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Estimating the impact of the Russia-Belarus-Kazakhstan customs union

Abstract

Ever since the disintegration of the Soviet Union, most of the Newly Independent States have been experimenting within the framework of the Commonwealth of Independent States in search of an efficient and mutually-accepted form of regional integration that could help revive economic co-operation and the business environment. There is not a great deal of available results from research or quantitative analysis of the Russia-Belarus-Kazakhstan Customs Union (CU). To fill the gap, this article presents an evaluation and interpretation of a simulation of the effects of the CU based on the 'Global trade analysis project' (GTAP) general equilibrium model. The conclusions give every reason to believe that, at least in the short term, the CU will not significantly influence the economic development of the three contracting parties. However, the authors are convinced that the creation of the CU is a very important and, sometimes, crucial decision for all the participants and their trade policy.

Keywords: *customs union, regional trade agreement, common customs tariff, computable general equilibrium model*

Regional trade agreements and the CIS countries

There are two main trends by which the contemporary world and world economy can be characterised: globalisation; and regionalisation. In terms of trade policy, these are reflected in the formulation of trade policy on several levels, i.e. national, regional and multilateral. The proliferation of regionalism continues to evoke challenges for international trade and its system of regulation. The level of interdependence and the controversy of the goals set up at all three levels demand a detailed study of policy formulation and the instruments used.

It is difficult to underestimate the significance of the proliferation of regional trade agreements (RTAs). Regional blocs and RTAs have become one of the most prominent features of the contemporary multilateral trading system (MTS). The number of existing RTAs has been steadily increasing since the middle of the 20th century, although not until the 1990s did the explosive growth in the quantity and complexity of RTAs become a prominent feature of the multilateral trading system. Nowadays, regional integration initiatives are not limited to the liberalisation of trade, but usually also imply a number of issues on the economic development agenda.

The global recession of recent years has not undermined these trends so far. Quite the contrary: the states affected by it are expected to negotiate and implement new RTAs and/or elaborate new areas of co-operation within existing RTAs as a contingency measure. Thus, regional integration is challenging with regard to enhancing ac-

cess to foreign markets and the co-ordination of the efforts of trading partners targeted at the recovery of a contracting economy. At this time, the existing RTAs, in terms of the areas and scope of trade liberalisation and the uniformity of trade policy measures and economic policy measures in general, vary from free trade agreements (FTAs) to economic and monetary unions.

Membership of RTAs has some pros and cons for the participating parties. For convenience purposes, and due to methodology and the constraints of data availability, making quantitative assessments of the economic effect of an RTA for the member states involved is often deemed to be limited to the effect of the applied alteration of tariffs. It is apparent that regional integration within the European Union has proven tariff harmonisation to be lacking in efficiency without the relevant co-ordination and unification of non-tariff measures: the modern upscale trade policy of a country or an RTA is a system of complementary inter-related measures.

Ever since the disintegration of the Soviet Union, most of the Newly Independent States (NIS) have been experimenting within the framework of the Commonwealth of Independent States (CIS) in the search for an efficient and mutually-accepted form of regional integration that could help revive economic co-operation and the business environment. The history of regional integration in the CIS region seems to be one of the most complicated issues. Following the disintegration of the Soviet Union, the Commonwealth of Independent States was established to preserve linkages between the countries. Besides the CIS, several other RTAs with different sets of member states were negotiated between the NIS. Having set some ambitious goals at the initial stage of the CIS initiative, unfortunately the contracting parties lost momentum and, therefore, the regional integration project has still not met expectations. Mounting political tension between member states has affected the choices and behaviour of the operating actors and has consequently undermined the elaboration of common rules for trade and co-operation within the auspices of the CIS. World-leading practices of regional integration were often introduced and implemented subject to no, or to insufficient, preliminary examination and to inadequate adjustment to the economic conditions within the CIS and the size of the newly-created RTAs. CIS countries have failed to make any progress, even in the creation of a regional free trade zone.

Recent developments give every reason to believe that, unlike a number of the sub-regional trade agreements featuring the NIS, the economic integration of Russia, Belarus and Kazakhstan has major potential due to the common values and interests of the member states and the absence of serious political contradictions between the contracting parties, at least at the point at which it is fundamental to decision-making. At the same time, the three – at the current stage of integration – participating countries decided to take EU integration as a model for development, so the Customs Union is supposed to be just a first step and a base for further policy co-ordination. Thus, analysis of the possible initiatives of the Russia-Belarus-Kazakhstan RTA in terms of an assessment of the expected economic effects is an issue of great importance.

