IMPACT OF THE "CUSTOMS UNION" ON THE KAZAKHSTAN'S ECONOMIC GROWTH *

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Abstract

Most countries have recently resorted to the experience of joint economy in a controlled integration. In the international community, multi-stage integration is important for mutual trade, production, strengthening political and economic ties. In order to elaborate and consolidate trade and economic relations first step is to unify national economy and develop a unified customs tariff policy. For instance, the European Union's enrichment of a high level of economic and political integration was based on the Customs Union. The post-Soviet union countries as Belarus, Russia and Kazakhstan followed such suit in 2010 and established a customs union to strengthen the mutually beneficial relations with each other in order to attract other Commonwealth of Independent States. Nevertheless, whether to have a customs union with Belarus and Russia has positive effects to the economic growth of Kazakhstan is discussed in this paper. Since, the political interests of the countries are more affected, it has been hypothesized that the Customs Union does not play a big role for the growth of Kazakhstan's GDP. This paper aims to examine the impact of international agreement the "Customs Union' on the development of Kazakhstan economy by using economic data of three-side trade. We accept the presumption that the economic growth matters in terms of international collaborations. This study is to explore the impact of the international trade agreement on a state's economic *development.* In able to test the main question a data set over the quarterly period of 2003-2009 before and 2010-2013 after creation of the Customs Union and two regression models have been used. In addition, we have added SWOT analysis which has been applied to show advantages and disadvantages of the Customs Union project for Kazakh's Economy.

Keywords: Economic Growth, International Agreements, the Customs Union, Kazakhstan.

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1. Introduction

Globalization of the modern world occurs promptly and quickly. One of the important factors of this process is the international relations, in particular, international trade between the partner-countries within the frames of various trade agreements. Countries are trying to improve their economies by finding a way of integrating their trade, removing tariffs and quotas, and freeing movements of the labor. Development of economy of any country directly depends on foreign trade, because all parties participate in the international division of labor and the movement of capitals and services. Countries look for every solution to increase their trade in a very competitive globalized world. In able to do this sometimes they take decisions and use such tools like customs union to discard the barriers in front of the international trades.

Customs union is an arrangement in which a group of countries abolish tariffs among union members and jointly choose their external tariffs (Kruger 1997, Yi 1996) with a goal attainment of openness of market and free movement of capital, labour, and goods. It aims to promote economic progress and improve the social living standards. The founding members plan to achieve these goals by exploiting existing relationships in production and the economy. Geographical proximity and cultural similarities, increasing the profitability of Eurasian countries to make them more attractive to investors, and establishing a common legal framework could count for some reasons of creation that collaboration Wolfgang, Brovka and Belozerov, 2014). Also, bilateral benefits among the contracting parties and cost-effective use of resources in the reduction of trade restrictions are expected (Baldwin and Jaimovich, 2012; Egger and Larch, 2008; Fugazza and Robert-Nicoud, 2010).

According to Dragneva and Wolczuk (2012) there were many attempts to bring states which got their independence recently together to some kind of post-Soviet successor since the break-up of the Soviet Union. As a result, these have caused many international treaties and political meetings but none could be called as success. These attempts created an uncertainty among parties like policy-makers and academics. Commonwealth of Independent States (CIS) was the first and most probably the best-known attempt. CIS tried to bring 12 newly independent republics around a new economic project. Afterward, by the mid-1990s Russia's has signed customs union with Belarus and Kazakhstan. Three countries as an establisher of the Customs Union Commission started negotiating and prepared drafting agreements which were necessary for the running of the ECU during 2008 and 2009. On the 1st January 2010, the Commission formally launched the Common Customs Tariff and started to work.

As was known, Kazakhstan had a free trade regime with Russia and Belarus before forming of the Customs union. There are some assumptions that the situation could be the same for after creation of the Customs Union. Kazakhstan had the bilateral agreement about free trade with Russia signed on October 22nd, 1992 which was approved by the Resolution of the Cabinet No. 374 of May 7th, 1993 and came into the force on July 7th, 1998. In addition, Kazakhstan had the bilateral agreement about free trade with Belarus signed on September 23rd, 1997. Besides, the agreement of the CIS of 1994 provides a free trade regime between all participants of the CIS. Therefore, the only change is in introduction of a single external tariff. However, the initial single external tariff was in essence the Russian tariff, terms of trade of Kazakhstan with Russia did not improve.¹

In this paper, we have explored whether the indicators of international trade within the trade agreement, the Customs Union, have significant or insignificant impact on economic development of Kazakhstan. In able to test the main question a data set over the quarterly period of 2003-2009 before and 2010-2013 after creation of the Customs Union and two regression models have been used. The comparisons show that economy of Kazakhstan and turnover between members-countries grew faster before forming the collaboration, but slower after participation in this regional trade union. Furthermore, the regressions results show that the Customs Union with Russia and Belarus has not created any significant effect on Kazakhstan's GDP.

In addition SWOT analysis has been applied to show advantages and disadvantages of the Customs Union project for Kazakh Economy. Results of an assessment of the analysis of SWOT also showed that the unions render more positive effect on a political background of the country which too plays an important role for the state wellbeing of the country.

Section II reviews the literature on the effects of customs union on member countries. Section III discusses data and methodology issues. Section IV gives detailed information about analysis. Section V compares strengths and weaknesses, opportunities and threats of Customs Unions on Kazakh's economy and section VI set conclusions and makes further suggestions.

