

# Industry-specific Trade Patterns with Eurozone and Economic Crisis: Bosnia and Herzegovina, Croatia and Serbia

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## **INDUSTRY-SPECIFIC TRADE PATTERNS WITH EUROZONE AND ECONOMIC CRISIS: BOSNIA AND HERZEGOVINA, CROATIA AND SERBIA**

*Preliminary communication*

### **Abstract**

*Two separate processes have recently influenced the trade relationship between European Union and countries in the Western Balkan region – different speeds of integration and consequences of global economic crisis. The ease of international trade is both the objective and consequence of economic integration process. Increase in international trade between partners within the union is expected to create through competitiveness mechanism positive preconditions for the overall Union. However, these effects are expected on average and neither for every country or every economic activity.*

*Since the effects of the crises have been asymmetrically spread across the European Union, we focus on the bilateral trade patterns involvement. Specifically, we analyse trade patterns with Eurozone members in order to avoid additional discussion on the effects of exchange rate policies within the economic union. By using the intra-industry trade indicators we compare the outcomes for the three countries in the region – Bosnia and Herzegovina, Croatia and Serbia. We analyse indicators of overall intra-industry trade, vertical intra-industry trade and horizontal intra-industry trade on the 2-digit level of NACE classification in order to identify economic activities in which each of the country has established higher degree of integration. Revealing the trade patterns on the level of economic activities is important in order to enhance the discussion of competitiveness, related to the underlying smooth transition hypothesis. The hypothesis states that if intra-industry trade (i.e. the simultaneous exports and imports of similar products) has higher share in the overall trade between the countries, the integration associated adjustment costs will be less severe than in cases when the share of inter-industry trade is relatively higher. By comparing the results before and after (during) the crisis we seek to indirectly identify economic sectors dubbed as winners or losers in the analysed period. The underlying assumption is that if the*

*economic sector has increased the share of intra-industry trade in the bilateral trade, this economic sector has managed to withstand both increased competition pressures related to integration process and suppressed demand due to the economic crisis.*

*Results show that most industries in analysed countries recorded low share of intra-industry trade, not many industries exhibit strong positive trends. The industries that seem to have higher degree of intra-industry trade are mostly labor-intensive. Furthermore, high share of vertical intra-industry trade indicates that in most cases the trade relationship resembles trade between economically unequal partners.*

**Keywords:** *intra-industry trade, economic activities, Bosnia and Herzegovina, Croatia, Serbia*

**JEL:** F15, F16

## 1. INTRODUCTION

The countries in the region have expressed their aspiration to join the European Union, and are currently in the different stages of the process. Croatia is a member as of 2013, Serbia received candidate status in 2012 and started negotiations for accession in 2014, while Bosnia and Herzegovina submitted its application to join the EU in 2016. Integration is intertwined with trade-relations, both a priori and ex post. Resting on the optimum currency area theory, significant trade between nations is one of important preconditions for successful integration. After the integration, decreased barriers are expected to contribute to additional trade creation and subsequently sustainable economic growth. Thus, international trade is an important segment of the European integration discussions.

Trade with the EU is traditionally important for Bosnia and Herzegovina, Croatia and Serbia. While in Croatia and Serbia almost two thirds of total exports is directed to the EU, in Bosnia and Herzegovina export to the EU amounts to more than 70 percent of their total exports<sup>1</sup>. Imports from the EU is also significant for the before mentioned countries: more than 60 percent of total imports in Bosnia and Herzegovina and Serbia comes from the EU, while in Croatia this number climbs to more than three quarters of total imports.

However, not only the size of the trade is important, but also its structure. The question is whether trade relationship is between equal partners, contributing to the integration benefits equally. In this paper we focus on the issue of trade between

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<sup>1</sup> Data is for the year 2015 from wiiw Annual Database.

three countries in different accession stages and Eurozone. Previous studies have identified relatively low intra-industry degree of trade of analysed economies, and relatively low degree of horizontal intra-industry trade. Main contribution of this paper can be found in disaggregated, economic activity, level of analysis enabling in-depth insight into structural changes of analysed economies. We proceed with brief literature review, followed by the section devoted to data sources used and methodology applied. Section 4 presents results, while the last section summarizes conclusions and presents roadmap for future research.

## **2. LITERATURE REVIEW**

It is frequently believed that the benefits of economic integration can be envisaged through increased trading opportunities. Relying on theoretical models, it has been argued that trade increases product variety on the market. This leads to increased consumers' utility (due to love for variety) as well as competitiveness pressures (including increasing innovation) on the market inducing more efficient behaviour (Helpman and Krugman, 1985). These activities are jointly supposed to create conditions for economic growth. However, overall positive effect might depend on the nature of trading relationship. Since the seminal works of Balassa (1966) and Grubel and Lloyd (1975), volumes of literature have been devoted to distinguishing between intra-industry and inter-industry trade. Intra-industry trade refers to simultaneous imports and exports, recorded at a detailed level of product aggregation. Thus, high share of intra-industry trade in the bilateral trade reveals similar products, indicating that the trading partners are equally developed. If there are no simultaneous imports and exports of similar products recorded, than the trade is considered to be inter-industry. This relationship is frequently found in trade between more developed (predominately exporting capital) and less developed (predominately exporting labour intensive products) nations.