Significant progress was made in 2009 by Russia, Belarus and Kazakhstan in the negotiation and conclusion of numerous agreements setting the rules of the Customs

Union of the three countries. The Common Customs Code[1] and the Common Customs Tariff (CCT)[2] are among the most important documents adopted by the Inter-State Council of the Eurasian Economic Community in the November of that year.

The methodology of the quantitative analysis of the Russia-Belarus-Kazakhstan Customs Union (CU) and the design of the research experiments

Up to now, there has not been a great deal of quantitative research analysis into the Russia-Belarus-Kazakhstan CU. At least, the results and conclusions of the relevant research projects (if indeed there have been any) are not in the public domain for policy-makers, academia and professional economists. To fill the gap, we have developed a simulation of the Russia-Belarus-Kazakhstan Customs Union, based on the 'Global trade analysis project' (GTAP) computable general equilibrium model as a tool of analysis. The main motivation for this article is to raise public awareness of our assessment of the effects of this RTA and of our interpretation of the simulation outcome.

The existing framework for quantitative analysis includes elaborate research tools for predicting and evaluating the expected economic effects of the trade policy measures which have been implemented (including those associated with regional integration). There are two major approaches for the development of the econometric model: *ex post* analysis; and *ex ante* analysis. Econometric regression models and gravity models are among the most widely-used *ex post* analytical tools. The gravity model concept is based on the idea that the volume of trade between any pair of countries is an increasing function of the combined 'mass' (i.e. GDP) of the economies under review and a decreasing function of the distance between the two. For the purposes of *ex ante* analysis (i.e. the assessment of the possible effect of the prospective trade policy measures), numerical simulation tools have proven to be particularly useful. These imply elaborate theoretically consistent and empirically calibrated formal accounting relationships (equations) between the economic variables. When perturbed (so as to represent changes in the trade policy measures in question), the model provides resulting data for an evaluation of the effect of the trade policy measures. The policy-maker can consider different simulation outcomes (of numerical shocks with respect to the trade policy measure under review) from which to choose the most appropriate regulatory option.[3]

The two most commonly-utilised simulation techniques for evaluating the numerical effects of trade measures are *partial equilibrium* (PE) and *general equilibrium* (GE) modelling. PE models are a highly efficient tool for the analysis of a single market under consideration; while GE models are multi-sectoral and, in many instances, multi-

1 The Common Customs Code was adopted by the Inter-State Council of the Eurasian Economic Community (Decision No. 17 of 27 November 2009). The Common Customs Code entered into force on 1 July 2010.

2 The Common Customs Tariff (CCT) was adopted by the Inter-State Council of the Eurasian Economic Community (Decision No. 18 of 27 November 2009). The CCT has been applied since 1 January 2010.

3 *Trade Statistics in Policymaking – A Handbook of Commonly Used Trade Indices and Indicators* prepared by Mia Mikic & John Gilbert (2007), ESCAP.

regional. These are based on general equilibrium theory and are designed to imitate accounting relationships between all sectoral markets (for goods and services) as well as factor markets (labour, land and capital). In other terms, GE models take into consideration the linkages between different markets on an economy-wide basis. PE models are, on the other hand, feasible for evaluating the effects of moderate policy shocks with respect to a single (disaggregated) market that is sufficiently small so as not to have a significant impact on the rest of economy. Unlike in PE models, sectoral policy shocks in GE models will result in economy-wide distortions, i.e. in the perturbed sector and beyond the market under consideration. The high sectoral aggregation, due to data availability and computing power restraints, reflects the limitations of GE models that may reduce the precision of the simulation results of trade policy measures with respect to a small single sector.[4]

The Global Trade Analysis Project (GTAP) is a perfect example of a computable general equilibrium (CGE) model. GTAP is co-ordinated by the Centre for Global Trade Analysis of the Department of Agricultural Economics at Purdue University (USA). We used GTAP for numerical simulation purposes in our research as this CGE model has a number of advantages:

1. the GTAP model is widely used by academia, policy-makers, officials of international organisations, private sector consultants, etc. Therefore, numerous experts can interpret the simulation results; while GTAP is generally recognised as a reliable tool for the evaluation of the effects of trade projected policy measures
2. GTAP model software and the relevant databases is a publicly-available commercial product (i.e. anyone can order and use the software and data for simulation purposes. That may not be the case with regard to some other CGE models)
3. the GTAP model is fully documented: the model is supplied with a user's guide, specifications and other hands-on documentation; a number of books in the field of CGE modelling provide sufficient reference material about GTAP; and there is a repository of GTAP-related publications (by the model developers, a number of independent GTAP users, etc.) made available online by the Centre for Global Trade Analysis, at https://www.gtap.agecon.purdue.edu
4. some Russian universities and research institutions make use of the GTAP model for research and/or teaching purposes, so there are potential 'informed consumers' for the simulation results.

