

STABILIZATION AND ASSOCIATION AGREEMENT IMPACT ON CORN SEED TRADE BETWEEN SERBIA AND EU

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Abstract

Aiming to track the implementation of the Stabilisation and Association Agreement with the European Union, there the mutual trade exchange of agro-industrial products was analysed, first of all the trade with seed corn, which fell in line with the most important agro-industrial products of Serbia in trade with the European Union. In order to track the relative changes in trade exchange value, an eleven-year-lasting period was analysed by using the comparative advantage model in international trade, while the absolute data values were shown through a prism of constant prices. There were used the official data of the European Union, as well as the official data of the Republic Statistical Office.

Key words: revealed comparative advantage, agro-food trade, EU, Serbia, corn seed

Introduction

As a strategic goal of Serbia, EU accession process significantly influences mutual trade, which therefore influences their comparative advantages. Historically, trade of agro-industrial products has always been a bottleneck in international trade liberalization process which required specific negotiation approach. Trade liberalization between Serbia and EU was defined in Stabilization and Association Agreement (SAA) (Official Gazette, 83/2008) with aim to provide full liberalization of trade relations with special emphasis on agro-industrial products⁴. For

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⁴ Certain number of products were not subjected to SAA such as raw tobacco, raw and unrefined sugar and sunflower oil for human consumption which kept the same level of customs duties as before ITA implementation (Katić et al. 2008)

Serbia, as dominantly agricultural state, the importance of trade liberalization draws attention not only to agricultural producers, but also to the public and especially to policy makers.

Even though Serbia has positive records in trade of agro-industrial products with EU (Stegić, 2016), Serbia is import-dependent even though production potential exists which could substitute at least a part of imported goods. One of those products reflects to corn seed, SITC 04410 which belongs to the group of most significant agro-industrial trade products with EU.

Material and methods

The importance of monitoring changes in terms of relative export competitiveness, led to development of revealed comparative advantage model (Liesner 1958, Balassa 1965) established in the second half of the twentieth century. Even though Liesner can be considered as the first scientist that conducted researches in this field, popularization of comparative advantage model was brought by Balassa. Over the time the model evolved in order to solve identified weaknesses or to add more complexity to the model. Critics of the concept of “revealed comparative advantage” identified weaknesses in the theoretical and empirical sense (“Leromain and Orefice 2013”;; “Yeats in 1985”; “Laursen 2015”; “Dalum et al 1998”; “Jambor 2013”; “Benedictis, Tamberi 2001”). Besides critics, Balassa index is still widely used model of identification of industry specialization in international trade and over the time became the basis of many future models (Bowen 1983, Lafay, 1992 (Sanidas and Shin 2010), Kanamori 1964, Vollrath 1991 (Vollrath 1991), Dalum et al 1998, Proudman and Redding 1998, Hoenand Osterhaven 2006, Yu et al. 2009, Michaely 1962/67, CEPI 1983, Grubel and Lloyd 1971, (Ballance et al.1987), Laursen2015). Implementation of the revealed comparative advantage model in agriculture was applied by Vollrath 1989, Utkul and Seyman 2004, Fertõ and Bojnec 2007, Qinetiet al. 2009, Bojnec and Fertõ 2012, Torok and Jambor 2012, Raičević et al., 2012, Ignjatijević et al. 2014 and others.

In order to monitor changes in relative comparative advantage at the level of two countries, Market Oriented Revealed Trade Advantage (MORTA) was developed and implemented in the field of agriculture (Kuzman, Stegić, Subić, 2016). This model will be used for the purpose of this research covering not only trade, but also import and export.

MORTA index represents difference between *Market Oriented Symmetric Revealed Comparative Advantage- MSXA* and *Market Oriented Symmetric Import Penetration Advantage - MSIA*:

$$MORTA = MSXA_a^{i,m} - MSIA_a^{i,m} \quad (1)$$

$$MSXA_a^{i,m} = \left(\frac{MXA_a^{i,m} - 1}{MXA_a^{i,m} + 1} \right) = \frac{\left(\left(\frac{X_a^{i,m}}{X_n^{i,m}} \right) - 1 \right)}{\left(\left(\frac{M_a^{w,m}}{M_n^{w,m}} \right) + 1 \right)} \quad (2)$$

$$MSIA_a^{i,m} = \left(\frac{MIA_a^{i,m} - 1}{MIA_a^{i,m} + 1} \right) = \frac{\left(\left(\frac{M_a^{i,m}}{M_n^{i,m}} \right) - 1 \right)}{\left(\left(\frac{X_a^{m,w}}{X_n^{m,w}} \right) + 1 \right)} \quad (3)$$

where X represents export, M represents import, i represents country, m represents observed market, w represents group of countries that has trade relations with observed market m , a represents observed product, n represents all products.

