



*Faculty of Economics, University of Niš, 18 October 2013*

**International Scientific Conference  
THE GLOBAL ECONOMIC CRISIS AND  
THE FUTURE OF EUROPEAN INTEGRATION**

---

**INTERNATIONAL COMPETITIVENESS AND  
EXPORTS OF SERBIA**

**Predrag Bjelić\***

**Radmila Dragutinović Mitrović\***

**Ivana Popović Petrović\***

***Abstract:** This paper aims to analyse the international competitiveness and its relations to exports of Serbia. Serbia has a low ranking in global competitiveness, even in the region of Western Balkans. But there are some indications that Serbia has a strategic competitive advantage in the region, among countries signatories of Central European Free Trade Agreement from 2006. Our analysis also takes into account the differences in sectoral competitiveness, and observes the period 2004-2012. We are set to explore which sectors can be the leaders in exports of Serbia.*

***Keywords:** International competitiveness, Exports, Global Competitiveness Index, Sectoral competitiveness, Serbia.*

### **1. Introduction**

Following Porter's answer to the question of what explains the competitiveness of a country and Krugman's views concerning the competitiveness of nations as "dangerous obsession", this paper aims to provide a clear picture of Serbian national competitiveness at the world market. The intention is to make a positioning of Serbia, evaluating its role at the world market and its role in external trade flows, especially with other Balkan countries. Trying to find possibilities for international competitiveness improvement in the case of Serbia, we will assess trade competitiveness dynamics, especially for sectors with comparative advantages.

### **2. International Competitiveness**

During last few decades the question of international competitiveness of a state was a central question of many scientific debates. This category is defined as the macro competitiveness - comparison of the one national economy's competitiveness towards other

---

\* University of Belgrade, Faculty of Economics, Serbia; bjelic@ekof.bg.ac.rs,  
radmilam@ekof.bg.ac.rs, ivanapp@ekof.bg.ac.rs  
UDC 339.564(497.11)

countries. Starting from the idea that the competitive advantage of each state is determined by its enterprises competitive advantages, Porter published his book “The Competitive Advantage of Nations” in 1990. This is the example of deriving macroeconomic concept from the microeconomic concept. By that concept, Porter has found the answer to the question of what explains the competitiveness of a country. He believed that the competitiveness of each state has been determined by the competitiveness of its companies, meaning that they have been operating in an environment representing a given state. (Bjelić, 2011) As this concept of competitiveness of companies is a well known fact on one hand and the concept of the national competitiveness is not, on the other, this second concept met with the open criticism, embodied in the works of the Paul Krugman. This author has found the term of the competitiveness of nations as a “dangerous obsession”, explaining it as a fact that nations are not able to compete between themselves economically while companies can. (Krugman, 1994). Some other authors have eased his attitude concluding that there was a difference between the way nations compete between themselves and companies on the other hand, although in both cases, economical. (i.e. Dunn, 1994). This opinion certainly has influenced further work of Krugman, who has accepted the term of the national competitiveness.

After many attempts to give a true and complete definition of the national competitiveness, experts of the UNCTAD have defined national competitiveness as the ability to achieve the export of the concrete country at the world market. Also, they emphasized the role of the foreign direct investments inflow for the national competitiveness increase, especially if the countries are underdeveloped. There was a widespread view also, that the best indicator for the national competitiveness level was a trade balance, but the example of the USA trade balance huge deficit was the opposite argument. Namely, the USA are one of the most competitive economies, although they record trade deficit.

American scientist Bruce Scott with his colleague George Lodge have given the definition of the national competitiveness, which, by their opinion: „refers to a country’s ability to create, produce, distribute, and/or service products in international trade while earning rising returns on its resources” (Scott and Lodge, 1985). By their opinion, employment of national resources should lead to real incomes and living standard increase, based on real categories, rather than borrowing abroad (Bjelić, 2011). At the macroeconomic level, a competitive economy is the economy with the ability to achieve economic growth and additionally, to sustain its growth.