The attention to the intra-industry trade patterns has been also emphasized within the analysis of EU accession process, related to the smooth adjustment hypothesis. The hypothesis states that if intra-industry trade has higher share in the overall trade between the countries, the integration associated adjustment costs will be less severe than in cases when the share of inter-industry trade is higher. Azhar and Elliot (2008) argue that increases in trade will result in changes in imports and export on a sector/product level. If the trade patterns are for the most part inter-industry in nature, than these sector changes will be reflected in transferring production resources between industries, from contracting to expanding industries. If there are large differences in relative production factor endowments of the two trading countries, the costs of adjustments from one industry to another will be higher.

The literature on trade patterns within the context of EU integration is relatively abundant for Central and Eastern European Economies (Aturupane et al. (1999); Caetano and Galego (2007); Firdmuc et al. (1999); Gabrisch (2006); Kandogan (2003); Hoekman and Djankov (1996); Firdmuc (2005); Janda and München (2004)), i.e. the countries that have joined EU in the 2004 or 2007 wave of integration. Similar analysis for Western Balkan countries is relatively scarcer, with some exceptions (Damijan et al. (2006); Kaminski and de la Rocha (2002); Mardas and Nikas (2008); Buturac and Teodorović (2012); Škuflić and Botrić (2008); Dautović, Orszaghova, and Schudel (2014)). The evidence is particularly scarce on the disaggregated level.

The intra-industry trade can be further disaggregated into horizontal intra-industry trade (which is the trade of relatively close substitute products within the same industry) and vertical intra-industry trade (which is the trade of differentiated products within the same industry). The theoretical foundations for horizontal intra-industry trade (HIIT) can be found in Helpman and Krugman (1985), while the modelling of vertical intra-industry trade (VIIT) has been initiated by Caves (1981). Theoretical models inspired empirical approaches, among which one of the relatively frequently used is the one relying on the unit values (value per ton of good) of exports and imports relationship on a detailed level of product aggregation, which traces its origin to the Stiglitz (1987) assumption that relative prices of goods reflect their relative qualities. Empirical studies usually document that the trade between economically equal partners in addition of being more intra-industry in nature, also exhibits higher shares of horizontal patterns. This is highly expected, since traded products encompass technological development and capital intensity of trading partners. Due to similar argument, trade between economically unequal partners contains a higher share of vertically differentiated products.

Botrić (2013) analyses bilateral trade patterns between EU-15 and Western Balkan economies and finds that it resembles North-South trade pattern. The decomposition into vertical and horizontal component of IIT reveals that vertical trade share is more dominant, reflecting that the trade in differentiated products is more widespread than the trade in similar products within the same industry.

### **3. DATA AND METHODOLOGY**

We rely on the manufacturing data from Eurostat COMEXT dataset. The original data is on the Combined Nomenclature (CN) 8-digit level. This detailed level of aggregation enables transformation of one classification into another.

Thus, by utilizing Eurostat correspondence tables<sup>2</sup>, the Combined Nomenclature was connected to Prodcom product code list and finally to NACE level-2 classification.

We analyse three countries: Bosnia and Herzegovina, Croatia and Serbia and their bilateral trade connections with the original Eurozone countries<sup>3</sup>. The data for Serbia was for the first time included in the COMEXT database for the year 2005. However, official date of separation between Serbia and Montenegro was in 2006. Without casting any doubt on the quality of the dataset, we decided to choose year 2007 as the starting, pre-crisis, year for comparison. One of the reasons for this decision is that this was the last year before the crisis<sup>4</sup>. The choice for a crisis period is year 2012. Although Eurozone recorded positive growth rates in 2010 and 2011, the year 2012 saw another negative GDP growth rate episode. Thus, the crisis had another dip in the Eurozone and we argue that prior positive growth rates cannot be considered as appropriate markings for the end of crisis. Similar economic situation was in Bosnia and Herzegovina, Croatia and Serbia. Bosnia and Herzegovina and Serbia also recorded positive GDP growth rates in 2010 and 2011, but consequences of European debt crisis were transmitted to their economies in 2012 when they recorded negative growth rates. On the other hand, Croatia was in recession continuously from the last quarter of 2008 and in 2012 recession intensified again.

Furthermore, Croatia became an EU member in 2013, an event that marks the beginning of different type of trade relationship not only with Eurozone members, but also to the non EU countries (including Serbia and Bosnia and Herzegovina). Since we did not want to focus our paper on these issues, we decided to compare the pre-crisis period with the year 2012.

