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# EFFECTS OF INTEGRATION PROCESS ON COMPETITIVENESS OF BOSNIA AND HERZEGOVINA

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## **Abstract**

*World Economic Forum (WEF), in The Global Competitiveness Report 2018, identifies competitiveness with productivity level concluding that all countries benefit from being more competitive. The competitive economy is also productive economy; productivity growth leads to economic growth and higher standard of living. Theoretical and practical experience suggests that establishing a free trade zone leads to positive effects but also has negative consequences, especially in the short term. Bosnia and Herzegovina takes part in the Stabilization and Association Process, and the relative bilateral Stabilization and Association Agreement (SAA) has been signed in 2008, ratified in 2010, and entered into force in 2015. Meanwhile, the trade bilateral relations were regulated by an Interim Agreement. Adapted SAA entered into the force on February 1, 2017. The aim of this paper is to analyze the effects of trade liberalization on the level of competitiveness ten years after establishing free trade zone with EU, the most important trade partner, i.e. to estimate relationship between GDP pc, GCI and trade balance in the long run.*

**Keywords:** GCI, productivity, EU integration process

## **1. INTRODUCTION**

The main occupation of any government is to determine the optimal instruments of economic policy that will boost economic growth and development. In nowadays: products, companies, industries, regions, countries and integrations, all compete on the global market. Thus competitiveness is in the focus of any policy: locally, regionally and globally. The World Economic Forum (WEF) defines the competitiveness of countries as a set of institutions, policies and factors that determinate the level of productivity. Many theorists believe that the level of market competition is the best indicator of development of the observed country. High level of competition brings new ideas, innovations, makes companies stronger and makes economy grow faster. That is why competitiveness has to be in focus of economic policy in every country. Bosnia and Herzegovina (B&H) is a small and open country specific by its complex administrative structure and many transitional problems. B&H suffers from chronically large trade deficits, mostly due to rebuilding efforts after the war. Citizens suffer the most due to the lack of political will and consensus on issues of crucial importance to the development of the country. Motivation of young people to remain in this plagued country is on the lowest level. EU integration is one of the very few issues where consensus exists among all political sides; EU requirements are taken into

account and are given priority in procedures for solving. The export orientation of B&H economy stands out as the key to the solution of main economic problems in many analyzes. Bosnia and Herzegovina takes part in Stabilization and Association Process (SAP). The aim of this paper is to analyze the effects of trade liberalization on the level of competitiveness ten years after establishing free trade zone with EU, the most important trade partner, i.e. to estimate relationship between GDP p.c., GCI and trade balance in the long run.

The paper is divided in six parts. First, literature review related to competitiveness of B&H and methodology and data are given. Second part presents EU accession as a main goal of foreign policy for B&H. Later in the paper analysis of the main macroeconomic indicators is presented. Also, separately are presented some facts about competitiveness. After that regression model is presented. And at the end conclusions and recommendations can be found.

## 1.1. Literature review

In turbulent and modern business world, characterized by a high level of openness and integration, international competitiveness can be freely considered as a crucial importance; both in developed and developing countries (Prlić, Marić, 2008, p.117). Competitiveness has been in the focus of economics since Adam Smith, David Ricardo, J.Stuart Mill, G.von Haberler, Heckscher and Olin ,Samuelson etc. where traditionally has been evaluated through international trade theories. Kravis, Linder and Vernon gave more contemporary view on international trade. Michael Porter introduced innovative micro approach in his theory "The Competitive Advantage of Nations" saying that in nowadays the most important determinants of competitiveness are created ones and not inherited ones. Competitiveness is reflected in the foreign trade structure. Characteristic of the developed countries is that they have mostly intra-industry trade.

The most famous and most comprehensive magazine that publishes a list of the most competitive economies in the world is the Global Competitiveness Report, which the World Economic Forum (WEF) has been publishing since 1979. Report helps to understand the main determinants of the economy growth and why some countries are much more successful in achieving macroeconomic goals than others through twelve pillars of competitiveness. From 2002. WEF used Growth Competitiveness Index (introduced by Jeffrey Sachs and John McArthur) for measuring competitiveness but it lacked many important indicators. „The missing indicators „were incorporated in new index introduced by professor Xavier Sala-I-Martin called Global Competitiveness Index, GCI). Economic Forum (WEF) in its' The Global Competitiveness Report 2018 identifies competitiveness with productivity level concluding that all countries benefit from being more competitive. According to the Global Competitiveness Index (GCI), it is assumed that the states are passing through three stages of development: 1. "Factor-driven stage", 2." Efficiency-driven stage" ,3. "Innovation-driven stage". In the first phase of productivity growth, the main factors of competitiveness are important: good functioning of public and private institutions (I pillar), well-developed infrastructure (II pillar), stable macroeconomic framework (III pillar) and good healthy and educated work force (Pillar IV). By developing countries enter the second phase where they realize more efficient production processes and a product quality growth. At this stage, growth in competitiveness is influenced by high education and professional training (V pillar), efficient commodity market (VI pillar), good functioning labor market (pillar VII), sophisticated financial market (pillar VIII), large domestic and foreign market and the possibility of exploiting existing technologies (pillar IX). Finally, the countries move to the third stage where productivity and competitiveness growth is conditioned by factors of high business sophistication (XI pillar) and innovation (XII pillar).

