Proceedings of the 4th international conference Economic and Business Trends Shaping the Future | 2023

HOW TO INCREASE TRADE IN SOUTHEAST EUROPE BY APPLYING TRADE FACILITATION MEASURES?

Elena Makrevska Disoska

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje Elena.Makrevska@eccf.ukim.edu.mk

Predrag Bjelic

University of Belgrade, Faculty of Economics predrag.bjelic@ekof.bg.ac.rs

Irena Kikerkova

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje <u>irena@eccf.ukim.edu.mk</u>

Katerina Toshevska-Trpchevska

Ss. Cyril and Methodius University in Skopje, Faculty of Economics - Skopje katerina@eccf.ukim.edu.mk

ABSTRACT

In this paper, we apply the 2021 edition of OECD Trade Facilitation Indicators (TFIs) in the gravity model to measure the importance of applying trade facilitation measures to increase intraregional trade among the 10 SEE countries: Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Romania, Serbia, and Slovenia. The purpose of the paper is to indicate area(s) where countries could undertake measures to facilitate trade and enhance the process of trade integration in the region of Southeast Europe. Although most of these countries trade among themselves on a preferential basis, many studies pointed out that there are still areas and barriers that hinder their mutual trade. The results of our study show that decreasing fees and charges, harmonization and decreasing the number of documents, automatizing the process of trading, and improving governance and impartiality of the Customs administration could positively influence trade among these countries. These results are additional confirmation of our previous studies in this area which firmly acknowledge the area where trade policy creators should pay due attention.

Keywords: SEE countries, OECD 2021 Trade Facilitation Indicators, gravity model, trade policy, trade facilitation.

JEL Classification: F10; F14; C23

1. INTRODUCTION

The ongoing economic and political crises in Europe, being one with the greatest negative impact upon the economies on the continent after World War II, creates a strong demand from all relevant authorities to enhance all kinds of cooperation among strategic partners not only from Europe but wider, in order to cope with its heavy negative effects. The most influential economies in the EU, such as Germany, France, and since recently the Netherlands, are facing a recession. Great Britain also faces a recession threat, although it is no longer an EU member state.

http://doi.org/10.47063/EBTSF.2023.0022 http://hdl.handle.net/20.500.12188/28860 This huge crisis also affects the rest of the world, which even before the outburst of the COVID-19 pandemic and the war conflict in Ukraine, started to face serious challenges regarding the process of trade liberalization by disrespecting the most important WTO trade rules, globally accepted at the turn of the century. The implementation of the so-called Trade Facilitation Agreement (TFA) of the WTO, enforced in 2017, was fundamentally jeopardized. New non-trade barriers started to be implemented with a galloping pace, but also traditional tariff barriers were abused by the greatest world traders, among which the USA became a leader in negative terms. Just as a reminder, the Trade Facilitation Agreement was based on in-debt research by world-recognized experts who stressed the potential of full elimination of non-trade barriers in the creation of valuable economic advantages at global level. These researchers claimed that the elimination of cargo delays at borders, due to the inefficiency of customs procedures and increased delivery speed, might lower overall input costs, thus positively influencing productivity and creating additional efficiency gains. OECD estimated that full implementation of the TFA had the potential to increase world trade by 0.6% and the overall output by up to 0.5% across all country groups. This could lead to a better allocation of resources, an increase in incomes, and in the general welfare (OECD, 2021).

Being aware that trade facilitation has the potential to create valuable global economic advantages, we found the OECD Trade Facilitation Indicators to be a very useful tool for monitoring and comparing the trade facilitation performance of each economy, as they help follow up and assess policies focused on border procedures streamlining, trade costs reduction and stimulation of trade flows. Thus, at the beginning of our research within the region, we decided to construct a gravity model on CEFTA-2006 member-states that included 12 of the OECD indicators. Living in South-Eastern Europe, and being part of CEFTA-2006, we were aware of the existence and abuse of many non-trade barriers in the region that hindered the process of economic integration and deep trade liberalization within the free trade area even before the enforcement of the WTO's TFA. This reality inspired us to create a series of gravity models in order to detect some of the most problematic obstacles faced by the business community on a daily basis, thus we could define some recommendations for CEFTA-2006 policymakers that might help further trade liberalization and economic integration.

