

Mehmet Huseyin Bilgin • Hakan Danis •
Ender Demir • Ugur Can
Editors

Eurasian Economic Perspectives

Proceedings of the 20th Eurasia Business
and Economics Society Conference - Vol. 2

 Springer

Editors

Mehmet Huseyin Bilgin
Faculty of Political Sciences
Istanbul Medeniyet University
Istanbul, Turkey

Hakan Danis
MUFU Union Bank
San Francisco, California, USA

Ender Demir
Faculty of Tourism
Istanbul Medeniyet University
Istanbul, Turkey

Ugur Can
Eurasia Business & Economic Society
Fatih, Istanbul, Turkey

The authors of individual papers are responsible for technical, content, and linguistic correctness.

ISSN 2364-5067 ISSN 2364-5075 (electronic)
Eurasian Studies in Business and Economics
ISBN 978-3-319-67915-0 ISBN 978-3-319-67916-7 (eBook)
<https://doi.org/10.1007/978-3-319-67916-7>

Library of Congress Control Number: 2017956268

© Springer International Publishing AG 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

This is the eighth issue of the Springer's series *Eurasian Studies in Business and Economics*, which is the official book series of the Eurasia Business and Economics Society (EBES, <http://www.ebesweb.org>). The issue is divided into two volumes, and this volume includes selected papers in the field of business that were presented at the 20th EBES Conference. The conference was held on September 28–30, 2016, at the IFM—Real Estate and Facility Management at TU Wien in Vienna, Austria, with the support of Istanbul Economic Research Association. Prof. John Rust from Georgetown University, USA, and Prof. Alexander Redlein from Vienna University of Technology, Austria, joined the conference as keynote speakers. All accepted papers for this volume went through a peer-review process and benefited from the comments made during the conference as well.

During the conference, participants had many productive discussions and exchanges that contributed to the success of the conference where 261 papers by 420 colleagues from 60 countries were presented. In addition to publication opportunities in EBES journals (*Eurasian Business Review* and *Eurasian Economic Review*, which are also published by Springer), conference participants were given opportunity to submit their full papers for this volume.

Theoretical and empirical papers in the series cover diverse areas of business, economics, and finance from many different countries, providing a valuable opportunity to researchers, professionals, and students to catch up with the most recent studies in a diverse set of fields across many countries and regions.

The aim of the EBES conferences is to bring together scientists from business, finance, and economics fields, attract original research papers, and provide them publication opportunities. This volume covers a wide variety of topics in the field of business and provides empirical results from many different countries and regions

Freezing of Assets as a Counter-Terrorism Measure in the EU After Al-Aqsa Judgment of the Court of Justice	113
Wojciech Szydło	
The Impact of Pension Reforms on Public Finance in Poland	133
Katarzyna Owsiak	
Cluster Policy in Japan: Experiences and Prospects	153
Marcin Haberla	
Part II Regional Studies	
Complementarities of Innovation Strategies: Evidence from Transition Economies	169
Berulava George and Gogokhia Teimuraz	
Housing Problem in CEE Countries: Similarities and Differences	193
Liudmila A. Guzikova and Ekaterina V. Plotnikova	
How Generous Are Contemporary Pension Systems? A Comparative Study of the European Countries	207
Edyta Marcinkiewicz	
Unemployment and Social Exclusion in the Republic of Macedonia	221
Remzije Rakipi	
Britain and Its Colonies: Remembering the First World War (WWI)	233
Mallika Das and E. Wanda George	
Trade Regionalism of Tomorrow: Entanglement of Mega-Regionals Versus WTO	251
Sebastian Bobowski	
Poland and India in the Light of Hofstede's Cultural Dimensions	267
Aleksandra Kuźmińska-Haberla	
How Did European Union Influence Business Environment in Czech Republic?	285
Dusan Litva	
Impact of the Customs Union of Belarus, Kazakhstan and Russia on Regional Trade	299
Bulat Mukhamediyev and Azimzhan Khitakhunov	