If $MSXA > 0$, relative comparative advantage in export is revealed in relation to all exporters of an observed market m . If $MSIA < 0$, relative penetration level of the product a from market m in country i is low. Comparing to $MSXA$ and $MSIA$ which gives values in the range -1 to +1, $MORTA$ gives values ranging from -2 to +2. In cases where the $MORTA > 0$, relative comparative trade on observed market becomes a priority.

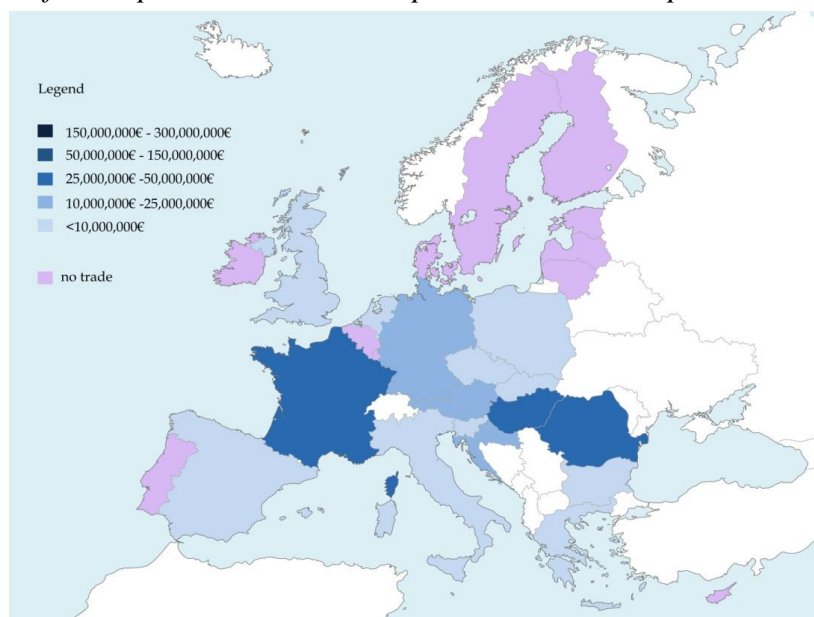
Results

Trade with seed corn in the European Union in observed period was realizing a value of 2.4 milliards EUR, where the EU countries were directed primarily to purchase within the EU. That is to say, 71.4% of trade is the result of turnover among the EU member countries, while 28.6% is the result of turnover with non-EU member countries. The importance of trade with seed corn in the European Union is at the level of 0.2% of share in total trade with overall agro-industrial products. The most important importers in EU are Germany, with import value of 2.1 milliard EUR and share in total import of 20.3% (share in import outside the EU amounts 5.3%, in internal 22.8%) and France, with import value of 1.7 milliards EUR and share of 16% in total import (share in

import outside the EU amounts 28.5%, in internal 13.9%). On the other hand, the most significant exporters of seed corn in EU are France, with export value of 5 milliards EUR and share of 47.4% in total export (share in export outside the EU amounts 30.5%, in internal 52.6%) and Hungary, with export value of 1.5 milliards EUR and share of 13.8% in total export (share in export outside the EU amounts 26.3%, in internal 9.7%).

Trade with seed corn with non-EU-member-countries records a surplus of 626 million EUR, along with the coverage of import by export of 143%. The most important EU partners in import outside the EU are Chile, with export value of 485.7 million EUR in observed period and the share in EU import outside the EU of 33.1% (share in total EU import amounts 4.7%) and the U.S.A. with the realized export value of 410 million EUR and the share of 27.9% (share in total EU import amounts 4%). Chile, as the most significant EU trade partner outside the EU in import of seed corn, records the growth of export value by an average annual rate of 4.6% with relatively strong variability of 53.3%, while the USA export decreases by a significant average annual rate of 11.1% during the period, and a relatively high variability of 56.1%. Serbia, with export value of 112.3 million EUR is not specifically important trade partner of EU, having in mind that it makes only 1.1% of total EU import (7.7% is the share of Serbia in import of EU outside the EU borders).

