

**Jelena Mičić**

Pale,  
BiH

✉ helena.jelena@gmail.com

## COMPETITIVENESS OF BOSNIA AND HERZEGOVINA – COMPARATIVE ANALYSIS

### КОНКУРЕНТНОСТ БОСНЕ И ХЕРЦЕГОВИНЕ – УПОРЕДНА АНАЛИЗА

**Summary:** *Competitiveness or market competition is the basic regulatory mechanism of the market. Today, some economic theorists propose that the competitiveness actually measures the wealth of a society in another way, so it is very important that it contributes to innovation, improvement of the business and overall economic growth. Bosnia and Herzegovina is located close to the very bottom of the European countries according to the competitiveness of its economy. Occasionally it is possible to notice positive changes, but unfortunately they were not strong enough or continuous for achieving economic development or improving living standard. Benchmark analysis of competitiveness deepened the view of the overall movement of the BiH competitiveness and its key factors, as well as the comparison with the selected reference countries. So, the competitiveness of our economy in the period 2007-2015 is the main topic of this paper, with the basic hypothesis that BiH has a positive trend in competitiveness relative to comparable countries in the reporting period. The aim of the research is to determine the conditions, trends and underlying determinants of competitiveness of Bosnia and Herzegovina and state of our competitiveness in relation to comparative economies. Through application of standard scientific methodology, particularly methods of statistical analysis, we came to results that show that BiH economy had significant growth of competitiveness in most observed indicators, with minor variations in the period 2007-2014, while the level of variability in 2015 was so huge that we have been excluded from the Global Competitiveness Report for 2014-2015 year of the World Economic Forum. Although our country generally exhibits the lower performance than the comparative countries it is possible to perceive areas where we have strengths and potentials. The fact that the World Economic Forum, for the first time, has omitted Bosnia and Herzegovina from the Global Competitiveness Report 2014/2015, is an additional reason to re-examine all the factors that may affect the movements of competitiveness in BiH.*

**Key words:** *competitiveness, Global Competitiveness Index, benchmark, World Economic Forum*

**JEL classification:** *O11, O57*

**Резиме:** *Конкуренција или тржишна утакмица представља основни регулаторни механизам тржишта. Данас одређени економски теоретичари износе мишљење да је конкурентност, заправо, мјерење богатства друштва на други начин. Стога је врло важно да она доприноси иновативности, унапређивању пословања и укупном економском расту. Босна и Херцеговина се налази на самом зачељу европских земаља, према конкурентности своје привреде. Повремено је могуће уочити позитивне помаке, али они, нажалост, нису били довољно јаки нити континуирани за остварење привредног развоја и повећање квалитета живота. Бенчмарк анализом конкурентности продубљен је поглед на кретање свеукупне конкурентности у БиХ и њених кључних чинилаца, као и поређење са одабраним референтним земљама. Дакле, конкурентност наше привреде у периоду 2007–2015. година представља предмет истраживања у овом раду, док је основна хипотеза да БиХ има позитиван тренд кретања конкурентности у односу на земље компараторе у посматраном периоду. Циљ истраживања је одредити стање, тенденције и основне детерминанте конкурентности Босне и Херцеговине, као и однос наше конкурентности и поредбених економија. Кроз примјену стандардне научне методологије, нарочито метода статистичке анализе, дошли смо до резултата који показују да БиХ привреда у значајној већини посматраних индикатора показује раст конкурентности, уз мање варијације у периоду 2007–2014. година. С друге стране, због изразито високог нивоа варијабилности података у 2015. години Свјетски економски форум је одлучио да Босну и Херцеговину искључи из Извјештаја за 2014/2015. годину. Иако се код нас углавном показују лошије перформансе у односу на поредбене земље, могуће је уочити области у којима имамо предности и потенцијале. Чињеница да је по први пут Босна и Херцеговина изостављена из Извјештаја о глобалној конкурентности за 2014/2015. годину Свјетског економског форума, додатни је разлог да се преиспитају сви фактори који могу утицати на кретање конкурентност у БиХ.*

**Кључне ријечи:** *конкурентност, индекс глобалне конкурентности, бенчмарк, Свјетски економски форум.*

**JEL класификација:** *O11, O57*

## 1. INTRODUCTION

Dynamics of BiH economic growth is largely determined by developments in the EU and immediate surroundings. At the national level, competitiveness is determined by following factors: operating expenses, public debt, tax burden, regulating the system of environmental protection and waste management, the overall competition which encourages companies to innovation and competitiveness, transport infrastructure, harmonization of legislation, the procedures in the company liquidation, the efficiency of public administration and so on.

Disorders caused by national or local government are clearly distinguished as the largest obstacles of competitiveness, not the weakness or impotence of companies. Fluctuations of national competitiveness can arise as a consequence of short-term national interests, legalization of monopolies, price controls, the existence of competition between the institutions, non-transparent state aid policy and/or excessive, unjustified market protection. Also, poor competitiveness in the global market makes bad influence to the national economy. Protectionism, non-transparent state subsidies as well as barriers for entering on the market incurred in the order to protect the national economy from the overflow of negative inflows from the outside.

Thus, the subject of observation in this study is too complex and interwoven with many social and institutional factors that affect it, and even though some of them are not, by their content economic, they have a strong indirect impact on the economy and its competitiveness. This study aims to show the movement of the competitiveness of BiH in the period 2008-2014, then to compare it with movements in the selected transition countries in the EU and at the end to emphasize the fact that BiH, for the first time this year has been omitted from the Global Competitiveness Report of the World Economic Forum.

