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TRADE AND EU ACCESSION: THE CASE OF SERBIA

Trgovina i pristup EU: primer Srbije

Abstract

This paper analyzes the export competitiveness of Serbia vis-à-vis European Union and the possible trade effects of Serbian EU accession scenario. We have observed several macroeconomic variables for determining the external position of Serbia. The trade effects of Serbia's EU accession scenario are evaluated using the partial equilibrium Global Simulation Model (GSIM). The evaluated scenario assumes complete trade liberalization between Serbia and EU, hence, the Serbia's adoption of EU tariffs towards the third parties. We find that Serbia is significantly lagging behind in terms of quality of export products and structural development. Regarding the agricultural products, the simulation predicts the increase in Serbian exports to the EU of 28% compared to pre-accession level. The predicted Serbian imports of agricultural products from the EU increased for 25%. The analysis suggests that Serbian non-agricultural exports to the EU will rise by 12.8% compared to initial trade flows, while the Serbian non-agricultural imports from the EU will rise by 13.4%. The trade simulation implies that Serbia will export more of both agricultural and non-agricultural products to the EU, but less to Russia and rest of the world. Moreover, the model implies that Serbia would be better off with joining the EU in terms of welfare indicators.

Key words: *export competitiveness*, *EU accession*, *trade liberalization*, *trade effects*, *agricultural products*, *non-agricultural products*

Sažetak

Rad analizira izvoznu konkurentnost Srbije u poređenju sa Evropskom unijom i potencijalne trgovinske efekte scenarija integracije Srbije u EU. Posmatrali smo odabrane makroekonomske pokazatelje u cilju određivanja eksterne konkurentnosti Srbije. Trgovinski efekti posmatranog scenarija su ocenjeni korišćenjem modela parcijalne ravnoteže pod nazivom *Global Simulation Model* (*GSIM*). Posmatrani scenario podrazumeva potpunu trgovinsku liberalizaciju između EU i Srbije, i shodno tome, primenu EU carinskih tarifa od strane Srbije prema trgovinskim partnerima. Zaključili smo da Srbija značajno zaostaje u pogledu kvaliteta izvoznih proizvoda i strukturnog razvoja. Simulacija predviđa povećanje izvoza poljoprivrednih proizvoda Srbije u EU za 28% u odnosu na period pre članstva. Predviđeni nivo uvoza poljoprivrednih proizvoda Srbije iz EU veći je za 25%. Analiza otkriva da bi srpski izvoz nepoljoprivrednih proizvoda u EU mogao biti veći za 12,8% u poređenju sa nivoom pre liberalizacije, dok bi uvoz istih proizvoda iz EU porastao za 13,4%. Trgovinska simulacija implicira da bi Srbija izvozila više u pogledu obe vrste proizvoda u EU, dok bi se izvoz u Rusiju i ostatak sveta smanjio. Takođe, model implicira da bi Srbija profitirala od članstva u pogledu indikatora blagostanja.

Ključne reči: *izvozna konkurentnost*, *pristupanje EU*, *trgovinska liberalizacija*, *trgovinski efekti*, *poljoprivredni proizvodi*, *nepoljoprivredni proizvodi*

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Introduction

On the 1st of March, 2012 Serbia has received a status of official candidate country for EU membership. At this point, it is certain that Serbia will become an EU member, probably, by the end of this decade. This means that Serbia would have to compete with some of the most developed economies in the world without a possibility to protect its industries and products. Thus, a new challenge is rising upon Serbian economy and its policy makers – how to compete and ensure economic growth in such a competitive environment. Whether the full EU membership will benefit or harm the Serbian welfare is becoming more and more important question.

Stiglitz [18] argues that what is essential driving force of the economic growth is country's ability to expand its export rather than implementation of the free trade policies. Therefore, this paper explores the external competitiveness of Serbia compared to EU countries and analyzes the possible trade and welfare effects for the simulated case of Serbian EU accession. In accord with recent ECB (European Central Bank) studies, this paper assumes the following definition of competitiveness: "the extent to which a country is able to compete in global markets". As Serbia gradually moves towards the EU membership, it is natural to compare its competitiveness with the EU 27 averages. For this purpose, we will use the study by *Orszaghova*, *Savelin*, and *Schudel* [12] as a guideline for choosing the competitiveness indicators. The trade effects of Serbia's EU accession scenario are evaluated using the global simulation model (GSIM) developed by *Francois* and *Hall* [3].