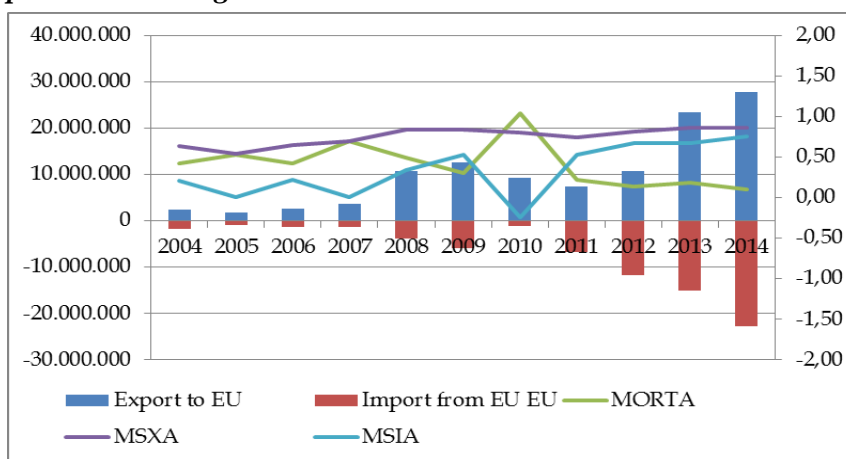
Figure 1 – Description of trade exchange of SITC 04410 between Serbia and EU for the period 2004-2014, expressed in constant prices, in EUR



Source: Calculation of authors based on combined data of Eurostat and RSO

Although Serbia is not a significant EU partner in trade with seed corn, it is about the product which is on the list of the most important agro-industrial products of Serbia in trade with the EU. In total exchange of agro-industrial products with the EU in observed period, trade with seed corn records a value of 184.8 million EUR expressed in constant prices, with the share in exchange of agro-industrial products of 1.4%. In mutual trade, the exchange was primarily based on seed corn export from Serbia to the EU (60.8% of trade volume was a result of Serbian export to the EU market), where the most significant partners were Germany, France, Austria and Croatia (*Figure 14*). The relative comparative trade advantage in the trade with the EU was noticed in all observed years, along with the noticed downward trend values of *MORTA* index during the period (*Graph 20*).

Graph 1 – Volume of SITC trade 04410 between Serbia and EU in the period 2004-2014, expressed in constant prices with the belonging indices of comparative advantage



Source: Calculation of authors based on combined data of Eurostat and RSO

The lowest recorded value of *MORTA* index was noticed in 2014 and it was amounted 0.11, while the highest value of *MORTA* index was recorded in 2010 (1.03). The relative comparative advantage of Serbia in export to the EU market is relatively high and it was recording an uptrend value of *MSXA* index during that period. The highest value of *MSXA* index was noticed in 2014, when it was amounted 0.87, and the lowest recorded values of *MSXA* index were noticed in the beginning of this period, in 2005 (value of 0.57). During the observed period, a value of Serbian export to the EU market was recording a significant increase by an average annual rate of 29.2% and strong variability of 79.8%. An increasing value of *MSXA* index points out to the increase of relative significance of Serbian export to the EU market. On the other hand,

regarding trade between Serbia and the EU, Serbia records also relatively high penetration level from the EU markets, when it is about seed corn import, taking into consideration that values of *MSIA* index were positive during this period (except in 2010), with noticeable upward trend of index value. During this period, a value of seed corn import from the EU increases by an average annual rate of 33.9%, with strong variability of 103.1%, which appears as a consequence of significant increase in import value in the last observed years.

Implementation of SAA was contributed to a gradual reduction of customs duties on import of basic and other hybrids of seed corn to the complete cancellation in the last year of liberalization, except in case of double and “top cross” hybrids, as well as three-line hybrids, in which registers a gradual reduction of 30% in the last year of liberalization. Exactly during this period of SAA implementation, there has come to decrease of the relative level of comparative trade advantage of Serbia, primarily as a result of the relative penetration level increase in import.