Some theorists think that liberalization is great choice for B&H, but others think opposite. Neoclassical concept of economic development (known as "Washington Consensus") has been applied in B&H because of political instability and complex structure. According to Marić (Marić, 2007, p.217) with existing structural differences and real economic convergence, the full

liberalization couldn't bring good results for B&H economy. In his paper Liberalization of foreign policy in Bosnia and Herzegovina and effects of liberalization on economy development (originally: Liberalizacija ekonomskih odnosa s inozemstvom i njen utjecaj na gospodarski razvoj Bosne i Hercegovine) he indicates liberalization and highlights possibilities which could be used by adequate protective policy, especially protective tariffs. Because of insufficient competitiveness, Marić wrote that B&H was not ready for a fast entrance in the economic integration (CEFTA, EU), which in its circumstances might have more constraining effects than effects of stimulating the economic development. Economic theory and even more historical experiences of today developed countries suggest that in a situation of deep recession the macroeconomic framework should be a classic Keynesian policy in which the protection of the domestic infant industry has a significant place.

Giving an importance to a greater role of competitiveness in international trade creates a prerequisite for better results in international trade, reduction of trade deficit, faster growth of GDP and higher levels of other competitiveness indicators (Nalić, 2016, pp-113-114). Nalić argues that the low level of B&H economy's competitiveness is mostly affected by the difficult access to financial resources, political instability, high tax rates and government instability as the biggest barriers to bring competitiveness to the highest possible level.

Foreign trade imbalance is a clear indicator that Bosnia and Herzegovina has extremely low level of economic competitiveness in comparison to EU member countries, but also in comparison to the most enlargement countries (Gadžić, Mrkonjić, 2017, pp.103-123).

Neoliberalists argue that liberal trade policy is prerequisite for economic growth, but the fact is that it is not enough to ensure growth of trade by itself. When trade reform is carried out in an unstable macroeconomic environment or is pursued without carefully designed economic policy, economic growth is not achieved.

If B&H wants to make more progress on the competitiveness scale, it has to work harder. It is crucial for the competitiveness of companies as well as for countries to develop a better education system and to improve employee knowledge through internal and external training. Social infrastructure and political institutions increasingly come in the focus of many analyzes and policies. (Pilić, 2018, pp. 42-56)

Obhodas and Jaganjac estimated the impact of macroeconomic indicators on competitiveness of B&H by application of regression analysis. Analysis was based on the impact of GDP, external debt, direct foreign investment participation in GDP, annual unemployment rate and average net wage at competitiveness of B&H. Model estimated the greatest correlation between competitiveness and annual unemployment rate, competitiveness and public debt, and competitiveness and average net wage, while the lowest correlation was between competitiveness and FDI and GDP. It is also important to emphasize the extremely high degree of correlation between GDP and public debt (Obhodas, Jaganjac, 2018, pp. 1-9).

Long-term and short-term effects should also be evaluated in the wider context of foreign trade liberalization, to which Bosnia and Herzegovina, like other transition countries, has approached immediately after getting independence. Reasons to accept liberalization of trade as a concept for B&H should certainly be sought in several factors, starting with the lack of funds for the reconstruction after war to the advantages related with faster economy growth and development that brings European integration. Difficult social situation of the country since the end of the war made it necessary to ensure supplying the market but at lower prices. The trade liberalization process in B&H started with the adoption of the Trade Acts in 1998; The Law on Foreign Trade Policy of B&H, The Law on Customs Policy and the Customs Tariff in B&H, The Law on Foreign Direct Investment of B&H and the Law on the Central Bank of B&H. By these laws very liberal treatment is given and customs protection reduced to a very low level to the goods imported into B&H.

In addition, the process of liberalization in B&H took place simultaneously on a global scale – WTO (World Trade Organization) accession negotiations and at regional level – CEFTA, SAA... Thus the effects of all these processes are summed up ([http://www.mvteo.gov.ba/attachments/bs\\_trgovinski-aspekti-pps-ssp-bih-eu.pdf](http://www.mvteo.gov.ba/attachments/bs_trgovinski-aspekti-pps-ssp-bih-eu.pdf) pp.9-10) .

