in 2015 at the same level as in 2001. All other countries had a decrease in consumption of footwear. The consumption of footwear at the level of the Visegrad Group decreased by 40.5% in 2015 compared to 2011. The decline in consumption of footwear was significantly faster than the decline of the production in the countries of the Visegrad Group. Consequently, the coverage of consumption of footwear by own production increased from 27.1% in 2011 to 33.1% in 2015.

The decrease in production of footwear in the Republic of Croatia of 60% and the decrease in consumption of 21.7% resulted in a significant reduction in the coverage of consumption by realized production. This indicator decreased from 43.5% in 2011 to 22.2% in 2015. For details, see the information contained in Table 14.

The ratio of export and import prices of footwear

Data on exports and imports of footwear in millions of US dollars as well as import-export coverage are contained in Table 15. The ratio of export and import prices of footwear may lead to some observations. All V4 member states achieved higher average export price per pair of footwear compared to the average import price. It can be stated that the footwear industry in these countries focuses on producing quality footwear. The biggest difference between the average export and import prices per pair of shoes in 2011 was in the Czech Republic. The average export

price of a pair of footwear was 168.3% higher than the average import price. Slovakia followed with 95.3% higher price and Hungary was the last with 30% higher export than import prices. In 2011, the Republic of Croatia had the largest difference of footwear export prices compared to import prices. The value of the index was 338.1%. The average export price of a pair of footwear was for 238.1% higher than the average import price. For details, see Table 15.

Table 15. Relation between import and export prices in footwear industry in 2011 and 2015

Country	Export prices per pairs (USD)		Import prices per pairs (USD)		The ratio of export and import prices	
	2011	2015	2011	2015	2011	2015
Hungary	13,55	18,86	10,42	12,80	1,300	1,473
Czech Republic	11,27	19,31	4,20	10,14	2,683	1,904
Poland	14,05	13,66	9,30	11,03	1,511	1,238
Slovakia	12,17	15,99	6,23	11,57	1,953	1,382
Croatia	35,64	26,23	10,54	11,75	3,381	2,233

Source: adapted from APICCAPS: World Footwear 2012 Yearbook data up to 2011 (pp. 34, 35, 47, 68 and 75) and APICCAPS: World Footwear 2016 Yearbook data up to 2015 (pp. 52, 54, 69, 93 and 101).

All countries achieved higher export than import prices per pair of footwear in the two observed years. Czech Republic, Poland, Slovakia and Croatia had a reduction in the difference between the export and import prices of footwear. The exception was Hungary with the achieved increase between export and import price per pair of footwear. This could be related to the imports of more expensive and higher quality footwear, increased competition and offered similar but cheaper footwear made in the Far East. Individual relation of export and import prices of footwear is shown in Table 15.

The main export market for footwear produced in V4 and the Republic of Croatia

Visegrad countries exported a total of USD 2,620 million worth of footwear in 2011. Footwear exports grew by 18.7% in 2015 compared to 2011. In countries exports of footwear decreased (Hungary and Slovakia) and in two countries it increased (Czech Republic and Poland). Key markets for the export of footwear produced in the countries of the Visegrad Group are given in Table 16.

The most important export market is Germany. In 2011, 34,3% of total exports of footwear of the countries of the Visegrad Group was exported to this market. This was the most important export market for the three countries of the Visegrad Group (Hungary, Czech Republic and Slovakia). The exception was Poland where the main export market for footwear was the Russian Federation. In the Russian Federation, Poland exported USD 2 million more footwear than it exported to Germany. In 2015, 33,7% of total exports of footwear of the countries of the Visegrad Group was exported to the German market. Fifteen of the most important markets for the export of footwear of Visegrad Group countries realised 74.7% of total exports of footwear in 2011 and 70.4% in 2015.