There is no clear attempt in the literature to address the issues of Serbian external competitiveness and the trade effects of economic integration directly. *Markovic* [8, p. 271] identified the primary products as the main part of Serbian exports applying only one aspect of the export competitiveness analysis – export product complexity, without the direct comparison to EU export structure. He concluded that the exports of technologically more complex products mostly depend on non-price attributes and the skill of domestic exporters. *Jakopin* and *Bajec* [6, p. 507] wrote about overall industrial development issues in Serbia. They partially addressed the issue of the industrial competitiveness, and concluded that Serbia has unfavorable export structure (dominated by low-technology sectors) and that it should concentrate on producing the goods for which the demand in the EU is high, i.e. on the high-technology products. *Nikolić* and *Zubović* [10, p. 67] observed the evolution of Serbian industry during the transition period. They argued that the high-tech industry, as the main growth driver, has not developed at a pace needed for a faster catching-up process with the EU average.

Our analysis does not suggest with certainty that Serbia is becoming more competitive in terms of price-cost indicators than EU 27, in fact, it is significantly lagging behind in terms of quality of export products and structural development. The agricultural sector was identified as the main export potential of Serbia with the several products having a high revealed comparative advantage. Moreover, keeping in mind the simplicity and limitations of using the GSIM model, the results suggest that Serbia will benefit by joining the EU in the short run, having the positive net welfare gains in the case of both, agricultural and non-agricultural sectors.

The paper is organized as follows. Section 1 presents the export competitiveness of Serbia compared to the EU in terms of several macroeconomic indicators. Section 2 explores the possible trade effects by simulating the Serbian EU accession scenario. Finally, Section 3 summarizes the findings and discusses the relevance of the results.

Export competitiveness

We have chosen to analyze several external competitiveness indicators for Serbia and the EU, following the recent study of *Orszaghova*, *Savelin* and *Schudel* [12]. They argue that there is no widely accepted method in the literature on how to measure competitiveness and therefore, their analysis is based on several macroeconomic variables. In this paper, we have observed price-cost related and trade indicators, structure of export products and institutional competitiveness.

Price and cost competitiveness

In this subsection, we compare unit labor costs (ULC) and real effective exchange rates (REER), as the price-cost related indicators, to labor productivities and shares in the world exports, for Serbia and EU 27. The data covers the period from 2001 to 2011 (see Figure 1 and 2).

ULC measures the average cost of labor per unit of output. It can be calculated as the quotient of average labor cost and labor productivity. As such, it represents an important connection between productivity and cost of labor in output production (OECD statistics). The real effective exchange rate characterizes the change in value of country's currency compared to the currency basket of its trading partners. It is an often used indicator for evaluating the trend in price and cost competitiveness [1]. Labor productivity, in general, is the ratio of measure of output (gross domestic product or gross value added) and input use (total working hours or total number of employees). According to *Freeman* [4], it is recommended to use GVA (Gross Value Added) as a measure of output as taxes are excluded.

Since the beginning of the crisis in 2008, Serbia witnessed a real depreciation of its currency, while the average REER of the EU was approximately at the same level through the whole period. It is interesting that both experienced the largest real depreciation in 2012[2]. Last year, the fall of REER was 7% in Serbia and 5% in the EU. Hence, we could say that Serbia has improved the price-cost competitiveness in terms of REER compared to EU average.

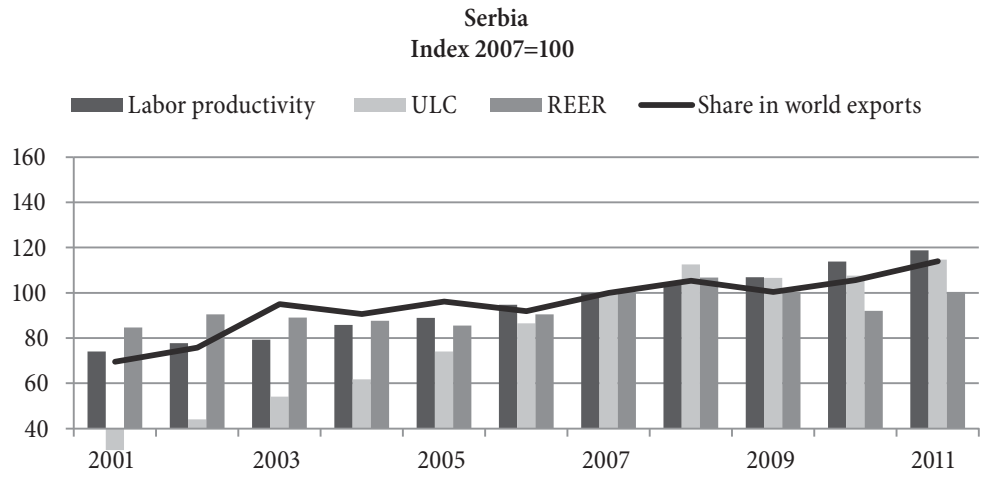
Now, observing the cost factor, both the EU and Serbia faced an increase in ULC after the crisis. In 2011, the costs of labor per unit of output increased by 14% in Serbia and 12% in the EU. Before 2005, the levels of ULC were very low in Serbia because of the low wages at the time, as the country just started the transition process and economic recovery. It is interesting to notice that Serbian gross wages increased by more than 50% since 2005, but this increase corresponds to only 12% in terms of euro [12]. Thus, we could not argue with certainty that Serbia is losing the competitiveness in terms of ULC (especially in absolute values).