## 1.2. Methodology and data

For the purpose of this paper, secondary data were used from the Thematic Bulletins of B&H Agency for the statistics on gross domestic product (GDP), GDP *per capita* (GDP p.c.), exports and imports of goods, data about flow of FDI taken from Bosnia and Herzegovina Central Bank, all for the period 2004 - 2017. Hypothesis in this paper is that 10 years after assigning SAA living standard of B&H citizens is higher, *i.e.* GDP p.c. is higher, foreign trade deficit is less (and export-import ratio is higher), FDI (Foreign Direct Investments) are higher, and competitiveness of the country is higher; evaluated through Global Competitiveness Index (as GCI ranking is lower that more competitive country is; *i.e.* 103 is better than 107 ranking position). The aim of this paper is to analyze the effects of trade liberalization on the level of competitiveness ten years after establishing free trade zone with EU, the most important trade partner, *i.e.* to estimate relationship between GDP pc, export-import ratio, FDI and GCI in the long run. Dependent variable in the model is GCI, and independent variables are GDP p.c., foreign trade (in)balance and FDI. Also, *dummy* variable is used to estimate impact of trade agreement. The method to be applied is the regression and the EVIEWS data processing program. Regression model is presented later in the paper. In 2014 B&H was not ranked. Thus to avoid missing data, linear interpolation is used for getting that year ranking in analysis.

Research aim is to show if there is a statistically significant difference in the competitiveness ranking after trade liberalization.

## 2. EU ASSOCIATION AS THE MAIN GOAL

Membership in the European Union is one of the main foreign policy priorities of Bosnia and Herzegovina, as defined in the document "Strategic Guidelines and Priorities for the Implementation of the Foreign Policy of B&H", adopted by the Presidency of Bosnia and Herzegovina on March 26, 2003.

Bosnia and Herzegovina takes part in the Stabilization and Association Process (SAP), and the relative bilateral Stabilization and Association Agreement (SAA) has been signed in 2008, ratified in 2010, and entered into force in 2015. Meanwhile, the trade bilateral relations were regulated by an Interim Agreement (on trade and trade related issues-IA). Adapted SAA entered into the force on February 1, 2017 (taking in a count that Croatia left CEFTA- Central European Free Trade Agreement-and became EU member). Some facts on the Stabilization and Association Agreement (SAA) and the Interim Agreement (IA) between the European Union and Bosnia and Herzegovina have to be given. Trade policy plays an extremely important role in the overall strategy of the European Union for the Western Balkans. Bosnia and Herzegovina foreign trade policy and overall diplomacy policy has European integration as the main goal. EU strategy is based on four steps:

1. Autonomous Trade Measures (ATMs), which allow a quota without customs duties and free access to the EU market for almost all products originating from the country and territory of beneficiaries;
2. Creation of bilateral free trade zones as part of the Stabilization and Association Agreement (SAA);
3. Support for trade integration of the region;
4. Support membership in the World Trade Organization.

The SAA is signed for an indefinite period of time, with joining elements of security, political and economic stabilization as well as an element of regional co-operation. The primary objective of the agreement is to formally join to the European Union in a certain transition period of six to ten years. Countries are required to gradually adapt their legislation to the *Acquis communautaire* and establish a free trade zone with the European Union.

The Stabilization and Association Agreement between the European Communities and their Member States, of the one part, and Bosnia and Herzegovina, of the other part, was signed in Luxembourg on June,16 2008 and entered into force on July,1 in 2015. It replaced the Interim Trade and Trade Agreement, which came into force on July 1, 2008. It was expected that entering the SAA into force would have direct and indirect economic and political benefits, since its activation proved commitment to the EU integration and was evidence of gradually fulfilment of membership criteria. In the theory, some of the benefits of long-term foreign trade liberalization are mentioned:

1. Strengthening export competitiveness through increased market access;
2. More intense competition in the domestic market;
3. Restructuring production according to comparative advantages;
4. Lower prices of inputs for the manufacturing sector;
5. Possible additional investment growth;
6. Accelerated technology and knowledge transfer;
7. Decrease in prices of goods and services;
8. Increase in volume of exchange;
9. Growth of national consumption and development of the economy;
10. The growth of welfare. ([http://www.mvteo.gov.ba/attachments/bs\\_trgovinski-aspekti-ssp-bih-eu.pdf](http://www.mvteo.gov.ba/attachments/bs_trgovinski-aspekti-ssp-bih-eu.pdf) , accessed 28.03.2019)

Thus, the Agreement should have strengthened the position of B&H in the region and the world, should have given positive signals to investors and should have ensure better compliance with the principles of justice, freedom, security, etc. Indirectly, this should have led to an increase in investment, employment and the growth of gross domestic product. The aim of this paper is to analyze the effects of trade liberalization on the level of competitiveness ten years after establishing free trade zone with EU, the most important trade partner, i.e. to estimate relationship between GDP pc, GCI and trade balance in the long run.

