ORIGINAL SCIENTIFIC PAPER

RECEIVED: JULY 2019

REVISED: JULY 2019

ACCEPTED: AUGUST 2019

DOI: 10.2478/ngoe-2019-0012

UDK: 339.56(497.6:497.4)

JEL: F10, F13, F14

Citation: Brkić, S. (2019). Development of Trade Relations of Bosnia and Hercegovina with Slovenia: Different Aspects and Characteristics. *Naše gospodarstvo/Our Economy,* 65(3), 40–49. DOI: 10.2478/ngoe-2019-0012

Development of Trade Relations of Bosnia and Hercegovina with Slovenia: Different Aspects and Characteristics

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Abstract

The paper is aimed at identifying characteristics of trade relations of Bosnia and Herzegovina (BiH) with the Republic of Slovenia (Slovenia) in order to contribute to determining the position of BiH in its bilateral trade. The foreign trade analysis has been performed in the context of the changing trade regime between the two countries, thereby including both institutional and functional aspects of bilateral trade relations development. Different trade indicators have been calculated and interpreted for the period of 2003-2017 and/or for selected years which were identified by a change in the institutional regulations of mutual trade flows. The research results indicate increasing trade intensity between the two countries, with almost balanced export and import flows and with prevailing inter-industry trade. The trade performance of BiH has significantly improved, with increasing intra-industry specialization and trade. However, the export structure and comparative advantage pattern are not favourable toward BiH, which points to the need for improving the country's position in its trade with Slovenia.

Keywords: trade relations, trade regime, bilateral trade analysis, Bosnia and Herzegovina (BiH), the Republic of Slovenia (Slovenia)

Introduction

The geographical orientation of the foreign trade of Bosnia and Herzegovina (BiH) is mostly characterized by a high concentration on several countries' markets. Three of these are countries with which BiH shares a history of a common state and close economic relations – namely, Slovenia, Croatia and Serbia. Unlike the other two countries, Slovenia is not a BiH neighbouring country and has never had completely free trade with BiH. However, it has remained one of the most important BiH trading partners for years. The long-standing importance of Slovenia for BiH foreign trade points to a need to analyse institutional and functional aspects of the two countries' mutual trade relations and the resulting position of BiH.

This paper investigates what characterized trade between BiH and Slovenia in terms of export-import trends, structure and specialization during the period of 2003-2017. Additionally, trade characteristics are compared by years in order to identify any significant changes in trade patterns potentially caused by

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OUR ECONOMY

Vol. 65 No. 3 2019

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changes in the countries' foreign trade regimes. Although trade patterns mostly depend on the sectorial structure, the evolution of which requires a longer period of time, some stimuli (e.g., a change in the foreign trade regime) could cause a rapid structural transformation. The experience of Central and Eastern European countries after the last EU enlargement proved to be such a case.

The structure of the paper is organized as follows. The first section after the introduction presents conceptual issues pertaining to dynamic comparative advantages and competitiveness and explains the methodological framework for bilateral trade analysis. Methodological remarks refer to the explanation of the trade indicators and data used. In order to obtain a comprehensive insight, the analysis has included different trade indicators – indicators of trade performance and indicators of international specialization and competitiveness. Trade indicators have been calculated at the annual level for the period of 2003-2017. The second section offers a short overview of the development of institutional trade relations between the given countries, from the negotiations over their first trade agreement to the present. The fourth part presents empirical results identifying relevant and specific features of the observed countries' mutual trade flows, with a special focus on BiH trade performance and specialization. The last part includes a discussion of the results and concluding remarks.

Conceptual and Methodological Framework

The theoretical explanation of a country's bilateral trade relations relies on an eclectic approach to international trade theory. "Pure" trade models claim that countries trade with each other because they are different (the traditional theories' view) and/or because they are similar (the modern theories' view). In traditional theories, differences between countries, expressed in terms of relative prices, are explained only by supply-side factors (as differences in relative costs), while in modern theories explanations stem both from supply-side and demand-side factors (Kenen, 1994, p. 38). Differences in relative costs caused by differences in relative productivity between countries (Ricardo's theory) or by differences in relative factor endowment (Heckscher-Ohlin theory) result in different comparative advantages and determine the trade structure which is more of inter-industry type. Specialization creates differences between export and import structure of a country. On the other hand, similarities (in terms of factor endowment, taste, income, etc.) lead to a trade structure which is mostly of an intra-industry character.