Although it seems that the rise of ULC in Serbia may be bearable as the productivity levels exceed the costs, the story behind it is somewhat different. Since 2008, the levels of productivity in Serbia are constantly increasing due to larger drop in the employment rate compared to GDP growth[3], which in the long run is an unsustainable development. Nevertheless, the Serbian share in the world's exports is rising, which may not necessarily indicate the improvement in the competitiveness but rather it is a consequence of "opening" the economy after the isolation period during the 1990s.

2 Data for 2012 is not shown because other indicators are not available for the case of Serbia

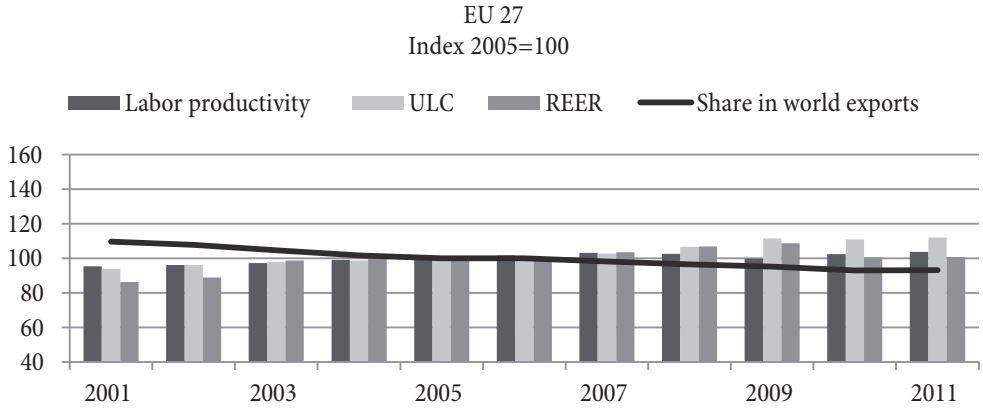
3 It is noticed while computing the labor productivity indicator for Serbia

Figure 1: Price-cost indicators and share in world exports, Serbia



Source: [14], [15], [16], [17], [1], [9] and authors' calculations
Note: 2007 is used as the base year because the Serbian REER data index is only available for 2007=100

Figure 2: Price-cost indicators and share in world exports, EU



Source: [2] [20]

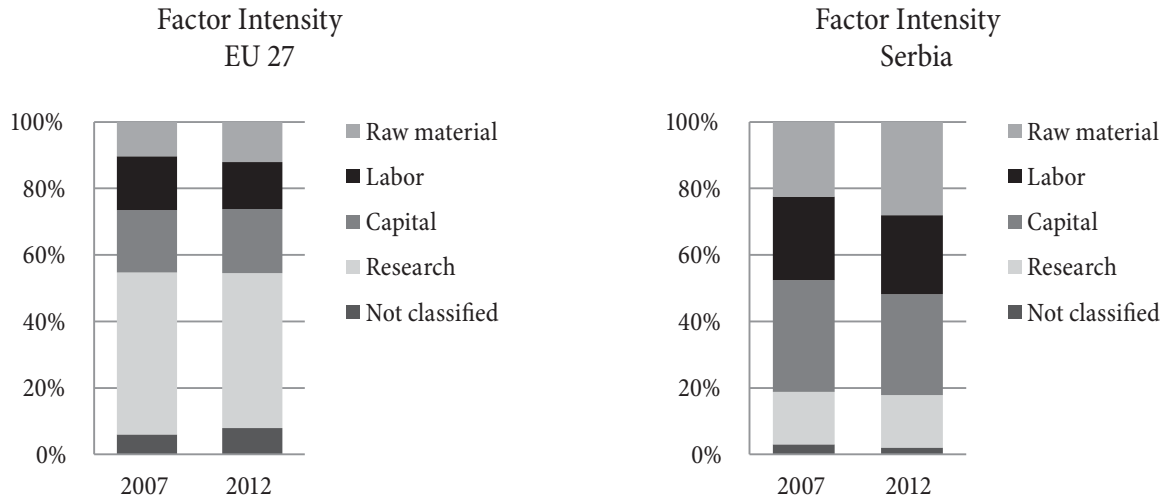
Export complexity

Orszaghova, *Savelin* and *Schudel* [12] suggest that a country can increase the value of its exports by improving the structure of export products, by "climbing up the value chain". Many authors developed different taxonomy in order to address this issue. We will use the factor intensity and technological intensity classifications for export structure analysis.