Impact of the Customs Union of Belarus, Kazakhstan and Russia on Regional Trade

Bulat Mukhamediyev and Azimzhan Khitakhunov

Abstract In 2010 Belarus, Kazakhstan and Russia formed a Customs Union. This union is known as a new generation of regional organizations in the post-Soviet space. The reasons of formation of such kind of Union are either economical or political. In 2015 all the above mentioned core countries formed Eurasian Economic Union with the inclusion of Armenia and Kyrgyz Republic. Statistical analysis shows that Customs Union had a significant impact on regional trade. Internal trade boosted during 2011–2012 and then tended to decline due to slow-down of Russian economy. Russian economic decline negatively impacted on regional growth and trade. Thus, objective of this paper is to determine the impact of Customs Union on regional trade with application of gravity model. By using data for the period of 2000–2015, we show that impact of Customs Union on regional trade was negative, but insignificant. These results can be explained by the structural problems of the regional economy, unfavorable external conditions, low level of economic diversification and a short period of the Customs Union functioning.

Keywords Kazakhstan • Regional integration • Eurasian Economic Union • International trade • Gravity model

1 Introduction

In 2010 Belarus, Kazakhstan and Russia formed a Customs Union (CU). This union is known as a new generation of regional organizations in the post-Soviet space. The reasons of formation of the Union are either economical or political. In 2015 all the above mentioned core countries formed Eurasian Economic Union (EAEU) with the inclusion of Armenia and Kyrgyz Republic. Creation of the CU and its first expansion led to significant tariff changes. Despite Baldwin (2014) rejects the significance of tariffs in the world trade, tariffs still play significant role in developing countries. Thus, Sect. 1 describes key tariff changes.

B. Mukhamediyev (✉) • A. Khitakhunov
Department of Economics, Al-Farabi Kazakh National University, Almaty, Kazakhstan
e-mail: bmukhamediyeva@mail.com; xit8_89@mail.ru

Regional integration is one of the most popular areas where debates are still ongoing. Since Viner's (1950) classical work, the concepts of trade creation and trade diversion became central in this debate. But trade effects are wider nowadays. Thus, Sect. 2 of the paper is devoted to the trade effects of the EAEU.

To assess those trade effects a gravity model was used. Our results show that impact of Customs Union on regional trade was negative, but insignificant. These results can be explained by the structural problems of the regional economy, unfavorable external conditions, low level of economic diversification and short period of the Customs Union functioning. These and other results are described in Sect. 3. The final section concludes.

2 Tariffs Before and After the Customs Union

In 2010 a CU of Belarus, Kazakhstan and Russia was formed after the failure of all previous forms of integration (Mukhamediyev and Khitakhunov 2017). This Union was called a new generation of regional trade agreements. Creation of the Union was accompanied with strong debate between its opponents and proponents despite the official view of all integrating countries presidents. Opponents view the Union as the integration of developing resource based economies. Proponents insist on its economic opportunities as market expansion, economies of scale and terms of trade improvement (Khitakhunov et al. 2016). Statistical analysis shows that impact of the EAEU was high. These changes happened due to tariff changes (Fig. 1).

The common external tariffs (CET) are mainly Russian which were identical to tariffs of Belarus. As Khitakhunov et al. (2016) indicate Russia left unchanged 82% of its customs tariffs, lowered 14% and increased 4% of its tariffs. The corresponding shares for Kazakhstan were 45, 10 and 45%. Due to World Trade Organization (WTO) in 2009, the simple average most favoured nation (MFN) applied tariffs for Belarus, Kazakhstan and Russia were equal to 10.6%, 5.9% and 10.5% respectively (WTO 2010). CET substantially raised the level of tariffs of Kazakhstan. According to World Bank (2012), Kazakhstan's tariffs increased from an average of 6.7 to 11.1% on an unweighted basis and from 5.3 to 9.5% on a trade weighted basis. Dynamics of tariffs of Belarus and Russia were approximately identical. Tariffs on agricultural products substantially exceed other tariff lines and reached 15% in Belarus. This is very common practice as many or all agricultural products are excluded from liberalization or protected by common policies as Common Agricultural Policy of the European Union (EU). However, CET of the EAEU tends to decrease since 2013.

Tariff changes by product groups are indicated in following Table 1. Kazakhstan, the most affected member, increased its tariffs on animal and dairy products, sugar and confectionery, fish and fish products and chemicals. Tariffs on mineral products and metals, wood and paper, textiles and clothing, electrical, non electrical and transport equipment have increased substantially.