## 2. COMPETITIVENESS IN THEORY AND BiH POTENTIALS

General definition of competitiveness could be: competitiveness is the ability of enterprises and companies in one country to make a profit on the domestic and foreign markets, in competition with the products and services of enterprises and companies from other countries, in the amount that allows them long-term growth and development - at least approximately, (a higher would be preferable) - at the level of competitive enterprises and foreign companies.

The definition where national competitiveness is exactly and more comprehensively explained would be: competitiveness of a country is its ability to recruit national resources at the most rational way in accordance with international specialization and trade, so that it ultimately leads to the growth of real income and living standards, but based on real categories, and not on borrowings abroad. (Scientific Society of Economists of Serbia 2010, 6)

In the view of the World Economic Forum, 69% of the competitiveness variations are result of the direct effects of microeconomic factors. The most important components are the micro-business sophistication and quality of the national business environment.

The competitiveness of enterprises is based on relative prices and the quality of products compared to other manufacturers. Low operating costs or a higher factor productivity growth are typical factors of the micro competitiveness. Competitive advantage essentially arises from the value that the company is able to create for its customers, which exceeds the cost of its creation. The value is what buyers are willing to pay, and additional value derives from the offer of lower prices than the competitors for the equal benefit, or unique benefits which largely neutralized the higher price (Porter 2007, 22).

Bosnia and Herzegovina is located in the so-called. "Middle-income trap", squeezed among the countries with low wages and the consequently low prices of products and the countries with high incomes, which compete with technologically sophisticated goods (Institute of Economics Sarajevo 2009). The increase in productivity, as a measure of the economy ability to produce goods and services, through efficient usage of existing human, material and natural resources, is imposed as a necessary condition for achieving a higher level of competitiveness. Productivity, on the other hand, determines the value of the product through the participation of knowledge, innovation, information and renewable resources in its content, and additionally through operational efficiency with the adoption of the best empirical solutions on the global level.

Unsatisfactory level of competitiveness of the economy since BiH exists as an independent state, leads to large imbalances in the value of exports and imports. Further, imbalance inevitably leads to a high trade deficit, which is unsustainable in the long run. For its reduction it is necessary to increase product competitiveness and factors productivity which could contribute to more efficient, larger and more diverse production or exports. Internal factors are essential in order to achieve the necessary operational efficiency, i.e. the ability of management to base their decisions on economic principles and economic valorization of the effects and results. At the same time it is important to restructure the economy, bearing in mind the circumstances of reduced investment activity, low inflow of foreign capital and the low level of national savings (Balotić 2013, 64).

Competitiveness should be analyzed in the broader context of globalization and sustainable development of the national economy, since these are complementary and inseparable factors. Contemporary theorists of globalization referred to "the key driving elements that shape globalization including energy prices, press freedom, respecting the law and human rights, spread and possession of weapons of mass destruction, open markets and free trade, eradicating poverty and improving living standards, global health protection and prevention of epidemics" (Canton 2010, 255-260). Đukić, states that key problems of today's global crisis, in most cases, are the problems of the global economy and sustainable development. This can be demonstrated on a variety of empirical examples, and at this moment, it is enough to view the effect of deepening the crisis on the concept and practice of overlapping economic, social and environmental objectives which are complementary by definition with respect to the idea of sustainable development (Đukić 2012, 1-18). "Even the new 'Europe 2020' strategy of Europe Union (European Commission 2010) features greatly reduced aspiration of becoming the "World's most competitive knowledge-based economy" creating new jobs. Instead of such ambitious goals set in the Lisbon strategy, nowadays united Europe officially tends to 'smart', 'green' and 'inclusive' growth. (Oikos Institute 2015, 118). Despite the rooted belief that the price of economic efficiency is paid in polluted environment, "the latest research shows that globalization is still 'mainly green', and that the principles of 'restoration ecology' are recommended primarily for economic reasons" (Beeby and Brennan 2009, 453).

The foregoing implies the necessity to thoroughly analyze all the factors that determine the economy competitiveness, in order to gain a clear perception why we are here in this unsatisfactory situation, and how it is possible to improve the BiH position. It is necessary to observe the resource factors on the one hand, and social and institutional framework with all major influence on competitiveness, on the other hand.

If we put aside, at least for a time, extremely unfavorable social circumstances in our country related to business efficiency, we can talk meaningfully about the competitiveness of the BiH economy in view of the natural resources as a competitive advantage. We will mention only the most important:

- Mineral resources,
- Woods and timber industries,
- Energy and hydro energy potential,
- Farmland and agro-industry,
- Drinking water and
- Tourism potentials (urban and rural).

The importance of the institutional context for the development of competitiveness is confirmed by many years of research - from the famous debates in the 1960s to the recent study on the different types of capitalism. Given the entrepreneurship is, essentially, defined by technological innovation in the context of a competitive market, so the technologies and the concept of competitiveness require a comprehensive analysis in the light of the social organization of the market. (Beckert and Zafirovski 2011)

Bearing in the mind the foregoing, the most important social and institutional factors that need to improve and empower growth of competitiveness of BiH economy are:

- Labor factor and education
- Financial and capital market
- Innovative entrepreneurship
- Management potential of economic growth

Unfortunately, lack of competitiveness is the basic characteristics of BiH economy. That drives our main task to make the economic problem if not resolved soon, than, at least alleviated. Through the analysis of competitiveness indicators presented further down, we can obtain important information of the trends that show individual competitiveness factors and their comparison with the reference countries. On the basis of that information we have better insight into the problems of competitiveness, we can also observe particularly problematic and potentially effective areas, as well as the effects of economic policies and measures.