Recently, witnessing the negative impact of the COVID-19 pandemic, followed by the war conflict in Ukraine, we believed that it would be useful to include in our research countries from South-Eastern Europe that have already gained full membership within the EU, such as Bulgaria, Romania, and Slovenia. All of the included countries are neighbors of and share borders with CEFTA-2006 member-states. Our last research was conducted with data from the OECD database from 2019, while this paper updates the gravity model with data from the OECD database from 2021.

Our new paper contains an introduction, a literature review, an explanation of the empirical model and data, comments on the results, and a conclusion with recommendations.

2. LITERATURE REVIEW

Non-tariff barriers are perceived as the most important foreign trade policy tool at the end of the 20th century, due to many successful General Agreement on Tariffs and Trade (GATT) rounds that managed to significantly decrease global tariffs. Non-tariff barriers are a very heterogeneous group of measures, that can be divided into three broad groups, according to Bjelic: Traditional non-tariff barriers or core non-tariff barriers (quantitative barriers, subventions, antidumping measures, etc.); Technical non-tariff barriers (non-tariff barriers that appear in international trade due to differences in national standards and technical regulation); and Administrative non-tariff barriers (non-tariff barriers that are derived from

national laws and regulations and administrative procedures that curtail international trade) (Bjelić, 2013). During the existence of GATT 1947, most of the traditional non-tariff barriers were regulated, while technical barriers to trade were regulated with the establishment of the World Trade Organization (WTO) in 1995. The only group that was not regulated was administrative barriers to trade.

Most authors emphasize that at the Singapore Ministerial Council of the WTO in December 1996 it was decided by consensus that the removal of administrative barriers to trade, an initiative known as trade facilitation, was one of the four issues that will be negotiated in the future (so-called Singapore issues). When the first round of multilateral trade negotiations was initiated in Doha, they opened negotiations on trade facilitation in July 2004. This sparked scientific interest in the effects of trade facilitation on the world economy. The first articles on this subject appeared in 2003, like Wilson, Mann, and Otsuki, who researched the relationship between trade facilitation and economic development in the Asia-Pacific region, concluding that the removal of administrative barriers has a significant effect on rising trade flows and economic development (Wilson, Mann and Otsuki, 2003). In their article from 2005 (Wilson, Mann and Otsuki, 2005) analyzing 75 national economies using the gravity model with panel data, they identify four measures of trade facilitation: port infrastructure (air and maritime), customs environment, regulatory environments, and e-business infrastructure. The results of their analysis suggested that raising global capacity halfway to the world average in the four areas would increase trade by 377 billion American dollars. Wilson, Mann and Otsuki in 2005 also pointed out that trade facilitation effects will differ depending on the trading patterns of the countries being examined.

The greatest achievement, and until now the only, of the WTO Doha Round was the adoption of the Trade Facilitation Agreement (TFA) in 2013, which entered into force on 22 February 2017. TFA is the single global instrument to remove administrative trade barriers. Many research show, like the WTO report from 2015 (WTO, 2015), that the full implementation of the TFA is estimated to reduce global trade costs by an average of 14.3%, with African countries and least-developed countries (LDCs) forecast to enjoy the biggest average reduction in trade costs. The WTO report also envisaged that full implementation of the TFA would reduce the average time needed to import by 47% and the average time needed to export by 91%.

Important research on trade facilitation included the development of a methodology to assess the effects of trade facilitation and generate datasets for most countries in the world. International economic organizations were mostly engaged in these cross-country studies since they gathered global trade data. The most important methodologies to determine the economic impact of trade facilitation reform in the economic literature include:

- 1. The World Bank Group's "Doing Business" indicators, particularly those related to Trading Across Borders Indicators (World Bank, 2014);
- 2. The World Bank's Logistics Performance Index (LPI), particularly the Customs Efficiency Subindex (World Bank, 2023);
- 3. The Organization for Economic Co-operation and Development's (OECD) Trade Facilitation Indicators (TFIs) (OECD, 2009); and
- 4. The World Economic Forum's Enabling Trade Index (ETI), particularly the Border Administration Subindex (WEF, 2014).

Many papers used this data to estimate the effect of trade facilitation measures on trade and other economic categories. The empirical literature has used different approaches to estimate trade effects of non-tariff measures, from the price wedge method, inventory-based approaches, survey-based approaches, risk assessment-based cost-benefit measures, to the gravity model approach (Bellanawithana, A., et al., 2011). Focusing on the NTB's effects on bilateral trade flows, for some authors it seems that the gravity model approach is "a

promising area of research" (Beghin and Bureau, 2001). In the estimation of trade effects of NTMs most authors use the gravity model, the econometric techniques of panel data are often used (for instance, Moenius, 2004 or Bao and Qiu, 2010) due to well-known advantages over cross-sectional econometric analysis.