### 3. ANALYSIS OF SELECTED INDICATORS IN THE PERIOD 2004-2017 (2000-2017)

Table 1 GDP, GDP p.c., deficit, and coverage of imports by exports in B&H in 2004-2017 period

Year	GDP in BAM (current price)	GDP p.c.in BAM	Foreign trade balance (in million BAM)	Foreign trade balance (% GDP)	Coverage of imports by exports ( %)
2004	16.680.225	4.108	-6.410,2	-38,4	32,0
2005	17.650	4.404	-7.748,7	-43,9	33,8
2006	20.057	5.663	-6.661,0	-33,2	45,3
2007	22.548	6.366	-7.748,7	-37,6	42,7
2008	25.519,0	7.205	-10.197,0	-40,0	41,2
2009	24.799,0	7.003	-7.436,3	-30,0	44,8
2010	25.365,0	7.165	-7.186,4	-28,3	52,1
2011	26.231,0	7.414	-7.826,9	-29,8	53,0
2012	26.222,7	7.418	-7.778,5	-29,7	51,5
2013	26.778,8	7.584	-7.098,8	-26,5	55,2
2014	27.358,7	7.759	-7.873,7	-28,8	53,6
2015	28.589,1	8.126	-7.191,4	-25,2	56,7
2016	29.904,5	8.516	-7.060,7	-23,6	58,3
2017	31.376,2	8.941	-7.384,3	-23,5	60,8

Source: [http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin\\_cr\\_html.aspx](http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin_cr_html.aspx), [http://www.bhas.ba/tematskibiltenti/TB%20BDP%202016\\_BS\\_www.pdf](http://www.bhas.ba/tematskibiltenti/TB%20BDP%202016_BS_www.pdf), <http://www.bhas.ba/tematskibiltenti/2004-nacionalni-racuni.pdf>, *Gross Domestic Product by Production, Income and Expenditure Approach 2016, Agency for Statistics of Bosnia and Herzegovina, Thematic Bulletin ISSN 1840-104X, accessed: 15.02.2019. CB B&H, customized by author*

From the Table 1 it can be seen that in observed period after assigning SAA total foreign trade deficit had decreased around 27 % in 2009 comparing to 2008. Eurosceptic would say that observed period is after global recession that left consequences on international trade, main B&H trading partners and B&H itself. Thus volume of international trade decreased globally; not only for observed country. From the table above it can also be seen that foreign trade deficit expressed as a percentage of GDP decreased from 40 % in 2008 to 23,5 % 2017, which is a good sign for trade Agreements. What happened with living standard? If we take 2008 as a base year, it can be seen that GDP p.c. is 24,1 % higher in 2017 than in 2008. It can be seen that GDP p.c. declined in 2009 comparing to 2008, but after that has been continuously growing. It has to be told, on the other hand, that recently many people have been leaving B&H (and moving mostly to EU countries). We can also see that export-import ratio is higher: in 2017 it amounts 60,8% and in 2008 it amounted only 41,2 %. (Table 1)

Table 2 Real GDP growth rate and CPI growth rate in Bosnia and Herzegovina, 2005-2017 (%)

YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Real GDP GROWTH rate (%)		5,4	5,9	5,4	-3,0	0,9	1,0	-0,8	2,4	1,1	3,1	3,1	3,2
Consumer Price Growth Rate in B&H*	3,8	6,1	1,5	7,4	-0,4	2,1	3,7	2,1	-0,1	-0,9	-1,0	-1,1	1,2
FDI (in millions BAM)	552,30	864,80	2599,80	1337,50	351,90	599,70	698,60	601,10	407,10	811,10	636,90	564,00	777,70

Source: [http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin\\_cr\\_html.aspx](http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin_cr_html.aspx), 15.02.2019. CB B&H

Notes: \* Average annual CPI growth rate (%)

Table 2 gives us information about real growth rate in observed period, and it can be seen that in 2017. real GDP growth rate is on a much lower level than it used to be in period before assigning SAA, which also is not an optimistic indicator. But again, we have to remember recession in 2008-2009 and slow-down effects. Globally the problem is in a slower growth rates, not only for B&H.

In 2008-2009 the global financial crisis broke off the period of sustainable economic growth since the 1960s. Since then, despite unusual monetary policy and fiscal packages and stimulants, even the most developed economies have experienced relatively prolonged slow growth.

FDI after global crisis (and IA) are also on lower level and mostly are concentrated in production, banking sector, telecommunication and trade. And the most important investors to B&H according to FIPA (Foreign Investment Promotion Agency of Bosnia and Herzegovina) are Austria, Croatia, Serbia, Slovenia, Netherlands, Russia, Germany, Italy, Switzerland and UK.

Table 3 Trade with EU and total trade balance, changes in GDP p.c. and total foreign trade after Interim Agreement on trade and trade related issues