### **3. TREND ANALYSIS OF GLOBAL COMPETITIVENESS INDEX (GCI)**

The World Economic Forum in Davos performs a regular annual analysis of the competitiveness of countries based on the Global Competitiveness Index and its components. The Global Competitiveness Report was first published in 1979 as a result of the research of the leading European economies of the time. Over time, it expanded to a total of 144 countries, which are subjects to extensive annual analysis. Its main objective is to serve as a kind of benchmark to economic actors - companies in developing business strategies and making investment decisions, or governments in identifying barriers to economic development and considering the possibilities of better economic performance.

The basic principle of the report is based on the fact that competitiveness is determined, on the one hand by the quality of the immediate business environment in which enterprises operate (micro aspect), and on the other hand, by the quality of the wider economic and social environment (macroeconomic and institutional aspects). Since 2004 Forum uses the Global Competitiveness Index (GCI), which gives insight into the most important determinants of productivity growth and competitiveness: institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication and innovation.

According to the Global Competitiveness Index it is assumed that countries go through three stages of development. In the first stage (factor-driven stage) fundamental factors of competitiveness are important for productivity growth: well-functioning of public and private institutions (I pillar), well-developed infrastructure (II pillar), a stable macroeconomic environment (III pillar) and healthy and literate workforce (IV pillar). With further development, the countries enter into second phase (efficiency-driven stage) which generate more efficient production processes and increase product quality. At this stage the growth of competitiveness is affected by higher education and training (V pillar), goods market efficiency (VI pillar), labor market efficiency (VII pillar), financial market development (VIII pillar), technology readiness (IX pillar) and the size of the domestic and foreign markets (X pillar). Finally, countries move into the third stage (innovation-driven stage) in which the growth of productivity and competitiveness is caused by factors: business sophistication (XI pillar) and innovation (XII pillar).

According to Porter's classification of development stages, Bosnia and Herzegovina is located in the second, so-called efficiency-driven stage of development, which implies that for the competitiveness of our country relatively greater importance is born by the factors such as efficiency of markets (goods, financial, factorials), the size and level of technology readiness and highly educated workforce. (Džafić and Terzić 2011)

#### **3.1. Analysis of GCI movement in the World**

As in previous years, in the Global Competitiveness Report of the World Economic Forum for 2013/14 the "Top 10" rankings is dominated by European countries, with Switzerland, Finland, Germany, Netherlands and Sweden, which are confirming their place among the World's most competitive economies. Switzerland is on the top of rankings and retained the top spot of previous three years. The most important advantages of Switzerland are based on innovation, technological readiness and efficiency of the workforce. Its researching institutes are among the best in the World and there is very good cooperation between the academic and business sectors. Companies in Switzerland allocate large resources on researching and development.

Singapore is still on the second place as a leading Asian country. Singapore's institutions are rated as the best in the world, due to government efficiency and low rates of corruption. For the second year in a row, Finland is in the third position. Germany has made a progress, and in this year it occupies the fourth position, while in 2012 and 2013, it has been ranked on the sixth place. The United States is once again on the fifth place, while in 2013 it was on the seventh - two places lower than in 2011. The Nordic countries have traditionally been highly ranked (Finland on the third, Sweden on the sixth, Norway on the eleventh place and Denmark on the fifteenth place). Great Britain had a re-drop to the tenth place in 2014, after the improvement by two places in 2013.

Regarding the countries of the former Yugoslavia and the surroundings in the Report for 2013/14, the best ranked is Slovenia on the 62nd position (with a decrease of 6 places in comparison to the previous Report), and Montenegro on the 67th position (with an improvement of five places compared to the 2012/13.), followed by Macedonia on the 73rd position (with an improvement of 7 places compared to the previous Report), Croatia at the 75th position (6 places better than in 2012/13.), then BiH on the 87th place (one place better than the previous year), Albania is on the 95th place (6 places down) and the last in the region - Serbia on the 101st position (6 places down in comparison with the previous Report).

### 3.2. Analysis of GCI movement in BiH

Bosnia and Herzegovina was evaluated with 4.0 points out of total 7 in 2013/2014 which made the 87th place on the competitiveness of the economies. This ranking is only one place better than in the previous Report. If we analyze sub indicators compared to the previous year we will note some significant progress in the field of institutions (from the 85th to the 71st place), infrastructure (from the 94th to the 83rd), higher education and training (from the 72nd to the 63rd), labor market efficiency (from the 99th to the 88th) and innovation (from the 80th to the 63rd); while the alarming decline is recorded in the following areas: macroeconomic environment (from the 97th to the 104th place) and technology readiness (from the 68th to the 73rd place).