However, the widely recognised view among modern economists is that traditional and modern trade models do not entirely exclude each other; rather, they are complementary in explaining directions and patterns of international trade flows. The law of comparative advantages has been accepted in modern trade theories as well, though in a modified form – the comparative advantage has been considered to be a much more dynamic category. Comparative advantages could be created, changed or lost, depending on changes in factor endowment and technology or because of industrial policies. "Dynamic comparative advantage refers to the creation of comparative advantage through the mobilization of skilled labor, technology, and capital; it can be initiated by either the private or public sector" (Carbough, 2015, p. 105). In some new models, comparative advantages have been replaced with a much broader concept of the so-called competitive advantages. Porter (1991) developed a system involving the strong interaction of four basic determinants of competitive advantages: 1. production factor conditions; 2. demand conditions 3. related and supporting industries; 4. firm strategy, structure and rivalry. The described system is supported by two additional factors – government policy and chance. The concept of competitive advantages has much more in common with a contemporary concept of international competitiveness. Due to the multitude of definitions, measures and theoretical models, the economic literature describes international competitiveness as a multidimensional concept which requires an integrated and eclectic approach. However, international competitiveness is generally viewed as synonymous with success and economic strength in the global environment (Olczyk, 2016).

International competitiveness is no longer limited to a country's export ability.[1] Rather, it has been "transformed" by theoreticians of international trade into an ability to compete in both international and domestic markets. In modern trade theory international competitiveness is viewed as a national economy's ability to ensure economic growth without trade imbalance (i.e., to produce goods and services which will ensure the growth of real income in both the domestic and the international market) (Škuflić, 1999).

Foreign trade analysis has been developing in parallel with trade theory. As trade theory has become more complex in terms of explaining the trade basis and patterns of countries based on a number of different factors, so trade analysis has been enriched with a number of new trade indicators of differing levels of complexity.

[1] Export competitiveness is usually defined as a country's ability to sell commodities in foreign markets, at a price and quality that can be compared to competitors (US International Trade Commission, 2010).

For the purpose of this research, we will apply several indicators of trade performances and indicators of international specialization and diversification that point directly or indirectly to a country's competitive position in its trade relations. Trade performance indicators include the volume and trend of exports and imports, trade balance, export/import coverage, and product export share. Revealed comparative advantage index, intra-industry trade index and product concentration indices serve to identify the sectors in which a country specialises in a certain market.

The number of trading partners or trading goods reflects a country's dependence on foreign trade. Export diversification can be defined as a change in the mix of current export products of a country and a change in the mix of exporting country composition (Erkan and Sunay, 2018). In terms of export performances, a country can reach a better position by diversifying both its export goods and its export markets. The most often used indicators that express a degree of diversification are concentration ratio (CR) and the Herfindahl-Hirschman index (HHI). Concentration ratio is calculated using the following formula:

$$CR_{(4)} = \sum_{i=1}^{4} \frac{X_{ij}}{X_j} \quad (1)$$

Where $CR_{(4)}$ is the sum of market shares of the largest four exporter industries from the country *j* to the analysed market; X_{ij} is the exports of the industry *i* of the country *j*; and X_j is the total exports of the country *j*.

The Herfindahl-Hirschman index is expressed by the following formula (Juan Felipe Mejía, 2011):

$$HHI_j = \sum_i \left(\frac{X_{ij}}{X_j}\right)^2 \quad (2)$$

where X_{ij} is the exports of the industry *i* of the country *j*, and X_j is the total exports of the country *j*.

The lower HHI value indicates a higher degree of export diversification. Interpretation of the HHI value is based on the following three categories: diversified exports, HHI < 0.15; moderately concentrated exports, 0.15 ≤ HHI < 0.25; and highly concentrated exports, HHI ≥ 0.25 (Federal Trade Commission & U.S. Department of Justice, 2010).

Fully theoretically based measurement of comparative advantages has long been considered impossible. The most frequently used alternative is the concept of the so-called "revealed comparative advantages" (RCA) created by Balassa (1965). The concept is simple: if, according to Ricardian trade theory, differences in relative productivity determine the pattern of trade, then the pattern of trade can be used to infer differences in relative productivity (French, 2017). Balassa index (BI) reflects the relative export structure and is calculated as a ratio of the share of a given product's exports within the country's total exports to the share of the product's world exports within the total world exports (Balassa, 1989):

$$BI_{ij} = \frac{\frac{X_{ij}}{\sum_i X_{ij}}}{\frac{X_{iw}}{\sum_i X_{iw}}} \quad (3)$$

where X_{ij} is the exports of the product *i* of the country *j*; $\sum X_{ij}$ is the total exports of the country *j*; X_{iw} is the world exports of the product *i*; and $\sum X_{iw}$ is the total world exports.