2. Literarure Review

Most analyses of customs unions (CU) focused on the effects on member countries and on the rest of the world. According to Cooper and Massell (1965) economic integration can provide two or more economies to retain a certain amount of industry

¹ http://www.worldbank.org/ru/news/feature/2012/04/18/kazakhstan-in-the-customs-union-losses-or-gains

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at a lower real cost. These results, whether affected or not, depends on the choice of participants and more important on the degree that they collaborate. In many cases, comprehensive cooperative effort is needed in able to gain more in both industry and gain income dimension for countries. CU could make it technically possible to gain both countries; a CU with subsidies or similar policies will ensure potential earnings.

Many international trade economists like Scott L. Baier, Jeffrey H. Bergstrand, Afhanasios Vamvakidis, Gene M. Grossman, Florence Jaumotte, Hans-Michael Wolffgang, and others set goals of research of the effects of international agreements on international or regional trade. Baier and Bergstrand (2007) analysed the effects of free trade agreements (FTAs) on trade flows by using the gravity equation for cross-country empirical analyses of international trade flows and revealed that, "on average, an FTA approximately doubles two members' bilateral trade after 10 years." On another work Baier and Bergstrand (2009) revealed that using nonparametric empirical estimation to illustrate long run effects of FTA's and CU's on members trade allowed more economically credible values and the result of this techniques suggest 100% average long run effects of FTA on members trade. Jaumotte (2004) investigates "whether the market size of a regional trade agreement (RTA) is a determinant of foreign direct investment received by countries participating in the RTA. Evidence is found that the RTA market size had a positive impact on the foreign direct investment received by member countries." Recently many states seek to negotiate regional trade agreements. In his article Whalley (1998) raises the issue that some see trade agreements as providing underpinnings to strategic alliances, and hence implicitly form part of security arrangements.

The work of Jaumotte can be a good impulse to the development of ideas regarding further study of regional international agreements. In addition Vamvakidis raised the issue of Regional Integration and Economic Growth more than once. In his article Vamvakidis (1998) presents "empirical evidence that countries with open, large, and more developed neighbouring economies grow faster than those with closed, smaller, and less developed neighbouring economies." He assumed that his empirical model could be verification of GDP of the development countries grow faster when they form a regional trade agreement with the larger and more developed neighbouring countries. However, his examination shows that impact of five regional trade agreements during the tested period finds that none led to the further economic development for states. Vamvakidis (1999) also reaffirm his own hypothesis with his new work where he focused on the policy implications which support broad liberalization. As recently Knobel and Chokaev (2014) have attempted to evaluate the economic consequences of a trade agreement between the CU and the EU and declared that even though there are certain benefits for certain members and the Customs Union in general, the beginning of integration with the EU will be very difficult to internally rearrange the benefits because mechanisms is missing. The CU

would see positive gains largely, but among its members the benefits and costs would be distributed unevenly. Halicioglu (1997), by using a partial equilibrium model, investigates the static effects of CU on Turkey's economy. Vergil (2004) examines the impact of the CU on Turkey's Intra Industry Trade (IIT) level and results show that the CU positively affects Turkey's IIT level.

Dreyer and Popescu (2014) look at the subject from a different angle and discuss the benefits of European Customs Union (ECU) to its members. According to Dreyer and Popescu 'ECU is not likely to bring long-term economic benefits to its members. Since its member states are neither wealthy nor are their economies complementary. Therefore, only political tensions over transfers of wealth can be anticipated.'

Dreyer and Popescu (2014), the European Customs Union (ECU) is not able to bring long-term economic benefits to its members since the Member States neither rich nor they have complementary economies. Therefore, political tensions can be expected on wealth transfer.

3. Data and Methodology

To examine teh impact of the Customs Union on the development of Kazakhstan economy, economic data of three member states Belarus, Kazakhstan and Russia and statistics data of Ministry of National Economy of the Republic of Kazakhstan Committee from 2003 to 2013 were used. Application helped us to compare the effects of customs union on the Kazakh's economy before and after creation of the union. Analysis, comparing, synthesis, ratio were the methods of the research. Research hypothesis could be explained by whether the trade agreement have insignificant impact on economic development of Kazakhstan or not.

Kazakh foreign trade growth dynamics changed radically. As seen in Table-1 below, the growth of exports and Gross Capital Formation are slightly higher in 2013 than in 2003. However, Labour Force in Kazakhstan does not change drastically, because the level of population is almost the same.

Table 1.Total Trade Dynamics of Kazakhstan: GDP, Gross Capital Formation,Labour Force, Export, Import 2003 – 2013

	GDP	Gross	Lab		Expo	Total		Impor	Total
Yea	of	Capita							import
r Kaz	-	1	Forc	t from	from	t of of	t to	Kazak	of
		Forma	e of	Kaza	Kaza	Kazak	Kazak	hstan	Kazak
	hstan	tion of	Kaz	khsta	khsta	hstan	hstan	from	hstan