*Table 1: Ranking and score of Bosnia and Herzegovina according to GCI 2008-2014.*

	Rank BiH	Score BiH
GCI 2013-2014 (total of 148 economies)	87	4,0
GCI 2012-2013 (total of 144 economies)	88	3,9
GCI 2011-2012 (total of 142 economies)	100	3,8
GCI 2010-2011 (total of 139 economies)	102	3,7
GCI 2009-2010 (total of 133 economies)	109	3,5
GCI 2008-2009 (total of 134 economies)	107	3,6
GCI 2007-2008 (total of 131 economies)	106	3,6

Source: Calculated on the basis of WEF 2008, 2009, 2010, 2011, 2012, 2013, 2014

If we look back at Report for 2012-2013, that year BiH made improvement by twelve positions compared to the previous Report (2011-2012). In 2013 the highest growth was recorded in the field of institutions (from the 109th position to the 85th position) and innovation (from the 104th to the 80th place). The largest decline of the indicators was reported in the area of macroeconomic environment (from the 78th to the 97th place), in that period, and this negative trend continued in 2014.

This year (the Report for 2013-2014) BiH has been assessed the worst in the financial market development (the 113rd place) and in business sophistication (the 110th position), goods market efficiency, as well as macroeconomic environment (the 104th place). The reason for the bad mark in the area of financial market development is poor evaluation of the venture capital availability (the 131st place), the ease of access to loans (the 125th position), and the availability of financial services (the 110th place), although neither indicators of financial markets are encouraging.

The bad mark in the sphere of goods market efficiency is primarily due to the indicators of intensity of local competition (the 143rd place), buyer sophistication (the 139th place), the number of procedures to start a business (the 126th position), the number of days required to start a business (the 120th place), effect of taxation on incentives to invest (the 119th place), extent of market dominance (the 111th position) and prevalence of trade barriers (the 107th place).

Table 2: Global Competitiveness Index (GCI) in BiH for 2011-2014

Years	Rank BiH				Score (1-7)			
	2010/11	2011/12	2012/13	2013/14	2010/11	2011/12	2012/13	2013/14
Total number of observed countries	139	142	144	148	139	142	144	148
<b>(GCI)</b>	<b>102</b>	<b>100</b>	<b>88</b>	<b>87</b>	<b>3,70</b>	<b>3,83</b>	<b>3,93</b>	<b>4,00</b>
<b>Basic requirements</b>	<b>98</b>	<b>92</b>	<b>81</b>	<b>81</b>	<b>4,10</b>	<b>4,25</b>	<b>4,33</b>	<b>4,40</b>
I pillar: Institutions	126	109	85	71	3,10	3,32	3,64	3,90
II pillar: Infrastructure	98	99	94	83	3,20	3,24	3,44	3,70
III pillar: Macroeconomic environment	81	78	97	104	4,50	4,65	4,31	4,20
IV pillar: Health and primary education	89	58	48	46	5,40	5,79	5,93	6,00
<b>Efficiency enhancers</b>	<b>100</b>	<b>102</b>	<b>97</b>	<b>89</b>	<b>3,60</b>	<b>3,63</b>	<b>3,75</b>	<b>3,80</b>
V pillar: Higher education and training	88	86	72	63	3,80	3,91	4,18	4,30
VI pillar: Goods market efficiency	127	115	109	104	3,60	3,81	3,92	4,00
VII pillar: Labor market efficiency	94	85	99	88	4,20	4,15	4,08	4,20
VIII pillar: Financial market development	113	124	119	113	3,50	3,27	3,41	3,50
IX pillar: Technological readiness	85	73	68	73	3,40	3,62	3,84	3,70
X pillar: Market size	93	97	93	98	3,10	3,03	3,07	3,10
<b>Innovation and sophistication factors</b>	<b>120</b>	<b>108</b>	<b>99</b>	<b>89</b>	<b>2,90</b>	<b>3,13</b>	<b>3,28</b>	<b>3,40</b>
XI pillar: Business sophistication	115	108	109	110	3,30	3,42	3,48	3,50
XII pillar: Innovation	120	104	80	63	2,60	2,84	3,09	3,30

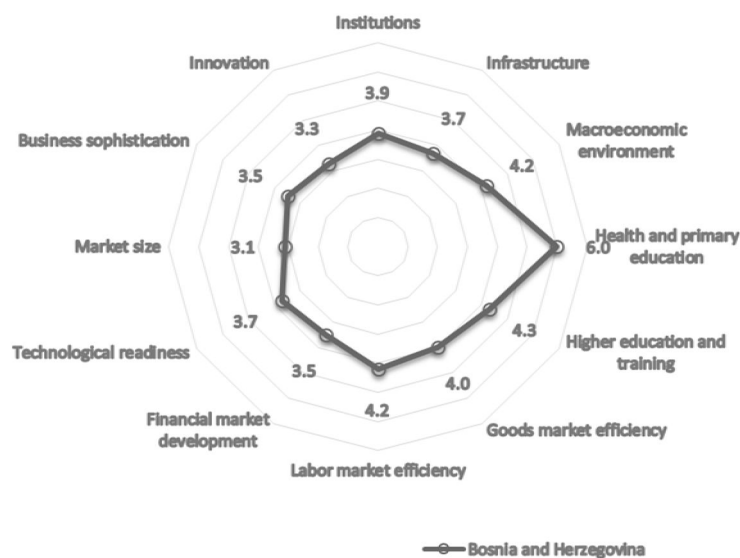
Source: Calculated on the basis of: WEF 2011, 2012, 2013, 2014

BiH achieved steady growth in the segment of the basic conditions of competitiveness - a positive step forward in the field of institutions, infrastructure, and health and primary education, while the decrease was recorded in the area of macroeconomic environment. Regarding efficiency, BiH had a noticeable stagnation. In the domain of higher education and training, there was an increase, as well as in the goods market efficiency, and technological readiness, there was a stagnation of financial market development and the decline in labor market efficiency. Moreover, the continuous growth of innovation and the stagnation of business sophistication are notable. In addition, marks for business sophistication and innovation are far from the European average.