For the purpose of this research, BI has been modified in order to express revealed comparative advantages in bilateral trade (i.e., in a certain market). A country has a comparative disadvantage in some industry for 0 < BI < 1, while it has a comparative advantage for BI > 1. The higher the value of the index, the stronger the comparative advantage, and vice versa.

It should be emphasized that, although the Balassa index is often used to approximate countries' sectorial specialization, the index is also often criticized for its lack of theoretical foundation and poor empirical distribution characteristics. Being computed directly on observed (ex-post) export flows, the index does not distinguish between exporter, importer and sector-specific factors affecting export flows (Leromain & Orefice, 2014).

The Grubel-Lloyd index is used for measuring IIT share in a certain industry, following the formula created by Grubel and Lloyd (1975, p. 21):

$$GL_{ij} = \frac{(X_{ij} + M_{ij}) - |X_{ij} - M_{ij}|}{X_{ij} + M_{ij}} \quad (4)$$

where GL_{ij} represents IIT share in the industry *i* of the country *j*; X_{ij} is exports of the industry *i* from the country *j*; and M_{ij} is imports of the industry *i* to the country *j*.

If the index value equals 1, then the foreign trade of an industry is of intra-industry type. If the value is 0, then the foreign trade of an industry is entirely inter-industry trade.

Besides the measurement of IIT intensity, the analysis also includes differentiation between its horizontal and vertical components, which arises from the existence of two types of product differentiation. Horizontally differentiated products are actually different varieties of a single product,

and vertically differentiated products reflect different qualities of the same variety (Greenaway & Milner, 2003). The methodology for making a distinction between horizontal and vertical IIT is based on the assumption that the relative gap between unit values of exports and imports reflects the difference in the quality of products traded between two countries (Greenaway, Hine, & Milner, 1995):

$$RUV_{ij} = \frac{UV_{ij}^{X}}{UV_{ij}^{M}} \quad (5)$$

where RUV_{ij} is the relative unit value; UV_{ij}^{X} is the unit value of exports; and UV_{ij}^{M} is the unit value of imports.

According to the mentioned GHM methodology, horizontal IIT exists if the relative unit value ranges in the interval from 0.85 to 1.15. If the relative unit value is beyond this interval, then the trade is vertical IIT (vertical IIT in higher-quality products when the ratio exceeds 1.15 or vertical IIT in lower-quality products when the ratio is below 0.85).[2]

All the described indicators have been calculated for every year and as an average for the observed period using trade data at two-digit level of Standard International Trade Classification (SITC Rev. 3) from the Agency for Statistics of BiH (BHAS).

Institutional Aspect of Trade Relations between BiH and Slovenia

In the second half of the 1990s, trade within the South East European region (SEE) was characterized by the revitalization of traditional trade links. The intra-regional trade increased mainly as the trade between former Yugoslav republics (Anastasakis & Bojčić-Dželilović, 2002).

Development of trade in the region was not accompanied by an appropriate institutional framework. One of the few trade agreements between countries of the SEE region at the time was the agreement on free trade between BiH and Croatia, signed on March 1995 but applied only in one part of the BiH territory.[3] BiH also started trade negotiations with some other countries during the war but most intensively with Slovenia. During 1995 and 1996, the two countries negotiated an agreement on trade and economic cooperation. According to several drafts of the agreement, it was planned to trade on the basis of the most-favoured-nation (MFN) principle.[4] At that time, Slovenia was in the process of opening its economy through bilateral and regional trade liberalization. The country signed bilateral free trade agreements (FTAs) with the Baltic countries, Israel and several countries of the SEE region (BiH, Croatia, FYR Macedonia and Turkey) in the period of 1996-2001; joined the Central European Free Trade Agreement (CEFTA) in January 1996; concluded FTA with the European Free Trade Association (EFTA) in June 1995; and signed the so-called European Agreement in June 1996, aimed at the association with the European Union (EU) (WITS, 2019).

On the other hand, considering its unfavourable position as a post-war, transition and aid-driven country, Bosnia and Herzegovina was not interested in free trade with its trading partners. Therefore, despite the fact that Slovenia expressed interest in signing an FTA with BiH, negotiations between the two countries ended on 7 November 1997 with only the signing of the Agreement on Economic Co-operation.[5]

In 1999, the EU created a new policy towards the SEE based on further development of the Regional Approach, establishment of the Stability Pact for Southeast Europe (the Stability Pact) for supporting regional cooperation in the Region, and the beginning of the Stabilization and Association Process (SAP). The Stability Pact offered an opportunity to create a free trade area with more than 60 million consumers, while SAP was the framework for the future EU membership. Both institutes also had a significant impact on trade relations between BiH and Slovenia.