		Kazak	akhs	n to	n to		from	Belaru	
		hstan	tan	Russi	Bela		Russia	s	
				a	rus				
200	47.51	11.38	7.74	196.7	12.5	12.91	3.277.		8.401.
200	1.520.	5.313.	7.41	74.04	77.9	5.946.	753.4	94.89	999.5
3	915	018	4	0	00	500	00	6.200	00
200	52.07	13.10	7.79	2.836	18.2	20.07	4.807.	143.8	12.77
	2.626.	4.495.	4.45	.285.	32.0	9.042.	771.9	21.99	3.473.
4	922	284	2	585	59	632	57	0	442
200	57.12	17.69	7.94	2.926	26.4	27.84	6.581.	207.9	17.33
	3.671.	1.068.	0.35	.578.	89.6	6.084.	786.0	94.63	3.158.
5	734	633	1	211	84	842	28	3	546
200	63.23	23.29	8.08	3.730	70.9	38.24	9.064.	284.3	23.66
6	5.904.	9.137.	1.82	.036.	74.5	4.423.	093.6	50.54	0.993.
0	609	390	8	511	36	102	43	9	437
200	68.86	28.75	8.23	4.658	129.	47.74	11.57	395.9	32.68
200	3.900.	1.135.	8.06	.919.	293.	7.902.	3.772.	67.00	6.612.
/	119	539	7	347	777	401	024	9	797
200	71.13	25.07	8.37	6.227	170.	71.17	13.75	396.2	37.81
8	6.408.	0.990.	6.50	.049.	831.	1.956.	3.819.	02.11	5.371.
0	824	190	5	275	587	161	558	0	782
200	71.99	25.64	8.62	3.546	54.7	43.19	8.896.	367.0	28.40
9	0.045.	7.622.	8.86	.966.	03.5	5.762.	564.5	63.17	8.679.
,	730	965	6	531	72	042	67	9	844
201	77.24	26.16	8.76	3.006	41.4	57.24	5.475.	251.1	24.02
0	5.319.	0.575.	2.64	.543.	79.4	4.063.	744.7	23.97	3.626.
0	067	424	6	083	03	938	12	9	743
201	83.03	27.62	8.90	7.514	103.	88.10	16.26	623.3	38.01
1	8.717.	5.567.	8.08	.522.	493.	7.933.	9.065.	66.20	0.237.
1	998	648	2	000	000	672	800	0	472
201	87.19	29.58	9.03	6.747	90.3	92.28	17.11	675.5	44.53
2	0.653.	8.087.	7.12	.212.	56.7	1.520.	0.459.	26.58	8.070.
	898	855	3	050	80	630	435	0	815
201	92.42	24.20	9.16	5.806	57.1	82.51	17.68	681.7	48.87
3	2.094.	0.672.	8.03	.507.	32.4	0.022.	5.586.	38.57	1.868.
5	888	827	3	543	20	886	034	7	575

Source: UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December, 2014).

Comparing with Kazakhstan's export to Belarus and Russia, last one has all preconditions for further development of the mutual turnover. As Kazakhstan has multilateral international trade with many countries in the world, total export of Kazakhstan has powerful share of world trade balance.

According to the data of the World Trade Report in the Table 1 and Figure 1 GDP of the Republic of Kazakhstan in 2003 compared with 2013 increased twice in nominal terms. For comparison, GDP per capita, which is a measure of the welfare in 2013, increased about 80% in comparison to 2003 with the average annual growth rate around 2 percent.

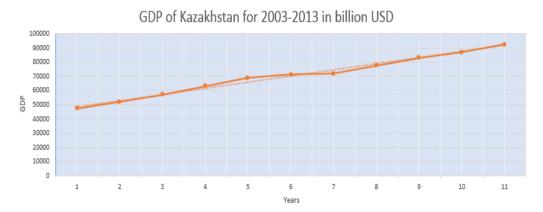


Figure 1. GDP of Kazakhstan for 2003-2013in billion USD Source: Authors' calculations based on UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December, 2014).

As can be seen in Figure 2 Labour Force was grown also, but not so significant.



Figure 2. Labour Force of Kazakhstan for 2003-2013 in billion USD Source: Authors' calculations based on UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December, 2014).

Export form the Republic of Kazakhstan to the Russian Federation has grown rapidly by 2008, decreased in 2009 and 2010, then increased again by 2011 and was stable by 2012. Export form the Republic of Kazakhstan to Belarus was grown unsteady and by 2010 it increased twice in nominal terms, but fallen in 2013. Overall, in 2013

the volume of Export form the Republic of Kazakhstan rose by at least twice in real terms. According to the Table 1 it is clear that total export from Kazakhstan to other countries in the world is significantly bigger than export from Kazakhstan to Belarus and Russia separately. In addition, import from the Russian Federation and Belarus to the Republic of Kazakhstan can be seen in Table 1. Import growth rate in 2013 is 481% that says many things about openness of the Kazakhstan's market for many countries. In 2003 the share of export in GDP was 27.19%; in 2013 it becomes 89.28%; in 2003 import held 17.68 % of GDP and in 2013 52.88 %.

During the studied period, import of goods to Kazakhstan from Russia had a dynamic character. In 2003 it was 3 277 billion dollars and became 13 753 billion dollars in 2008. Due to the consequences of economic crisis in 2008, from 2009 to 2010 there was a sharp decline in the import of goods by 42.8 %.

After 2010 Kazakhstan's integration to Customs Union, import of goods from Russia increased notably. The share of import in 2003 held 6.89 % of GDP and in 2013 it was 19.14%. Import of goods from Belarus has absolutely another picture. It was connected with limited quantity of a product line in Belarus, besides it had a stable dynamics.

The share ratio of Russian import to Kazakhstan in comparing with the world level shows that from 2003 to 2008 it was 45-50%, in 2009 and 2010 it decreased to 20-25%, and since 2011 it was stabilized to one-third of world imports. Import of goods from Belarus is a minimum share in relation to the world level investments. Thus, Russia for Kazakhstan is one of large importers of goods. It is caused by geographical and political factors.

Recently, Mogilevskii (2012) considered the development as "the actual cumulative impact of the CU on Kazakhstan and other Central Asian economies so far is well below expectations and below early estimates (used aggregate trade numbers only). This is not surprising as critical effects of comprehensive policy changes usually require a long time to evolve and emerge. A general assessment of the impact of the CU will be neither unambiguously positive nor negative; there are winners and losers in each country and accounting for details and nuances is necessary."