We analyse intra-industry trade (IIT) indicators, and further disaggregation into vertical and horizontal segment. The methodology applied has been previously frequently used in the literature (Abd-el-Rahman, 1991; Fontagné and Freudenberg, 1997; Freudenberg and Lemoine, 1999). IIT can be estimated following the concept of trade overlap:

$$\text{Trade overlap} = \frac{\text{Min}(\text{exports}, \text{imports})}{\text{Max}(\text{exports}, \text{imports})} \quad (1)$$

<sup>2</sup> More information can be found on the following link [http://ec.europa.eu/eurostat/ramon/relations/index.cfm?TargetUrl=LST\\_REL](http://ec.europa.eu/eurostat/ramon/relations/index.cfm?TargetUrl=LST_REL).

<sup>3</sup> Eurozone in this paper includes Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal and Spain.

<sup>4</sup> According to the Eurostat data, the last quarter of 2008 recorded a negative GDP growth rate for the Eurozone-12 countries, as well as for Croatia, while Serbia and Bosnia and Herzegovina dipped in the recession in the first quarter of 2009 (data for Bosnia and Herzegovina is from the Agency for Statistics of Bosnia and Herzegovina).

The expression is evaluated at the disaggregated level of product classification (CN 8). If it is above certain threshold, then it is assumed that significant trade overlap exists and the trade is considered to be two-way (or IIT). Threshold of 10 percent, frequently used in the literature, is applied in order to avoid the possible sensitivity of the results to this parameter. The results presented in the paper are aggregated to the described levels (industry, activity).

In addition to IIT, it is interesting to note the differences between horizontal and vertical intra-industry trade across industries. In order to distinguish between HIIT and VIIT, a standard unit value approach has been applied in the paper (Fontagné and Freudenberg, 1997). A ratio between unit value of exports and unit value of imports has been evaluated against a threshold according to the following expression:

$$\frac{1}{1+\alpha} \leq \frac{\text{Unit value of exports}}{\text{Unit value of imports}} \leq 1 + \alpha \quad (2)$$

Horizontally differentiated products are those for which the evaluated ratio of unit values falls between the specified borders, implying that the differences between unit values of exports and unit values of imports for that product are small. In that case, we interpret this as products of similar quality, in particular when the expression is evaluated at the low level of aggregation (as is the case in this paper). Vertically differentiated products are those for which the unit value ratio falls outside the borders, implying that either the goods from the home market are at the lower end of the EU market (unit value ratio is below the lower boundary) or they are up-market goods (for those whose unit value ratio exceeds  $1+\alpha$ ). Unit values have been calculated as the ratio of the value of trade in EUR and a corresponding quantity in tons. Threshold value  $\alpha$  has been set to 15 percent, which is a frequently utilized value. All the usual caveats of relying on unit value indices also apply to our results. However, other methods of providing comparable estimates are not feasible due to data limitations.

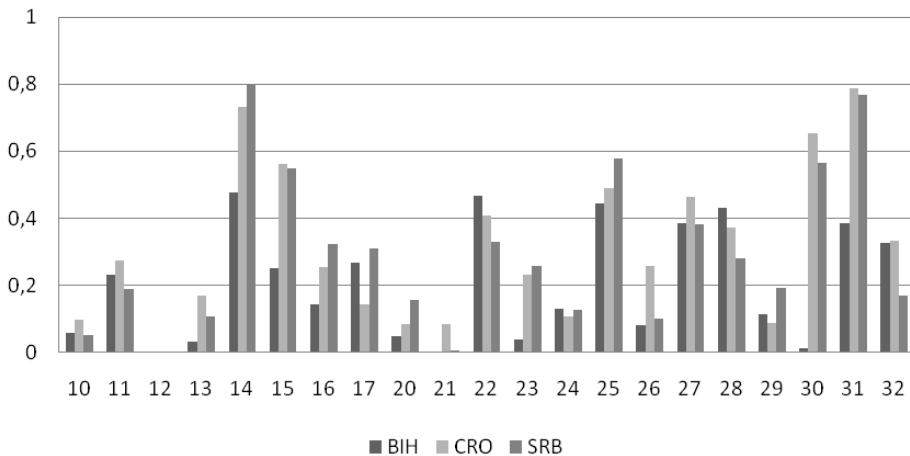
#### 4. RESULTS

Previously described methodology yielded intra-industry trade, vertical intra-industry trade and horizontal intra-industry trade indicators. A cursory overview of the IIT patterns presented in Figures 1 and 2 reveals that countries have not evolved different trade patterns with Eurozone. Even though in year 2012 Croatia was almost an EU member, the share of IIT was not strikingly different, than other two countries. On the other hand, it has to be emphasized that the evolution of trade patterns were not the same in each country. In other words, if an IIT

increased in period 2007-2012 in specific economic activity in one country, it does not imply that it also increased in other countries. There are only four activities in which this is the case: 10 – food products; 21 – basic pharmaceutical products, 26 – computer, electronic and optical products and 29 – motor vehicles, trailers and semi-trailers, however, these are sectors, beside food products, with higher value added.