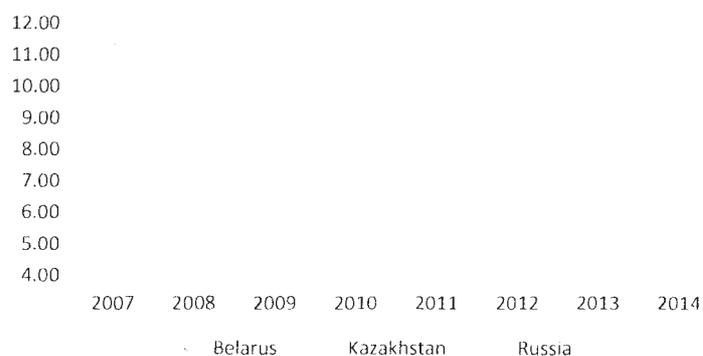


Fig. 1 Tariff changes in EAEU. Source: Based on WTO (2010, 2015)

Table 1 Tariffs of Kazakhstan by product groups, 2009 and 2014, %

Indicator	MFN applied duties, 2009 (%)			MFN applied duties, 2014 (%)		
	AVG	Duty-free	Max	AVG	Duty-free	Max
Animal products	18.2	24.7	127	19.7	17.5	96
Dairy products	15.7	1.0	27	16.7	0	23
Fruit, vegetables, plants	10.3	0.8	17	9.7	4.8	39
Coffee, tea	7.5	12.5	20	7.5	20.8	25
Cereals and preparations	13.1	5.1	37	11.2	3.5	85
Oilseeds, fats and oils	8.7	0.7	20	7.5	16.3	19
Sugars and confectionery	10.3	13.1	41	13.0	0	50
Beverages and tobacco	35.1	0	332	27.6	4.4	278
Cotton	0.0	100	0	0.0	100	0
Other agricultural products	4.9	1.8	5	5.3	7.4	18
Fish and fish products	6.8	0	15	9.8	0.9	76
Minerals and metals	5.8	10.6	15	8.8	6.9	20
Petroleum	5.0	0	5	4.3	13.1	5
Chemicals	4.8	14.3	30	5.7	8.8	18
Wood, paper, etc.	6.0	18.6	19	11.5	6.5	55
Textiles	7.4	1.8	47	10.0	0.9	36
Clothing	5.3	0	23	14.6	0	50
Leather, footwear, etc.	7.2	2.2	46	7.5	9.8	37
Non-electrical machinery	0.7	89.0	15	3.2	65.7	19
Electrical machinery	1.2	83.3	30	6.4	27.4	29
Transport equipment	2.0	71.3	10	9.6	18.1	105
Manufactures, not elsewhere specified	5.7	27.2	20	9.4	18.1	20

Source: Based on WTO (2010, 2015)

Tariff rates on fruits and vegetables, plants, cereals, oilseeds and petroleum changed insignificantly, but on beverages and tobacco significantly decreased. Thus, a significant increase of CET made Kazakhstan's economy more protectionist. This may easily lead to trade diversion. However, this can help to launch new enterprises and stimulate industrialization process in premature de-industrialized country. Kazakhstan's operating firms can also benefit through economies of scale as CU solved small market size problem of Kazakhstan.

3 Trade Effects of CU

Formation of CU substantially impacted on internal and bilateral trade flows. Figure 2 shows that the CU had a positive impact on the volumes of internal trade. It shows an increase in domestic trade in 2011 and the achievement of the maximum level in 2012 equaled to 6.23%. In the following years, a decrease is observed. But in 2015 this ratio achieved the maximum level that was equal to 6.49%.

Formation of the CU has had a significant impact on mutual trade of Kazakhstan and its partners. In the period of 2005–2010, the value of trade deficit of Kazakhstan with Belarus fluctuated in the range of 200–300 millions, then from 2011 onwards the figure has grown rapidly. In 2011, the trade deficit with Belarus exceeded 500 million, and in 2014 amounted to 712 million US dollars (Fig. 3). Despite significantly increasing trade deficit with Belarus, it has insignificant share in Kazakhstan's total imports. Kazakhstan is also a weak exporter to the market of Belarus. While Belarus supplies to Kazakhstan's market a wide variety of industrial products, Kazakhstan's exports mainly consists of mineral products such oil and oil-related goods.