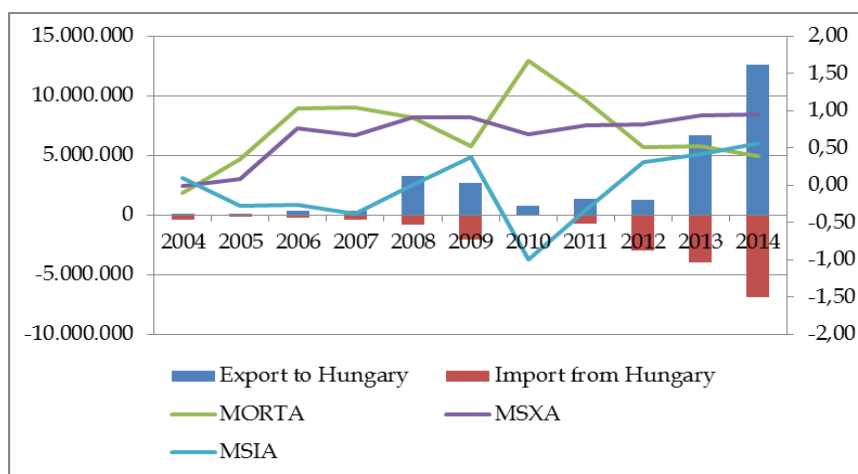
Serbia, in trade with the EU countries, realizes prevalently the relative comparative trade advantage, as in the case with the states, which are the most significant in the SITC exchange 04410. A negative value of *MORTA* index was noticed only in trade with Slovakia and Italy, where only Italy records a significant share in mutual trade of 4.9%. Description of the relative comparative advantage of Serbia in regard to the most significant trade partners on the EU market in case of SITC 04410 is given below.

The most important trade partner of Serbia among the EU countries in trade with seed corn is Hungary with the realized trade value of 48.2 million EUR, which makes 26.1% of total trade with seed corn, of which 61.2% is a result of Serbian export. Except in the first observed year, during the whole period we can notice the relative comparative trade advantage with significant changes of *MORTA* index during the period (*Graph 2*). The highest values of *MORTA* index were recorded in the middle of the observed period, while in the last observed years this index value was decreased, and the lowest index value was noticed in 2014. The relative comparative advantage in Serbian export to the Hungarian market was noticed during the entire period, with the present upward tendency of index value. The highest index value was recorded in 2014 and it was amounted 0.96. Increase of *MSXA* index value was mainly a result of increasing value of seed corn export to the Hungarian market after a very significant average annual rate of 56.6%, with strong variability of 136.8%, as a consequence of a significant increase in export value in the last observed years. On the other hand, in trade between Serbia and Hungary, the relative penetration level varies during the observed period of time, so in some

years there was noticed a relatively low penetration level, while in other was noticed a relatively high penetration level. The lowest value of *MSIA* index was recorded in 2010 and was amounted -0.99 as a consequence of the lowest recorded import value, while in 2014 there was recorded the highest index value of 0.56, when the highest import was noticed, too. A value of seed corn import from Hungary was increasing during the period after an average annual rate of 30.1%, with strong variability of 121.7% as a consequence of significant increase in import value in the last observed years.

Hungary is export-oriented country and 56.3% of export value realizes in trade with the EU member countries. Regarding import, Hungary is prevalently directed to import from the EU member countries, which make 78.4% of total import. Hungarian import increases by an average annual rate of 8.3% with the modest variability of 37.2%, considering that the decline of import value is noticeable in trade with non-EU member countries, along with significant fluctuations, while the increasing tendency is noticeable in case of importing from the EU member states⁵.

Graph 2 – Volume of SITC trade 04410 between Serbia and Hungary in the period 2004-2014, expressed in constant prices with the belonging indices of comparative advantage



Source: Calculation of authors based on combined data of Eurostat and RSO

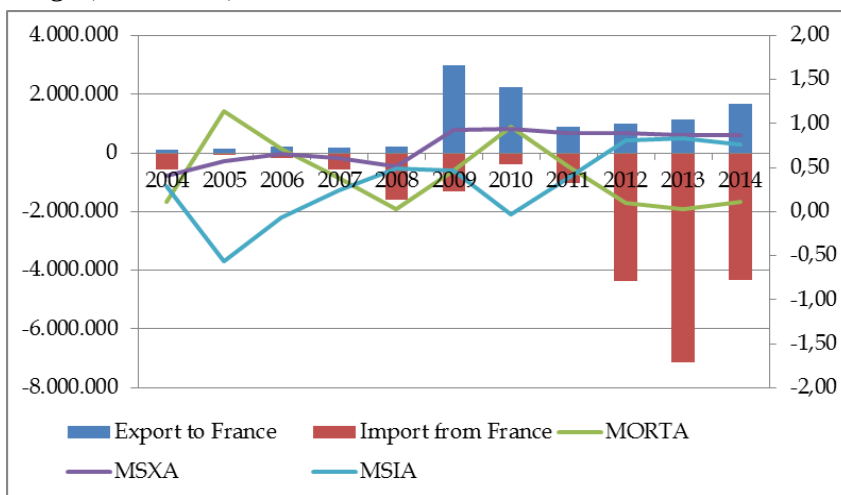
⁵ The most important exporter to Hungarian market is France, with the realized export value of 209.5 million EUR, which makes 46% of total import of seed corn in Hungary, with an average annual export value growth rate of 13.9% and moderate variability of 41.2%. Besides France, a significant exporter to the Hungarian market is Romania with the realized export value of 80.7 million EUR, which makes 17.7% of total Hungarian seed corn import. Romanian export value increases by an average annual rate of 25%, with relatively strong variability of 66.8%.