Concerning administrative barriers to trade, Zaki (2010) wrote on effects of trade facilitation and first estimates the predicted time to export and to import, involving it in the gravity model to determine its bilateral trade effect. The conclusion is that bureaucracy, corruption, and geographic variables significantly influence transaction time to export and to import, but time to import has a higher negative impact on trade than time to export. Hornok and Koren (2012) estimate the effects of administrative trade barriers by including importer-specific trade cost variables, like the time in days and the cost of administrative procedures in the importer country, using Doing Business Indicators. Zaki in his paper from 2013 using more comprehensive measures of ad-valorem equivalents (AVEs) of red tape costs, which are computed from a gravity model, and are introduced in the CGE model, finds that trade facilitation gains are more significant for developing economies than for developed ones, whether in terms of welfare gain or increase in trade. Also, an important conclusion is that the long-run welfare effects of trade facilitation are much higher than in the short run. And, a significant conclusion is that trade facilitation improves export diversification, leading to an expansion in those sectors that are more sensitive to time, such as food, textiles, and electronics. Decreux and Fontagné (2009) in modeling trade facilitation assumed that administrative barriers are an iceberg cost. Using a dynamic computable general equilibrium model of the world economy (MIRAGE), they calculated gains associated with trade facilitation at 152 billion American dollars, with port efficiency adding 35 billion American dollars.

The papers that analyzed the effects of trade facilitation in the region of Southeast Europe, which is the focus of our research, have grown during the last decade. Bjelić, Dragutinović-Mitrović and Popović-Petrović (2013) have researched the application of two types of non-tariff barriers in CEFTA 2006 trade: administrative and technical barriers to trade. They concluded that after the trade liberalization period, non-tariff barriers have become one of the most important impediments in the Western Balkan's trade with the EU. Toshevska-Trpchevska and Tevdovski (2014) researched the effects of Customs and Administrative Procedures on Southeast European Trade, using the gravity model in the period 2008-2012, and found that the number of days spent at the border and costs paid by both importers and exporters countries had a significant negative influence on the volume of trade in the period 2008-2012. In the article from 2016, Toshevska-Trpchevska and Tevdovski assessed the relative economic and trade impact of specific trade facilitation measures for the countries of Southeast European countries, focusing on CEFTA-2006 signatories excluding Moldova. They used trade facilitation indicators of the countries in the sample in a gravity model.

OECD and CEFTA Secretariat Report on Elimination of Non-Tariff Barriers in CEFTA, based on the Multilateral Monitoring Framework (MMF) developed by the OECD, concludes that CEFTA Parties have made the best progress in dimensions related to reducing technical barriers to trade and administrative barriers to trade. Administrative non-tariff barriers play an important role in contemporary trade policy, even in CEFTA 2006. Bjelić (2018) shows the data on the significance of these barriers and points to trade facilitation as a tool to eliminate administrative barriers to trade. Marković, Popović-Petrović and Bjelić (2021) found that CEFTA 2006 regional trade integration is not an exception with more than 100 NTBs introduced during its existence. Serbia and Albania are CEFTA 2006 signatories with the most NTBs introduced in the observed period. CEFTA has a very efficient institutional mechanism, the Subcommittee on Technical Barriers to Trade (TBT) and Non-Tariff Barriers

(NTBs), for the removal of NTBs between signatories. In bilateral trade relations of Serbia's intra-CEFTA 2006, our trade partner uses policy-oriented NTBs.

Some studies focus on individual Southeast European countries. Nuhanovic and Barakovic-Nurikic (2016) found a significant correlation between non-tariff barriers and Bosnia and Herzegovina import and export within CEFTA. The increase in administrative and technical barriers affects the reduction of imports. Sanitary and phytosanitary barriers mostly affect the export of goods and services since the obtained values of their correlation coefficients are the highest. In the 2022 conference paper, Mojsovska and Bjelić (Mojsovska and Bjelić, 2022) presented the result of the research carried out for CEFTA Secretariat on identifying nontariff barriers in the CEFTA-2006 region in 2011. In 2022 Toshevska-Trpchevska et al. (2022) have found that undertaking measures to decrease and simplify the documents, the trading procedures and the fees and charges should have the biggest positive effect for increasing trade between the countries in Southeast Europe.