Looking at the individual countries in two different time periods, it can be noticed that, despite recession, Serbia managed to increase the share of intra-industry trade in total trade with the Eurozone in three quarters of manufacturing activities, while Bosnia and Herzegovina and Croatia succeeded to increase this share in over 60 percent of manufacturing activities. However, the recorded increase in IIT in most sectors is relatively small.

Figure 1: Intra-industry trade in 2007, share in total trade

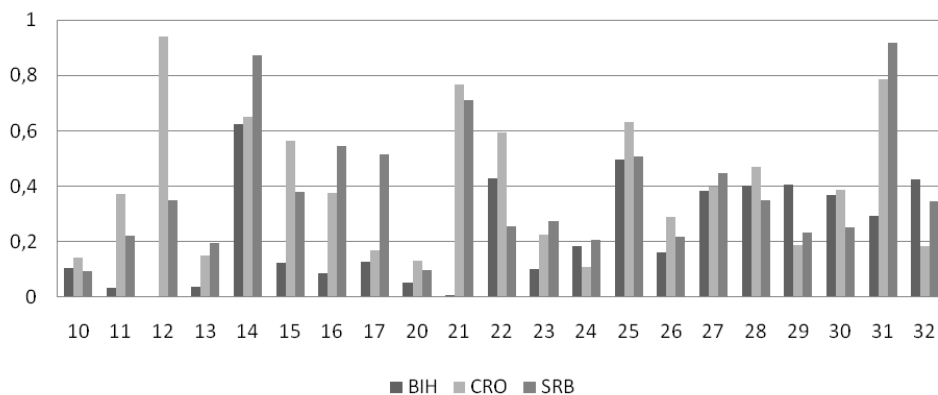


Source: authors' calculations based on COMEXT database.

NACE codes refer to the manufacture of: 10 - food products; 11 – beverages; 12 – tobacco products; 13 – textiles; 14 – wearing apparel; 15 – leather and related products; 16 – wood and products of wood and cork, except furniture; 17 – paper and paper products; 20 – chemicals and chemical products; 21 – basic pharmaceutical products; 22 – rubber and plastic products; 23 – other non-metallic mineral products; 24 – basic metals; 25 – fabricated metal products, except machinery and equipment; 26 – computer, electronic and optical products; 27 – electrical equipment; 28 – machinery and equipment n.e.c.; 29 – motor vehicles, trailers and semi-trailers; 30 – other transport equipment; 31 – furniture; 32 – other manufacturing.



Figure 2: Intra-industry trade in 2012, share in total trade



Source: authors' calculations based on COMEXT database.

The highest share of IIT in total trade has been recorded in 2012 in Croatia and Serbia in following economic activities:

- ◆ 12 – tobacco products (Croatia);
- ◆ 31 – furniture (Serbia);
- ◆ 14 – wearing apparel (Serbia);
- ◆ 21 – basic pharmaceutical products (Croatia).

In Croatia there are seven economic activities where the share of IIT in total trade with the Eurozone is higher than 50 percent<sup>5</sup>, in Serbia there are six activities<sup>6</sup>, while there is only one activity in Bosnia and Herzegovina where the share of IIT is higher than half of the total trade<sup>7</sup>. Hence, even though the data shows the increase in the share of IIT in total trade in many activities of the analysed countries, this is still relatively low level and most economic activities are still characterised by inter-industry or, in other words, one way trade. Similar results

<sup>5</sup> This includes the following economic activities: 12 – tobacco products, 14 – wearing apparel, 15 – leather and related products, 21 – basic pharmaceutical products, 22 – rubber and plastic products, 25 – fabricated metal products, except machinery and equipment and 31 – furniture.

<sup>6</sup> This includes the following economic activities: 13 – textiles, 14 – wearing apparel, 16 – wood and products of wood and cork, except furniture, 17 – paper and paper products, 21 – basic pharmaceutical products and 25 – fabricated metal products, except machinery and equipment.

<sup>7</sup> This includes activity 14 – wearing apparel.

are also reported in Botrić (2012), who analysed intra-industry trade between the European Union and Western Balkan countries and concluded that inter-industry trade accounts for most of the trade.

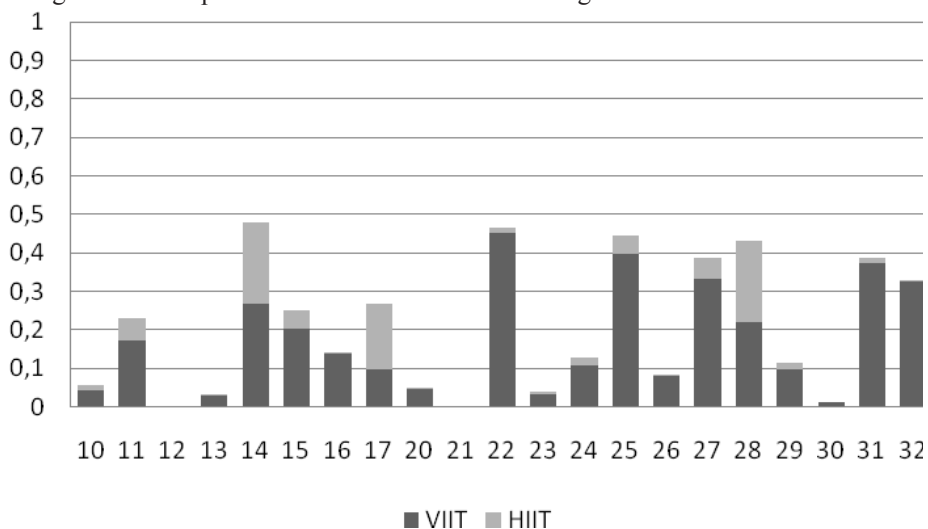
In following discussions, we analyse the vertical and horizontal component of the intra-industry trade.