In trade with Russia there is a similar situation after 2010 (Fig. 4). In the period from 2005 to 2008 the trade deficit increased. The global economic crisis has contributed to a decrease in this indicator through the reduction in aggregate



Fig. 2 Changes of CU internal trade to the world level. Source: Authors' calculation based on International Trade Centre (2016)

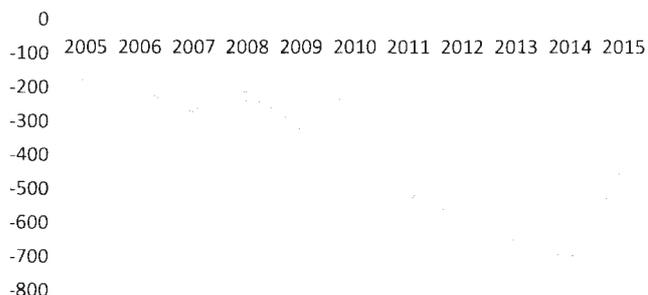


Fig. 3 Kazakhstan's net export to Belarus, USD, million. Source: Authors calculation based on International Trade Centre (2016)

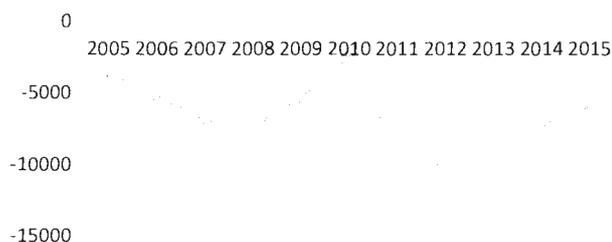


Fig. 4 Kazakhstan's net exports to Russia, USD, million. Source: Authors calculation based on International Trade Centre (2016)

trade levels. Starting from 2010 there has been a rapid growth in trade deficit with Russia.

So, if in 2010 the figure was about 2.5 billion, then in 2011 the trade deficit has exceeded 8.7 billion US dollars. The maximum value this figure reached in 2013, exceeding the level of 12 billion US dollars. The slowdown of the Russian economy and the external pressure contributed to a decrease in turnover and record trade deficit in 2014. But Russia is recognized as the main importer in the Kazakhstan's market which has significant market share and market power. So, opponents of the EAEU insist that creation of the Union will strengthen Russia's position in Kazakhstan's market and will make Kazakhstan more dependent on Russia's producers. Moreover, ability of Russia to control foreign economic activity of its partners will give Russia additional advantages both economic and political.

Commodity structure of mutual trade confirms the known fact that Kazakhstan is a country with low diversification of the national economy (Table 2). For example, Kazakhstan's share in trade in live animals is 1.28%. The comparable figure in Armenia amounted to 14.4%, Belarus—23.27%, Kyrgyzstan—7.29%. The share of Kazakhstan in the food trade, amounting to 3.56%, is considerably below Armenia (16.84%), as well as Belarus and Russia. However, its share in the trade of raw materials and mineral products, and metals remains high, which is a significant drawback. Their combined share amounts to about 60%. The share of industrial

Table 2 Commodity structure of mutual trade of CU countries, 2015, (% total volume of trade)

Section	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia
Live animals	14.40	23.27	1.28	7.29	0.98
Vegetable products	11.85	5.07	4.06	8.98	0.95
Foodstuffs	46.84	6.67	3.56	2.63	5.49
Mineral products	1.01	5.32	42.03	8.23	42.97
Chemicals and allied industries	1.87	3.94	9.13	0.38	5.48
Plastics/rubbers	0.98	7.52	1.13	2.04	4.93
Wood and wood products	0.09	1.85	0.02	0.02	1.13
Textiles	10.86	5.59	0.85	10.38	1.35
Articles of stone, plaster, cement; ceramic products; glass	1.64	2.39	0.18	2.39	1.72
Base metals and articles thereof	1	6.45	17.04	1.40	11.44
Cars and equipment	3.09	12.79	2.84	3.85	9.75
Vehicles other aircraft, vessels	0.18	10.62	0.88	3.39	5.30
Miscellaneous manufactured articles	0.27	3.42	0.22	0.57	1.54
Other	5.92	5.1	16.78	48.45	6.97

Source: Compiled by authors according to Eurasian Economic Commission (2016). It is noted that significant amounts are not allocated by goods in Kyrgyzstan

products also shows a significant lag from its partners in the EAEU. Nevertheless, Kazakhstan has advantages in the chemical industry, and its share in total trade is a leading one.