Competitiveness of an economy could become obvious only if we study and compare it with other countries` competitiveness. This is possible only if we measure national competitiveness having a cross-country study. World Economic Forum (WEF) has developed competitiveness measurement index, using a Porter` theory. That index is a Global Competitiveness Index (GCI) and it includes more than 300 factors influencing competitiveness of nations. For developed countries mostly, Institute for Management Development (IMD) from Lausanne has used similar methodology, but the number of countries was more modest comparing with the GCI. Measurement of the competitiveness could be realized using some simpler methods of competitiveness called Revealed Comparative Advantage (RCA) Index, but limited at the sector` level, only. It was developed by Bela Balassa in 1965. This index shows the degree of export specialization of

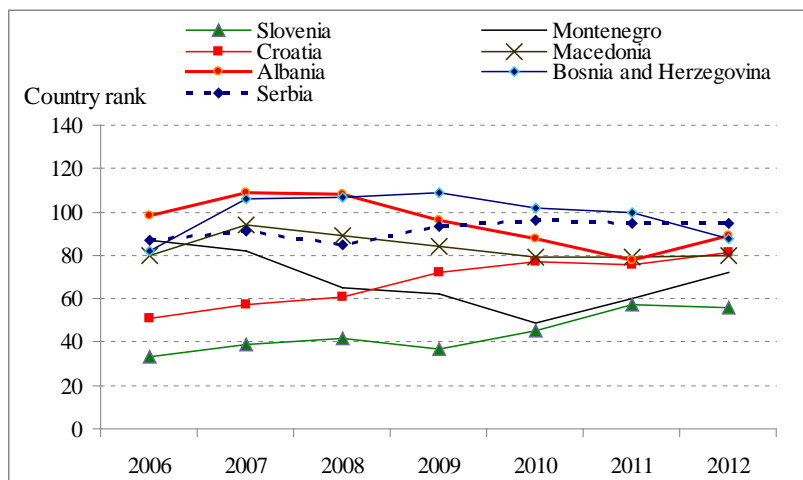
## International Competitiveness and Exports of Serbia

the country. If the index is higher than 1, then we conclude that the country has a comparative advantage in the production and this product` export (Ballassa, 1965).

National competitiveness is a category used to be defined by World Economic Forum during the last decade as the ability of the economy to generate significant economic growth in the long run. (Bjelić, 2011). But the most recent editions of the WEF defined "competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country" (WEF, 2013, p.4).

The WEF analysis for the 2012-2013, using the GCI shows medium positioning for Western Balkan countries. Their ranking shown in the Global Competitiveness Report for 2012-2013 on world rank list of 144 economies is from 70<sup>th</sup> to 100<sup>th</sup> place (Figure 1). These countries have low competitiveness ranking, comparing to other European economies. In this region, Serbia has realized a decrease after 2008, with the ability to maintain it. The best position has been achieved by Slovenia which has been accompanied by Montenegro.

**Figure 1: Global WEF Competitiveness Ranks of Western Balkan economies and Slovenia**



*Source:* Authors' graphical representation of World Economic Forum data from The Global Competitiveness Report, several years.

Immediately after the world economic crisis, in 2009 and in 2010, consequences of the crisis have been reflected on the loss of positions of the GCI of all Western Balkans economies. The only exception was Albania, with the improvement in its positioning until the last Report for 2012-2013, which has shown an decrease. The greatest loses of positions had Slovenia, Croatia and Serbia, while Macedonia and Bosnia and Herzegovina have realized some improvements. After the improving period from 2006-2010, Montenegro recorded decrease at the GCI ranking. After the Bosnia and Herzegovina improved its position, Serbia remained as the country with the lowest GCI in the region, according to the last Report` data. Despite Slovenia has lost its 30<sup>th</sup> position, many years ago, it looks that the period of further decrease has been stopped.

International competitiveness (measured by GCI) is often investigated in the empirical literature, as well as its effects on bilateral trade. Kalirajan, K. and K. Singh

(2008) analysed the international competitiveness (measured by growth competitiveness index in the period up to 2005) as one of determinants of bilateral trade in case of China and India. They found that international competitiveness has significant positively effect on its exports growth in case of India, but not in case of China. Concerning the Western Balkan region, Dragutinović Mitrović R. and Bjelić P. (2013) have investigated the effects of global competitiveness index (GCI) on bilateral trade, based on panel data gravity model estimated for the period 2006-2011. The positive and significant GCI effect on the Western Balkan countries' bilateral exports is found, but with its decreasing impact over time. Moreover, the authors' results implicate that due to gradual introduction of symmetry in EU-Western Balkans trade regime, the low international competitiveness of WB even more decreases leading to its bilateral export effects weakens. Following these findings, an interesting issue in this paper is the analysis of Serbian exports and its global competitiveness, particularly on the sectoral level.

### 3. Exports and Global Competitiveness of Serbia

Serbia is a small and underdeveloped economy. Foreign trade has a significant role in the overall economic development as one of its main determinants. Serbia suffers from constant trade deficit, which was decreased only in 2005 and 2009. For decades, Western Balkan countries are focused on the same partner countries.