Yilmaz [22] categorized the goods according to four factors which are intensively used in their production: raw material, labor, capital and research intensive group. His proposal is based on the classical trade theory, which suggests that countries specialize in production given their relative factor endowments. Next, *Lall*'s classification [7] of export product depends on the level of technology used in the production process. Five groups have been identified by *Lall* as follows: primary products, resource-based products, low, medium and high-technology products. *Lall* argues that comparative advantage in producing resource-based products depends on available natural resources. In addition, he suggests that low-technology sector is based on price competition and grows at a slower pace. Therefore, according to him, countries should turn to high-technology manufacturing (especially when they have exploited low-wage advantage) as it provides a better growth possibilities.

Factor intensity structures of Serbian and EU 27 exports differ significantly (see Figure 3). In 2012, raw material and labor products account for more than 50% share in Serbian export and only 26% share in the total EU export. What may be disturbing for Serbia is that the negative trend can be noticed since 2007. The share of these

Figure 3: Factor intensity of export products



Source: [14], [15], [16], [17], [19] and authors' calculations
Notes: The first graph area (from bottom to up) represents not-classified products. Export data is classified by SITC rev. 4 divisions

groups in Serbian export structure increased by 5%, while the portion of the capital and research intensive products declined by 4% over the last five years. At the same time, EU export structure remained unchanged, mostly dominated by research and capital intensive products.

Technological configuration (see Figure 4) of Serbian exports has experienced some improvements towards the high and medium technology industries since 2007. Serbia has expanded the share of technologically advanced products mainly due to the increase in car exports in 2012. However, the share of advanced exports is still substantially below the EU 27 level.

Despite the progress Serbia has made towards the industries that require more advanced technologies and high-skilled labor, its exports are still mainly driven by labor intensive and low-technology manufacturers. According to *Orszaghova*, *Savelin* and *Schudel* [12], this could make such countries exposed to Asian competitors and other emerging low-income regions, especially when it comes to the future expansion of exports to EU market.

Trade indicators

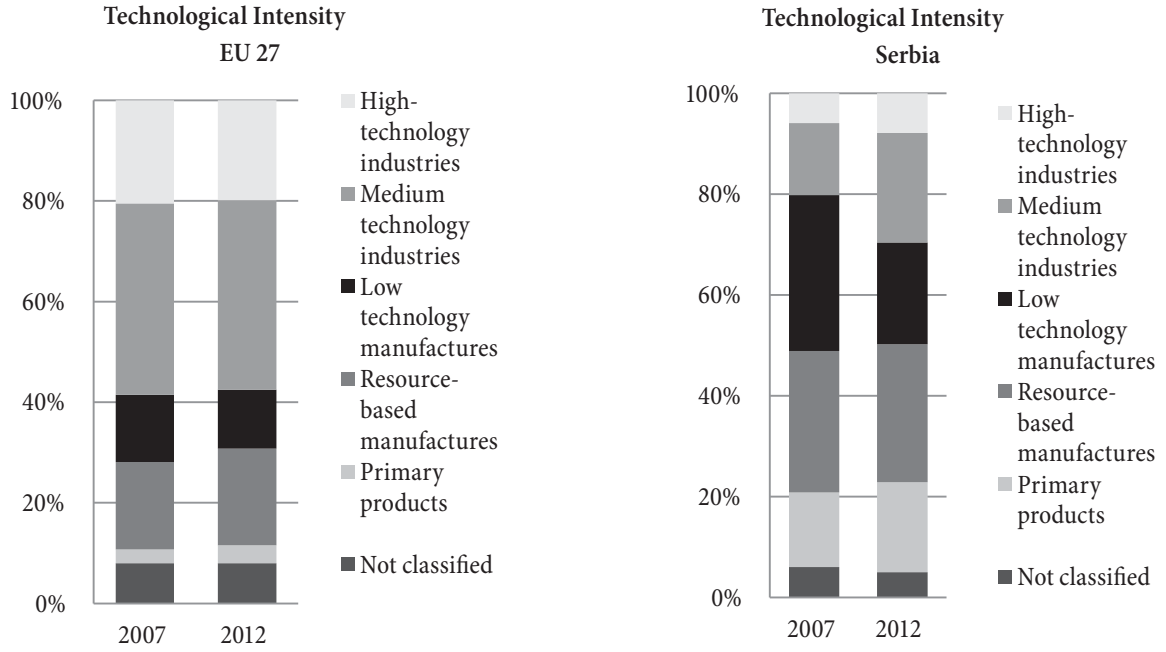
In this subsection we will explore the structural trade indicators, with the emphasis on determining the industry specialization and market concentration. The country's economic specialization is assumed to have a significant contribution to growth and export performance. Additionally, nations with the high export exposure to a single or few markets tend to have more unstable growth patterns. For this analysis, Revealed Comparative Advantage (RCA) and Herfindahl-Hirschman (HH) Indexes were applied.