3. THE EMPIRICAL MODEL AND DATA

The paper employs a model to conduct a qualitative analysis concerning the bilateral trade relations among South and Eastern Europe (SEE) countries. Additionally, it examines the impact of OECD trade facilitation indicators on their mutual trade. The countries covered in the analysis are ten countries. These are: Macedonia, Serbia, Bosnia and Herzegovina, Moldova, Montenegro, Albania, Slovenia, Bulgaria, Romania, and Croatia. Kosovo is not considered due to insufficient data. The study finds that trade flows within the SEE region remain stable, thanks to the geographical proximity and comparable rates of economic growth among these countries. However, the region's trade orientation is predominantly directed toward the European Union.

The dataset contains annual data ranging from 2006 to 2022, comprising more than 1,500 observations for the estimations. The analysis is based on annual data. The study employs the standard gravity model OLS estimation within a panel framework. The fulfillment of the OLS regression assumptions is confirmed through a series of tests, ensuring that issues such as endogeneity and heteroscedasticity are not a cause for concern.

Originally proposed by Linder (1961) and Linnemann (1966), this model draws inspiration from Newton's theory of gravitation. It is widely utilized in research papers focusing on international trade (Deardorff, 1995; Anderson and van Wincoop, 2003). The estimates are generated using the OLS (Ordinary Least Squares) model in STATA, without incorporating any effects. The gravity model is specified as follows:

 $lnEXP_{ij,t=}\beta_0 + \beta_l lnGDP_{i,t} + \beta_2 lnGDP_{j,t} + \beta_3 lnDISTANCE_{ij} + \beta_4 BORD_{ij} + \beta_5 LANG_{ij} + \beta_6 CEFTA_{ij} + \beta_7 ln(TFA_X*) + \varepsilon_{ij,t}$

The dependent variable *export* represents the natural logarithm of the exports from country i to country j expressed in millions of American dollars. The source for export data is the International Monetary Fund, Direction of Trade Statistics.

In terms of independent variables, we are relating trade flows to distance, and economic size to which we add three binary variables accounting for a common language, a common border, and membership in the Central Eastern Free Trade Area -2006 (CEFTA-2006). In separate regressions, we estimate the influence of each TFA indicator.

The model includes seven independent variables. The variables regarding the *Gross Domestic Product* of the home and partner country is the natural logarithm of the value of the GDP calculated in constant 2015 prices, expressed in American dollars. Data on GDP is extracted from the World Bank Database. This variable aims to capture the influence of the economic development between the countries involved in the analysis of bilateral trade.

The variable, named *distance*, is natural logarithm of the the geographical distance between the biggest cities of countries i and j, expressed in kilometers. Data on the geographical distance between the economic centers of the two countries are from the website http://www.worldatlas.com. This variable considers the spatial separation between the trading partners.

The three dummy variables, referred to *language, border, and membership in CEFTA-2006. Language* is a binary variable that takes the value 1 for countries sharing a common language and 0 otherwise. This variable seeks to identify the impact of having a shared language on bilateral trade.

Common border is a binary variable that takes the value 1 for countries sharing a common border and 0 otherwise. This variable aims to assess the influence of having a shared border on bilateral trade. This variable aims to assess the influence of having a shared border on bilateral trade. The expectation is that countries with similar languages and a shared border will experience reduced transaction costs, leading to increased bilateral trade between them. The expectation is that countries with similar languages and a shared border will experience reduced transaction costs, leading to increased bilateral trade between them.

The variable TFA_X represents the natural logarithm of the product of the trade facilitation indicators of both trading partners. In this context, eleven different OECD trade facilitation indicators are used, namely: information availability, involvement in the trade community, advanced ruling, appeal procedures, fees and charges, document, automatization, procedures, border agency cooperation internal, border agency cooperation – external and governance and impartiality.

Data for the Trade Facilitation Indicators is obtained electronically and directly from OECD. The indicator has been published every two years since 2012, and we have included in the database all available indicators for the years 2012, 2015, 2017, 2019 and 2021. Each indicator is rated on a scale from 0 (lowest) to 2 (highest). For the purpose of this model, the scale is rescaled to range from 0 to 10. The variable TFA_X* is then calculated as the natural logarithm of the product of a specific TFA indicator for both the importer and the exporter. By using this variable, the model aims to examine how changes in specific Trade Facilitation

Indicators jointly affect both exporters and importers in bilateral trade relationships.