For Serbia, as for other West Balkan economies, the EU has a central role as the most important foreign trade partner. However, according to data of the Statistical Office of Serbia for 2009, the share of the EU in Serbian export in 2011 is decreasing, bearing in mind the fact that in 2009 its share was 53.6 % and that in 2011 it was only 48%. The share of CEFTA 2006 countries also is decreasing comparing its share in Serbian export in 2009 of 35.1% and only 27.2% in 2011. Only the role of the Russian Federation` market is increasing, bearing in mind its share of 4.2% in 2009 and its increase to 6.7% in 2011. (Statistical Office of Serbia, 2012). Traditionally, foreign trade with EFTA countries is at a low level, with the share of EFTA in Serbian export and import of only approximately 1%.

**Table 1: External trade of Serbia, 2009-2011**

Territory/Country	Export 2009		Import 2009		Export 2011		Import 2011	
	mil. USD	%	mil. USD	%	mil. USD	%	mil. USD	%
European Union	4,477.4	<b>53.6</b>	916.9	<b>56.8</b>	5,653	<b>48.0</b>	10,453	<b>52.6</b>
<i>Germany</i>	870.7	10.4	1,964.5	12.2	1,331	11.3	2,150	10.8
<i>Italy</i>	820.8	9.8	1,549.8	9.6	1,306	11.1	1,771	8.9
CEFTA 2006	2,942.1	<b>35.1</b>	1,311.0	<b>8.1</b>	3,202	<b>27.2</b>	1,609	<b>8.1</b>
<i>Bosnia and Hercegov.</i>	1,015.6	12.2	448.2	2.8	1,191	10.1	670	3.4
<i>Montenegro</i>	836.2	10.0	179.3	1.1	891	7.6	131	0.7
<i>Croatia</i>	278.8	3.3	427.4	2.7	468	4.0	488	2.5
<i>Macedonia</i>	429.1	5.1	230.9	1.4	525	4.4	320	1.6
<i>Kosovo (UNMIK)*</i>	308.2	3.7	5.1	0.0	0.3	0.0	2.3	0.0
<i>Albania**</i>	69.8	0.8	5.9	0.0	126.6	1.1	22.9	0.1
<i>Moldavia***</i>	4.4	0.0	14.2	0.0	9.6	0.1	66.3	0.3

### International Competitiveness and Exports of Serbia

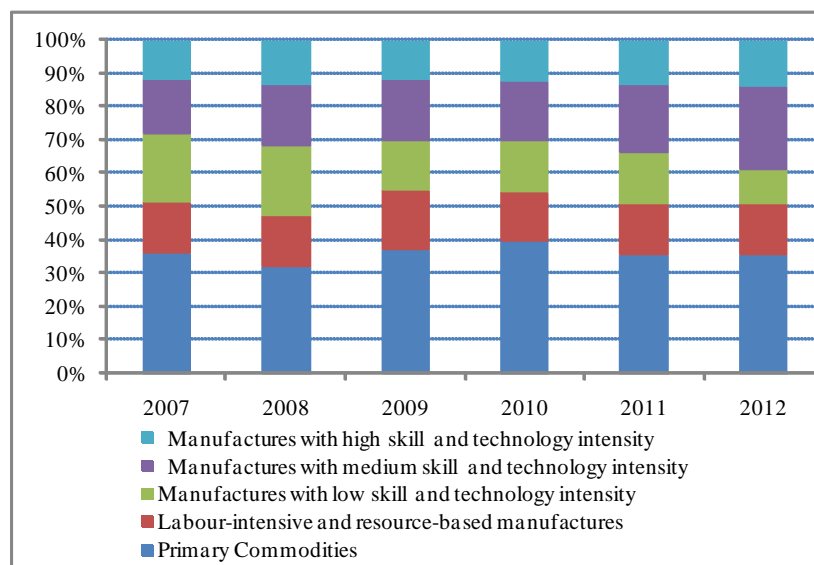
Russian Federation	349.4	4.2	1,969.9	12.3	792	6.7	2,654	13.4
China	8.9	0.1	1,135.4	7.1	15	0.1	1,488	7.5
Ukraine	180.3	2.2	256.8	1.6	211	1.8	384	1.9
USA	67.8	0.8	356.3	2.2	79	0.7	288	1.4
EFTA	92.0	<b>1.0</b>	263.0	<b>1.6</b>	92	<b>0.8</b>	247	<b>1.2</b>
Turkey	45.1	0.5	293.8	1.8	183	1.5	405	2.0
<b>TOTAL</b>	<b>8,344.3</b>	<b>100.0</b>	<b>16,055.6</b>	<b>100.00</b>	<b>11,779</b>	<b>100.0</b>	<b>19,862</b>	<b>100.00</b>

Notice: Statistical Office of Serbia published only data for the most important countries in Serbian foreign trade. The data for the imports from Albania, for import and export from Moldavia and Kosovo (UNMIK) is obtained from Serbian Chamber of Commerce. Total for CEFTA 2006 is given for major member countries (without Albania, Moldova and Kosovo\*).