Year	Amount of trade with EU ('000BAM)	Deficit in trade with EU ('000BAM)	Coverage of imports by exports in trade with EU (%)	Trade balance (total) ('000BAM)	Amount of total trade ('000BAM)	GDP p.c. (percentage change) % 2008=100	Volume of total trade % (percentage change 2008=100)
2004.	6.597,8	-3.311,2	33,2	-6.410,208	12.435,732	-42,98	-45,94
2005.	7.807,3	-3.761,5	35,0	-7.397,599	14.963,997	-38,87	-34,95
2006.	8.495,7	-2.505,1	54,5	-6.224,489	16.553,081	-21,40	-28,04
2007.	10.2015,2	-3.383,3	50,2	-7.961,658	19.834,826	-11,64	-13,77
2008.	11.783,1	-4.338,4	47,3	-9.580,826	23.004,206	/	/
2009.	8.956,4	-2.928,3	50,7	-6.823,980	17.886,378	-2,8	-22,24
2010.	10.649,6	-2.691,2	59,7	-6.520,735	20.711,741	-0,55	-9,96
2011.	12.158,5	-2.833,1	62,2	-7.303,970	23.748,296	2,9	3,23
2012.	12.089,4	-2.688,2	63,6	-7.394,703	23.111,383	2,96	0,46
2013.	16.343,1	-3.783,7	62,2	-6.789,676	23.550,668	5,26	2,37
2014.	16.866,9	-4.019,1	61,5	-7.517,536	24.881,020	7,69	8,16
2015.	17.111,3	-3.993,6	62,2	-6.864,548	24.839,178	12,78	7,98
2016.	18.399,0	-4.525,4	60,5	-6.742.905	25.579.123	18,20	11,19
2017.	20.457,5	-4.420,5	64,5	-7.130.259	29.241.025	24,10	27,11

Source: Foreign Trade Chamber of Bosnia and Herzegovina, Agency for statistics [http://www.bhas.ba/tematskibilteni/ETR\\_00\\_2017\\_TB\\_0\\_BS.pdf](http://www.bhas.ba/tematskibilteni/ETR_00_2017_TB_0_BS.pdf), [http://komorabih.ba/wp-content/uploads/2018/02/cefta\\_eu\\_efta\\_2017.pdf](http://komorabih.ba/wp-content/uploads/2018/02/cefta_eu_efta_2017.pdf), [http://komorabih.ba/wp-content/uploads/2013/05/cefta\\_eu\\_2010.pdf](http://komorabih.ba/wp-content/uploads/2013/05/cefta_eu_2010.pdf) referable editions, author's calculation [http://www.mvteo.gov.ba/attachments/bs\\_trgovinski-aspekti-ps-ssp-bih-eu.pdf](http://www.mvteo.gov.ba/attachments/bs_trgovinski-aspekti-ps-ssp-bih-eu.pdf), Pg. 12, accessed 26.02.2019., author's calculations and customized by author

In 2017 amount of total foreign trade of B&H increased 27% comparing to 2008. GDP p.c. increased 24,10% comparing to 2008. According to this data the question is: Could we conclude that SAA really helped to improve living standard in B&H? Let's see trading balance with EU before SAA in the table below.

But before that, it must be emphasized that the application of the Interim Agreement had great impact on imports of EU originating goods to Bosnia and Herzegovina as the date of entry into the power of this Agreement at the same time is the date of the beginning of gradual liberalization of the B&H market for the largest number of EU originating products.

It is important to underline that conditions under which foreign trade (and imports and exports) is taking place in B&H since July 2008, significantly differ from the previous period, since next agreements with the most important foreign trade partners apply simultaneously:

1. Free Trade Agreement with Turkey,
2. CEFTA 2006 Agreement with Albania, Croatia, Serbia, Macedonia, Moldova (Croatia left CEFTA and joined EU in 2013), Montenegro and UNMIK / Kosovo,
3. Interim Agreement with EU Member States (27). ([http://www.mvteo.gov.ba/attachments/bs\\_trgovinski-aspekti-ps-ssp-bih-eu.pdf](http://www.mvteo.gov.ba/attachments/bs_trgovinski-aspekti-ps-ssp-bih-eu.pdf), p.15)

Table 4 Trade with EU in 2000-2007 period

Year	Export to EU	Import from EU	Total trade with EU	Balance in trade with EU	Coverage of import by export in trade with EU
2000.	930,2	4.449,2	5.379,4	-3.519,0	20,9
2001.	746,4	3.685,7	4.432,1	-2.939,3	20,3
2002.	875,4	3.942,4	4.817,8	-3.067,1	22,2
2003.	1.157,7	4.775,7	5.933,4	-3.617,1	24,2
2004.	1.643,3	4.954,5	6.597,8	-3.311,2	33,2
2005.	2.022,9	5.784,4	7.807,3	-3.761,5	35,0
2006.	2.995,3	5.500,4	8.495,7	-2.505,1	54,5
2007.	3.416,0	6.799,3	10.2015,2	-3.383,3	50,2

Source: [http://www.mvteo.gov.ba/attachments/bs\\_trgovinski-aspekti-ps-ssp-bih-eu.pdf](http://www.mvteo.gov.ba/attachments/bs_trgovinski-aspekti-ps-ssp-bih-eu.pdf), p 12, [accessed 26.02.2019.], customized by author

In period 2000-2007 (before assigning Agreement) trade with EU grew; export grew faster than import, but import was constantly higher although it grew more slowly; thus deficit also grew. The most important trading partner for B&H is EU; most of the trade deficit is in trade with EU, before and after SAA (Table 3 and 4).