 $TFA_X = TFA_X_j * TFA_X_i$

The letter "X" represents a specific Trade Facilitation Indicator, denoted by letters A, B, ..., K. Since there are a total of 11 trade facilitation indicators (A to K), the analysis involves running 11 separate regressions. Different specifications of the model are necessary due to the high correlation among the trade facilitation indicator variables, as pointed out by Wilson (2010).

The high correlation among the Trade Facilitation Indicators implies that they may influence each other and have overlapping effects on the dependent variable (e.g., bilateral trade). To avoid multicollinearity issues and ensure reliable estimates, each regression focuses on one Trade Facilitation Indicator at a time, while controlling for other relevant variables. This approach allows researchers to isolate the effects of individual Trade Facilitation Indicators and obtain more accurate results.

By running 11 separate regressions, the study can gain insights into how each Trade Facilitation Indicator independently impacts exporters and importers in bilateral trade relationships, while accounting for the potential influence of other control variables.

4. RESULTS

The results from the regressions are given in Table 1. We ran 11 regressions to estimate the influence of each Trade Facilitation Indicator on trade between 10 Southeast European countries: Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Romania, Serbia, and Slovenia. The 11 regressions also confirm the robustness of the model as can be seen that the results of the variables: GDP home, GDP trading partner, distance, language, border, and CEFTA-2006 membership are stable in all regressions.

The results from the variables GDP home and GDP trading partner are positive and highly statistically significant. This means that the higher GDP of the countries has a positive influence on their mutual trade. Increasing the GDP of the countries positively impacts the trade between them.

The results for the variable distance are also statistically important and with a negative sign. It means that increasing the distance between the countries has a negative influence on increasing their bilateral trade. This fact is very common and expected in gravity models and it is the foundation of the whole gravity model theory.

The dummy variables language and border are significant and with a positive influence on trade. It means that countries that have a common language or share a common border can easily increase their mutual trade. The coefficients for the variable language are higher than the coefficients for the variable border indicating that countries that speak the same language in Southeast Europe have a higher propensity to increase their mutual trade. The results for the dummy variable CEFTA-2006 membership are positive signs but appear to be insignificant for increasing the trade in the region of Southeast Europe. These results can be explained by the fact that some of these countries are already EU members and the fact that the non-EU member countries trade more with the European Union than within the regional integration CEFTA-2006 from which they are part of. This is in line with our previous results (Kikerkova et al., 2021) where it appears that signing a bilateral trade agreement with the European Union appears to be more significant for increasing trade for these countries that signing a bilateral trade agreement with the European Union appears to be more significant for increasing trade for these countries that signing a bilateral trade agreement with the European Union appears to be more significant for increasing trade for these countries that signing a bilateral trade agreement with the European Union appears to be more significant for increasing trade for these countries than being part of the CEFTA-2006 regional integration.

The results for the separate 11 Trade Facilitation Indicators show that 4 indicators are highly statistically significant (three on a level of 99% and one on a level of 95%) and with positive signs. These indicators measure fees and charges, documents, automation and governance, and impartiality. The results point out that improving the situation and the facilitation measures in these fields could increase mutual trade among the SEE countries. More precisely, if SEE countries manage to improve the facilitation indicator on fees and charges which measures decrement of fees and charges by 1%, it could lead to a 0.53% increase in their mutual trade. Improving the indicator documents (acceptance of copies, simplification, and harmonization of the documents, decreasing the number of documents needed for import, export, and transit procedures) by 1%, SEE countries could gain a 0.66% increase in their mutual trade. Improving the indicator on automation, which means applying automated solutions in trade, like electronic exchange of data, automated border and risk management procedures and electronic payments for 1%, could lead to an increase of trade by 0.16%. Improving the accountability and the ethics policy of the customs administration measured by the indicator governance and impartiality by 1% could lead to 0.16% of trade between the SEE countries.

These results should be considered in the creation of future trade policies of the region and special attention should be given to applying measures that could decrease the fees, harmonize the documents, improve the automation of the customs procedures, and improve the accountability of the Customs administration for easing trade and improving trade integration of the countries in the region of Southeast Europe. These results confirm the

previous study that we have done using the OECD TFIs for 2019 (Toshevska-Trpchevska, et al., 2022).