Source: Statistical Office of Serbia, (2012), *Statistical Yearbook of the Republic of Serbia 2012*, Belgrade.

We can observe from the following graph that commodities dominate in Serbia export. Problem is that these are the products with low value added in their production so the content that the country exports is lower. In this group we can include primary commodities, labour-intensive and resource-based manufactories and manufactures with low skill and technology intensity, and we can see that they dominate the export of Serbia with a share far above 50%. In the period of crisis, after 2008, we can observe even that these products are augmenting it share in exports of Serbia.

**Figure 2: Serbia product structure of exports 2007-2012**



Source: Authors' graphical representation according to UNCTAD data.

More specific concept of competitiveness connected to international trade is Trade competitiveness. Countries are trying to secure its strategic position on a global market true international trade. International Trade Center (ITC) has developed a research tool Trade Competitiveness Map where it analyses competitiveness of sectors and products of individual

**Predrag Bjelić, Radmila Dragutinović Mitrović, Ivana Popović Petrović**

economies with a global comparison. It uses different methods but basic analysis point out the main export product groups. In the next table we have selected the main export product groups of West Balkan economies with net exports larger than 100 million USD. Net export is chosen indicator because countries tend to export and also import same products and product groups. We can observe that the number of products with such level of net exports vary, from 2 in Albania to 7 in Serbia. West Balkan economies do not have such a large number of "real" export products. And even if this product groups are significant in their total exports in 2010 from a global standpoint their export are not globally significant. Almost all export products from Western Balkans has a share in global export of that particular product less than 1% which makes this exports globally insignificant. Only product group that can be considered important are ships exported from Croatia or Serbia's export of cereals, 0.85% and 0.51%, respectively. But we have to notice that some product groups are relevant for several West Balkan countries. The co-ordination of this exports and joint sales on third markets could stabilize and improve this export flows.

**Table 2: Export of product groups with net trade is above 100 millions USD, 2010**

<b>Country</b>	<b>Product group</b> (number in front the product group name represents the HS code)	<b>Share in country export (%)</b>	<b>Share in world export of a product (%)</b>
Albania	64 Footwear, gaiters and the like, parts thereof	15.6	0.25
	26 Ores, slag and ash	6.9	0.06
Bosnia and Herzegovina	94 Furniture, lighting, signs, prefabricated buildings	9.3	0.27
	76 Aluminium and articles thereof	8.3	0.28
	44 Wood and articles of wood, wood charcoal	5.7	0.26
	64 Footwear, gaiters and the like, parts thereof	5.7	0.28
	99 Commodities not elsewhere specified	2.6	0.02
Croatia	89 Ships, boats and other floating structures	12.2	0.85
	44 Wood and articles of wood, wood charcoal	4.2	0.47
	31 Fertilizers	2.1	0.47
	25 Salt, sulphur, earth, stone, plaster, lime and cement	1.6	0.51
Macedonia	62 Articles of apparel, accessories, not knit or crochet	16.1	0.30
	72 Iron and steel	23.2	0.19
	26 Ores, slag and ash	6.2	0.10
	38 Miscellaneous chemical products	7.1	0.15
	61 Articles of apparel, accessories, knit or crochet	4.2	0.07
	24 Tobacco and manufactured tobacco substitutes	3.9	0.36
Serbia	72 Iron and steel	10.6	0.28
	10 Cereals	4.1	0.52
	08 Edible fruit, nuts, peel of citrus fruit, melons	3.5	0.48
	74 Copper and articles thereof	5.0	0.32
	17 Sugars and sugar confectionery	2.0	0.48
	76 Aluminium and articles thereof	4.7	0.34
	61 Articles of apparel, accessories, knit or crochet	2.6	0.15