#### 4. COMPETITIVENESS OF BOSNIA AND HERZEGOVINA

Trade and investment flows have been important drivers of economic growth in the past, but the relationship between globalization and growth remains imperfectly understood (The Global Competitiveness Report 2017–2018, p.5).

Comparing the competitiveness of national economies globally it can be concluded that the B&H economy is uncompetitive. The same can be concluded observing data of macroeconomic indicators represented in this paper. According to WEF B&H is in stage 2 of the economic development: Efficiency-driven economy as well as 30 more economies.

It is economy with relatively small internal market and it must improve its competitiveness for what the main prerequisite is making networking of companies, inclusion in logistics supply chains, strategic alliances, clustering and technology development, *i.e.* adapting the institutional system to an entrepreneurial environment is the basic prerequisite for the economy development.



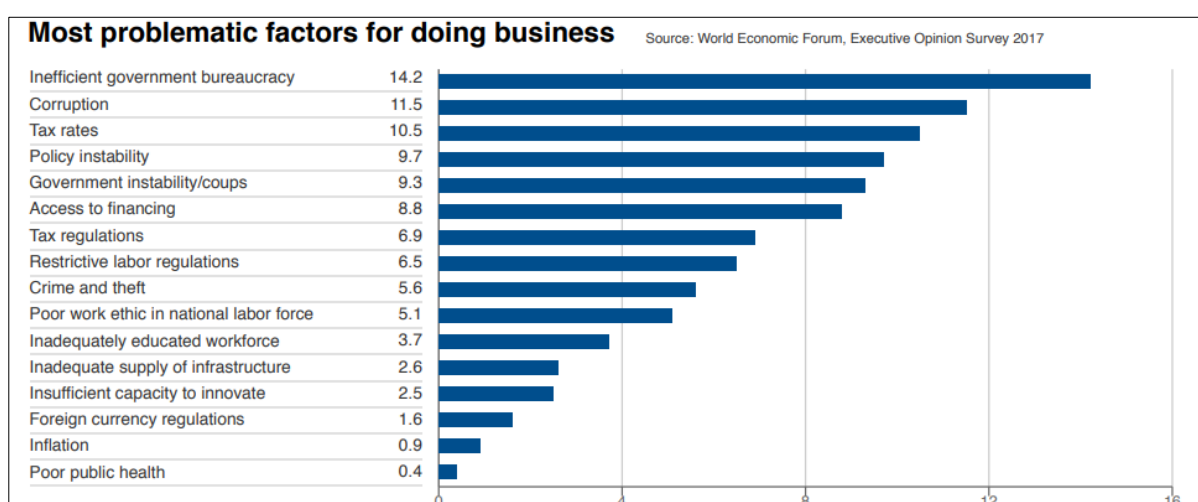
YEAR	NUMBER OF COUNTRIES	ALBANIA	B&H	MONTE NEGRO	CROATIA	MACEDONIA	SLOVENIA	SERBIA
2001	75	-	-	-	-	-	31	-
2002	80	-	-	-	58	-	28	-
2003	102	-	-	77	53	81	31	77
2004	104	-	81	89	61	84	33	89
2005	117	100	95	80	62	85	32	80
2006	125	98	89	87	51	80	33	87
2007	131	109	106	-	57	94	39	-
2008	134	108	107	65	61	89	42	85
2009	133	96	109	62	72	84	37	93
2010	139	88	102	49	77	79	45	96
2011	142	78	100	60	76	79	57	95
2012	144	89	88	72	81	80	56	95
2013	148	95	87	67	75	73	62	101
2014	144	97	-	67	77	63	70	94
2015	140	93	111	70	77	60	59	94
2016	138	80	107	82	74	68	56	90
2017	137	75	103	77	74	-	48	78

Konkurentnost 2016. – 2017., Federalni zavod za programiranje razvoja, Sarajevo, 2016, p. 25., file:///C:/Users/Korisnik/Downloads/Konkurentnost%20Bosni%20i%20Hercegovini%20u%202017-%202018%20godini%20(11).pdf, <https://tradingeconomics.com/bosnia-and-herzegovina/competitiveness-rank> [accessed :24.02.2019.]

Picture 1 Comparative Review of the Global Competitiveness Index of B&H and countries from the region in the period 2001-2017, adjusted by the author

According to Global Competitiveness Report 2017-2018 B&H is the least competitive country in Europe. This year's report shows weaknesses that decision-makers have to pay attention to and work fast to resolve them in order to create the conditions in which it would be worth investing in the country, and thereby increase the opportunities for growth of living standard in this country. Report emphasized that B&H, and some other countries have to make rapid structural reforms to reach a higher level of competitiveness as a prerequisite for economic growth and so much desired employment growth.

The biggest difficulties (negative impact on competitiveness) in Bosnia and Herzegovina are still present inefficient administration, high tax rates and inadequate regulation as well as political instability and corruption (picture 2).



Source: <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>, [accessed 29.03.2019.]