France, with its trade value of 32.3 million EUR and the share in total trade with seed corn of 17.5%, is the second best trade partner of Serbia. However, unlike Hungary, trading with France is primarily import-oriented taking into consideration that import makes 66.6% of total mutual trade with seed corn. In all these observed years, we can notice the relative comparative trade advantage with some important changes in *MORTA* index value during the period (*Graph 3*). The highest values of *MORTA* index were noticed in 2005 and 2010, while the lowest values were recorded in the last observed years, contributing to downward trend of index value, during the period. On the export side, there was noticed the relative comparative advantage of Serbia on Hungarian market, along with noticeable upward trend of *MSXA* index value, which was also the highest in the second half of the observed period of time. The export value grows by an average annual rate of 33.1%, with strong variability of 94.2%. On the other hand, in trade between Serbia and France the relative penetration level varies during this period, with noticeable upward trend of *MSIA* index value. Relatively low penetration level was noticed in 2005, 2006 and 2010, while the highest relative penetration level was noticed in the last observed years, as a consequence of significant growth of seed corn import value on the Serbian market. The import value of seed corn from France, as the biggest exporter to the EU, records a significant increase during the observed period by an average annual rate of 41.6%, with strong variability of 111.9% as a consequence of significant increase in import value in the last observed years.

France is export-oriented country and 89% of its export value realizes in trade with the EU member countries. Speaking of import, France is predominantly oriented to import from the EU member countries, which make 74.7% of total import. French import was relatively stable during this period and it was increasing by an average annual rate of 2.2% and relatively weak variability of 28.2% considering that the import decrease was noticed in trade with non-EU-member countries, with significant fluctuations during this period, while considering the import from the EU member countries, there was present upward trend⁶.

⁶ France, as the second best importer of seed corn in the EU, has a wide range of importer partners. The most significant French partner in import is the Netherlands with realized export value of 281.5 million EUR and the share of France in total import of 17.1%. Right behind the Netherlands, with export value of 210.4 million EUR and the share in total import of 12.7%, Hungary is, at the same time, one of the most important exporters in the EU. Talking about the borders outside the EU, the most significant exporters are Chile with the realized export value of 171 million EUR with share of 10.4% and the U.S.A. with the realized export value of 129.4 million EUR and the

Graph 3 - Volume of SITC trade 04410 between Serbia and France, expressed in constant prices with the belonging indices of comparative advantage (2004-2014)



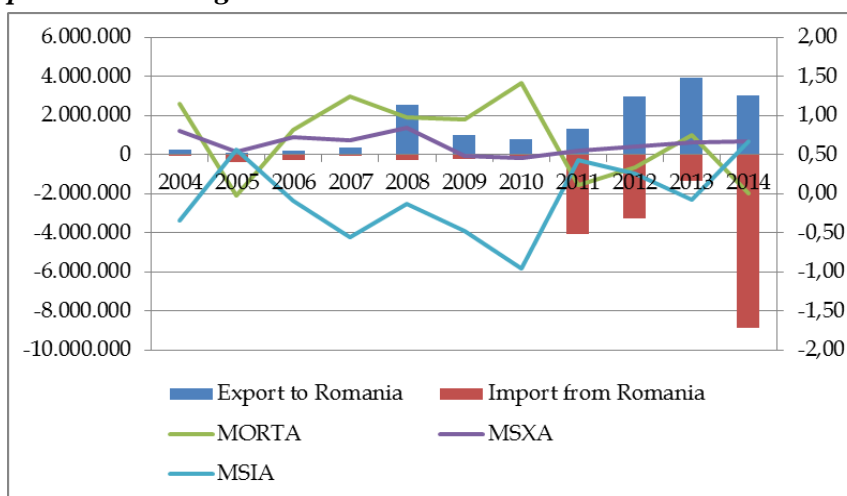
Source: Calculation of authors based on combined data of Eurostat and RSO