The most problematic factors for successful doing business in Bosnia and Herzegovina responsible for the low level of competitiveness are:

- Availability of financial services,
- High tax rates,
- Inefficient bureaucracy,
- Corruption.

Figure 1: The development phase of Bosnia and Herzegovina in 2013-2014.



Source: Calculated and presented on the basis of: WEF 2014

Graph 1 shows the stages of development of BiH by pillars. It might be noted that the BiH competitiveness is the most lacking in innovation and business sophistication. Institutions, infrastructure and financial market sophistication are also low. Technological readiness is below the European average and does not force the economy to improve competitiveness. The labor and goods market efficiency have also been stagnant or slow to develop. Macroeconomic environment, higher education and training, health and primary education are the pillars that develop faster and more dominantly than others and provide incentives for the development of the BiH competitiveness.

#### 4. COMPARATIVE ANALYSIS OF THE BiH COMPETITIVENESS - BENCHMARK

Method of benchmark analysis is improved and expanded method which has been called the method of comparative analysis and for several decades it has been used in economy textbooks of microeconomics, and in the analysis of business operations more frequently than at the macro level.

Thus, comparing of our own, individual or group opportunities, with others with whom we come into a competitive relationship has been known since ancient times. Chinese philosopher and General Sun Tzu is usually mentioned in the literature as a forerunner of this method. 2400 years ago, he had left a written record of his knowledge that would result in the modern method of benchmarking. The most famous American author on the economics of competitiveness, Michael E. Porter in his books speaks a language that is reminiscent of the military-strategic. In fact, the focus of modern man, his company, business segments within the sector and the competitiveness of the national economy in relation to the economy of other countries is a form of peaceful warfare.

Comparative analysis helps by comparing, based on the facts (data), to understand the competitive capabilities of companies, comparing them to other companies which our company encounters on the market, domestic or foreign. Our company competes with its competitors, through quality and prices of the products to gain customers preference to our products compared to those offered by competitors.

Accordingly, benchmark is a method that defines specific problem of an economic as well as an uneconomic entity, and it has been increasingly applied. In that way, appropriate data are collected related to one selected problem, followed by data analysis and based on it, appropriate solutions to management are proposed. Further, management decides which solution is considered to be the best, and the next step is the application of these solutions.

During the preparation of the BiH Mid Term Development Strategy, Bulgaria, Romania, Slovakia and Hungary (further EU4) were selected as reference countries. These countries have worse performance than the EU average, they have also been in transition and share somewhat similar heritage with Bosnia and Herzegovina. The competitiveness of these countries is better than BiH competitiveness, so the average of that four countries is taken as a "measure" and an indicator what BiH should accomplish, in the efforts to reach them. The benchmark indicators show our "distance" in relation to the EU4 average. This average is equal to index 100, and BiH value shows our share in it. Index 100 is a "moving average", it is the EU4 average calculated for each year separately.

This paper uses as a comparing measure for the indicators of competitiveness in BiH the average of Bulgaria, Romania, Slovakia and Hungary (index 100). BiH should focus its efforts in order to achieve this level of competitiveness as soon as possible, especially because this average (EU4) is significantly below the EU average, thus it is the first and indispensable step towards competitiveness improvement and better quality of life here. Comparative analysis essentially helps to understand the competitive opportunities of the companies or the countries, comparing them with other companies or countries. Method of benchmark analysis is very suitable for comparison and trends monitoring of the competitiveness indicators of one country in relation to the average of the selected reference countries.

Table 3: Benchmark indicators, competitiveness

Description of indicators / year	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
The overall quality of infrastructure	:	66	59	54	61	71	78
Higher education and training	76	72	85	85	88	94	97
Availability of scientists and engineers	:	83	73	79	100	112	121
Innovations	:	74	74	84	91	99	106
Technological readiness	69	66	72	80	85	88	87
Brain drain	:	88	72	80	93	82	84

(Base value of indicators are benchmark i.e. the EU4 average = 100)

Source: Calculated on the basis of: WEF 2008, 2009, 2010, 2011, 2012, 2013, 2014

From the Table 3 it is easily noticeable how BiH stands in particular areas important for the competitiveness of the national economy, in relation to those countries which have been taken for benchmark analysis. This example shows how much the method of benchmark analysis is suitable for comparison and time monitoring of the competitiveness indicators of one country in relation to the average of the selected reference countries.

The general impression is that BiH stands very poor compared to the selected economics at most of the indicators. The analysis of the indicators in the reporting period 2008-2014, shows that in the near future, there is no possibility for a competitive equality in most segments in relation to the EU4. This is what should worry us most and also be an incentive to try to straighten out the current situation.

Indicator '*overall quality of infrastructure*' was at the level of 66% in 2009 and fell down to 59% in 2010 and reached value of 54% in 2011. In the period 2012-2014, this indicator shows a steady, but still insufficient increase to the level of 61%, 71% and 78%, respectively. These data suggest that the overall quality of infrastructure in BiH for 2014 is assessed at the grade of 78% related to the average quality of infrastructure in four comparative countries. This percentage clearly indicates what should be primarily corrected and improved in BiH to enable increase of competitiveness.