The results for each country are subsequently presented first for the pre-crisis period, following by a crisis period. In each case the column represents the share of intra-industry trade in total trade of the economic activity. The column is disaggregated into the vertical and horizontal intra-industry trade segment. Thus, the analysis enables comparison of different economic activities within each analysed country, comparison of economic activities within country in two analysed periods, and comparison of economic activities between countries in two analysed periods.

#### **4.1 Bosnia and Herzegovina**

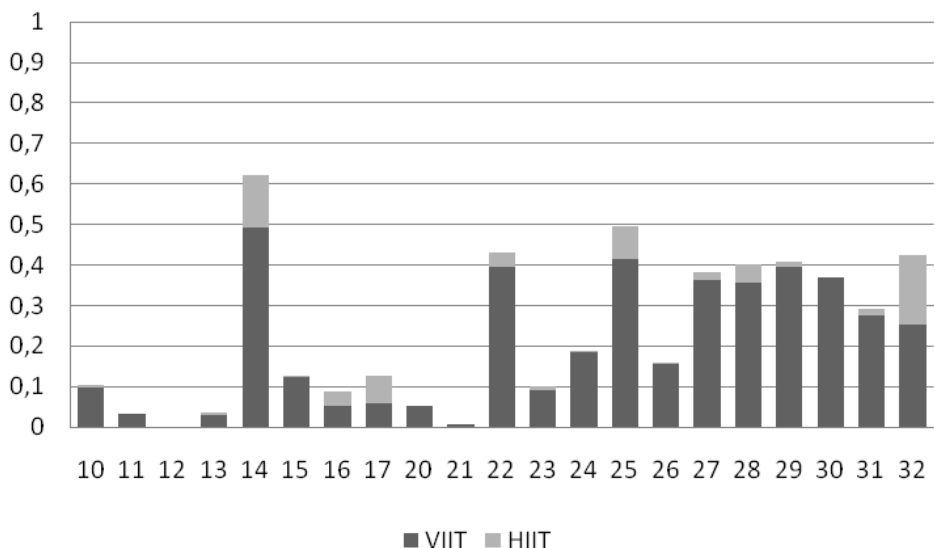
The data presents that the highest share of intra-industry trade between Bosnia and Herzegovina and Eurozone in the year 2007 has been recorded in activities 14 – wearing apparel, 22 – rubber and plastic products and 25 – fabricated metal products, except machinery and equipment. Similar is also in the year 2012. Also, those activities, except rubber and plastic product, recorded increase in the share of IIT in 2012. However, data shows that between 2007 and 2012 the pattern in several activities has changed considerably, and some activities that had only negligible share of IIT in 2007, recorded a much higher share in 2012 (for example, 30 – other transport equipment). Similarly, some activities that had higher share in 2007, recorded negligible share of IIT in total trade with the Eurozone five years later (for example, activity 11 – beverages). The data clearly shows that there are underlying changes in the structure of trade. However, based on the available dataset, we are not able to indicate that this marks a permanent change in trend.

Figure 3: Trade patterns between Bosnia and Herzegovina and Eurozone in 2007



Source: authors' calculations based on COMEXT database.

Figure 4: Trade patterns between Bosnia and Herzegovina and Eurozone in 2012



Source: authors' calculations based on COMEXT database.

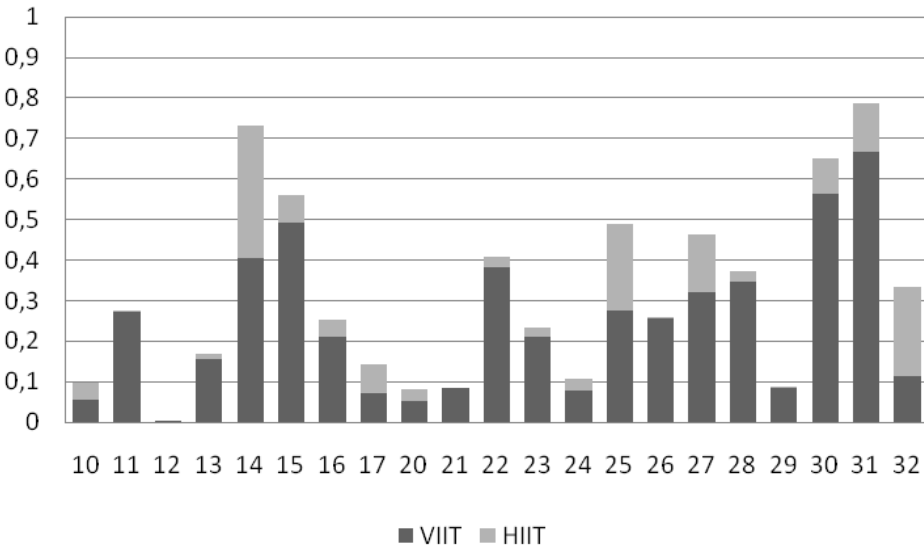
The data also reveals that in most industries in Bosnia and Herzegovina the share of horizontal IIT is negligible, regardless of the analysed year. Vertical