Neighbouring Romania is the third most significant partner of Serbia in trade with seed corn, with the realized trade value of 35.2 million EUR, which makes 19.1% of total trade with seed corn between Serbia and EU. Trading between Serbia and Romania is mainly import-oriented with the import share in total trade of 53.4%. Except in 2005, during the entire period there notices the relative comparative trade advantage in Serbian trade with Romania, with noticeable significant fluctuations of *MORTA* index value during this period. The last observed years recorded the lowest values of *MORTA* index, which significantly contributed to downward trend of index value during the observed period. The lowest index value was recorded in 2014 (*Graph 4*). The relative comparative advantage of Serbia in export to the Romanian market was noticed in all observed years, considering that the *MSXA* index value records downward trend during this period, and after a drastic decrease of export value in 2009, there was noticed increasing trend in the second half of the observed period. The highest recorded value of *MSXA* index was noticed in 2008 and was amounted 0.85 with the realized export value of Serbia of 2.6 million EUR. The value of Serbian export in the observed period increases after a significantly high average annual rate of 40.6% with strong variability of 87.8%, while Serbian share in total import of seed corn of Romania is at the level of 4.4%. On the other hand, in trade between Serbia and Romania, the

share of 7.8%. The import value of the most significant partners within the EU is growing, while import from the most significant partners outside the EU is declining.

relative penetration level varies during this period with noticeable upward trend of *MSIA* index value. Relatively low penetration level was noticed in all observed years, except in 2005, 2011, 2012 and 2014. Relatively high penetration level originates as a consequence of significant increasing import value in the last observed years. That is to say, the import value of seed corn from Romania records significant growth during this period after an average annual rate of 34.4% with strong variability of 153.7%. The highest import value was recorded in 2014 and was amounted 8.9 million EUR or 47.2% of total import from Romania in the whole observed period.

Graph 4 – Volume of SITC trade 04410 between Serbia and Romania in the period 2004-2014, expressed in constant prices with the belonging indices of comparative advantage



Source: Calculation of authors based on combined data of Eurostat and RSO

Romania is export-oriented country and 49% of export value realizes in trading with the EU member countries. Regarding import, Romania is prevalently oriented to import from the EU member countries, which make 86.5% of total import. Import of Romania is dynamic and grows after an average annual rate of 26.5% with relatively strong variability of 60.5%. Increase of import value is noticeable in trade with the EU member countries and non-EU-member countries, but it is evident that trading with the EU member countries almost completely dominates, with noticeable higher growth rate of import value⁷. Serbia, in trade with the EU

⁷ The most important partners of Romania in import of seed corn are France and Hungary, which together make almost 2/3 of total Romanian import, and which are the biggest exporters to the EU at the same time. In the observed period, a value of corn import from France amounts 146.4 million EUR, which makes 38.8% of total import of Romanian seed corn. In the same period, a value of import from Hungary amounts 93.1 million EUR, or 24.7% of total seed corn import. There is especially important import of seed corn in Romania from

countries, realizes mainly the relative comparative trade advantage. Besides these mentioned trading partners, it is important to emphasize also the trade corporation with Austria and Croatia, which makes 10% and 9.8% of total trading of Serbian seed corn with EU, respectively. In case of Austria, Serbia records the relative comparative trade advantage in all observed years, with significant growth of the relative comparative advantage in export, but also with noticeable increasing trend of *MSIA* index value, which achieves positive values in the last observed years, as a consequence of import value increase (except in 2014). As a result of significant increase in import value we can find achieving almost maximum values of *MSXA* index in the last observed years. On the other hand, in case of Croatia, Serbia realizes the relative comparative advantage in all years except in 2004 and 2009, when there the highest values of *MSIA* index were recorded. As Serbia has a significant growth of export value to the Croatian market, the trend of *MSXA* index values increases gradually, reaching the highest recorded values in the last years of the observed period.

Conclusions

Description of a value of trade with seed corn between Serbia and the European Union in the observed period (2004-2014) was pointed out to a fact that there came to more significant increase of mutual trade exchange in time of SAA implementation, with simultaneous more significant changes of the relative level of comparative advantage. In other words, Serbia had ensured the growth of export value in the period of SAA implementation, but at the same time, the significant increase of import value, which had contributed to increase and the relative level of comparative advantage in export and increase of the relative level of penetration, as well. However, trend of changes of the relative level of Serbian trade advantage points out to a gradual decline, as a consequence of more significant impact of the relative penetration level in import.