On the basis of the Memorandum of Understanding on Trade Liberalization and Facilitation (MoU), signed in June 2001 within the Stability Pact, over only three years SEE countries created a network of 32 bilateral mutual free trade

[2] GHM decomposes IIT into horizontal IIT and vertical IIT based on a certain threshold value. Most of the literature, including GHM, uses a threshold level of 15%, while some researchers use 25%. However, Ito and Okubo (2016) argued that there is no theoretical support for either choice.

[3] Before the end of the war in BiH, the agreement with Croatia was applied only in the territory that was under the control of the BiH Army. After signing the Dayton Peace Agreement the agreement with Croatia was applied only in the territory of the Federation of BiH for years. In 2000, the Agreement was revised and harmonized with the WTO principles and applied in the whole territory of BiH.

[4] The author actively participated in those negotiations as a member of BiH government negotiation team.

[5] The Agreement on Economic Co-operation between Bosnia and Herzegovina and the Republic of Slovenia entered into force on 22nd November 1999. On 19th January 2009, it was replaced by a new agreement on economic cooperation.

agreements, of which BiH signed nine.[6] These agreements were based on GATT '94[7] principles and referred to free trade of goods only, covering all agricultural and industrial products with almost no exceptions.

A distinctive characteristic of FTAs concluded between BiH and most SEE countries (seven out of nine[8]) was the temporary asymmetry with regard to the benefits BiH received. One of those asymmetric FTAs was the Free Trade Agreement between the Republic of Slovenia and BiH, signed on 3rd October 2001. The countries agreed that quantitative restrictions on exports and imports of goods were to be immediately abolished on both sides. Customs duties on imports applicable in Slovenia to products originating in BiH would be abolished on 1st January 2002.[9] At the same time they also agreed that import duties and charges having equivalent effect applicable in BiH on 1st January 2002 to products originating in Slovenia would be progressively reduced in accordance with the following timetable:[10] on 1st January 2002 to 70% of their value, on 1st January 2003 to 50% of their value, on 1st January 2004 to 30% of their value, and on 1st January 2005 the remaining duties would be abolished. The process of eliminating the asymmetry in trade liberalization was never completed, however, because Slovenia joined the EU in 2004.

Only two years after signing the FTA, the foreign trade regime between two countries changed again, but this time towards a lower degree of trade liberalization. When Slovenia entered the EU, the country's trade policy was replaced by the EU's common trade policy, which led to a suspension of the free trade agreement with BiH. Trade relations between BiH and Slovenia were reduced to a more asymmetrical regime, according to which BH enjoyed a duty-free treatment unilaterally approved by the EU in 2000 (Autonomous Trade Measures – ATMs). (DEI, 2019). At the same time, BiH applied customs duties on the MFN principle for goods originating in Slovenia and other EU members.

Trade between BiH and EU members finally received its full institutional framework with the signing of the Stabilization and Association Agreement (SAA) on 16th June 2008. In order to allow the trade and trade-related provisions of the SAA to enter into force as soon as possible, the EU and BiH concluded the Interim Agreement on Trade and Trade-related Matters (IA), which entered into force immediately (1st July 2008). The trade regime introduced by this agreement continued to be asymmetric to the benefit of BiH. "According to the IA, all goods of BiH origin that fulfil EU technical standards and conditions could be imported to all EU countries without any quantitative restrictions and without paying customs or other similar duties. Only sugar, wine, fish, and baby beef were subject to specific quotas, beyond which duties were to be paid by BiH for export to the EU. Since 2009, import tariffs have been eliminated for more than 11,000 products that BiH imports from the EU" (ITA, 2019). The process of trade liberalization according to the SAA is aimed at the gradual establishment of the free trade area between BiH and the EU within five years of entry into force of the SAA.[11]

In December 2016, BiH and the EU signed the Protocol on Trade to the SAA, which was adapted to reflect Croatia's July 2013 accession to the EU and introduced some changes in foreign trade regime again, especially those regarding duty-free quotas of some agro-food products on both sides (ITA, 2019).

Bilateral Foreign Trade Analysis

Bosnia and Herzegovina and Slovenia have had an intensive mutual trade for years. Slovenia is among BiH's five most important trade partners, ranking fifth in exports and sixth in imports (MOFTER, 2018). The average export share of Slovenia amounts to 9.11% (varying between 8.04% and 10.87%), while the average import share amounts to 6.21%. Export share has been stable but import share has fallen by half since 2003 – from 10.18% in 2003 to 5.03% in 2017 (Table 1).