Table 16. The main export markets for footwear produced in V4 in 2011 and 2015

Country Export markets	Exports in million USD									
	Hungary		Czech Republic		Poland		Slovakia		Total: V4	
	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
Germany	155	123	122	184	134	321	487	420	898	1048
Austria	85	73	87	124		-	118	101	290	298
Italy	82	40	-	89		-	-		82	129
Romania	17	26	-	-		-	-		17	26
USA	7	-	-	-		-	-		7	-
Slovakia	-	11	83	64		43	-		83	118
United Kingdom	-	-	60	70		-	-		60	70
France	-	-	36	-		-	-		36	-
Hungary	-	-		-		-	89	61	89	61
Czech Republic	-	-		-	30	65	86	65	86	130
Poland	-	-		-		-	60	155	60	155
Russian Federation	-	-		-	136	110			136	110
Ukraine	-	-		-	57	-			57	-
Netherlands	-	-		-	25				25	-
Lithuania	-	-		-	-	44	-	-	-	44
Total exports (15 countries)	346	273	388	531	382	583	840	802	1956	2189
Total exports	385	337	570	785	543	955	1122	1032	2620	3109
Top 15 markets in total exports of footwear (%)	89,9	81,0	68,1	67,4	70,3	61,0	74,9	77,7	74,7	70,4

Source: adapted from APICCAPS: World Footwear 2012 Yearbook (pp. 34, 47, 68 and 75) and APIC-CAPS: World Footwear 2016 Yearbook data up to 2015 (pp. 54, 69, 93 and 101).

In comparison to 2011, Visegrad countries achieved 11.9% increase in the value of export to the fifteen export markets in 2015 listed in Table 17. The German market has kept the first place and increased the share of the value of exported footwear by the countries of the Visegrad Group from somewhat below 46% in 2011 to almost 48% in 2015. The significance of the top five export markets changed in 2015 in comparison to 2011. Germany and Austria retained the first and second position as markets for exports of footwear produced in the countries of the Visegrad Group, followed by the Russian Federation, Hungary and the Czech Republic in 2011, and Poland, Czech Republic and Italy in 2015. The importance of the top 5 markets (in relation to the 15 markets previously mentioned) increased from 76.6% in 2011 to 80.4% in 2015. Concentration of the importance of export markets is visible with the focus on the growing importance of the German market.

Germany was the main export market for footwear produced in the Republic of Croatia in 2011. Croatia realised USD 57 million in exports of footwear to given market, or 35% of the total value of exports of footwear in 2011. In addition to the German market, the important footwear export markets for Croatia were: Austria, Italy, Netherlands and France. In all these markets, the share of exports in USD exceeded the share of import. This was due to the export of higher quality leather

footwear. Germany remained the leading export market for footwear produced in the Republic of Croatia also in 2015. It is the only export market, from five leading ones, where export was higher than in 2011. The structure of exports of footwear produced in the Republic of Croatia by major export markets is shown in Table 17.

Table 17. The structure of exports of footwear produced in the Republic of Croatia by major export markets in 2011 and 2015

Main exports markets	Exports in USD million		Export structure (%)	
	2011	2015	2011	2015
Germany	57	81	35,6	43,3
Austria	40	41	25,0	21,9
Italy	22	25	13,8	13,5
Netherlands	15	10	9,3	5,3
France	14	10	8,8	5,3
Top 5 markets	148	167	92,5	89,3
Total exports	160	187	100,0	100,0
Top 5 markets in total exports (%)	92,5	89,3	92,5	89,3

Source: adapted from APICCAPS: World Footwear 2012 Yearbook (pp. 34) and APICCAPS: World Footwear 2016 Yearbook data up to 2015 (pp. 52).

The main footwear import markets for the Visegrad Group countries and the Republic of Croatia

The main footwear import market for the V4 countries was Germany in 2011, with 38,05% of the total imports of footwear in 2011. It was the main import market for three out of four Visegrad countries.

The exception was the Czech Republic where China was the main export market for footwear in 2011. Imports of footwear from China were 28.9% higher than from Germany. In 2015 China and Vietnam occupied the first two positions of the import markets. Germany was third. The Visegrad Group countries and the Republic of Croatia achieved 65.9% of the value of imports of footwear from the 18 markets listed in Table 18. The significance of some import markets for each of the Visegrad Group countries and the Republic of Croatia is shown in the same table. Table 18 presents the main footwear import markets for the Visegrad Group countries and the Republic of Croatia in 2011 and 2015.

By analysing tables 5 and 7 it can be noted that the V4 countries exported and imported footwear in mutual trade. Figure 1 and Figure 2 show imports and exports of footwear between the V4 countries in 2011 and 2015.