The indicators measuring appeal procedures, procedures, internal border agency cooperation and external border agency cooperation are insignificant for increasing the trade in Southeast Europe.

			Model								
	Model 1	Model 2	3	4	5	6	7	8	9	10	11
No of observations	1481	1481	1481	1481	1481	1481	1481	1463	1481	1481	1474
	-32.943	-33.121	-32.156	-35.250	-37.035	-36.765	-34.624	-34.344	-32.184	-34.653	-32.089
С	***	***	***	***	***	***	***	***	***	***	***
	1.386	1.350	1.375	1.368	1.327	1.331	1.357	1.359	1.333	1.365	1.355
Log of GDP domestic	***	***	***	***	***	***	***	***	***	***	***
Log of CDD trading portner	0./10	0.682	0.68/	0.694	0.652	0.660	0.680	0.686	0.669	0.693	0.684
Log of GDP trading partner	1 775	1 740	1 804	1 762	1 441	1 603	1 700	1 777	1 735	1 765	1 752
Log of distance	-1.775	-1.740	***	-1.702	***	***	***	-1.///	***	***	***
	1.406	1.395	1.421	1.428	1.389	1.320	1.393	1.408	1.447	1.420	1.412
Language	***	***	***	***	***	***	***	***	***	***	***
	0.364	0.345	0.318	0.348	0.540	0.418	0.335	0.358	0.379	0.348	0.383
Border	***	***	***	***	***	***	***	***	***	***	***
CEETA 200C	0.014	0.025	0.072	0.002	0.110	0.150	0.092	0.074	0.270	0.075	0.001
log of A Information	0.014	0.035	0.072	0.092	0.118	-1-	0.085	0.074	0.379	0.075	0.091
availability	-0.008										
Log of B - Involvement of the		-0.266									
trade community		***									
			-0.532								
Log of C - Advance rulings			***								
log of D - Appeal procedures				0.116							
					0.530						
log of E - Fees and charges					***						
les of E. Desuments						0.660					
log of F – Documents							0.163				
$\log of G - Automation$							0.105				
log of H - Procedures								0.0185			
log of I - Internal border agency								0.0105			-
co-operation									-0.333		
log of J - External border agency											
co-operation										-0.006	
Log of K - Governance and											0.156
impartiality											***
R-square	0.7642	0.7637	0.7623	0.7610	0.7716	0.7696	0.7617	0.7610	0.7651	0.7610	0.7616
Adjusted R-square	0.7631	0.7625	0.7612	0.7600	0.7705	0.7685	0.7605	0.7599	0.7640	0.7598	0.7604

Table 1: Results of TFIs influence on SEE trade, 2021

(Source: Author's calculations)

The results have also shown that three indicators measuring information availability, involvement of the trade community, and advance rulings are statistically significant but with negative signs. This means that improving the facilitation measures in these fields should have a negative influence on trade or could lead to decreasing mutual trade among the countries. These results shouldn't discourage either researchers or policy creators. They only point out that the newest data on trade facilitation measures applied by the countries in Southeast Europe indicate that positive influence for increasing their mutual trade and improving the trade integration in the region could be achieved by improving the measures in the fields: of fees and charges, documents, automation and governance and impartiality.

5. CONCLUSION

This paper is a follow-up to our previous work on determining the importance of trade facilitation measures for increasing trade in the region of Southeast Europe. The need for this analysis derives from the fact that although most of these countries trade among themselves on a preferential basis, many studies confirmed that there are still administrative and other nontariff barriers that hinder trade in the region and disable higher and deeper integration. This is especially evident for the countries belonging to the Western Balkan region that are still not a part of the European Union: Albania, Bosnia & Herzegovina, Macedonia, Montenegro, Moldova, and Serbia. These countries enjoy preferential treatment in trade with the European Union and they are part of the free trade area CEFTA-2006, but apparently, lengthy customs and administrative procedures, as well as other non-tariff barriers still persist at their borders and make their trade integration dysfunctional.