References

1. Ballance, R.H., Forstner H., Murray T. (1987): *Consistency tests of alternative measures of comparative advantage*, The Review of Economics and Statistics, vol. 69, no.1, pp.157-161, MIT Press, Cambridge, MA 02142 USA (available at: <http://www.jstor.org/stable/1937915>)

France, taking into consideration that import value increases after a significantly high average annual rate of 36.9%, with strong variability of 76.7%, while in case of import from Hungary, there was noticed significant, but slightly lower average annual growth rate of 14.4%, along with the modest variability of 43.4%.

2. Balassa, B. (1965): *Trade Liberalization and "Revealed" Comparative Advantage*, The Manchester School, vol.3, issue 2, pp.99–123, John Wiley & Sons Ltd, PO22 9NQ UK (available at: <http://onlinelibrary.wiley.com>).
3. Benedictis L.D., Tambari M. (2001): *A note on the Balassa Index of Revealed Comparative Advantage*, Social Science Electronic Publishing Inc., NY, USA (available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=289602).
4. Bojnec, Š., Fertő, I. (2012): *Complementarities of trade advantage and trade competitiveness measures*, Applied economics vol.2, no.44(4), pp.399-408., Routledge Taylor & Francis Group Ltd, Oxford, UK (available at: <http://onsearch.lancs.ac.uk>).
5. Bowen, Harry P.(1983): *On the Theoretical Interpretation of Indices of Trade Intensity and Revealed Comparative Advantage*, WeltwirtschaftlichesArchiv, vol. 119, no.3, pp. 464-472, Springer, NY, USA (available at: <http://www.jstor.org/stable/40439150>).
6. Dalum, B., Laursen, K., Villumsen, G. (1998): *Structural change in OECD export specialisation patterns: de-specialisation and 'stickiness'*, International Review of Applied Economics, vol.12, no.3, pp.423-443, Routledge Taylor & Francis Group Ltd, Oxford, UK (available at: <http://www.tandfonline.com/>).
7. *Eurostat Database on International Trade*, European Commission (available at: <http://ec.europa.eu/eurostat/web/international-trade/data/database>), database accessed during March-July 2015
8. *Export and Import Price Index Manual – Theory and practice*, International Monetary fund, 2009 Washington D.C.
9. Fertő, I., Bojnec Š. (2009): *Comparative advantages in agro-food trade of Central European and Balkans' countries with the European Union*, Food policy, vol.34, no.5, pp.417-425, Elsevier B.V., Philadelphia, USA (available at: <https://www.researchgate.net>).
10. Grubel, H.G., Lloyd, P.J. (1971): *The Empirical Measurement of Intraindustry Trade*, The Economic Record, vol.47, pp.494-517, The Economic Society of Australia, Willoughby, Australia (available at: <http://onlinelibrary.wiley.com>).
11. Ignjatijević, S., Čavlin, M., Đorđević, D. (2014): *Measurement of comparative advantages of processed food sector of Serbia in the increasing the export*, Economics of Agriculture, vol.3, pp.677-694, Institute of Agricultural Economics, Belgrade, Serbia (available at: <http://www.iep.bg.ac.rs/>).
12. Jambor A. (2013): *Comparative advantages and specialization of the Visegrad countries agri-food trade*, ActaOeconomica et Informatica, vol.