The quality of infrastructure in the country has principal importance for the success of business enterprises, so the competitive ability of the state economy is a summary indicator of the competitiveness of individual enterprises and companies, which are privately owned, or will become, in those countries where the process of transition is not fully implemented. In the sphere of strategic infrastructure, which will remain in majority state ownership, those companies may, due to the specificity of their role in the national economy, through management of the prices of their products and services, indirectly affect the increase of competitiveness of private manufacturing and service companies, including the improvement of the overall competitiveness of the national economy.

Although not yet at satisfactory elevation, the improvement is noticeable, with a decline in 2009, and positive trend in the indicator '*higher education and training*', which in 2014 reaches an encouraging level of 97 (i.e. 97% of the EU4 average).

Indicator '*availability of scientists and engineers*' also shows a positive trend in the last period, where we have a better reference position relative to the EU4 average. Availability therefore exists, but the problem is high unemployment of our experts.

It is positive that the indicator '*innovation*' shows an increasing trend. It is necessary to keep in mind that the relative improvement in the indicators for Bosnia and Herzegovina is largely influenced by the negative trends in comparative countries due to slow recovery from the crisis, particularly in Bulgaria and Romania.

The '*technological readiness*' in 2009 was extremely poor, at level of only 69% compared to an average of comparison countries. It turns out positive, but with insufficiently strong trend to improve situation in the implementation of modern technology solutions, methods and practices. Thus, in the 2013/2014 we have a level of only 87% compared to the EU4 average. This indicator shows why the value of BiH balance of payments is negative, since we must pay for the lack of technological readiness in the economy.

Also, the indicator '*brain drain*' received negative rating, which varies greatly in the reporting period in the range from 72% in 2010 to 93% in 2012, and in 2014 it was at a level of 84%. This



means that we have emigration of educated people and experts from BiH abroad by 16% higher than in the average of reference countries.

Table 4: Benchmark indicators, macroeconomic environment

Description of indicators / year	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Macroeconomic environment	111	96	100	96	93	95	85	84
Financial market development	:	95	89	84	83	80	83	86
Labor market efficiency	:	96	96	91	93	96	96	100
Gross national savings	:	41	53	50	66	66	47	29
Availability of financial services	:	:	81	:	84	80	84	88

(Base value of indicators are benchmark i.e. the EU4 average = 100)

Source: Calculated on the basis of: WEF 2008, 2009, 2010, 2011, 2012, 2013, 2014

Indicator '*macroeconomic environment*', has disturbing downward trend, as it has fallen from 111% in 2007 to 84% in 2014. The implications of this negative trend is also evident in reducing of BiH credit rating which further leads to shrinking of already inadequate level of foreign investment.

The '*development of financial markets*' and '*financial services*' moderately fluctuate and do not show sufficient positive trend.

Indicator '*labor market efficiency*' has mainly positive trend with slight oscillations with a value of 100% in 2014 and thus corresponds to the average in comparing countries.

Indicator '*gross national savings*', although low, which is understandable given the general economic situation in the country, made an increase by 16% in 2011 compared to 2010. That was just a relative growth, i.e. there was a decrease in savings in comparative countries. So in 2014, after a significant recovery in the comparing economies, we have aggregate savings rate at an extremely low level of only 29% in BiH, compared to the EU4. This greatly reflects the low living standard and exhausted 'emergency reserves'.

The following indicators clustered into category of sustainable development show the movement of BiH infrastructural indicators in relation to the comparative economics. Between five presented indicators, the majority bring a negative assessment to Bosnia and Herzegovina in comparison to the EU4 average. Nevertheless, a positive trend is observed in all five indicators of sustainable development.

Table 5: Benchmark indicators, sustainable development

Description of indicators / year	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Quality of roads	:	:	59	59	59	58	83	98
Agricultural policy costs	:	:	103	111	104	99	107	109
Mobile broadband subscriptions/100 pop	54	58	71	72	69	66	71	75
Individuals using Internet, %	66	63	68	69	84	90	105	102
Fixed broadband Internet subscriptions/100 pop.	15	22	39	42	52	65	69	61

(Base value of indicators are benchmark i.e. the EU4 average = 100)

Source: Calculated on the basis of: WEF 2008, 2009, 2010, 2011, 2012, 2013, 2014

Construction of new motorway sections in Bosnia and Herzegovina brought higher marks for the indicator '*quality of roads*' (from the level of 59% in 2009-2011 to the level of 98% in 2013-2014). Here we can see how the positive changes in the economy are reflected out of benchmark indicators.

Indicator '*agricultural policy costs*' varied from the level of 99% to 109% in the analyzed period. Hence, we do not have negative impacts on competitiveness of economy in this area.

'*Mobile broadband subscriptions*' and '*fixed broadband internet subscriptions*' show steady growth, although they are still at an insufficient level (75% and 61% related to the EU4 average), while the '*individuals using internet*' (per 100 people) rose from a level of 63% in 2008 to 105% and 102% in 2013 and 2014, which is encouraging.

## 5. BIH EXCLUSION FROM THE GLOBAL COMPETITIVENESS REPORT 2014-2015

Every year since 1979 until now, the World Economic Forum prepares the annual Report on global competitiveness. It aims to expand the coverage of World developments and involve as many countries as possible in the Report. Number of countries included in this analysis has ranged from 134 to 148 over the past five years. Partner institutes of the World Economic Forum in each country are implementing data collection and analysis on the ground.