The RCA index is defined as a share of single product in the total country's export in relation to its share in world trade:

$$RCA_{ij} = \frac{\left(x_{ij} / X_{it}\right)}{\left(x_{wj} / X_{wt}\right)}$$

where x_{ij} and x_{wj} represent the value of exports of country i of product j and world exports of product j, while X_{it} and X_{wt} are country's total exports and world total exports. When the value of RCA index is above one, it is said that a country has a revealed comparative advantage in that product. RCA index is often used in order to evaluate country's export potential. *Saboniene* [13] points out several conclusions that could be drawn from the index results. First, it can provide insights about possibility to trade with the new partners. Countries with similar RCA values are not likely to have large bilateral trade

Figure 4: Technological intensity classification of export products



Source: [14], [15], [16], [17], [19] and authors' calculations
Notes: The first graph area (from bottom to up) represents not-classified products. Export data is classified by SITC rev. 4 groups

patterns, unless the significant amount of intra-industry is present. Second, if the index is computed at high product disaggregation levels, it may draw attention to new, non-traditional, export potentials.

The Herfindahl-Hirschman (HH) Index is a statistical measure of concentration. The HH index is used for defining concentration in different contexts. As an export partner concentration measure, it is computed by summing up the squared export shares of all export partners:

$$HH = \sum_{i=1}^{n} \left(\frac{X_i}{X} \right)^2$$

Where N is the number of trading partners for exports and X_i is the value of country's exports to partner i and X is the total value of exports. The level of partner concentration is lower when the value of index is lower, and vice versa. In the case of only one export partner it would be equal to 1.

Observing the top five export products, Serbian export structure is mainly composed of industries with low level of technological sophistication, while the EU exports are dominated by more advanced manufacturers. Both, the EU and Serbia have comparative advantage in their top five exporting products, as RCA index exceeds unity (see Table 1). The Serbian export share of corn (fruits) is relatively 23 (98) times bigger compared to the share of the same products in the total world exports. Therefore, it seems clear that Serbia has comparative advantage in producing agricultural products. In addition, Serbia has a good export expanding potential in hosiery industry, with RCA index of 28 and the current share in export of 2%.

Table 2: Top 5 exporting destinations

EU 27	Export share	HHI
USA	17%	
China	9%	
Switzerland	8%	0.06
Russian Federation	7%	
Turkey	4%	
SERBIA		
Germany	12%	
Italy	11%	
Bosnia Herzegovina	10%	0.06
Romania	8%	
Russian Federation	8%	

Source: [14], [15], [16], [17], [20] and authors' calculations

In 2012, EU and Serbian exports were diversified across partners (see Table 2). In the case of the EU, 24 main countries accounted for 80 % of exports, while 15 partners made 80% of total Serbian exports [15], [17]. Although the value of HH market concentration index for Serbia is low (0.06), it may not represent a credible image of export diversification. If EU market is observed as a single one, it represents more than 60% of total Serbian export, thus making Serbia vulnerable to demand distortions in the EU. Nevertheless, this fact may be in favor of the EU integration of Serbia.

Structural competitiveness

When it comes to country's international competitiveness, governments can play an important role in improving export results by influencing institutional bases of the economy [12]. Country's infrastructure, education system, legislation environment, level of corruption, administrative procedures etc., represent the important determinants

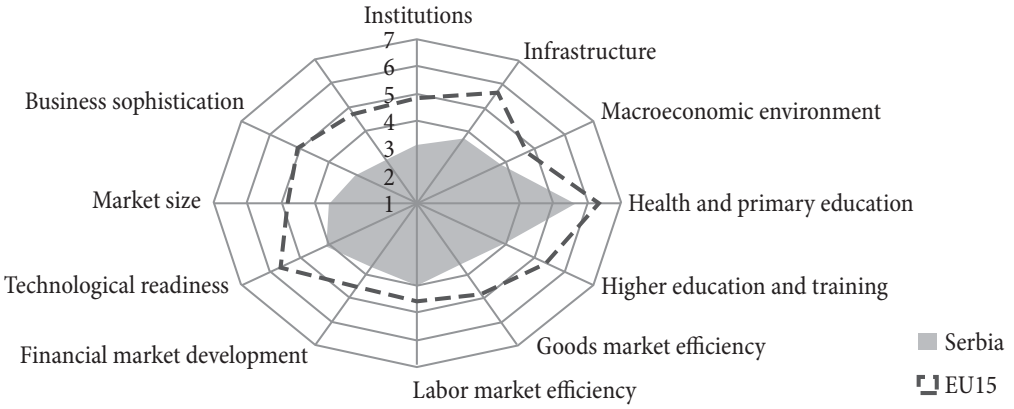
Table 1: Top 5 export products

EU 27	Export share	RCA	Technology
Motor cars and other motor vehicles	6%	1.6	Medium technology
Petroleum oils, other than crude	6%	1.1	Resource based
Medicaments	4%	2.4	High technology
Other aircraft; spacecraft	2%	3.5	High technology
Parts and accessories of the motor vehicles	2%	1.1	Medium technology
SERBIA			
Maize (corn)	5%	22.9	Primary based
Insulated wire, cable	4%	6.2	Low technology
New pneumatic tires, of rubber	3%	5.1	Resource based
Fruit and nuts	2%	97.8	Primary based
Medicaments	2%	1.1	High technology

Source: [19] [20]

Note: Products are classified by 4-digit heading of Harmonized System 2007. Technology taxonomy is based on *Lall* [7].