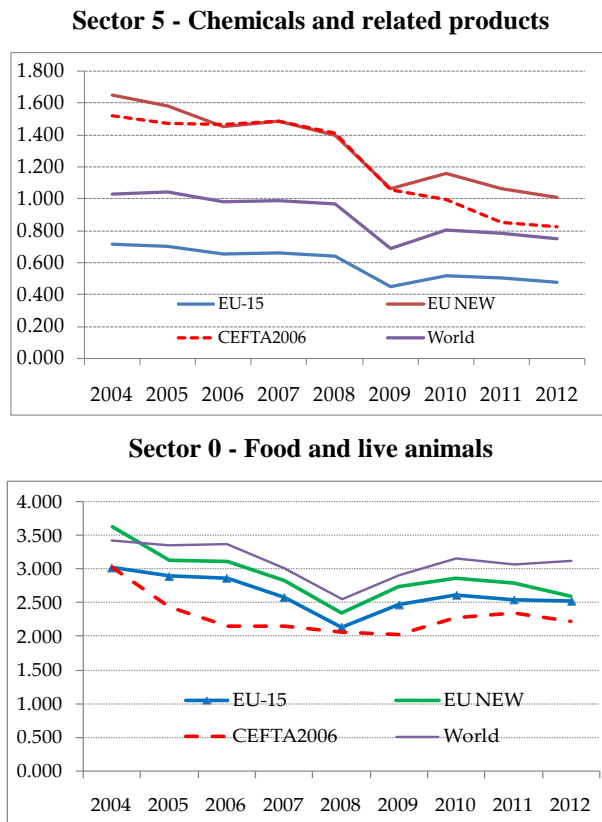
*Source:* Authors calculations based on International Trade Center data.

4. Trade Competitiveness Dynamics – Case of Serbia

Following results obtained for the the Western Balkan region (Dragutinović Mitrović R. and Bjelić P., 2013), our intention is to make further analysis of trade competitiveness in case of Serbia on the sectoral level. Changes in the dynamics of Serbia’s trade competitiveness seem to appear along with trade regime changes in the process of the EU integration. Competitiveness in the export sectors is captured by Revealed Comparative Advantage (RCA) index<sup>1</sup>, as commonly used sectoral competitiveness indicator.

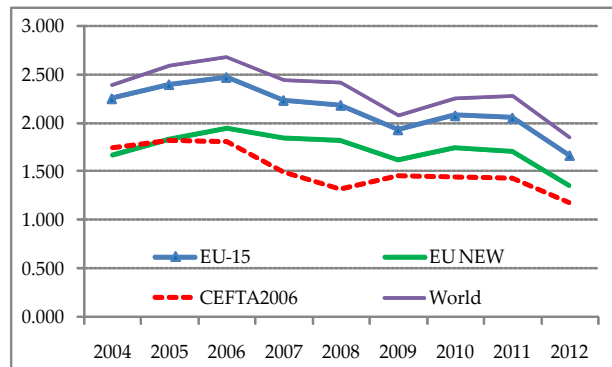
In order to capture the dynamics in trade competitiveness over years, we calculated RCA index for each observed year in the period 2004-2012. The index is calculated with respect to the whole world market, but also to the Serbia’s main food trading partners: EU-15, new EU members and CEFTA 2006 signatories. This should reflect competitiveness changes during different EU trade regimes. Figure 3 presents RCA dynamics for Serbian main export sectors (according to SITC classification).

Figure 3: Revealed Comparative Advantage index (RCA) of most important Serbian export sectors

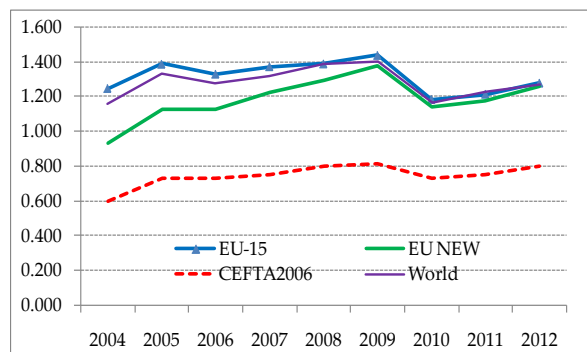


<sup>1</sup> This index is calculated following its original form (Balassa, B. (1965)).