Inclusion in the report with as good positioning in it as possible, represents an indispensable segment for good reputation of successful countries. Consequently, low positioning or a significant decline in the position of a particular state has negative implications on international reputation of the state, subsequently on the success of the government, state rating and investment. Countries which are not covered by the Report are left on the margins of the main global events.

Partner Institute of the World Economic Forum in Bosnia and Herzegovina is the MIT Center, School of Economics and Business in Sarajevo, University of Sarajevo, led by Professor Zlatko Lagumdžija, Executive Director Zeljko Sain and Assistant Director Jasmina Selimovic.

For the first time after fourteen years Bosnia and Herzegovina was omitted<sup>1</sup> in the Global Competitiveness Report for 2014/2015 which covers 144 economies. The Report methodology explanations could suggest the reasons for omission of BiH that occurred this year. "...Bosnia and Herzegovina and Ecuador are not included in this edition of the Report because of data quality concerns (see "Trend analysis and exceptions" below for more detail)." (WEF 2015, 87)

The Methodology applied in the Report explains that Forum carried out the additional analysis to assess the reliability and consistency of the data obtained from Surveys over time. As part of this analysis, Forum runs an inter-quartile range test, in order to identify large results fluctuations - positive and negative - of the countries. More specifically, for each country is calculated result difference (current year result – previous year result = d), in the average score of a core set of 62 Survey questions. Then, the next step is calculating the interquartile difference (i.e. the difference between the 25th and 75th percentiles), denoted as IQR, on a sample of 146 economies. Each value (d) which is outside of the scope limited with 25th percentile minus 1.5 times IQR and the 75th percentile plus 1.5 times the IQR was identified as a potential exception. Formally, we have: (lower limit =  $Q1 - 1.5 \times IQR$ , and upper limit =  $Q3 - 1.5 \times IQR$ ).

This test enables to identify potentially problematic countries, which show large fluctuations up or down or have had repeated and significant changes over several analyses. "The IQR test is complemented by a series of additional empirical tests, including an analysis of five-year trends and a comparison of changes in the Survey results with changes in other indicators capturing similar concepts. We also conduct interviews of local experts and consider the latest developments in a country in order to assess the plausibility of the Survey results." (WEF 2015, 94)

Based on these quantitative and qualitative analysis, the conclusion of WEF is that Survey data collected in 2014 in Bosnia and Herzegovina, Ecuador, and Rwanda deviate significantly from historical trends and current events development in these countries cannot provide sufficient justification for major changes observed in results.

"In the case of Bosnia and Herzegovina, we observe a very high degree of volatility in the Survey results over the past four years. For Ecuador, the trend exhibited by the Survey results over the past four years is not corroborated by developments on the ground during that period. Therefore, as an exceptional measure, both countries are excluded from this year's coverage." (WEF 2015, 95) Also, Forum announces close cooperation with the respective Partner Institutes in order to improve the process of collecting and processing data as well as their reliability with the aim of reinstating these two countries in the near future.

Based on the foregoing it could be concluded that the movement of competitiveness in BiH for the year 2014/2015 significantly bounced from previous trends in the positive or negative direction. How significant and unusual this deviation is for developments in other countries is explained by the

<sup>1</sup> If we are looking for a country that begins with Bo in the Report for 2014/2015, we will find only Botswana and Bolivia, when we once again make sure that besides Botswana there is no Bosnia, the impression won't be even a little bit friendly.

fact that no country has been excluded from the Report for the same reason as Bosnia and Herzegovina.

If we look back at the previous year which was marked by mass demonstrations, followed by unprecedented floods and another one election, but without much coveted growth in economic activity, it might be concluded with a high degree of reliability that mentioned 'bounce' was in the negative direction. This means the indicators of BiH competitiveness are significantly worse in 2014/2015 compared to the previous period, which we analyze here, and which have been certainly unsatisfactory.

The fact that we are the only European country besides Belarus that is not on the World Economic Forum list of countries for 2014/2015 confirmed the gravity of our situation.<sup>2</sup> With hope that in September 2015 we will find Bosnia and Herzegovina on the list of countries in the Report 2015/2016, we would like to draw attention that some of Institutes in the Republic of Srpska should be included as a Partner Institute to the World Economic Forum, which would certainly contribute to the quality and reliability of the data presented.

## 6. CONCLUSION

The competitiveness of a country is represented by a set of indicators, policies, institutions and factors that determine the level of productivity of the country and establish a sustainable level of economic prosperity in the current and medium term perspective. We are witnessing that the world economy is entering a new acceleration as a result of a comprehensive development and application of information and communication technologies that enable instantaneous flow of information, knowledge and capital. The integrative processes are also faster and penetrate deeper into the social sphere.

In the second half of the 20th century there appeared a huge number of definitions of competitiveness. Until the second half of the 20th century, the concept of competitiveness is exclusively linked to the company and meant their ability to create, produce, sell and service their specific products or their commercial services. Over time, the competitiveness has been getting more and more significance and developing specific statistical methodology. That methodology denotes whether the growth or decline in the share of one country in world merchandise trade is the result of increase or decrease of the economy competitiveness.

The best results in achieving competitiveness are obtained through coherence in reaching the set of goals at the micro and macro level. Similarly, like there is no society, except as an abstract notion of a set of individuals, so the national or the state economy competitiveness does not exist except as an expression of the sum of the competitiveness of enterprises and companies of one country at the domestic and international market. However, it does not mean that the state authorities, through policy and other macro measures cannot do a lot - on the contrary, should do much more - to facilitate business efficiency, including the competitiveness of local economic subjects on the domestic and foreign markets.