Picture 2 Most problematic factors or doing business in Bosnia and Herzegovina

## 5. REGRESSION MODEL; THE EFFECTS OF MACROECONOMIC INDICATORS ON THE COMPETITIVENESS OF BOSNIA AND HERZEGOVINA

Equation: UNTITLED    Workfile: KONK EX::Untitled

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Dependent Variable: GCI  
Method: Least Squares  
Date: 04/09/19 Time: 09:59  
Sample: 2004 2017  
Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	79.96463	16.33283	4.895943	0.0009
FDI	0.003990	0.004920	0.811085	0.4382
GDPPC	10.83686	3.905406	2.774836	0.0216
POKRIVENOST	-1.282927	0.672307	-1.908245	0.0887
DUMMY	3.366891	9.523385	0.353539	0.7318

R-squared	0.605152	Mean dependent var	98.85714
Adjusted R-squared	0.429664	S.D. dependent var	9.412407
S.E. of regression	7.108308	Akaike info criterion	7.032859
Sum squared resid	454.7524	Schwarz criterion	7.261093
Log likelihood	-44.23001	Hannan-Quinn criter.	7.011731
F-statistic	3.448391	Durbin-Watson stat	1.360791
Prob(F-statistic)	0.056866		

Source: Author

Picture 3- E-Views regression output

The model is linear and estimated using OLS. The factors that are used to explain the variability in the GCI ranking are macroeconomic variables. According to announced advantages of Agreement four variables are included in the model: one dependent and three independent variables. Dependent variable is GCI ranking( $Y$ ), independent variables are FDI in million BAM ( $X_1$ ), GDP p.c.in thousands of BAM ( $X_2$ ), COVERAGE OF IMPORTS BY EXPORTS in % (POKRIVENOST  $X_3$ ) and DUMMY variable which marks the entry into force of the Interim Stabilization and Association Agreement (effective from July 1, 2008). Thus it is taken in model (due to prior contracts) to apply from 2009, *i.e.* *dummy* variable has value of 0 in the period 2004-2008, and in the period 2009-2017 it has the value of 1. We expect to have better GCI ranking (lower number of GCI rank) with higher FDI, higher GDP p.c., higher coverage of imports by exports and better (lower) ranking after IA, *i.e.* we expect all  $\beta$  coefficients to be negative.

Model in general:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 D \quad (1)$$

Where;

$$D = \begin{pmatrix} 0, \text{before signing SAA} \\ 1, \text{after signing SAA} \end{pmatrix} \quad (2)$$

After inputting data regression model is made:

$$Y = 79,96463 + 0,003990X_1 + 10,83686X_2 - 1.282927X_3 + 3.366891D \quad (3)$$

(16,33283)    (0,004920)    (3,905406)    (0,672307)    (9,523385)

According to the obtained model and selected data, FDI growth in 1 million BAM resulted in an average increase in GCI rank of only 0.003 position, *ceteris paribus*.

Growth of GDP p.c. in 1000 BAM resulted in average increase in GCI rank of 10.8 positions, *ceteris paribus*.

Growth of imports coverage by exports by 1% resulted in a fall in GCI rank averaging 1.28 positions *ceteris paribus*, which is good indicator, because the aim is to have lower not higher rank. This is in accordance with the announced advantages of the Agreement.

The coefficient by Dummy variable shows that in the observed period since the Interim Agreement entered into force, the average GCI position was higher for 3,366891 positions globally compared to the time before the entry into force of the Interim Agreement (*i.e.* B&H ranking got worse for about 3 positions in time after Agreement had been signed). This is not to good indicator, because Agreement should have resulted in more competitive economy and not in less competitive economy. But it is a good lesson for government: decision makers mustn't rely on trade and expect rapid growth and development, especially not with export structure that B&H has. Many changes have to be done on internal market game so producers and exporters could perform better on the EU market. Also, this is a poor analysis because GCI has a complex structure on which many factors influence. Above in the paper are presented obstacles for better ranking (picture 2) and most of them could be improved by government.

We can see from E-views output that average ranking is 98.85 which is much better position than real ranking in 2017 (103- Picture 2).

It is desirable to have some measure of how well the regression model actually fits the data. In other words, it is desirable to have an answer to the question, „how well does the model containing the explanatory variables that was proposed actually explain variations in the dependent variable? “The most common goodness of fit statistic is known as  $R^2$ . One way to define  $R^2$  is to say that it is the square of the correlation coefficient between  $y$  and  $\hat{y}$  - that is, the square of the correlation between the values of the dependent variable and the corresponding fitted values from the model. A correlation coefficient must lie between  $-1$  and  $+1$  by definition. Since  $R^2$  defined in this way is the square of a correlation coefficient, it must lie between 0 and 1. If this correlation is high, the model fits the data well, while if the correlation is low (close to zero), the model is not providing a good fit to the data. Here we have  $R^2 = 0,605152$  that means 60,5152 % of the total variability of GCI about mean value is explained by the model. A correlation coefficient ( $\sqrt{R^2}=0,7779\dots$ ) shows a high correlation of dependent variable and independent variables.