The total value of imported and exported footwear by V4 countries was USD 438 million in 2011 and USD 487 million in 2015. There was increase of 11.2% in the mutual exchange. The Croatian footwear industry did not buy nor sell shoes on the V4 markets in 2011.

Table 18. The main import markets for footwear produced in the V4 member states and the Republic of Croatia in USD million in 2011 and 2015

Country	Hungary		Czech Republic		Poland		Slovakia		Croatia		Total: V4 and Republic of Croatia, million USD	
	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
Export market												
Germany	49	51	152	99	384	134	240	-	-	26	825	310
Slovakia	37	61	74	-	55	-	-	-	-	-	166	61
Bulgaria	35	-	-	-	-	-	-	-	-	-	35	-
Romania	29	-	-	-	-	-	99	56	-	-	128	56
Czech Republic	20	-	-	-	-	-	53	-	-	-	73	-
China	-	-	196	264	178	525	73	253	82	19	529	1061
France	-	38	-	-	-	-	-	-	-	-	-	38
Italy	-	-	93	56	115	-	-	-	25	38	233	94
Austria	-	-	46	-	-	-	-	-	-	-	46	-
Belgium	-	32	-	-	49	-	-	-	-	-	49	32
Vietnam	-	-	-	97	-	190	47	133	19	-	66	420
Indonesia	-	-	-	-	-	-	-	-	11	-	11	-
Poland	-	35	-	49	-	-	-	-	-	-	-	84
Slovenia	-	-	-	-	-	-	-	-	7	46	7	46
Hungary	-	-	-	-	-	-	-	33	-	-	-	33
India	-	-	-	-	-	77	-	21	-	-	-	98
Denmark	-	-	-	-	-	71	-	-	-	-	-	71
Netherlands	-	-	-	-	-	-	-	-	-	30	-	30
Total imports (18 countries):	170	217	561	565	781	997	512	496	144	159	2128	2434
Total imports	299	390	790	816	1070	1479	604	766	189	242	2952	3693
Top 18 markets in total imports (%)	56,6	55,6	71,0	69,2	73,0	67,4	84,8	64,8	76,2	65,7	73,4	65,9

Source: adapted from APICCAPS: World Footwear 2012 Yearbook (pp. 34, 35, 47, 68 and 75) and APICCAPS: World Footwear 2016 Yearbook data up to 2015 (pp. 52, 54, 69, 93 and 101).

Imports in millions USD	V4 countries	Exports in millions
Slovakia, Czech Republic		Slovakia, Czech Republic
57	→	→ 0
Slovakia		Slovakia
74	→	→ 83
Slovakia		Czech Republic
55	→	→ 30
Czech Republic		Czech Republic
53	→	→ 86
239		199

Figure 1. Imports and exports of footwear between the V4 countries in millions USD in 2011

Source: adapted from APICCAPS: World Footwear 2012 Yearbook, pp. 34, 47, 68 and 75.

Imports in millions USD	V4 countries	Exports in millions
96	Slovakia, Poland → Hungary	Slovakia → 11
49	Poland → Czech Republic	Slovakia → 64
0	→ Poland	Czech Republic, Slovakia → 108
33	Hungary → Slovakia	Czech Republic, Hungary → 126
178		309

Figure 2. Imports and exports of footwear between the V4 countries in millions USD in 2015
Source: adapted from APICCAPS: World Footwear 2016 Yearbook data up to 2015, pp. 54, 69, 93 and 101.

By analysing tables 5 and 7 it can be noted that the V4 countries exported and imported footwear in mutual trade. Figure 1 and Figure 2 show imports and exports of footwear between the V4 countries in 2011 and 2015.

The total value of imported and exported footwear by V4 countries was USD 438 million in 2011 and USD 487 million in 2015. There was increase of 11.2% in the mutual exchange. The Croatian footwear industry did not buy nor sell shoes on the V4 markets in 2011.