Foreign trade between the two countries slightly increased until 2008 and again after 2009 (it sharply fell between these dates because of the global financial crisis), with only negligible oscillations. However, there have been differences between trends of exports and imports, with a significant growth of BiH exports during the analysed period (except in 2008 and 2009) and relatively stagnant imports after 2009. (Figure 1). The result of different trends in exports and imports is a declining BiH trade deficit and its shift to trade surplus after 2016. Export/import coverage increased by more than threefold, from 29.3% in 2003 to 106.6% in 2017 (Table 1).

[6] BiH concluded FTAs with Albania, Bulgaria, Croatia, FR Yugoslavia, FYR Macedonia, Moldova, Romania, Slovenia and Turkey. Before the country's accession to the EU, Slovenia managed to conclude FTAs with the following SEE countries: BiH, Croatia, FYR Macedonia, and Turkey.

[7] Revised General Agreement on Tariffs and Trade (GATT) within the framework of World Trade Organization (WTO).

[8] Exceptions were FTAs with Albania and Moldova, with which BiH had insignificant trade.

[9] Free Trade Agreement between the Republic of Slovenia and Bosnia and Herzegovina, Article 4 (2).

[10] Free Trade Agreement between the Republic of Slovenia and Bosnia and Herzegovina, Article 4 (3).

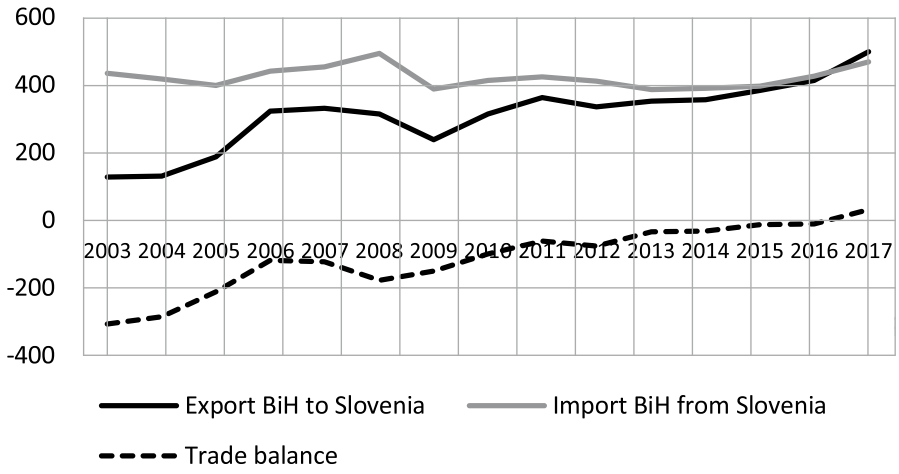
[11] SAA entered into force on 1st June 2015.

Table 1. Foreign Trade of BiH with Slovenia, 2003-2017

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Aver.
Export to Slovenia, mil EUR	127.2	131.0	186.7	321.9	330.0	314.4	236.8	312.8	361.4	334.0	351.0	356.8	382.9	412.7	497.6	310.5
Export to Slovenia, %	10.39	8.51	9.65	12.19	10.87	9.16	8.37	8.62	8.60	8.31	8.19	8.04	8.33	8.57	8.81	9.11
Import from Slovenia, mil EUR	434.3	417.3	398.8	440.1	452.3	492.6	388.1	413.6	423.6	410.8	385.7	390.2	395.5	425.1	466.7	422.3
Import from Slovenia, %	10.18	8.67	6.98	7.56	6.42	5.91	6.14	5.94	5.34	5.27	4.97	4.71	4.88	5.15	5.03	6.21
Trade balance, mil EUR	-307.1	-286.3	-212.1	-118.1	-122.3	-178.2	-151.3	-100.8	-62.3	-76.7	-34.7	-33.5	-12.6	-12.4	30.9	-111.8
Total bil. trade, mil EUR	561.5	548.3	585.5	762.0	782.3	806.9	624.8	726.3	785.0	744.8	736.7	747.0	778.4	837.8	964.2	732.8
Export/import coverage, %	29.28	31.40	46.82	73.15	72.96	63.83	61.02	75.63	85.31	81.32	91.01	91.42	96.81	97.09	106.6	73.52

Source: Author's own calculation based on trade data of BHAS

Figure 1. Trends of BiH Foreign Trade with Slovenia, in mil EUR (2003-2017)