In this paper, we have applied the gravity model with the newest OECD data on trade facilitation: Trade Facilitation Indicators, 2021 edition. The results that we have obtained have generally confirmed our previous findings and focused the main burden on the following facilitation measures: fees and charges, documents, automation and governance and impartiality. The regressions have shown that 1% improvement in the indicator measuring fees and charges could lead to a 0.53% increase in trade between the countries of Southeast Europe. 1% Improvement of the indicator documents which means increasing the acceptance of copies in trade, simplification, and harmonization of the documents, and decreasing the number of documents needed for trade procedures could positively impact trade by 0.66%. Positive effects for trade are expected with the improvement of two other indicators: increased implementation of automated solutions in trade and improved governance and impartiality of the Customs administration. Improvement in these indicators could lead to a 0.16% increase in trade between the SEE countries.

These results are confirmation of our previous studies showing that there are still additional barriers and costs in trade among the countries in the region of Southeast Europe and those barriers have negative impact upon the economic integration of the region.

We hope that our research will be given a due attention from the responsible representative authorities of the SEE countries, and the results thereof would be included in the creation of future trade policies and relevant trade facilitation measures.

REFERENCES

- Anderson, J. E., & Van Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. American economic review, 93(1), 170-192.
- Baldwin, R.E. (1970). Nontariff Distortions of International Trade, Brookings Institution, Washington.
- Bao, X. & Qiu, L.D. (2010). Do Technical Barriers to Trade Promote or Restrict Trade? Evidence from China. Asia-Pacific Journal of Accounting & Economics 17, 253–280.
- Beghin J. C. & Bureau, J-C. (2001). Quantitative Policy Analysis of Sanitary, Phytosanitary and Technical Barriers to Trade. Économie internationale 87, 107-130.
- Bellanawithana, A., Wijerathne, B. & Weerahewa, J. (2011). Impacts of Non Tariff Measures (NTMs) on Agricultural Exports: A Gravity Modeling Approach, Asia-Pacific Trade Economists' Conference: Trade-Led Growth in Times of Crisis.
- Bjelić, P. (2009). Trade Facilitation: Removing Administrative Trade Barriers. Халықаралық Бизнес Университетінің Хабаршысы 1(11) январъ-март 2009, 110-118.
- Bjelić, P. (2013). World Trade Organization and the Global Risks. In: Better Business Regulation in a Risk Society, pp. 193-206 (Eds A. Alemano et. al) Springer Science+Business Media, New York.

- Bjelić, P., Dragutinović Mitrović, R., Popović Petrović, I. (2013) "Administrative Barriers to Trade as Predominant Non-Tariff Barriers". In: The 3rd International Conference on International Trade and Investment, 4–6 September, Mauritius: University of Mauritius and WTO.
- Bjelić, P. (2018) Trade Facilitation in the Central European Free Trade Agreement (CEFTA): an imperative to boost intra-regional trade, UNCTAD Transport and Trade Facilitation Newsletter N°78 - Second Quarter 2018, Article No. 18, Internet, https://unctad.org/news/trade-facilitation-central-european-free-trade-agreement-ceftaimperative-boost-intra-regional
- Deardorff, A. V. (2011). Determinants of bilateral trade: does gravity work in a neoclassical world?. In Comparative advantage, growth, and the gains from trade and globalization: a festschrift in honor of alan v deardorff (pp. 267-293).
- Decreux, Y. and Fontagné, L. (2009), 'Economic Impact of Potential Outcome of the DDA', CEPII Working Paper No. 2011-23, October, 20, 2011, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2004831.
- Hornok, C. & Koreny, M. (2011). Administrative Barriers to Trade. Third Conference of GIST International Trade, Firm Location and Services, Stockholm.
- Kikerkova, I., Makrevska Disoska, E., Toshevska-Trpchevska, K. i Tonovska, J. (2021). DETERMINANTS OF THE BILATERAL TRADE FLOWS OF NORTH MACEDONIA– A GRAVITY MODEL APPROACH. *DIEM*, 6 (1), 98-107. <u>https://doi.org/10.17818/DIEM/2021/1.10</u>.
- Linder, S. B. (1961). *An essay on trade and transformation* (pp. 82-109). Stockholm: Almqvist & Wiksell.
- Linnemann, H. (1966). *An econometric study of international trade flows* (No. 42). Amsterdam, North-Holland.
- Marković, I., Popović Petrović, I. and Bjelić, Predrag (2021) Elimination of Non-Tariff Barriers in Regional Trade Integrations: The CEFTA 2006 Experience, Teme XLV, No.2, April – June 2021, pp. 601-620.
- Moenius, J. (2004). Information versus Product Adaptation: The Role of Standards in Trade, International Business & Markets Research Center Working Paper # 1, Northwestern University.
- Mojsovska, S. and Bjelic, P. (2022) Non-Tariff Measures in CEFTA 2006: Perspectives of North Macedonia and Serbia, International Scientific Conference Proceedings: ECONOMIC AND BUSINESS TRENDS SHAPING THE FUTURE, Faculty of Economics-Skopje Ss. Cyril and Methodius University in Skopje, Skopje, 10-11 November 2022, pp.213-225.
- Nuhanovic, S. & Barakovic Nurikic, M. 2016. "The Analysis of the Influence of Non-Tariff Barriers on Bosnia and Herzegovina Trade within CEFTA 2006," Economic Review: Journal of Economics and Business, University of Tuzla, Faculty of Economics, vol. 14(2), pp. 33-43.
- OECD (2021), Competitiveness in South East Europe 2021: A Policy Outlook, Competitiveness and Private Sector Development, OECD Publishing, Paris, <u>https://doi.org/10.1787/dcbc2ea9-en</u>.
- OECD and CEFTA Secretariat (2012) Elimination of Non-Tariff Barriers in CEFTA, CEFTA ISSUES PAPER 4, Internet, <u>https://www.oecd.org/south-east-</u> <u>europe/programme/cefta4.pdf</u>.
- Organization for Economic Co-operation and Development (OECD) (2009), Overcoming Border Bottlenecks. The Costs and the Benefits of Trade Facilitation, Paris: OECD.
- Organization for Economic Co-operation and Development (OECD) (2005), "The Costs and Benefits of Trade Facilitation", Paris: OECD, Policy Brief.