Figure 5: Institutional and structural indicators of competitiveness



Source: [21]

of ease of doing business. This issue may be particularly relevant for Serbia, as it strives to attract foreign direct investments.

Every year, World Economic Forum publishes competitive indexes for great number of countries. The index is based on three pillars: basic requirements (institutions, infrastructure, macroeconomic environment and health and primary education), efficiency enhancers (higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness and market size) and innovation factors (business sophistication and innovation) [21]. For each individual category there are marks from 1 to 7, where 1 indicates the lowest level and 7 the highest level of development. Hence, this index will be used for the assessment of structural development in Serbia compared to the EU.

According to the data (see Figure 5), Serbia is seriously lagging behind the EU 15 regarding all segments of structural development. The most significant discrepancies are in infrastructure, business sophistication and innovation. Concerning the health and primary education, as well as labor market efficiency, Serbia is close to EU 15 benchmarks. Corruption, legislation quality and governance effectiveness are often considered to be major barriers to conducting business in all candidate countries.

Materials and methods

The analysis covers changes in the trade patterns and welfare effects of two product groups (agricultural and non-agricultural products[4]) between Serbia, EU, Russia (as Serbian major trading partner) and the rest of the world (ROW). We find it useful to observe agricultural products separately, as Serbia may poses comparative advantage in their production.

The GSIM model

The partial-equilibrium GSIM model developed by *Francois* and *Hall* [3] is suitable for studying trade policy changes on the global, regional or unilateral level using the tariff and trade flow data. According to *Holzner* [5], this type of partial equilibrium model provides some useful advantages as it enables the analysis of short-run effects of trade policy changes with a minimum data and computational requirement.

One of the basic assumptions of the model is the national product differentiation, meaning that imported goods are imperfect substitutes for each other. The model envisages the constant and equal elasticity of substitution across the products with different origins. Moreover, the aggregate elasticity of demand and the supply elasticity are held constant as well. The solution set covers world (export) prices that clear the global market. When a global set of equilibrium prices is maintained, it can be used for determining the national results. *Francois* and *Hall* used log-linearized (percent-change) import demand and generic export supply equations. The core equation, which represents the global market clearing condition for each export good, is given by:

4 MTN standard product groups

$$\hat{M}_{i,r} = \hat{X}_{i,r} \Rightarrow$$
$$E_{x(t,r)}\hat{P}_{i,r}^{*} = \sum_{v} N_{(i,v),(r,r)}\hat{P}_{(i,v),r} + \sum_{v}\sum_{s\neq r} N_{(i,v),(r,s)}\hat{P}_{(i,v),s} = \sum_{v} N_{(i,v),(r,r)}\left[P_{r}^{*} + \hat{T}_{(i,v),r}\right] + \sum_{v}\sum_{s\neq r} N_{(i,v),(r,s)}\left[P_{r}^{*} + \hat{T}_{(i,v),s}\right] \quad (1)$$

where ^ denotes a proportional change, *r* and *s* denote exporting region and *v* denotes importing region, while *i* represents a product variety. *M* and *X* are import and export quantities, respectively. The elasticity of export supply is denoted as $E_{x(i,r)}$ and world prices for exports from region *r* is denoted by$P_{i,r}^{*}$. $N_{(i,v),(r,r)}$ is the own price demand elasticity, $P_{(i,v),r}$ is the internal price for products from region *r* imported into region *v*.$N_{(i,v),(r,s)}$ denotes the cross-price elasticity. Lastly, term $T_{(i,v),r}$ characterizes the tariff impact, where *T=(1+t)*. Using (1) we can define S ≤ R global market clearing conditions for any set of R trading countries. If the domestic production is included in the model there will be S = R.[5]