4. Analysis

The regression model of how the Customs Union weigh with Kazakhstan's economic growth

The model of Economic Growth based on the calculation of the regression equationwhich can be can be written as follows:

$\ln GDP_t = \beta_1 + \beta_2 \ln K_t + \beta_3 \ln L_t + \vartheta_t$

The model was tested on Eviews8 Program. Based on the annual data over the period of 2003 and 2013, the following production function was estimated by OLS (Ordinary Least Squares) to see whether the Customs Union with Russia and Belarus has created a significant effect on the production. To do this, it is necessary to use constant term dummy variable CUSDUM, which takes 1 value after the Customs Union and zero otherwise.

Number of Observations	Variable
1	2003
1	2004
1	2005
1	2006
1	2007
1	2008
1	2009
1	2010
1	2011
1	2012
1	2013

Table 2. a. Included observations, 2003-2013

Source: Author's calculations based on UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December, 2014).

Table 2.b. Regression Statistics.

Variable	Coefficient	Standard Error	t-Statistic	Prob.
С	-21.0661	7.276323	-2.895169	0.0231
LOG(K)	0.187058	0.059804	3.127833	0.0167
LOG(L)	2.606581	0.524406	4.970539	0.0016
CUSDUM	0.008792	0.044757	0.196445	0.8498

Source: Author's calculations based on UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December 2014).

Numerical coefficients evaluate the effect found by regression dependence based on the coefficient of determination, which characterizes the quality of the obtained regression line. This quality is expressed by the degree of correspondence between the original data and the regression model (calculated data). Certainty measure is always within the interval [0; 1].

The Regression Statistics	Coefficient
0	
R-squared	0.983288
Adjusted R-squared	0.976126
S.E. of regression	0.032834
Sum squared resid.	0.007547
Log likelihood	24.45669
F-statistic	137.2865
Prob.(F-statistic)	0.000001
Mean dependent var.	24.95415
S.D. dependent var.	0.212501
Akaike info criterion	-3.719399
Schwarz criterion	-3.574710
Hannan-Quinn criter.	-3.810605
Durbin-Watson stat	1.564080

Table 2.c. Generated results of the regression statistics

Source: Author's calculations based on UN COMTRADE Statistical database, 2014, www.comtrade.un.org/db/ (Access Date: December 2014).

As was shown in the Table 2.c., generated results of the regression statistics, a measure of certainty is 0.9833. In that case R-squared is closely to 1, it means that the model explains almost all of the variability of the relevant variables. It indicates a very good fit regression line to the original data, and coincides with the coefficient of determination (R-squared).

Based on the estimated values of coefficients, it can be concluded, that one percent rise in labor and capital inputs increase the GDP, on average, by 2.61 and 0.19 percent respectively. Regression results indicate that there is a statistically significant positive relationship between capital input and GDP as well as between labor input and GDP, since P-values of t-statistics of both coefficients are below 5% level of significance. The calculated level of significance F in the table confirms the importance of the coefficient of determination. Also based on the F-test of overall significance of estimated model, it can be concluded that capital labor inputs have

statistically significant joint effect on GDP. Moreover, coefficient of determination $(R^2 = 0.983)$ shows that our estimated model fits data well. Model does not suffer from the autocorrelation problem, since Durbin Watson d-statistic value of 1.564 is less than DW lower limit value. However, as can be seen from the regression results above, since the coefficient of constant term dummy variable is not statistically significant (p-value of 0.8498 is above 5% level of significance), we can conclude that the Customs Union with Russia and Belarus has not created any significant effect Kazakhstan output.

In able to see the effects of Custom Union on the Kazakhstan's economic growth more detailed analysis is needed especially the terms before creation of union from 2003 to 2009 and after from 2010 to 2013 should be compared. The data belongs to Labor Force, Capital Formation, Gross Domestic Product, and Turnover between Kazakhstan, Russia, and Belarus can be seen in the table that used for the first model for the period of 2003-2009. The models became the important tools to analyze GDP of the country.

					Turnover
				Turnover	between
				between	Kazakhstan
	Labour	Gross Capital		Kazakhstan	and
Year	force	Formation	GDP	and Russia	Bellarus
Q1 2003	6.545.200	2.037.300.000	9.462.900.000	171.774.702	33.212.409
Q2 2003	7.107.700	2.333.300.000	10.418.400.000	190.786.108	39.913.293
Q3 2003	7.228.700	3.236.700.000	12.475.700.000	198.714.112	40.480.000
Q4 2003	6.991.600	3.019.300.000	12.294.900.000	224.762.819	47.527.560
Q1 2004	7.004.800	2.965.400.000	12.131.800.000	207.073.158	43.365.960
Q2 2004	7.239.200	3.677.900.000	13.919.900.000	255.264.268	55.646.765
Q3 2004	7.305.000	4.269.500.000	16.440.700.000	287.762.835	61.260.360
Q4 2004	7.114.500	3.811.400.000	16.238.400.000	292.756.572	61.376.940
Q1 2005	7.102.100	3.870.100.000	15.186.500.000	243.380.389	59.372.508
Q2 2005	7.285.200	5.355.200.000	19.323.300.000	332.280.637	81.648.448
Q3 2005	7.349.900	6.318.300.000	20.555.000.000	337.050.864	82.547.136
Q4 2005	7.239.400	5.683.200.000	21.518.100.000	348.653.856	86.618.998
Q1 2006	7.289.000	3.847.800.000	20.424.400.000	297.146.947	65.433.574
Q2 2006	7.427.000	9.274.500.000	25.979.200.000	398.257.157	89.540.365
Q3 2006	7.483.700	7.138.500.000	27.353.500.000	439.818.685	98.996.022

Table 3.a. Trade Dynamics of Kazakhstan: Labour Force, Gross Capital Formation, GDP, Turnover between Kazakhstan and Russia, Turnover between Kazakhstan and Belarus for 2003 – 2009 (Quarterly).