- XVI, no. 1, pp. 22–34, Nitra, Slovakia (available at: <http://ageconsearch.umn.edu>).
13. Katić, B., Popović, V., Milanović, R.M. (2008): *Influence of stabilization and association agreement to the agriculture of the Republic of Serbia*, Economics of Agriculture, vol.4, pp. 339-354, Institute of Agricultural Economics, Belgrade, Serbia (available at: <http://www.iep.bg.ac.rs/>).
 14. Kuzman, B., Stegić, M., Subotić, J. (2016): *Market oriented approach of revealed comparative advantage in international trade*, Economics of Agriculture, Institute of agricultural economics, Belgrade, Serbia 1/2016, p.247-260
 15. Leromain, E., Orefice, G. (2013): *New Revealed Comparative Advantage Index: dataset and empirical distribution*, CEPPII, no.2013-20, Paris, France (available at: <http://www.cepii.fr>).
 16. Laursen, K (2015): *Revealed comparative advantage and the alternatives as measures of international specialization*, Eurasian Business Review, no.5, pp.99-115, Springer, NY, USA (available at: <http://www.druid.dk>).
 17. Liesner, H.H. (1958): *The European Common Market and British industry*, The Economic Journal, vol.68: pp.302-316, Royal Economic Society, London, UK (available at: <https://www.researchgate.net/>).
 18. Michaely, M. (1962): *Concentration in international trade*, North-Holland Publishing Company, Amsterdam, Netherland (available at: <http://www.abebooks.com/>).
 19. Raičević V., Ignjatijević S., Matijašević J.(2012): *Economic and legal determinants of export competitiveness of the food industry of Serbia*, Industrija vol.40, no.1, pp.201-226, Economic Institute, Belgrade, Serbia (available at: <http://www.ecinst.org.rs/industrija>).
 20. *Database of international trade*, Serbian Statistical Office, (available at: <http://webrzs.stat.gov.rs/WebSite/public/ReportView.aspx>), database accessed during May-September 2015.
 21. Sanidas E., Shih Y. (2010): *Comparison of Revealed Comparative Advantage Indices with Application to Trade Tendencies of East Asian Countries*, 9th Korea and the World Economy Conference, New Economic Order after the Global Financial Crisis, Incheon, Korea, (available at: <http://www.akes.or.kr/>).
 22. Stegić M. (2016): *Spoljntrgovinska razmena agroindustrijskih proizvoda između Srbije i Evropske unije*, Ekonomija-teorija i praksa, IX broj I, Univerzitet privredna akademija u NovomSadu, Fakultet za ekonomiju i inženjerski menadžment, Srbija, pp.1-18
 23. Torok, A., Jambor, A. (2012): *Changes in Agri-Food Trade of the New Member States since EU Accession–A Quantitative Approach*, IAAE of

- Agricultural Economists, Triennial Conference, Foz do Iguacu, Brazil, 2012, pp. 1-19. (available at: <https://www.researchgate.net/>).
24. *Methodology of statistics in international trade*, Serbian Statistical Office, Belgrade, Serbia (available at: <http://webrzs.stat.gov.rs/>).
25. *Statistical Paper - Standard International Trade Classification (SITC), Rev. 4*, Series M No.34/Rev.4, United Nations Statistic Division (UNSTAT), 2006, NY, USA (available at: <http://unstats.un.org/>).
26. *Strategy of Agriculture and Rural Development of Republic of Serbia 2014-2020*, Ministry of Agriculture and Environmental Protection of Republic of Serbia, 2014, Belgrade, Serbia (available at: <http://uap.gov.rs/>).
27. *User guide on European statistics on international trade in goods*, Eurostat, 2014 edition, Luxembourg (available at: <http://ec.europa.eu/>).
28. Utkulu, U., Seymen, D. (2004): *Revealed Comparative Advantage and Competitiveness: Evidence for Turkey vis-à-vis the EU/15*, European Trade Study Group 6th Annual Conference ETSG, Nottingham, UK (available at: <http://www.etsg.org/>).
29. Vollrath, T.L. (1991): *A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage*, *Weltwirtschaftliches Archiv*, vol.127, no.2, 265–280, Springer, NY, USA (available at: <http://www.jstor.org/stable/40439943>).
30. Vollrath, T.L. (1989): *Competitiveness and Protection in World Agriculture*, Agricultural Information Bulletin No. 567. U.S. Dept. of Agriculture, Economic Research Service. Washington, D.C., USA (available at: <http://naldc.nal.usda.gov/>).
31. Yeats, A.J. (1985): *On the appropriate interpretation of the revealed comparative advantage index: implications of a methodology based on industry sector analysis*, *Weltwirtschaftliches Archiv*, vol.121, no.1, pp.61-73 (available at: <http://www.jstor.org/stable/40439288>).
32. Qineti, A., Rajcaniova, M., Matejkova, E. (2009): *The competitiveness and comparative advantage of the Slovak and the EU agri-food trade with Russia and Ukraine*, *Agric. Econ.–Czech*, vol. 55, no. 8, pp. 375-383, Czech Academy of Agricultural Sciences, Prague, Czech Republic (available at: <http://www.agriculturejournals.cz/>).
33. *Zakon o potvrđivanju Sporazuma o stabilizaciji i pridruživanju između evropskih zajednica i njihovih članica, sa jedne strane i Republike Srbije, sa druge strane*, Službeni glasnik RS-Međunarodni ugovori, br. 83/2008, Beograd, Srbija
34. *Zakon o potvrđivanju Prelaznog sporazuma o trgovini i trgovinskim pitanjima između Evropske zajednice, sa jedne strane, i Republike Srbije sa druge strane*, Službeni glasnik RS-Međunarodni ugovori, br. 83/2008, Beograd Srbija