intra-industry trade dominates in all economic activities, implying that similar products that are being traded between Bosnia and Herzegovina and Eurozone within industries are of different quality. Comparison of years 2007 and 2012 does not indicate to any clear trend in improving trading patterns of Bosnia and Herzegovina with Eurozone countries, in terms of clear increase in horizontal intra-industry trade share.

#### 4.2 Croatia

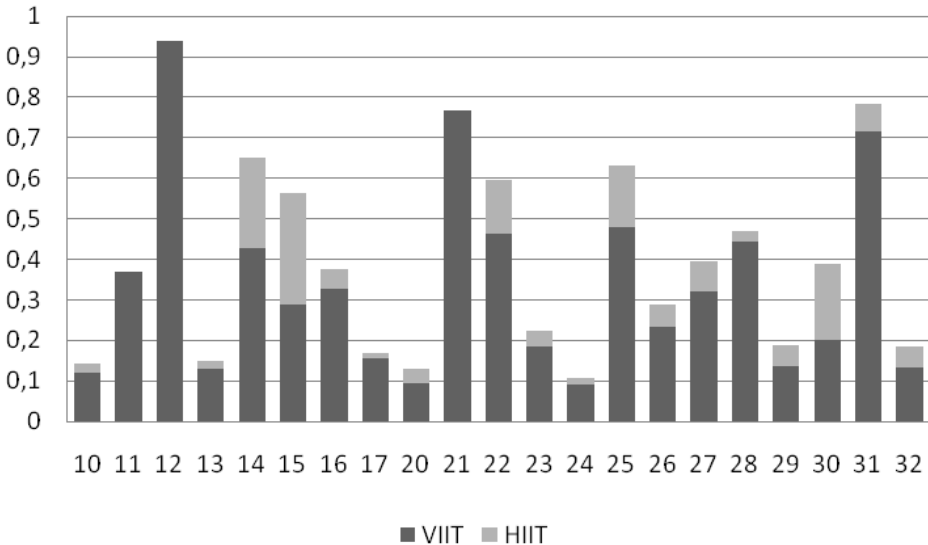
Although the share of IIT is higher in case of Croatia in almost all economic activities than in case of Bosnia and Herzegovina, the overall pattern is still the same. The trade is dominated by vertical trade, even though some industries do exhibit at last some degree of horizontal intra-industry trade in 2012, such as activities 14 – wearing apparel and 15 – leather and related products. However, when 2007 and 2012 are compared, no systematic trend can be observed. About half of economic activities recorded (mostly mild) increase in horizontal intra-industry trade and about half recorded decrease. Thus, it does not seem that Croatia's accession period has been utilized for increasing more favourable trade patterns with European Union countries.

Figure 5: Trade patterns between Croatia and Eurozone in 2007



Source: authors' calculations based on COMEXT database.

Figure 6: Trade patterns between Croatia and Eurozone in 2012



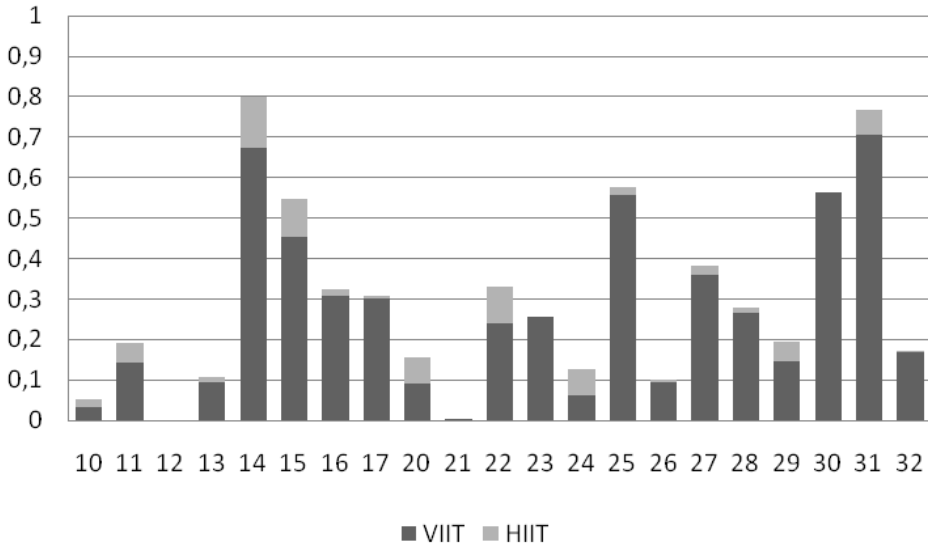
Source: authors' calculations based on COMEXT database.