Q4 2006	7.414.900	10.583.100.000	28.866.800.000	473.855.579	112.331.730
Q1 2007	7.490.970	5.506.800.000	24.291.300.000	409.223.342	101.067.324
Q2 2007	7.642.130	11.883.700.000	32.253.200.000	498.140.254	126.079.124
Q3 2007	7.713.470	10.723.900.000	34.927.000.000	533.597.399	136.691.538
Q4 2007	7.680.370	10.457.600.000	34.644.200.000	552.330.726	136.628.309
Q1 2008	7.762.900	6.455.800.000	32.926.000.000	476.770.008	93.923.297
Q2 2008	7.868.430	12.690.300.000	42.361.300.000	641.337.415	131.664.986
Q3 2008	7.925.370	13.291.700.000	45.430.600.000	698.974.147	143.576.434
Q4 2008	7.862.070	10.650.200.000	42.777.600.000	587.799.890	127.940.360
Q1 2009	7.830.400	6.249.000.000	30.889.800.000	351.966.540	108.889.944
Q2 2009	7.896.600	10.108.300.000	33.811.600.000	452.849.994	141.913.872
Q3 2009	7.955.170	16.362.900.000	45.957.400.000	497.298.444	145.233.138
Q4 2009	7.937.370	14.246.900.000	53.196.400.000	539.650.006	155.089.438
Q4 2008 Q1 2009 Q2 2009 Q3 2009	7.862.0707.830.4007.896.6007.955.170	10.650.200.000 6.249.000.000 10.108.300.000 16.362.900.000	42.777.600.000 30.889.800.000 33.811.600.000 45.957.400.000	587.799.890 351.966.540 452.849.994 497.298.444	127.940.360 108.889.944 141.913.872 145.233.138

Source: Authors' calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175 1253419C02D1&sId=1390030341854).

The countries of the Commonwealth of independent states (CIS) such as Russia, Belarus and others are largest trading partners of Kazakhstan. According to data over the period of 2003-2013, the volume of the mutual turnover from Kazakhstan to Russia increased by more than two times and to Belarus by more than five times respectively. In contrast, the Russian share in Kazakhstan's trade turnover is larger than Belarusian. In order to explain relations of international agreement on the development of state's economy it is important to use the new approaches for creating the new model before creation of the Customs Union. Linear regression model in the formula form corresponds to:

$$\ln GDP_t = \beta_1 + \beta_2 \ln K_t + \beta_3 \ln L_t + \vartheta_t$$

The regression was estimated on STATA program. The first regression model with quarter period of 2003-2009 is linear and has 28 observations. Square root of the mean squared error, which estimates the standard deviation of the error distribution is 0.8673. As can be seen from the table the coefficient of determination is 0.9739 that means the estimated model fits data well. The regression results indicate that there is a statistically significant positive relationship between labor input and GDP as well as capital input and GDP, since B-value of t-statistics of both coefficients are below 5% level of significance. Based on F-test of overall significance of estimated model, it can be conclude that capital and labor inputs have statistically significant joint effect on GDP. Due to the estimated value of coefficients, both inputs of turnover between Kazakhstan, Belarus, and Russia have also statistically significant positive relationship with respect to GDP.

The Regression Statistics	Coefficient
Number of obs	28
F-statistic	213,03
Prob.(F-statistic)	0,0001
R-squared	0,9739
Root MS.E.	0,0867

Table 3.b. Generated results of the regression statistics

Source: Author's calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175

1253419C02D1&sId=1390030341854).

Due to the results of regression, p-value of turnover between Kazakhstan, Belarus, and Russia are 0,088 and 0,031 respectively which means that the coefficient of turnover between Kazakhstan and Belarus is not statistically significant as its p-value is greater than 0.05, at the 5% significance level. However, the coefficient of turnover between Kazakhstan and Russia is statistically significant as its p-value is lower than 0.05, so this term is significant at the 5% level of significance given in the model.

Table 3.c.	Regression	Statistics.
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Variable	Coefficient	Standard Error	t- Statistic	Prob.
С	-38,24328	13,423	-2.85	0,009
LOG(L)	2,940372	0,9358299	3,14	0,005
LOG(K)	0,168438	0,0949787	1,77	0,089
TURNOVER_BELARUS	0,240863	0,1350137	1,78	0,088
TURNOVER_RUSSIA	0.375461	0.1638238	2.29	0,031

Source: Author's calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175 1253419C02D1&sId=1390030341854).

Thus, it can be deducted that the international trade with Belarus before creation of the Customs Union has not significant effect on Kazakhstan output. Simultaneously the international trade with Russia has significant effect on GDP of Kazakhstan before the Customs Union formation over the period of 2003-2009.

For forming the second model there were used the following data that presented in Table 4a: Labor Force, Capital Formation, Gross Domestic Product, and Turnover

between Kazakhstan, Russia, and Belarus over the period of first four year from date of foundation of the Customs Union. The main aim of estimation of the next model is to examine an impact of Customs Union on the Kazakhstan's economic growth since 2010 to 2013.

Table 4.a. Trade Dynamics of Kazakhstan: Labour Force, Gross Capital Formation,
GDP, Turnover between Kazakhstan and Russia, Turnover between Kazakhstan and
Belarus for 2010 – 2013 (Quarterly).