Durbin-Watson (*DW*) is a test for first order autocorrelation - *i.e.* it tests only for a relationship between an error and its immediately previous value. Thus, under the null hypothesis, the errors at time  $t - 1$  and  $t$  are independent of one another, and if this null were rejected, it would be concluded that there was evidence of a relationship between successive residuals. The test statistic (1,36) is among critical values and null hypothesis for this test is accepted.

On the picture 3 we can see p-value and make conclusions about significance of the variables, how well are the variables selected in model. At 5% significance level ( $\alpha = 0,05$ ) variable GDP p.c. is a significant variable ( $p\text{-value} < \alpha = 0,0216/2 < 0,05$ ), coverage of imports by exports (POKRIVENOST) ( $0,0887/2 < 0,05$ ) is a significant variable but DUMMY and FDI are not significant variables for explaining variability of the GCI. Thus, IA cannot be driver of the competitiveness growth of B&H.

If the sample was bigger Granger causality test could be done, but with only 14 observations results wouldn't be significant. Only 14 observations are a big obstacle in this model. It would be interesting to see which variable causes another one in Granger sense. Is a GCI actually dependent variable and others independent? This model is very simple and has many restrictions and disadvantages, but is a base for other research about this topic and has its value as a stimulus for further, more serious and bigger researches and for using more complicated models.

Considering all of above given facts, there is a need to initiate appropriate policy reform in B&H, especially in the field of foreign trade in order to create the conditions for B&H to realize the greatest possible benefit of the economic integration processes and to expand its export activities to EU market. Reducing the trade deficit and growth of B&H exports is one of the main goals of B&H's economic and foreign trade policy and this issue represents one of the priorities to governments in all levels. However, concrete measures on the implementation of policies and activities are not aligned with this strategic goal, nor total public funds are allocated for this purpose. Even limited analysis of general state of the B&H economy, as undertaken here, suggests that authorities should be dedicated to solving numerous legal, institutional, political and economic issues in order to achieve the desired rate of economic growth and, in time, economic development and economic convergence with EU countries. There is a need for inevitable painful structural reforms, which should increase the competitiveness of the B&H economy. There seems to be a scope for enhanced export promotion and information services for companies interested in expanding their activities at foreign markets. The key issue here is ensuring that these services are of high quality and carried at reasonable cost.

Economic diplomacy is an important for attracting FDI in B&H and opening up new markets for B&H's businessmen. Building a strong concept of economic diplomacy is imposed as the highest-ranking priority of B&H Foreign Policy. B&H has the concept of economic diplomacy that has not given enough good results, which is mostly shown in the foreign trade deficit. To make the concept of economic diplomacy more efficient, activities in that field have to be carried out continuously. The biggest problem is the lack of economic integration in B&H itself. The precondition for achieving all the advantages of accessing the EU market, i.e., for optimal economic development, is both legal and institutional unity in the country, not only by harmonizing the entity's legal framework and coordination of all levels of government, but through the creation of a comprehensive, unified legal system within the country ( Jerinić, M., Čavar, D. and Jurić, J. ,2018, pp.139–172).

## 6. CONCLUSIONS

Membership in the European Union is one of the main foreign policy priorities of Bosnia and Herzegovina, as defined in the document "Strategic Guidelines and Priorities for the Implementation of the Foreign Policy of B&H", adopted by the Presidency of Bosnia and Herzegovina on March 26, 2003.

The Stabilization and Association Agreement between the European Communities and their Member States, of the one part, and Bosnia and Herzegovina, on the other part, was signed in Luxembourg on 16 June 2008 and entered into force on 1 July 2015. It replaced the Interim Trade and Trade Agreement, which came into force on 1 July 2008. The SAA should have strengthened the position of B&H in the region and the world, should have given positive signals to investors and should have ensure better compliance with the principles of justice, freedom, security, etc. Indirectly, this should have led to an increase in investment, employment and the growth of gross domestic product.

Neoliberalists argue that liberal trade policy is prerequisite for economic growth, but the fact is that it is not enough to ensure growth of trade by itself. When trade reform is carried out in an unstable macroeconomic environment or is pursued without carefully designed economic policy, economic growth is not achieved. The model presented in the paper showed that Agreements that had been signed could not be considered as the saviors of the economy. For sure they could be growth accelerators but only if the policy creators make better political and economic framework for its action.

Simple regression model showed that assigning Agreement had no good influence on competitiveness of B&H in observed period. It influenced obviously on a higher coverage of

imports by exports, which could be a good indicator. It would be interesting to see structure of trade with EU: it should become *intra-industry* trade not *inter-industry* to make some progress in competitiveness (ideas for further research's).

The fact is that data available on the sites of Agency for Statistic of B&H do not show that. FDI have not been on a high level as in the periods before IA and a GDP p.c. is growing but probably due to the higher public debt. Many factors effects GCI scores and ranking (not only this few indicators used in paper), and it is obvious that policy creators have to do something to improve situation in production sector, employment, trade balance, and living standard in this country.

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