When comparing 2007 and 2012, it is interesting to note the striking increase in the share of intra-industry trade of economic activity 12 – tobacco products. Precisely this industry was strictly monitored in the pre-accession period in Croatia, due to the alleged high degree of shadow economy in cross-border trading (in particular with Bosnia and Herzegovina). This implies that at least part of the results can be attributed to increased statistical coverage of the trading relationship, and not the actual structural changes within the analysed economies. Also, there is the striking increase in the share of IIT of economic activity 21 – basic pharmaceutical products between 2007 and 2012, due to increased efforts of Croatian pharmaceutical industry to substitute the loss of sales on domestic market with exports. However, it has to be noted that IIT for this economic activity comprises solely from vertical intra-industry trade. The reason for this can be found in the structure of Croatian pharmaceutical industry, which almost exclusively produces and exports generic medicines, that are cheaper, while Croatia imports, besides other generic medicines, original medicines, which are much more expensive and in total sales on Croatian market accounted for more than 60 percent in 2012, with rising trend.

### 4.3 Serbia

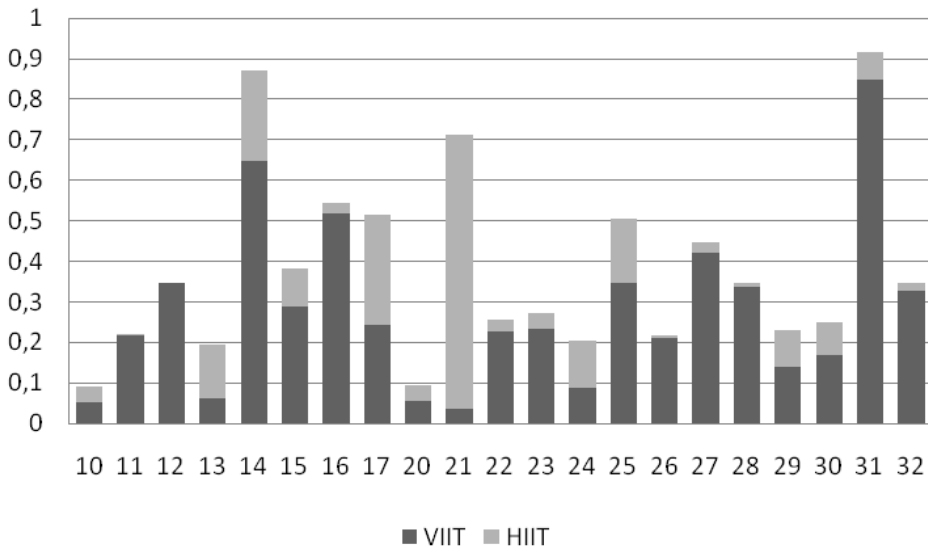
The activities in which Serbia had the highest share of intra-industry trade are traditionally labour-intensive activities: 14 – wearing apparel and 31 – furniture. These activities are also important in two other analysed countries. However, as in Bosnia and Herzegovina and Croatia, the share of horizontal intra-industry trade in Serbia is rather low and vertical IIT accounts for most of the intra-industry trade. In most economic activities horizontal trade does not exceed 10 percent of total trade in specific economic activity and only in one activity (21 – basic pharmaceutical products) it exceeds two thirds of total trade. The result that vertical IIT accounts for most of the intra-industry trade in Bosnia and Herzegovina, Croatia and Serbia is similar to findings for Central and Eastern European countries. Freudenberg and Lemoine (1999) already before the accession of Central and Eastern European countries to the EU established that intra-industry trade between Central and Eastern European economies and the EU is mostly vertical. Even though accession to the EU to some extent increased intra-industry trade between Central and Eastern European countries and the EU, vertical IIT still accounts for most of the intra-industry trade (Dautović, Orszaghova, and Schudel, 2014; Toporowski, 2010). However, it has to be emphasised that even though Central and Eastern European countries do not have high share of horizontal IIT, they still had even during the accession period higher share of horizontal IIT than Bosnia and Herzegovina, Croatia and Serbia. The findings that Central and Eastern European countries, as well as Bosnia and Herzegovina, Croatia and Serbia, have relatively low share of horizontal IIT is indeed in line with the economic theory, which assumes that intra-industry trade between more and less developed countries will be mostly of vertical type.

Figure 7: Trade patterns between Serbia and Eurozone in 2007



Source: authors' calculations based on COMEXT database.

Table 8: Trade patterns between Serbia and Eurozone in 2012



Source: authors' calculations based on COMEXT database.