Tariff changes in the EAEU led to import changes. Following Tables 3, 4, and 5 show dynamics of imports of CU member countries from various regional trade agreements (RTAs).

Dynamics of imports of Kazakhstan affected significantly by tariff increase. The most affected partners of Kazakhstan are members of the European Union. EU's share in Kazakhstan's market achieved 30% in 2010. But in 2011 it dropped to 19% and continued to decrease. But CU's share jumped substantially from 24% in 2010 to 44% in 2011. This could be a classical trade diversion due to increase in tariffs. Increase in CIS and BRICS groups' shares can be explained by increasing share of Russia. Other RTA's were not significantly affected by tariff changes.

Belarus and Russia were not affected due to favorable tariffs. Insignificant fluctuations in imports can be explained by post-crisis recovery.

4 Assessment of the Impact of the CU on Regional Trade

The most frequently used model to assess the impact of regional trade agreements is a gravity model of international trade. Simple gravity model takes the following form

Table 3 Kazakhstan's imports from RTAs (% of total imports)

Year	ASEAN	BRICS	CIS	EU 28	MERCOSUR	NAFTA	CU
2004	1	45	48	28	1	5	39
2005	1	47	47	25	1	8	39
2006	1	48	47	27	1	5	40
2007	1	47	44	25	1	6	37
2008	1	50	46	23	1	6	37
2009	1	45	43	27	1	6	33
2010	1	41	33	30	1	7	24
2011	1	58	52	19	1	5	44
2012	1	57	50	17	1	5	40
2013	2	55	47	19	1	5	38
2014	2	53	43	21	1	6	35

Source: Authors calculation based on International Trade Centre (2016)

Table 4 Belarus' imports from RTAs (% of total imports)

Year	ASEAN	BRICS	CIS	EU 28	MERCOSUR	NAFTA	CU
2004	0	70	72	20	1	1	68
2005	1	63	67	22	1	2	61
2006	1	62	65	23	1	1	59
2007	1	63	66	22	1	2	60
2008	1	64	66	22	1	1	60
2009	1	63	64	23	1	2	59
2010	1	58	59	22	4	1	53
2011	1	60	61	19	4	1	54
2012	1	65	64	20	1	1	59
2013	1	60	58	24	1	1	53
2014	0	57	59	32	0	0	54

Source: Authors calculation based on International Trade Centre (2016)

$$Trade_{ij} = \frac{A (GDP_i GDP_j)^{r_1}}{D_{ij}^{r_2}}, \quad (1)$$

where $Trade_{ij}$ is a trade volume between countries i and j , GDP_i и GDP_j —GDPs of countries i and j accordingly, D_{ij} is a distance between two countries that include transaction and transport costs, A —is a constant, and r_1 and r_2 —elasticity figures. The model assumes that the size of the economy, represented by the GDP of the two countries has a positive impact on mutual trade, and the distance between the two countries has a negative impact on trade between the two countries.

In practice, different forms of gravity models are used. For example, a simple gravity model of Anderson (1979) is as follows.

Table 5 Russia's imports from RTAs (% of total imports)

Year	ASEAN	BRICS	CIS	EU 28	MERCOSUR	NAFTA	CU
2004	2	9	23	46	2	5	13
2005	2	11	19	45	3	5	9
2006	2	12	16	45	3	5	8
2007	2	15	15	44	3	6	7
2008	2	16	14	44	2	6	6
2009	3	17	13	46	3	6	6
2010	2	20	14	41	3	5	6
2011	2	18	15	40	2	5	7
2012	3	19	14	42	2	6	7
2013	3	19	12	43	2	6	6
2014	3	20	11	41	2	7	7