				Turnover between	Turnover between
Year	Labour force	Capital	GDP	Kazakhstan and Russia	Kazakhstan and Belarus
Q1 2010	8.229.300	7.217.500.000	41.364.900.000	2.180.672.340	674.693.600
Q2 2010	8.116.500	10.814.800.000	47.127.300.000	2.879.751.555	947.306.206
Q3 2010	8.171.100	12.955.200.000	50.688.200.000	3.048.671.141	978.752.908
Q4 2010	8.141.370	22.083.900.000	70.066.400.000	3.302.767.940	769.460.572
Q1 2011	8.134.530	7.796.100.000	49.059.100.000	3.175.719.541	874.106.740
Q2 2011	8.204.370	11.463.500.000	60.859.700.000	3.239.243.740	821.853.656
Q3 2011	8.310.830	14.812.800.000	68.222.800.000	8.783.131.512	267.230.029
Q4 2011	8.483.800	23.643.100.000	90.141.200.000	8.322.571.777	268.379.145
Q1 2012	8.462.470	8.640.100.000	59.928.100.000	7.582.149.626	216.215.226
Q2 2012	8.526.730	12.162.900.000	66.989.200.000	8.232.935.775	336.109.878
Q3 2012	8.540.300	17.212.300.000	73.789.600.000	9.164.191.528	317.019.845
Q4 2012	8.499.930	24.968.400.000	95.685.200.000	9.477.755.203	311.559.584
Q1 2013	8.546.100	9.821.500.000	65.471.300.000	7.980.648.676	211.611.311
Q2 2013	8.592.670	14.244.500.000	73.814.500.000	9.323.989.833	295.771.082

Q3 2013	8.607.700	23.879.100.000	88.545.400.000	9.064.071.925	296.157.068
Q4 2013	8.573.000	26.783.400.000	112.482.500.000	9.817.485.196	345.312.679

Source: Author's calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175 1253419C02D1&sId=1390030341854).

In order to explain impact of the union on the development of state's economy it is important to use the new approaches for creating the new model after forming the Customs Union. Linear regression model as the first model in the formula form corresponds the same equation:

$\ln GDP_t = \beta_1 + \beta_2 \ln K_t + \beta_3 \ln L_t + \vartheta_t$

Due to the results of the regression statistics for the second estimated model the coefficient of determination is 0.9371 and root mean squared error closer to 0 that means the model fits data well. The number of observation is 16 as for period of 2010-2013.

The Regression Statistics	Coefficient
Number of obs	16
F-statistic	46,41
Prob.(F-statistic)	0,0001
R-squared	0,9371
Root MS.E.	0,0806

Table 4.b. Generated results of the regression statistics

Source: Author's calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175 1253419C02D1&sId=1390030341854).

As a result of the regression, p-value of turnover between Kazakhstan, Belarus, and Russia are 0,954 and 0,130 respectively. It means that the coefficient of turnover between Kazakhstan, Belarus, and Russia are not statistically significant as its p-value is greater than 0.05, at the 5% significance level. The regression results show that there is a statistically significant positive relationship between labor input and GDP as well as capital input and GDP, since B-value of t-statistics of both coefficients are less than 5% level of significance. Based on F-test of overall significance of estimated model, it can be conclude that capital and labor inputs have statistically significant joint effect on GDP.

Variable	Coefficient	Standard Error	t- Statistic	Prob.
С	-22,77636	28,26952	-0,81	0,437
LOG(L)	2,176257	1,736791	1,25	0,236
LOG(K)	0,404739	0,487187	8,31	0,001
TURNOVER_BELARUS	0,005661	0,095615	0,06	0,954
TURNOVER_RUSSIA	0,152991	0,093553	1.64	0,130

Table 4.c. Regression Statistics.

Source: Author's calculations based on IFS Statistical database, 2015, www.data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175 1253419C02D1&sId=1390030341854).

However as can be seen from regression results, since p-value of 0,9371 is greater than 5% level of significance, it can be concluded that the Customs Union with Russia and Belarus has not created any significant effect on Kazakhstan's economic growth. Comparing the two models with different period it is clear that conditions of international trade with these two countries were more favorable for Kazakhstan before than after union's formation. It is possible to say that Kazakhstan was not ready to be competitive because of its low level conditions of production.

As a result, since the Customs Union has been in operation for less than some years, it is too early to evaluate the impact on the direction of Kazakhstan's trade. Some trade effects could be expected in the long term, as higher import tariffs may induce Kazakhstan importers to start switching to suppliers within the Customs Union. These effects are likely to be small, however, since trade with other countries is already minimal, while China holds a large cost advantage compared to alternative suppliers, and trade with it is not likely to be affected by an increase in tariffs.

5. SWOT Analysis of the Customs Union

The Customs Union is an alliance and economic integration of the third independent states that provides the uniform customs area within which on free mutual trade in the goods and services on condition of abolition of customs duties and restrictions of economic character, except for special protective, anti-dumping and countervailing measures aren't applied. A common customs tariff and measures are directed on regulation the common free trade zone with the third countries. The main aim is to test whether the Customs Union with Russia and Belarus has effective functioning of the common goods market, services, capital and labor; has created a significant effect on stable development of economy of the parties to enhance living standards and realization of the coordinated tax and monetary, foreign exchange, trade, and customs policy. For making the analysis useful and find the competitive advantage of the Customs Union, it is necessary to ask and answer questions that generate meaningful information for each category (strengths, weaknesses, opportunities, and threats)