For Serbia, another interesting development can be observed in economic activity 21 – basic pharmaceutical products. In 2007, the share of IIT was negligible. In 2012, this industry recorded relatively high share of IIT, with also a high share of horizontal IIT. This would suggest that the important restructuring within this industry occurred, that enabled changes in trading patterns.

## 5. CONCLUSIONS

The main focus of this paper was the analysis of intra-industry trade between three neighbouring countries and Eurozone. The trade patterns have been analysed on the level of economic activities, providing previously unavailable structural insight into the evolvement of trading relationship. The overall conclusion is that most industries in analysed countries recorded low share of intra-industry trade, not many industries exhibit strong positive trends. The industries that seem to have higher degree of intra-industry trade are mostly labour-intensive. Furthermore, high share of vertical intra-industry trade indicates that in most cases the trade relationship resembles trade between economically unequal partners.

Relatively low intra-industry trade between analysed countries and Eurozone could be an important determinant of the sustainability of their current account balances as well as a symptom of vulnerability which could lead to external imbalances. Dautović, Orszaghova, and Schudel (2014) who analyse intra-industry trade between Central, Eastern and South-Eastern European countries and EU15 argue that indeed the increase in IIT leads to improvement in the current account balance between these two groups of countries, but also that improvement in IIT share might have positive effect on external competitiveness and could lead to more symmetric shocks between countries and thus to their higher business cycle synchronisation.

Hence, future research efforts should encompass the reasons behind rather unfavourable trade patterns of analysed countries with the European Union. Certainly, from the policy perspective it would be important to detect which segments of the overall economic system require change in order to increase the competitiveness (at least in specific economic activities). Through such policy-induced reforms, the nature of trade relationship between analysed economies and European Union will eventually also change.



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## **TRGOVAČKI OBRASCI INDUSTRIJSKE TRGOVINE SA EUROZONOM I EKONOMSKA KRIZA: BOSNA I HERCEGOVINA, HRVATSKA I SRBIJA**

*Prethodno priopćenje*

### **Sažetak**

Dva su različita procesa imala utjecaj na trgovinske odnose između Europske unije i zemalja Zapadnog Balkana – različita brzina integracije i posljedice globalne ekonomske krize. Lakoća međunarodne razmjene je i cilj i posljedica procesa ekonomske integracije. Povećanjem međunarodne razmjene između trgovinskih partnera unutar unije očekuju se, kroz konkurentski mehanizam, pozitivni učinci za cijelu uniju. Međutim, ti učinci se očekuju u prosjeku i ne za svaku pojedinu zemlju ili svaku ekonomsku aktivnost.

Budući da su učinci krize asimetrično rasprostranjeni po Europskoj uniji, mi smo se usredotočili na razvoj bilateralnih trgovinskih obrazaca. Preciznije, analiziramo trgovinske obrasce s članicama eurozone kako bi izbjegli dodatnu diskusiju o učincima tečajnih politika unutar ekonomske unije. Korištenjem pokazatelja o intra-industrijskoj razmjeni uspoređujemo ishode za tri zemlje u regiji – Bosnu i Hercegovinu, Hrvatsku i Srbiju. Analiziramo pokazatelje ukupne intra-industrijske razmjene, vertikalne intra-industrijske razmjene i horizontalne intra-industrijske razmjene na razini dvije znamenke NKD klasifikacije kako bi identificirali ekonomske aktivnosti u kojima je svaka od navedenih zemalja ostvarila viši stupanj integracije. Važno je istražiti trgovinske obrasce na razini ekonomskih aktivnosti kako bi unaprijedili raspravu o konkurentnosti, pogotovo onu vezanu uz hipotezu ujednačene tranzicije (eng. smooth transition hypothesis). Ova hipoteza tvrdi da ako intra-industrijska razmjena (i. e. simultani izvoz i uvoz sličnih proizvoda) ima veći udio u ukupnoj razmjeni između zemalja, tada će troškovi povezani s integracijom biti manji nego u slučajevima kada je udio inter-industrijske

razmjene relativno visok. Uspoređujući rezultate prije i nakon (tijekom) krize mi indirektno težimo identificirati pobjednike i gubitnike u ekonomskim sektorima u analiziranom razdoblju. Pretpostavka je da ako je ekonomski sektor povećao udio bilateralne intra-industrijske razmjene, onda je taj sektor uspio izdržati i veće konkurencijske pritiske povezane s integracijskim procesom i smanjenu potražnju uzrokovanu ekonomskom krizom.

Rezultati pokazuju da je većina ekonomskih sektora u analiziranim zemljama zabilježila nisku razinu intra-industrijske razmjene te da je tek nekoliko sektora imalo snažne pozitivne trendove. Sektori koji imaju veći stupanj intra-industrijske razmjene su većinom radno intenzivni. Nadalje, visok udio vertikalne intra-industrijske razmjene pokazuje da u većini slučajeva trgovinska razmjena slični razmjeni između ekonomski nejednakih partnera.

**Ključne riječi:** intra-industrijska razmjena, ekonomske aktivnosti, Bosna i Hercegovina, Hrvatska, Srbija

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