The structure of types of exported and imported footwear

The materials used for shoes changed in the 1960s, since the price of leather increased - plastics and other synthetic material became popular among many fashion designers (Au and Goonetilleke, 2013: 177). The footwear industry has placed significant effort in improving material efficiency during the production phase, as well as eliminating the use of hazardous materials in shoe production (Staikos and Rahimifard, 2007: 603). There are significant differences in the types of exported footwear among the analyzed countries. Hungary and Czech Republic had a high proportion of waterproof footwear in their exports. The Czech Republic took the first place with a share of 54% of waterproof footwear in its total exports in 2011, followed by Hungary with a share of 43%. Waterproof footwear was ranked second in the Hungarian export of footwear, just behind the export of leather footwear (with the share of 46%).

Unlike the two mentioned countries, waterproof footwear in footwear exports in Polish, Slovakian and Croatian market had only minor share. The share varied from 1% (Slovakia and Croatia) to 3% (Poland). Quantitative structure of exports and imports according to the types of footwear is shown in Table 19.

Croatia had the biggest share of exports of leather footwear. Its share in total exports was 83% in 2011. This is one of the key reasons for the significantly more favorable ratio between the realised exported and imported footwear prices in the Republic of Croatia. Due to the material used, leather footwear represents more expensive footwear. The difference in terms of export and import prices of footwear by the analyzed countries is evident from the Table 20. Hungary is in the

second place regarding the share of leather footwear in the structure of footwear exports with a share of 46%. With the share of 23% Poland and Slovakia occupied the third position while Czech Republic is in the fourth place with a share of 16%. The Czech Republic is leading with 26% share of textile footwear in footwear export. Poland had a very high prevalence of other footwear in the structure of exports, with a share of 37%. The other footwear category includes: work footwear, special footwear, orthopedic footwear and the other.

Table 19. Structure of exports and imports by the type of footwear in the V4 countries and the Republic of Croatia in 2011 (quantity, %)

Types of shoes	Hungary		Czech Republic		Poland		Slovakia		Croatia	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
Waterproof	43	55	54	68	3	2	1	1	1	2
Rubber & Plastic	1	2	1	1	24	46	57	62	6	37
Leather	46	26	16	8	23	17	23	15	83	23
Textile	6	15	24	21	13	24	17	20	7	22
Other	4	2	5	2	37	11	2	2	3	16
Total:	100	100	100	100	100	100	100	100	100	100

Source: adapted from APICCAPS: World Footwear 2012 Yearbook data up to 2011, pp. 34, 35, 47, 68 and 75.

There are significant differences in the structures and types of imported footwear in the analyzed countries. The Czech Republic was leading in the imports of waterproof footwear with 68% of the total imports of footwear in 2011. In the second place was Hungary with a share of 55%. The other three countries (Slovakia, Poland and Croatia) had a share of waterproof footwear in total imports from 1% to 2%.

Regarding the import of rubber and plastic footwear Slovakia took the first place with 62% share in the total amount of imported footwear. With 46% Poland was in the second place while Croatia was third with 37%. Share of rubber and plastic footwear was minorly present in the total imports of footwear in the countries such as Hungary and the Czech Republic (from 1% to 2%). The biggest share in imports of leather shoes had Hungary with 26%. In second place was Croatia with 23%. Poland was third with a share of 17% and Slovakia fourth with a share of 15%. The Czech Republic occupied fifth position with a share of 8%.

The Czech Republic had a leading position regarding the share of textile footwear in total footwear export. Those exports accounted for 24% of its total footwear exports. The export of textile footwear was second biggest export in Czech footwear industry. The smallest share of exports of textile footwear had Hungary (6%) followed by Croatia (7%). In four out of five analysed countries share of textile footwear in import was significantly higher than its share in the structure of exports. Poland had the highest share of textile footwear in the structure of imports (24%), followed by Croatia with 22%, Czech Republic with 21%, Slovakia with 20% and Hungary with 15%.

Other footwear category in four out of five countries was the least represented in the structure of footwear exports. The share of this category of footwear in the structure of exports amounted from 2% (Slovakia) to 5% (Czech Republic). The exception was Poland with 37% share of textile footwear in footwear exports. This

was the most important segment of Polish exports of footwear. Exports of rubber and plastic footwear in Polish exports of footwear occupied the second position with the share of 24%. In three out of five countries, import of other footwear in the structure of import was lower than its share in the export structure. These countries are: Hungary (2%), Czech Republic (2%) and Poland (11%). In Slovakia the share of other footwear in import was equal to its share in export (2%). Croatia was an exception regarding the share of other footwear in imports compared to its share in exports. Other footwear category had 5,3 times higher share in the structure of import than the share in the export structure. The share of category other footwear in Croatian import of footwear was 16% in 2011.