Data

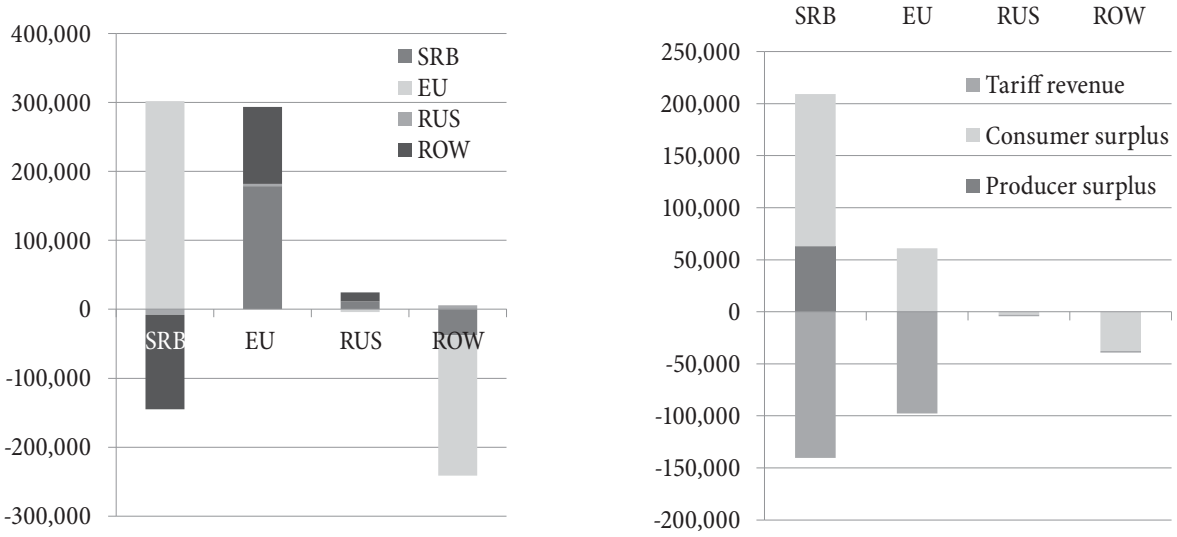
In order to run the GSIM model, the following input data is required: initial bilateral trade flow, initial import tariffs, final import tariffs, export supply and import demand elasticities and elasticities of substitution. As the case with four entities and two product groups is observed, we had to fill in the two 4x4 data matrices.

Trade flow and initial import tariff data (average applied MFN tariffs) for 2012 are taken from UN Comtrade (Commodity Trade Statistics) and TRAINS (Trade Analysis and Information System) database, using the WITS (World Integrated Trade Solution) [19] software. Because of the unavailability of certain import tariff data, selected benchmark values are used instead. Serbian import tariffs for goods from Russia and the EU are replaced with Macedonian ones, following the work of *Holzner* [5]. For the Russian import tariffs on EU goods Russian tariff rates on imports from Germany are used. Finally, the import tariffs of the rest of the world for the Serbian, EU and Russian products are determined as an average of available applied import tariffs in "other" countries in 2010 (the first available year). The final import tariffs are defined according to the evaluated scenario, which assumes complete trade liberalization between Serbia and the EU, hence, the Serbia's adoption of EU tariffs towards the third parties.

The values for export supply (1.5), import demand (-1.25) and elasticity of substitution (5) are taken from *Francois* and *Hall* [3]. In addition, the assumption of flat export supply curve for large regions is adopted from *Holzner* [5], meaning that export supply elasticity for the EU, ROW and Russia takes the value of 9999999.

5 For more details on model specification please refer to *Francois* and *Hall* [3]

Figure 6: Trade changes and welfare effects, agricultural products



Source: Authors' calculations
Note: Values are in thousands of U.S. dollars

Results and discussion

After running the GSIM model for the Serbia's EU accession scenario, the estimates for trade patterns and welfare effects for agricultural and non-agricultural products are obtained. As it could have been expected, the model predicts the most significant changes in trade flow between Serbia and the EU, as in this case the tariff change was the most significant after the accession scenario.

Regarding the agricultural products (see Figure 6), the simulation predicts the increase in Serbian exports to the EU of 28% compared to pre-accession level. According to the model, the Serbian agricultural exports towards the Russia and ROW decline. The size of export decrease to Russian market is 5% and to the ROW is 9%. In addition, the predicted EU exports of agricultural products to Serbia increased by 25%. Due to liberalization of trade Serbia will encounter significant reduction in agricultural tariff revenues, but, it is smaller than the combined increase in consumer's and producer's surplus. It can be also noticed that EU consumers will benefit with the Serbian accession, as the Serbian agricultural products will become relatively cheaper, but the loss in the tariff revenues exceeds the consumer surplus in the EU.