**Sector 6- Manufactured goods**



**Sector 8 -Miscellaneous manufactured articles**



Calculated indices indicate the overall decreasing dynamics in Serbian comparative advantage in the most of observed sectors. This is true not only for observed groups of countries but in relation to the world market, particularly in case of chemicals and related products. In this sector, starting from 2008 Serbia lost comparative advantage in relation to the EU-15 and to the world market, and from 2009 with respect to CEFTA 2006 (Figure 3). Regarding the sector of manufactured goods, the RCA index decrease is also registered, but this did not lead to the loss of comparative advantages (indices in all years are greater than 1). In case of food and live animals sector, the decrease of RCA up to 2008, did not cause the loss of comparative advantages - Serbia has comparative advantage in the whole observed period in relation to all observed groups, with the period of the RCA increase came after the global crisis. Finally, RCA index in the sector of miscellaneous manufactured articles stagnates related to most of observed groups of countries (the exception are new EU member states, and CEFTA members with slight RCA increase).

Judging the Serbian exports dynamics, it appears that the decreasing overall dynamics of RCA index did not provoke tendency of food exports decrease, particularly in the sector of food and and live animals. Therefore, our future research will refer to deeper investigation of the trade competitiveness effects along with other important determinants



## International Competitiveness and Exports of Serbia

---

of Serbian exports in observed sectors. In that way, it would be possible to find out whether competitiveness factors or trade regimes variations predominate as determinants of Serbian export dynamics.

### 3. Conclusion

The level of competitiveness has decisive role in further plans for increasing of Serbian share at the world market. Although Serbian role in world trade is negligible, it can't be said if we observe Balkan countries intra-trade, especially trade realized due to CEFTA 2006 Agreement. Its role at the world market is determined by many factors, including the product structure of exports with the domination of products with low value added. Different data and indicators presented in this paper, provide a clear picture relating to the position of Western Balkan countries and Serbia on world competitiveness ranking. Their competitiveness ranking is at the low level especially comparing to EU countries. That low level is not worrying but the trend of continuous decline of trade competitiveness is.

Serbia low competitiveness position has a negative effect on its export expansion. The proof is our previous finding that gradual introduction of symmetry in EU-Serbia trade regime decreases Serbia exports generally. In this paper we also discovered the deminishing of trade competitiveness on sectoral level. Our analysis has shown that sectors 0 and 6 SITC have comparative advantages, measured by RCA, but we registered decreasing trade competitiveness dynamics even in these sectors. The important question is the effect of further preference erosion both on aggregate and sectoral level exports of Serbia along with further integration into the EU. The only possibility is improvement of international competitiveness for Serbia. In our further research in this area we will concentrate on a gravity model estimation on sectoral level, testing the effects of trade competitiveness on Serbian bilateral exports of most important trade sectors.

### References

1. Balassa, B. (1965), Trade Liberalisation and Revealed Comparative Advantage, *The Manchester School*, 33(2): 99-123.
2. Bjelić, Predrag, (2011): *Međunarodna trgovina*. Beograd: CID Ekonomskog fakulteta
3. Dragutinović-Mitrović, Radmila and Predrag Bjelić, (2013): International Competitiveness and Asymmetry in Trade Regime in the EU Integration: Evidence from Western Balkans, Paper for the The Tenth International Conference: *Challenges of Europe: The Quest for New Competitiveness*, 1-11, Split, Faculty of Economics.
4. Dunn, M. H. (1994): Do Nations Compete Economically? *Intereconomics*, November/December 1994: 303–308.
5. Kalirajan, K. and K. Singh (2008): A Comparative Analysis of China's and India's Recent Export Performances, *Asian Economic Papers* 7(1), The Earth Institute at Columbia University and the Massachusetts Institute of Technology.
6. Krugman, Paul (1994): *Competitiveness - A Dangerous Obsession*, *Foreign Affairs*, 73(2): 28–44.
7. Scoot, B.R. and G.C. Lodge (1985): *US Competitiveness in the World Economy*, Boston: Harvard Business School Press.
8. World Economic Forum (2012): *The Global Competitiveness Report 2012–2013*, Davos

## MEĐUNARODNA KONKURENTNOST I IZVOZ SRBIJE

**Rezime:** Cilj ovog rada je da ukaže na uticaj međunarodne konkurentnosti Srbije na tokove njenog izvoza. Srbija ima nizak nivo globalne konkurentnosti, čak i u poređenju sa zemljama Zapadnog Balkana. Ali registrovana je poboljšana pozicija Srbije u izvozu u zemlje potpisnice CEFTA 2006 sporazuma. U radu smo se bavili i analizom konkurentnosti pojedinačnih sektora u izvozu Srbije, u period 2004-2012. godine.

**Ključne reči:** međunarodna konkurentnost, izvoz Srbije, konkurentnost sektora privrede.