In four-year time period there have been significant changes in the structure of exports and imports of footwear in the Visegrad Group countries and the Republic of Croatia. Hungary and the Czech Republic significantly reduced the share of exported and imported quantities of waterproof footwear in 2015 compared to 2011. At the same time, they significantly increased the export and import of rubber and plastic footwear. Focusing on quality and expensive shoes resulted in increased exports and imports of shoes made of leather and textiles. Poland increased rubber & plastic and shoes made of textile in the structure of exported footwear and reduced the share of other footwear. The biggest changes in imports were in the category of waterproof footwear with halved quantities. In Slovakia, the share of leather footwear and footwear made of textile in export increased while the share of exported footwear made of rubber and plastic decreased. At the same time in the structure of imports (despite to significant reduction in the share in 2015 compared to 2011) the share of imported footwear made of rubber and plastic dominated with 44%.

Table 1. Structure of exports and imports by type of footwear in the V4 countries and the Republic of Croatia in 2015 (quantity, %)

Types of shoes	Hungary		Czech Republic		Poland		Slovakia		Croatia	
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import
Waterproof	1	2	3	2	3	1	1	1	1	5
Rubber & Plastic	25	39	23	46	36	45	38	44	14	36
Leather	53	28	24	19	23	20	30	23	63	20
Textile	19	28	41	27	19	27	23	24	12	32
Other	2	3	9	6	19	7	8	8	10	7
Total:	100	100	100	100	100	100	100	100	100	100

Source: adapted from APICCAPS: World Footwear 2016 Yearbook data up to 2015, pp.52, 54, 69, 93 and 101.

The Republic of Croatia maintained a dominant share in volume of export of leather footwear even though its share decreased significantly from 83% to 63%. The share of export of footwear made of textiles and other footwear categories increased. The share of waterproof footwear and footwear made of textiles increased in the structure of imported footwear. Other categories of footwear had minor presence in the structure of imported quantities of footwear in 2015 compared to 2011. Table 20 contains information about the structure of exported and imported footwear by the Visegrad Group countries and Croatia in 2015.

4. CONCLUSIONS

This paper offered a comprehensive picture of the global, European and the specific Visegrad group markets footwear industry, focusing on the main trends at international trade, consumption and production.

The paper estimated that after five years of growth rates international footwear trade declined in 2015. A major contribution to this movement comes from China, whose footwear production in 2015 came to just 13 billion pairs, reducing the country's share of the world total to a 59%. At continental level, the geographical structure of the industry remains broadly unchanged from previous years. With 87% of world production, Asia is the center of the footwear industry, with 7 out of the 10 main footwear producers (China, India, Vietnam, Indonesia, Pakistan, Bangladesh, and Thailand).

As well as other global and European markets, Visegrad group countries and the Republic of Croatia achieved decrease in the value of production and consumption of footwear in the observed period from 2011 to 2015, except for the Poland which increased the footwear production for 3 million of pairs. The most significant decline in footwear production achieved Croatia with 60% decrease in the five-year observed period. Interestingly, the consumption of footwear in the same country was 23.4% higher than the average consumption of footwear in the V4 countries. In terms of footwear consumption among Visegrad Group countries, Czech Republic achieved the highest drop with almost 70% or 97 million pairs in 2015.

On the other hand, Visegrad group countries achieved 11.9% increase in the value of export to the fifteen export markets in 2015, in comparison to 2011. But, there were significant differences in the types of exported footwear among the analyzed countries. Hungary and the Czech Republic significantly reduced the share of exported and imported quantities of waterproof footwear, but significantly increased the export and import of rubber and plastic footwear. Poland increased rubber & plastic and shoes made of textile in the structure of exported footwear and reduced the share of other footwear, while the Republic of Croatia maintained a dominant share in volume of export of leather footwear.

Despite the decline in global footwear production and consumption in 2015, global footwear sales are projected to reach \$331 billion in 2018 according to Report Linker research (2016).

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