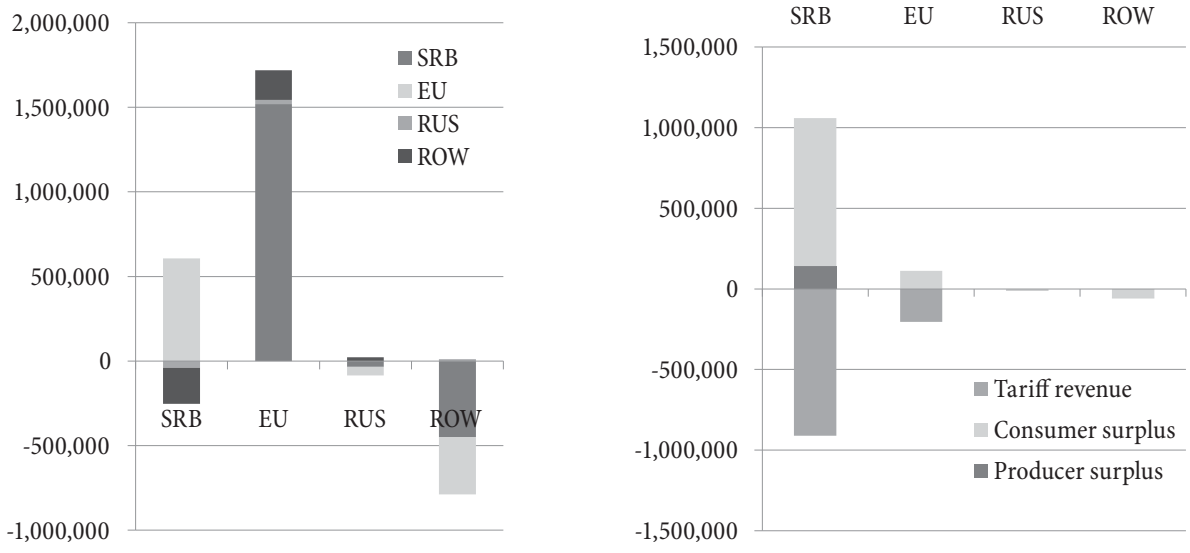
Concerning the non-agricultural products (see Figure 7), the Serbian exports to the EU are by 12.8% higher compared to initial trade flows. Furthermore, there is roughly the same decline in Serbian exports to Russia and ROW of 7%. The EU non-agricultural goods exports to Serbia increased by 13.4%. It is interesting that the cut in the Serbian tariff revenue is significant and fairly close to gains in the terms of consumer and producer surpluses.

However, using this type of partial equilibrium models comes with certain disadvantages. It does not reveal the long-run effects and adjustment paths of a policy change. Hence, some additional features such as capital flows, labor market effects or income distribution cannot be observed neither [5]. Nevertheless, being aware of limitations, the obtained results may suggest that Serbian membership in the EU will potentially have a significant effect on trade patterns in Serbia and the EU in the short run. Removal of the tariffs between Serbia and the EU would lead to a higher Serbian exports to EU (especially in the case of agricultural products) and vice versa, with positive net welfare gains in Serbia, in terms of consumer's and producer's surplus.

Conclusion

The objective of this paper is twofold. First, following the argument of *Stigliz* [18] that whether the county will benefit from the free trade arrangements or not, mainly depends on its export capabilities, we have tried to determine the export competitiveness of Serbia compared to the EU by

Figure 7: Trade changes and welfare effects, non-agricultural products



Source: Authors' calculations
Note: Values are in thousands of U.S. dollars

observing several different indicators. Second, we have explored the possible trade and welfare effects for the Serbian EU accession scenario.

The export competitiveness analysis vis-à-vis the EU has not revealed a clear picture on the Serbian price-cost competitiveness. On the one hand, Serbia is becoming more price-competitive as the Dinar has depreciated more than the Euro. On the other, it is gradually losing the cost-competitiveness due to greater increase in labor costs compared to EU. Moreover, the significant improvement of Serbian labor productivity is only a deception. The increase is caused by the substantial reduction in overall employment and not by the increase in output. Therefore, in the years to come, Serbia should concentrate on fostering policies which will promote growth and increase the employment. Next, the Serbian exports are mainly composed out of resource-based and labor-intensive products. Current export structure may impose the obstacle to increase the exports to the EU in the long run, as the demand for this product groups is decreasing in the EU.

In addition, Serbia will face tough Asian competition in labor-intensive segment if the current export structure is going to be maintained. Furthermore, Serbia has significant revealed comparative advantage in two agricultural sectors, maize and fruits and nuts production. This indicates that Serbia is highly competitive in these sectors and possibly it can enhance the exports of these products in the future. Also, it is important to notice that Serbian exports are highly concentrated when observing all EU countries as a single market. Thus, it may be economically reasonable to strive towards the EU membership. Finally, one of the greatest challenges in improving Serbian competitiveness will be the improvement of institutional and structural development. Therefore, in order to attract more FDI which would presumably bring more advanced technologies, Serbia would have to improve the quality of institutional governance and foster the rule of law in years to come.

The conducted GSIM simulation of the Serbian accession scenario implies that Serbia will export more of both, agricultural and non-agricultural products. As one could expect, the model predicts a higher increase in export of agricultural products. This is in line with the argument that Serbia is overall a low-technology and labor-intensity driven economy. Nevertheless, the welfare indicators in terms of tariff revenues, consumer and producer surplus show that Serbia would still be better off in both cases by joining the EU. However, these results should be considered with caution, given the lack of proper data and limitations of the model.

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