Table 2. SWOT analysis of the Customs Union					
Strengths: decrease in barriers for import and export of CIS legislation's standardization availability and openness of CIS' market a huge sales market international confidential relations among CIS proximity to major markets increasing supply and demand on domestic and international markets availability of transport and energy infrastructure availability of labour force employment through "The road map" (Program for employment) availability of production capabilities high level of competitiveness	Weaknesses: poor quality of some products low level of competitiveness on domestic markets low level of domestic brands lack of investments into industry high share of exports of commodity with low added value considerable depreciation of fixed assets problems of nonqualified personnel different level of consumer ability in CIS different political position of CIS				
Opportunities: • expansion of the market through CIS • further decreasing in barriers for import and export of industries' development • further flexible policy for market expansion • development of raw materials processing and manufacture • exchange the technological leaders' experience and technologies • freedom of movement the citizens of the member states • liberalization of monetary policy	Threats: I low level of investments into the economic sectors expansion of smuggling and counterfeit goods high competition on domestic and international markets low quality of goods market glut the level of commodity producing is below the threshold level of economic security				

Table 2. SWOT analysis of the Customs Union

Source: *Prepared* by authors.

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Based on the SWOT analysis it can be concluded that "the Custom Union" project has positive and negative sides. In action, the union was created with goals attainment of openness of market, free movement of capital, labor, and goods. Today Kazakhstan's market became more available for the mutual turnover between the member-states of the collaboration. At the same time the country has got an access to the market of other partners. Due to the data on turnover among the three memberstates, it is clear that export from Kazakhstan is lower than import from Belarus and Russia. On the other hand, there are some prospects for the domestic market development: Firstly, there is an availability of raw materials, production capabilities, and labor force (because of the conditions for attracting foreign labor force). Secondly, there are more flexible customs policy, tariffing, and legislation of the intra-union trade. Thirdly, there are exchange of technological leaders' experience and technologies. In consequence of these factors it can be said that there are good opportunities for the beneficial and mutual collaboration.

Nevertheless, there are several disadvantages that could have negative effects for economic development such as low level of investments into Kazakhstan, expansion of smuggling and counterfeit goods, high competition on domestic and international markets, low quality of goods, market glut and so on.

The SWOT analysis have the most important outputs of the Customs Union for the further development. Finally for creating a healthy economic and international trade between member-states of the Customs Union it is necessary to improve the conditions of manufacturing; tariff and tax policy; labour force and to minimize the risks connected with the threats.

6. Conclusion and Further Suggestions

The paper analysed influence of trade contracts for development of economy of Kazakhstan. At first we created model of economic growth and entered data on commodity turnover of member countries of the trade agreement.

Some assumptions which involved in a choice of an index of the union, and we claimed that this new index reflects degree of the relations between all participating countries were defined. Thus, during the analysis the hypothesis: the indicators of international trade within the trade agreement "the Customs Union" have insignificant impact on economic development of Kazakhstan was confirmed.

Inverse relationship between the union and economic growth were found. In other words, such unions increase growth of mutual commodity turnover between the countries, but not especially influence the economic growth of the country. Results

of an assessment of the analysis of SWOT also showed that the unions render more positive effect on a political background of the country that too plays an important role for the state wellbeing of the country.

Interrelation of the international agreement on development of the Kazakhstan's economy on the example of the Customs Union before and after its education was also considered in this paper. That is why there is a comparative analysis of two periods with 2003 to 2010 and 2010-2013. As a result, during these 11 years, the Kazakhstan's economy has risen to a new stage of development in a positive side. It was also revealed, that trade agreements between the countries do not have strong significant impact on development of Kazakhstan's economy and also influence of trade agreements between the countries makes positive impact on a political background of the country.

Due to the data limitations the application of comparative analysis is insufficient. We are aware of this problem and would like to continue to develop better estimates of the effects of CU on the partner countries in the future.

References

Baier, S. L. and Bergstrand, J. H. (2007). Do Free Trade Agreements Actually Increase Members' International Trade? *Journal of International Economics # 71*, p. 72–95.

Baier, S. L. and Bergstrand, J. H. (2009). Estimating the Effects of Free Trade Aggrements on International Trade Flows Using Matching Econometrics, *Journal of International Economics #* 77, p.63-76

Baldwin, R., and D. Jaimovich. (2012). Are Free Trade Agreements Contagious? *Journal of International Economics*, vol. 88, no. 1, p. 1–16.

Cooper, C. A. and B. F. Massell. (1965). Toward a General Theory of Customs Unions for Developing Countries. *Journal of Political Economy* Vol. 73, No. 5, p. 461-476

Dragneva, R. and Wolczuk, K. (Aug. 2012). Russia, the Eurasian Customs Union and the EU: Cooperation, Stagnation or Rivalry? *Chatham House brifing paper*, www.chathamhouse.org

Egger, P., and Larch, M. (2008). Interdependent Preferential Trade Agreement Memberships: An Empirical Analysis. *Journal of International Economics*, vol. 76, no. 2, p. 384–99.

Fugazza, M. and Robert-Nicoud, F. (2010). The Emulator Effect of the Uruguay Round on US Regionalism. *Centre for Economic Policy Research Discussion Paper*, no. 7703.

Halıcıoğlu, F. (1997), "Static Effects of Turkey – EU CU and Its Alternatives" (in Turkish), İÜ *İktisat Fakültesi Sosyal Bilimler Dergisi*, No. 3, pp. 61-72.

Humphrey, A. (December 2005). SWOT Analysis for Management Consulting (PDF). *SRI Alumni Newsletter* (SRI International).

Jaumotte, F. (2004). Foreign Direct Investment and Regional Trade Agreements: The Market Size Effect Revisited. *International Monetary Fund*, WP/04/206, 32.