The last two Reports where BiH was included by the World Economic Forum have brought relatively favorable news for BiH economy. The Report for the 2013/2014 period positioned BiH to the 87th place out of 148 surveyed countries, and that is modest improvement over the previous year (88th place out of 144 countries under observation), which is a significant positive shift in relation to 2011/12, when Bosnia and Herzegovina was at 123 place (out of 142 countries) on the rankings of global competitiveness so that was the lowest place after the war. In 2008 we were at 106th place, but in the period from 2008 to 2011 we fell by 17 places on the list of the global competitiveness. (WEF 2012, 2013, 2014)

The benchmark indicators represent BiH "distance" in relation to the EU4 average. Four EU member states used for this calculation and comparison include Bulgaria, Romania, Slovakia and Hungary, as EU members and also transition countries. This average equals to index 100, and benchmark value shows the BiH share in it. Index 100 is a "moving average", i.e. the EU4 average calculated for each year separately. (DEP 2010, 44)

<sup>2</sup> Extremely small states like Andorra, Monaco or Liechtenstein are neither included in the analysis because their comparison with large economies is not relevant.

The benchmark method of analyzing BiH economy competitiveness gives us an overall impression that BiH stands very low at most of the indicators compared to the selected economics. Through analyses of indicators development in the reporting period 2008-2014 it is concluded that in the near future, there is almost no possibility for a competitive equality, not even to mention advantage of BiH economy, in the great majority of the segments in relation to EU4. This is what should concern us mostly and also be an incentive to attempt to improve the current situation.

Bosnia and Herzegovina is omitted from the Global Competitiveness Report 2014/2015 year, for the first time after 14 years. The analysis of applied methodology finds out that the World Economic Forum excluded from the Report those countries whose results in that year largely deviated from the previous year results and five-year trend. Deviation is largest in Bosnia and Herzegovina out of all 146 surveyed economies. No other country is excluded from the Report 2014/2015 year for the same reason.

Based on the presented analysis and considerations, we come to the conclusion that the basic hypothesis in this paper that *BiH has a positive trend of competitiveness relative to comparator countries in the reporting period* could be accepted with great caution only, i.e. with a significant degree of risk. We will be able to speak on this issue with a higher degree of confidence after the publication of the Global Competitiveness Report for 2015-2016 year of the World Economic Forum.

The perception of weaknesses and negative tendencies of the competitiveness factors here exposed, should serve as an incentive more for defining strategies, proposals and corresponding active measures of economic policy with the primary objective of improving the current position of BiH competitiveness. Based on the foregoing, we can conclude that the improvement of competitiveness in our country is prime goal and necessary condition for a better living standard.

## REFERENCE

- .....
- Balotić, Goran. 2013. "Analysis of the Competitiveness of the Economy and the Business Environment in Bosnia and Herzegovina in the Light Of Current International Annual Reports" *Proceedings of Faculty of Economics in East Sarajevo*, No. 7.
- Beeby, Alan and Anne-Maria Brennan. 2009. *First Ecology*. Beograd: Clio
- Canton, James. 2009. *The Extreme Future*. Beograd: Clio
- Directorate for Economic Planning of Bosnia and Herzegovina. 2014. The Development Strategy of Bosnia and Herzegovina. Sarajevo: The Council of Ministers. Accessed 30.09. [http://dep.gov.ba/razvojni\\_dokumenti/razvojna\\_strategija/?id=1296](http://dep.gov.ba/razvojni_dokumenti/razvojna_strategija/?id=1296)
- Đukić, Petar. 2012. *Sustainable Development Under Impact of the Crisis – Global and National Dimension*. Economic Analysis.
- Džafić, Zijad and Lejla Terzić. 2011. *BiH Competitiveness in function of European integration*. Tuzla: Faculty of Economics Tuzla.
- Economic Institute Sarajevo. 2009. *Comparative analyses of BiH competitive position with implication for policy making*. Sarajevo: Economic institute Sarajevo.
- European Commission. 2010. *Communication from the Commission Europe 2020 – A strategy for smart, sustainable and inclusive growth*. Brussels: EC
- Jens, Beckert & Milan Zafrovski. 2011. *International Encyclopedia of Economic Sociology*, Routledge: Oxon.
- Oikos Institute. 2015. *Economics*, Vol 4. Bijeljina: Oikos institut
- Porter, Michael. 2007. *Competitive advantage*. Novi Sad: Asee.
- Scientific Society of Economists of Serbia. 2010. *How to increase the competitiveness of Serbia exports*. Belgrade: Faculty of Economics in Belgrade.
- World Economic Forum. 2007. *The Global Competitiveness Report 2007-2008*. Geneva
- World Economic Forum. 2008. *The Global Competitiveness Report 2008-2009*. Geneva
- World Economic Forum. 2009. *The Global Competitiveness Report 2009-2010*. Geneva
- World Economic Forum. 2010. *The Global Competitiveness Report 2010-2011*. Geneva
- World Economic Forum. 2011. *The Global Competitiveness Report 2011-2012*. Geneva
- World Economic Forum. 2012. *The Global Competitiveness Report 2012-2013*. Geneva
- World Economic Forum. 2013. *The Global Competitiveness Report 2013-2014*. Geneva
- World Economic Forum. 2014. *The Global Competitiveness Report 2014-2015*. Geneva