- Toshevska-Trpchevska, K., Makrevska Disoska, E., Kikerkova, I. & Tonovska, J. (2022) "Applying trade facilitation measures for increasing regional trade in Southeast Europe", paper presented at the 21 Scientific Conference dedicated to the 70th anniversary of the International Economic Relations and Business Department "*The Membership of Bulgaria in the European Union: Fifteen Years Later*", Faculty of International Economics and Politics, University of National and World Economy, Sofia, Bulgaria.
- Toshevska-Trpchevska, K.; Tevdovski, D. (2016) Trade Facilitation Indicators and their Potential Impact on Trade between the Countries of South-Eastern Europe. Sci. Ann. Econ. Bus. 2016, 63, 347–362.
- Toshevska-Trpchevska, K. and Tevdovski, D. (2014) Measuring the Effects of Customs and Administrative Procedures on Trade: Gravity Model for South-Eastern Europe, Croatian Economic Survey, April 2014, DOI: 10.15179/ces.16.1.4.
- Wilson, J. S., C. L. Mann and T. Otsuki (2003), 'Trade Facilitation and Economic Development: A New Approach to Measuring the Impact', World Bank Economic Review, 17, 3, 367–89.
- Wilson, John S., Mann, Catherine L. & Otsuki, Tsunehiro (2005) Assessing the Benefits of Trade Facilitation: A Global Perspective, World Economy, 28, 6, 841-871.
- Wilson, Norbert, 2010, "Examining the Effect of Certain Customs and Administrative Procedures on Trade" in OECD Trade Policy Studies, *Overcoming Border Bottlenecks: The Costs and Benefits of Trade Facilitation*, Paris: OECD Publishing.
- World Bank (2006b), Reforming the Regulatory Procedures for Import and Export: Guide for Practitioners, Washington DC: World Bank.
- World Bank (2014), Doing Business 2015. Going Beyond Efficiency, Washington DC: World Bank.
- World Bank (2023) Connecting to Compete 2023: Trade Logistics in an Uncertain Global Economy, Washington D.C.
- World Economic Forum (WEF) (2014), The Global Enabling Trade Report 2014, Geneva: WEF.
- World Trade Organization (2015), World Trade Report 2015: Speeding up trade: benefits and challenges of implementing the WTO Trade Facilitation Agreement, Geneva.
- Zaki, C. (2010). Does Trade Facilitation Matter in Bilateral Trade? Economic Research Forum, Working Papers 472.
- Zaki, C. (2014). An empirical assessment of the trade facilitation initiative: Econometric evidence and global economic effects. World Trade Review, 13(1), 103-130. doi:10.1017/S1474745613000256.