Source: Author's own calculation based on trade data of BHAS

Exports of BiH to Slovenia increased faster than imports, reaching EUR 497,577,650 in 2017, three times more than in 2003. A sharp export growth occurred after 2004, again after 2008 and again after 2016. A common feature connecting those years is a change in trade regime between the two countries. In 2004, Slovenia joined the EU, and the FTA with BiH was suspended. BiH had duty-free exports to the EU member countries, but Slovenia lost the duty-free access to the BiH market. Another change in the trade regime between the two countries occurred when the IA entered into force in 2008, although the asymmetry in BiH's favour remained. It seemed that every change in trade regulations was to the benefit of BiH, resulting in increases in the country's exports.

The sectorial export pattern of BiH was relatively stable. Six groups appeared on the top 10 list of BiH export industries in all years of the given period and had significant export shares: power generating machinery and equipment (average share 18.41%); metalliferous ores and metal scrap (10.52%); electrical machinery, apparatus and appliances (8.48%); cork and wood; furniture and parts thereof; and manufactures of metals, while machinery specialized for particular industries and furniture and parts thereof appeared over ten years. In 2003, the total share of the top four export product groups (concentration ratio CR_4) amounted to 64%, while in 2017 it amounted to 48%. The indicator of sectorial export concentration (HHI) also revealed a lower degree of concentration (between 0.08 and 0.10) for all the observed years except for 2003, when it indicated moderately concentrated exports (HHI=0.20). (Table 2) Neither indicator changed significantly from year to year; however, the comparison of 2003 to 2017 reveals that both of them indicated a shift toward a higher level of diversification.

Contrary to exports, which increased during the given period, imports almost stagnated; in 2017, imports amounted only to 30 million EUR more than in 2003. Import sectorial structure was also relatively stable in the observed period. Seven product groups among the top 10 ranked by import share appeared in all years: electrical machinery, apparatus and appliances (the average share 10.33%); medical and pharmaceutical products (8.61%); manufactures of metals (5.75%); general industrial machinery and equipment (5.24%); iron and steel; beverages; and miscellaneous manufactured goods. The total import share of the top four product groups amounted to 29.06% in 2003 and 38.27% in 2017, indicating a significantly lower degree of product concentration in imports compared to exports, although with an increasing trend.

The number of product groups with BiH's comparative advantage (BI > 1) increased after 2003 (from only 13) and varied within the interval of 18-21 for most of the years of the analysed period. However, the number of items with BI >4[12] was extremely small, especially in the first five years (1 or 2 only), except in the period of 2008-2013, when it reached 6. The maximum value of BI was much lower before 2008 (4.0-5.8) than after 2008 (9.0-11.9) (Table 3). The highest average BI values were found in SITC groups 71 Power-generating machinery and equipment; 88 Photographic apparatus and equipment; 87 Professional, scientific and controlling instrument; 77 Electrical machinery, appliances, and parts; and 72 Machinery specialized for particular industries. At the same time, the export share of four product groups with the highest BI values was relatively low during most of the period – 25.5% on average (43% in 2003 but only 21% in 2017),[13] with a dominant share of only one product group (SITC 71).[14]

Comparison of the top 10 list by BI value in 2003 to those in 2008 and 2017 reveals a shift from natural-based and low-technology industries towards medium-technology industries[15] (Table 5).

[12] According to Hinloopen and van Marrewijk (2001), a country has a strong revealed comparative advantage in the given sector for BI > 4.

[13] Power-generating machinery and equipment had the highest export share, more than ¾ of top four export contribution.

[14] Author's own calculation.

[15] According to product classification by technology-intensiveness (Lall, 2000).

Table 2. Product Export Concentration (CR4 and HHI) of BiH in Trade with Slovenia

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Change 2003/2017
$CR_{(4)}$	64.07	53.37	51.42	54.37	50.78	46.98	44.75	53.94	50.37	47.73	51.43	50.63	49.25	49.13	47.95	↑ diversification
HHI	0.20	0.09	0.10	0.10	0.10	0.09	0.08	0.10	0.09	0.08	0.09	0.09	0.08	0.08	0.08	↑ diversification

Source: Author's own calculation based on trade data from BHAS

Table 3. Revealed Comparative Advantages (BI index) of BiH in Trade with Slovenia