Source: Authors calculation based on International Trade Centre (2016)

$$M_{ijk} = \alpha_k Y_i^{\beta k} Y_j^{\gamma k} N_i^{\xi k} N_j^{\eta k} d_{ij}^{\mu k} U_{ijk} \quad (2)$$

where M_{ijk} —the value of goods flow or the flow factor k from the country i to the country j , and Y_j —incomes of countries i and j , and N_j —population in the countries i and j , d_{ij} is the distance between countries, a U_{ijk} is an error. Anderson (1979) showed a theoretical basis for the gravity model. Further development of the gravity model was in the works of Bergstrand (1990), McCallum (1995), Deardoff (1998), Anderson and Wincoop (2003), Baldwin and Taglioni (2006), Baier and Bergstrand (2007), and Egger and Pfaffermayr (2013).

Thus, a large number of studies devoted to the influence of the European Union on the European trade. Aitken (1973) was one of the first who used the gravity model to assess the influence of the EU and European Free Trade Association (EFTA) at the European trade during the 1957–1967 periods. He determined that the two organizations have a statistically significant impact on trade, and that the EU has had a negative impact on the EFTA countries and the EFTA influence on the EU was insignificant. Sapir (2001) showed that the integration of the EU and EFTA positively impacted on European trade. Baier et al. (2008) found that EU membership has been economically and statistically significant impact on the participants of European integration, and the EFTA influence was negligible. Gil et al. (2008) have shown that the expansion and deepening of integration within the EU has significantly increased trade flows, and that the new members make the same contribution to the rate of growth of regional trade. Lee et al. (2008) showed that regional integration associations in the average increase global trade through increase of trade in the integration association, and do not cause harm to foreign trade. Freund (2010) analyzed six integration associations and concluded that the regional association does not divert trade with third countries. Egger and Pfaffermayr (2013) found that the creation of trade through the creation and expansion of the EU has been significant, especially in the initial period of integration. As a result of the expansion and liberalization of trade between the EU and the EFTA, the effect of

creating trade began to decline to new members; the effect of trade creation of the northern EU enlargement was higher than that of the south; the impact of integration on trade between the center and periphery was positive. Montalbano and Nenci (2014) showed that the EU and EU trade agreements (ENP—European Neighborhood Policy) have a positive impact on trade in the EU. Thus, gravity models are the most common to evaluate the impact of integration processes on international trade.

To assess the impact of the Eurasian integration on the mutual flows of trade, a gravity model was chosen. On the basis of this problem, we plan to evaluate the model of the following form:

$$\begin{aligned} \exp_{ijt} = & \alpha_0 + \alpha_1 GDP_{it} + \alpha_2 GDP_{jt} + \alpha_3 Dist_{ij} + \alpha_4 CB_{ijt} + \alpha_5 CU_{ijt} + \gamma_i + \omega_j \\ & + \theta_t + \gamma\omega_{ij} + \varepsilon_{ijt}, \end{aligned} \quad (3)$$

where \exp_{ijt} —export from the country i to the country j in the moment of time t ; α_0 —intercept; $Dist_{ij}$ —distance between the capitals of the trading countries expressed in kilometers; CB_{ijt} —a dummy variable that takes the value of 1, if the countries have a common border, 0—otherwise; CU_{ijt} —is also a dummy variable equal to 1, if the countries are the members of the Customs Union, 0—otherwise; θ_t —time-specific effect, γ_i и ω_j —country-specific effects, $\gamma\omega_{ij}$ —country-pair fixed effects, ε_{ijt} —a random error.

Based on the experience of other integration associations, the hypothesis is that regional integration agreements, in this case, the CU/EAEU, have a positive effect on trade between member states. Data for these models was taken from the following statistical sources:

1. GDP of the countries—from the World Bank's World Development Indicators;
2. The values of exports and imports of countries—from the UN Comtrade data base;
3. For the dummy variables and distance CEPII Research and expertise on the world economy were used.

The model considers the annual data from 2000 to 2015. For the model, data is used on mutual trade in 17 countries, such as Armenia, Azerbaijan, Belarus, Georgia, Germany, Iran, Italy, Kazakhstan, Kyrgyzstan, China, Moldova, Poland, Russia, Tajikistan, Turkmenistan, Turkey, Uzbekistan, Ukraine, and France.