Knobel, A. and Chokaev, B. (2014). Possible Economic Consequences of a Trade Agreement between the Customs Union and the European Union. *Problems of Economic Transition*, vol. 57, no. 5, p.58–86.

Krueger, A.O. (1997). Free Trade Agreements versus Customs Unions, *Journal of Development Economics*, vol. 54, p. 169-187

Mogilevskii, R. (2012). Customs Union of Belarus, Kazakhstan and Russia: Trade Creation and Trade Diversion in Central Asia in 2010-2011, Working paper # 12, *University of Central Asia. Graduate School of Development, Institute of Public Policy and Administration,* 48.

Dreyer, I. and Popescu, N. (March 2014). The Eurasian Customs Union: The Economics and the Politic, European Union Institute for Security Studies

Vamvakidis, A. (1998). Regional Integration and Economic Growth. *The World Bank Economic Review*, vol. 12, no. 2, p. 251-70.

Vamvakidis, A. (1999). Regional Trade Agreements or Broad Liberalization: Which Path Leads to Faster Growth? *IMF Staff Papers*, Vol. 46, No. 1, p. 42-68.

Vergil, H. (2004), Turkey's Intra-Industry Trade Level after Customs Union (in Turkish), *Journal of Faculty of Business*, Vol. 5, No. 2.

Whalley, J. (1998) Why Do Countries Seek Regional Trade Agreements? University of Chicago Press, p. 63-90

Wolffgang, H. M. Brovka, and Belozerov, I. (2014). The Eurasian Customs Union in Transition. *World Customs Journal*, p. 93-104.

Yi, Sang-Seung (1996). Endogenous Formation of Customs Unions under Imperfect Competition: Open Regionalism is Good', *Journal of International Economics*, Vol. 41, p. 153-177

The PRS Group (2010). Kazakhstan. Country Conditions. Climate for Investment & Trade. *Political Risk Services*, 23.

Internet resources:

https://en.wikipedia.org/wiki/Kazakhstan (Access date: 25.06.2015). www.en.wikipedia.org/wiki/SWOT_analysis https://en.wikipedia.org/wiki/Collective_Security_Treaty_Organization (Access date 16.06.2015) https://en.wikipedia.org/wiki/Commonwealth_of_Independent_States (Access date 16.06.2015). https://en.wikipedia.org/wiki/Economic_Cooperation_Organization (Access date 16.06.2015)

https://en.wikipedia.org/wiki/Eurasian_Economic_Community (Access date 16.06.2015).

https://en.wikipedia.org/wiki/Euro-Atlantic_Partnership_Council (Access date 16.06.2015).

https://en.wikipedia.org/wiki/European_Bank_for_Reconstruction_and_Developmen t (Access date 16.06.2015).

https://en.wikipedia.org/wiki/Food_and_Agriculture_Organization_of_the_United_N ations (Access date 16.06.2015).

https://en.wikipedia.org/wiki/General_Confederation_of_Trade_Unions (Access date 16.06.2015).

https://en.wikipedia.org/wiki/International_Atomic_Energy_Agency (Access date 16.06.2015).

https://en.wikipedia.org/wiki/International_Bank_for_Reconstruction_and_Develop ment (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Civil_Aviation_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Interpol (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Development_Association (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Federation_of_Red_Cross_and_Red_Cre scent_Societies (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Finance_Corporation (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Fund_for_Agricultural_Development (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Labour_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Maritime_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Monetary_Fund (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Olympic_Committee (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Organization_for_Migration (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Organization_for_Standardization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Red_Cross_and_Red_Crescent_Moveme nt (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Telecommunication_Union (Access date 20.06.2015).

https://en.wikipedia.org/wiki/International_Telecommunications_Satellite_Organizat ion (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Inter-Parliamentary_Union (Access date 20.06.2015). https://en.wikipedia.org/wiki/Islamic_Development_Bank (Access date 20.06.2015). https://en.wikipedia.org/wiki/Multilateral_Investment_Guarantee_Agency (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Nuclear_Suppliers_Group (Access date 20.06.2015). https://en.wikipedia.org/wiki/Organisation_of_Islamic_Cooperation (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Organization_for_Security_and_Cooperation_in_Europe (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Organisation_for_the_Prohibition_of_Chemical_Weap ons (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Organization_of_American_States (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Partnership_for_Peace (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Shanghai_Cooperation_Organisation (Access date 20.06.2015).

https://en.wikipedia.org/wiki/United_Nations (Access date 20.06.2015).

¹https://en.wikipedia.org/wiki/United_Nations_Conference_on_Trade_and_Develop ment (Access date 20.06.2015).

https://en.wikipedia.org/wiki/United_Nations_Conference_on_Trade_and_Developm ent (Access date 20.06.2015).

https://en.wikipedia.org/wiki/UNESCO (Access date 20.06.2015).

https://en.wikipedia.org/wiki/United_Nations_Industrial_Development_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/Universal_Postal_Union (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Confederation_of_Labour (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Customs_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Federation_of_Trade_Unions (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Health_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Intellectual_Property_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Meteorological_Organization (Access date 20.06.2015).

https://en.wikipedia.org/wiki/World_Tourism_Organization (Access date 20.06.2015).

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https://en.wikipedia.org/wiki/World_Trade_Organization (Access date 20.06.2015). www.comtrade.un.org/data/(Access date: 30.06.2015). www.data.worldbank.org (Access Date: 10.01.2015). http://kazembassy.ca/kazakhstan/ (Access date: 25.06.2015). http://www.worldbank.org/ru/news/feature/2012/04/18/kazakhstan-in-the-customsunion-losses-or-gains