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Max BI index	5.82	5.23	4.02	4.20	5.69	6.87	11.94	8.48	11.17	9.05	8.96	9.87	11.93	10.70	7.55
Number of BI > 1 items	13	20	20	19	18	21	21	20	24	21	22	20	20	16	18
Number of BI > 4 items	2	1	1	1	2	5	6	6	6	6	5	2	4	4	3
Export of top 4 (%)	42.95	18.44	29.67	24.90	29.72	32.12	24.16	20.10	21.60	19.88	23.96	18.98	33.35	21.26	20.81

Source: Author's own calculation based on trade data from BHAS

Table 4. Intra-Industry Trade (GL Index) of BiH in Trade with Slovenia

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Agg. GL index	0.19	0.24	0.30	0.33	0.44	0.44	0.44	0.43	0.45	0.44	0.43	0.47	0.46	0.44	0.46
Max GL index	0.96	0.97	0.98	0.99	0.97	0.99	0.97	0.99	0.99	0.97	0.99	0.99	0.99	0.95	0.99
Number of GL > 0.50 items	9	12	11	17	24	21	25	25	28	25	20	21	21	21	21
Number of GL > 0.75 items	5	8	8	8	11	13	8	14	12	11	12	12	11	12	4
Number of HIIT items	7	6	9	6	6	9	9	8	8	5	9	5	9	5	10
Number of VIITh items	17	13	11	16	18	14	13	15	14	14	14	16	14	16	14

Source: Author's own calculation based on trade data from BHAS; Legend: GL – Grubel-Lloyd index of intra-industry trade; Agg. GL – aggregate GL index (all industries); HIIT – horizontal intra-industry trade; VIITh – vertical intra-industry trade with higher quality export of BiH;

Table 5. Top 10 industries by BI values in Trade of BiH with Slovenia (2003, 2008 and 2017)

2003		2008		2017	
SITC	BI	SITC	BI	SITC	BI
25 Pulp and waste paper	5.82	87 Professional, scientific and controlling instrument	6.87	71 Power-generating machinery and equipment	7.55
82 Furniture and parts thereof	5.05	69 Manufactures of metals, n.e.s.	5.53	61 Leather, leather manufactures	6.51
61 Leather, leather manufactures	3.13	85 Footwear	4.71	88 Photographic apparatus and equipment	6.05
62 Rubber manufactures	3.10	71 Power-generating machinery and equipment	4.41	77 Electrical machinery, appliances, and parts	3.03
55 Essential oils and resinoids	2.35	75 Office machines and automatic data-processing machines	4.22	28 Metalliferous ores and metal scrap	2.90
21 Hides, skins and furskins, raw	1.99	59 Chemical materials and products	3.24	25 Pulp and waste paper	2.36
65 Textile yarn, fabrics	1.77	76 Telecommunications and sound-recording apparatus and equip.	2.83	72 Machinery specialized for particular industries	2.30
05 Vegetables and fruit	1.51	77 Electrical machinery, appliances, and parts	2.57	76 Telecommunications and sound-recording apparatus and equipment.	2. 17
83 Travel goods	1.47	25 Pulp and waste paper	2.55	57 Plastics in primary forms	1.49
77 Electrical machinery, appliances, and parts	1.31	22 Oil seeds and oleaginous fruits	2.29	58 Plastics in non-primary forms	1.37

Source: Author's own calculation based on trade data from BHAS

Table 6. Top 10 industries by GL values in Trade of BiH with Slovenia (2003, 2008 and 2017)

2003		2008		2017	
SITC	GL	SITC	GL	SITC	GL
27 Crude fertilizers and crude minerals	0.96	27 Crude fertilizers and crude minerals	0.99	88 Photographic apparatus and equipment,	0.99
71 Power-generating machinery and equipment	0.88	21 Hides, skins and furskins, raw	0.97	77 Electrical machinery, appliances, and parts	0.98
84 Wearing apparel	0.78	72 Machinery specialized for particular industries	0.94	56 Fertilizers (other than those of group 272)	0.79
05 Vegetables and fruit	0.77	25 Pulp and waste paper	0.88	27 Crude fertilizers and crude minerals	0.79
78 Road vehicles	0.77	61 Leather, leather manufactures	0.87	07 Coffee, tea, cocoa, spices	0.74
85 Footwear	0.70	04 Cereals and cereal preparations	0.87	63 Cork and wood manufactures	0.74
79 Other transport equipment	0.69	79 Other transport equipment	0.82	05 Vegetables and fruit	0.74
68 Non-ferrous metals	0.57	52 Inorganic chemicals	0.82	06 Sugars, sugar preparations and honey	0.73
99 Miscellaneous	0.56	82 Furniture and parts thereof	0.82	89 Miscellaneous manufact. goods n.e.s.	0.72
65 Textile yarn, fabrics	0.46	68 Non-ferrous metals	0.80	69 Manufactures of metals, n.e.s.	0.72

Source: Author's own calculation based on trade data from BHAS.