Based on the above model, five calculations have been made, in particular:

1. Calculations without fixed effects;
2. Calculations with the inclusion of only time effects;
3. Calculations with the inclusion of only fixed effects for country pairs,
4. Calculations with the inclusion of country fixed effects and time effects;
5. Calculations with the inclusion of a full set of fixed effects.

The results of the estimated gravity model are presented in Table 6.

Equation (1) estimated without fixed effects. Assessed results show that GDP of exporter and importer have a positive impact on trade. Distance variable confirms

Table 6 Gravity model results

	1	2	3	4	5
Exporter GDP	0.711*** (54.71)	0.734*** (55.64)	0.488*** (7.48)	0.143 (1.68)	0.148* (2.07)
Importer GDP	0.560*** (39.35)	0.584*** (38.19)	0.580*** (10.88)	0.234* (2.24)	0.238** (2.92)
Distance	-0.749*** (-15.70)	-0.781*** (-16.02)	-0.501*** (-8.85)	-1.053*** (-20.05)	-0.827*** (-6.93)
CU	0.298* (2.09)	0.518*** (3.50)	-0.116 (-1.54)	0.170 (1.07)	-0.00862 (-0.11)
CB	1.041*** (15.77)	0.987*** (15.03)	2.336*** (10.25)	0.0403 (0.58)	1.191*** (6.05)
Const	-7.454*** (-14.35)	-8.080*** (-14.99)	-4.743*** (-7.83)	10.88*** (3.66)	17.13*** (7.58)
Country specific f.e.	No	No	No	Yes	Yes
Time effects	No	Yes	No	Yes	Yes
Country-pair f.e.	No	No	Yes	No	Yes
N	1631	1631	1631	1631	1631
R ²	0.749	0.755	0.950	0.908	0.953

Note: t-statistics in parentheses *p < 0.05, **p < 0.01, ***p < 0.001. All variables are in logs

that distant countries trade less. Existence of common borders increases mutual trade flows. Dummy variable CU is positive. This indicates that formation of the CU positively impacted internal trade.

Columns 2–4 show changes of the model results after inclusion of fixed effects. But gravity models need the inclusion of full sets of fixed effects, including time effects, country-specific effects, country-pair fixed effects.

This set of fixed effects controls for heterogeneity and endogeneity connected with unobservable trade costs (“multilateral resistance”). Country-specific effects control time-invariant country characteristics, time effects—cyclical impact, country-pair fixed effects—geographical, historical, cultural and political influence which can divert trade normal trade level between country-pair.

Column 5 estimated with the inclusion of full set of fixed effects. Estimated coefficients show that exporter-importer GDP’s and existence of common border have positive impact on trade flows. Model confirms that distant countries trade less. Dummy variable is negative but insignificant.

Thus results of the model don’t allow to make some conclusions about the impact of the CU on mutual trade. These results can be explained by the following reasons:

1. Short period of CU functioning;
2. Intensive external pressure, slow growth of Russia, low demand for main export products.

Thus, results of the model show that conclusions about impact of the CU on trade based on aggregate data (*in current period*) are incomplete. So, there is a need to use other techniques able to assess the impact of the CU on regional trade.

5 Conclusion

This analysis was one of the first attempts of assessment of trade effects of the newly created EAEU. Gravity results show that analysis based on aggregated trade data is incomplete to distinct pure effects (*in current period*) of the CU. This is explained by significant external pressure and structural economic problems of the region. In addition, it can also be explained by a short period of CU functioning. Thus, determination of pure effects of the CU (*in this period*) requires other techniques as analysis of trade structure which can help to determine benefiting and losing economic sectors.

We understand that our model has restrictions due to data unavailability. So, in the future this research will be continued with the inclusion of more data and factors. However, according to statistical analysis, increase of CET made Kazakhstan's economy more protectionist and led to trade diversion. The most affected partners of Kazakhstan are members of the European Union. EU's share in Kazakhstan's market dropped in 2011 and continued to decrease while CU's share jumped substantially. Belarus and Russia were not affected by CET changes.

References

- Aitken, N. D. (1973). The effects of the EEC and EFTA on European Trade: A temporal cross-section analysis. *American Economic Review*, 63(4), 881–892.
- Anderson, J. (1979). A theoretical foundation for the gravity equation. *The American Economic Review*, 69(1), 106–116.
- Anderson, J., & Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. *The American Economic Review*, 93(1), 170–192.
- Baier, S., & Bergstrand, J. (2007). Do free trade agreements actually increase members' international trade? *Journal of International Economics*, 71, 72–95.
- Baier, S. L., Bergstrand, J. H., Egger, P., & McLaughlin, P. A. (2008). Do economic integration agreements actually work? Issues in understanding the causes and consequences of the growth of regionalism. *The World Economy*, 31(4), 461–497.
- Baldwin, R. (2014). *Multilateralising 21st regionalism. Global forum on trade. Reconciling regionalism and multilateralism in a post-Bali world* (pp. 1–46). Paris: OECD Conference Centre.
- Baldwin, R., & Taglioni, D. (2006). *Gravity for dummies and dummies for gravity equations*. [online]. Accessed September 21, 2016, from <http://www.nber.org/papers/w12516>
- Bergstrand, J. (1990). The Heckscher-Ohlin-Samuelson Model, the linder hypothesis and the determinants of bilateral intra industry trade. *The Economic Journal*, 100(403), 1216–1229.
- Deardoff, A. (1998). *Determinants of bilateral trade: Does gravity work in a neoclassical world?* [online]. Accessed September 22, 2016, from <http://www.nber.org/chapters/c7818.pdf>

- Egger, P. H., & Pfaffermayr, M. (2013). The pure effects of European integration on Intra-EU core and periphery trade. *The World Economy*, 36(6), 701–712.
- Eurasian Economic Commission. (2016). *Mutual trade in goods of the Customs Union and Common Economic Space members for 2015*. Statistical bulletin [online]. Accessed October 5, 2016, from http://www.eurasiancommission.org/ru/act/integr_i_makroec/dep_stat/tradestat/tables/intra/Documents/2015/12_180/1201512_2_2.pdf
- Freund, C. (2010). Third-country effects of regional trade agreements. *The World Economy*, 33(11), 1589–1605.
- Gil, S., Llorca, R., & Martinez-Serrano, J. A. (2008). Assessing the enlargement and deepening of the European Union. *The World Economy*, 31(9), 1253–1272.
- International Trade Centre. (2016). [online]. Accessed September 20, 2016, from www.intracen.org
- Khitakhunov, A., Mukhamediyev, B., & Pomfret, R. (2016). Eurasian Economic Union: Present and future perspectives. *Economic Change and Restructuring*, 1–19.
- Lee, J. W., Park, I., & Shin, K. (2008). Proliferating regional trade arrangements: Why and whither? *The World Economy*, 31(12), 1525–1557.
- McCallum, J. (1995). National borders matters: Canada-US regional trade patterns. *The American Economic Review*, 85(3), 615–623.
- Montalbano, P., & Nenci, S. (2014). Assessing the trade impact of the European Neighbourhood Policy on the EU-MED Free Trade Area. *Applied Economics*, 46(7), 730–740.
- Mukhamediyev, B., & Khitakhunov, A. (2017). Central Asian integration and its impact on regional trade and economy. In M. H. Bilgin et al. (Eds.), *Country experiences in economic development, Management and entrepreneurship*. Eurasian Studies in Business and Economics 5. https://doi.org/10.1007/978-3-319-46319-3_2
- Sapir, A. (2001). Domino effects in Western European Regional Trade, 1960–1992. *European Journal of Political Economy*, 17(2), 377–388.
- Viner, J. (1950). *The Customs Union issue*. New York: The Carnegie Endowment for International Peace.
- World Bank. (2012). *Assessment of costs and benefits of the Customs Union for Kazakhstan*. Report No. 65977-KZ [pdf]. Accessed April 25, 2015, from <https://openknowledge.worldbank.org/bitstream/handle/10986/2722/659770ESW0P1230on0Final0jan0302012.pdf?sequence=1>
- WTO. (2010). *World tariff profiles*. [pdf]. Accessed July 10, 2015, from https://www.wto.org/english/res_e/booksp_e/tariff_profiles10_e.pdf
- WTO. (2015). *World tariff profiles*. Accessed April 10, 2015, from https://www.wto.org/english/res_e/booksp_e/tariff_profiles14_e.pdf