Although inter-industry trade still prevails in trade between BiH and Slovenia, the share of intra-industry trade (IIT) increased significantly (from 0.19 to 0.46) in the period of 2003-2017, resulting in the average IIT share of 0.40 for the given period. The analysis of IIT by sector revealed a significant growth in the number of product groups with dominant IIT (GL > 0.50) from 9 to 21,[16] especially of those with strong IIT (GL > 0.75), as well as a relatively high number of product groups with VIIT with higher quality of

[16] The highest number of product groups with dominant IIT (28) was recorded in 2011.

BiH exports. The number of industries with HIIT increased to 10. (Table 4). In the period after 2005/2006, 11 product groups with dominant IIT (SITC 04, 05, 07, 21, 51, 52, 63, 69, 72, 77, and 88) appeared consistently.

At present, IIT in some agricultural and resource-based product groups, such as cereals and cereal preparations, vegetables and fruit, sugar and sugar preparations, coffee and tea, hides and skins, and crude fertilizers and minerals, as well as in labour-intensive product groups,[17] is stronger than it was before 2003 (Table 6).

Concluding Remarks

Trade relations between BiH and Slovenia have been characterised by an intensive development in both their institutional and functional aspects. Trade agreements signed between the two countries in the period of 2003-2017 have brought about a significant liberalization of the trade regime (although never completely free trade), which has led to an intensive and increasing mutual trade. The fact that liberalization has been asymmetrical to the benefit of BiH for years seems to be one of the factors that enabled BiH to improve its trade performances in relation to Slovenia. The biggest change in trade regime between the two countries in the analysed period occurred when Slovenia joined the EU in 2004; this change was followed by noticeable changes in characteristics of BiH trade.

A significant growth in BiH exports over the years has resulted in a decreasing trend of trade deficit, with a final turn to trade surplus occurring in 2017. The research results also indicate an increase in the level of export product diversification and growth in the number of industries with a revealed comparative advantage of BiH. However, there has not been a radical structural shift either immediately after 2004 or later; rather, the export structure proved to be stable with the high shares of resource-based and labour-intensive industries, while the comparative advantages of BiH remained relatively weak. Although inter-industry trade has still prevailed, the share of IIT as well as the number of industries with dominant, and especially strong, IIT have significantly increased. In the last several years, the IIT pattern has been more stable than before. Improvement in intra-industry specialization and trade speaks in favour of an increasing convergence between the two economies.

In the last fifteen years, BiH has undoubtedly succeeded in improving its trade performance and competitiveness in relation to Slovenia. However, by identifying advantages and drawbacks of BiH position, the research points out the need for further improvement in the country's bilateral trade.

[17] According to the product classification by factor intensiveness, created by Yilmaz (2003).

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Razvoj trgovinskih odnosov Bosne in Hercegovine s Slovenijo: različni vidiki in značilnosti

Izvleček

Cilj članka je prepoznati značilnosti trgovinskih odnosov Bosne in Hercegovine (BiH) z Republiko Slovenijo (Slovenija), da bi prispevali k določitvi položaja BiH v njeni bilateralni trgovini. Zunanjetrgovinska analiza je izvedena v kontekstu spreminjajočega se trgovinskega režima med dvema državama in s tem vključuje tako institucionalne kot tudi funkcionalne vidike razvoja bilateralnih trgovinskih odnosov. Različni trgovinski kazalniki so izračunani in interpretirani za obdobje 2003–2017 in/ali za izbrana leta, ki so bila specifična zaradi sprememb v institucionalnih predpisih medsebojnih trgovinskih tokov. Raziskovalni rezultati nakazujejo naraščajočo trgovinsko intenzivnost med dvema državama s skoraj uravnoteženimi izvoznimi in uvoznimi tokovi ter s prevladujočo interindustrijsko trgovino. Trgovinski rezultati Bosne in Hercegovine so se znatno izboljšali z naraščajočo znotrajpanožno specializacijo in trgovino. Vendar pa izvozna struktura in vzorec primerjalnih prednosti ne govorita v korist BiH, kar nakazuje na potrebo po izboljšanju položaja države v njeni trgovini s Slovenijo.

Ključne besede: trgovinski odnosi, trgovinski režim, bilateralna trgovinska analiza, Bosna in Hercegovina (BiH), Republika Slovenija (Slovenija)