The GTAP CGE model requires a relevant database as an input for the simulations. The current database contains complete bilateral trade information, transport and protection linkages among 113 regions[5] for all 57 GTAP commodities[6] for a single year

4 ibid.

5 The list of the 113 regions in the GTAP 7 database is available at: https://www.gtap.agecon.purdue.edu/databases/regions.asp?Version=7.211 [last accessed 5 January 2011]. In the GTAP database, the region stands for a country (should the relevant statistics be available to the developers) or for a number of countries within a region (should the developers lack the relevant statistics, which is often the case for least developed countries, some developing countries and some transition economies).

6 The list of the 57 sectors (for goods and services) in the GTAP 7 database is available at: https://www.gtap.agecon.purdue.edu/databases/v7/v7_sectors.asp [last accessed 5 January 2011].

(2004 in the case of the up-to-date GTAP 7 database). However, due to the restraints of computation power and for convenience purposes in terms of the interpretation of the result of simulation, a researcher is highly recommended to condense the standard GTAP database. In other words, it is a good idea for a researcher to leave intact the sector(s) and/or region(s) and the major trading partners under consideration, but to 'merge' the less important sectors and/or the minor trading partners into a limited number of aggregated ones and, therefore, develop a new condensation (i.e. a 'modified' version of the original database for the CGE model). That helps to ease the restraints of computational power and makes the GTAP simulations faster and the analysis and interpretation of the simulation outcome more convenient. The GTAP software includes an 'Alter Tax' tool intended to update the GTAP database tax rates and/or tariff rates. The GTAP database was developed so as to meet GE requirements, so any adjustments to the database with regard to trade statistics, production and/or consumption statistics, etc. will essentially damage it (by unbalancing the model data). Updated versions of the GTAP database are usually released every 3-4 years. These include statistics from a more recent base period (though lagging by several years due to information availability constraints) and, sometimes, improved regional and/or sectoral aggregation (i.e. the increased availability of a number of regions and/or sectors).

The key element of CGE simulation is the possibility to accommodate shocks to the model with respect to the variable(s) under consideration. The GTAP software calculates experimental solutions so that a new state of GE is obtained (in other words, the system is 're-balanced' by the new values for the variables in question). The analysis of the effect of trade policy measures is usually done in GTAP through one or a series of shocks with respect to the values of import/export taxes.[7] The GTAP model enables source-generic and destination-generic shocks (i.e. with respect to all the trading partners), as well as source-specific and destination-specific shocks (i.e. with respect only to selected trading partners). A researcher will find source- and destination-specific policy shocks very useful for the simulation of the effects of RTAs.

We used the following data sources for our calculations of the source-specific applied import tariff rates of Russia, Belarus and Kazakhstan (prior to the creation of the CU) and the resulting source-specific Common Customs Tariff rates for GTAP sectors with respect to the major trading partners of the members of the Customs Union:

a) the International Trade Centre[8] (Intracen) Market Access Map. The relevant database includes the *ad valorem* equivalents for the applied tariff rates of the members of the Customs Union at the HS 6-digit level (based on data from 2009 for Russia; and from 2008 for Belarus and Kazakhstan)
b) the legislation of the members of the Customs Union in force as at November 2009 as regards their General System of Preferences (GSP) with respect to developing countries and least developed countries (LDCs): i.e. Regulation of the State Customs Committee Of the Russian Federation No. 1939, of 25 December 2003 'On

7 e.g. a positive value for a tax on imports constitutes an import duty; while a negative value stands for a subsidy with respect to imports. A positive value for a tax on exports represents an exports subsidy; while a negative value constitutes an exports duty.

8 See http://www.intracen.org.

the granting of tariff preferences' (with amendments 9 June 2004, 9 August 2005, 5 December 2005, 7 December 2006, 28 December 2006, 23 April 2007, 5 September 2007, 9 July 2008 and 13 March 2009);[9] Decree of the President of the Republic of Belarus No. 14, of 18 April 2003 'On tariff preferences' (as of 13 May 2008);[10] and the Regulation of the Government of the Republic of Kazakhstan No. 1009, of 20 July 1995 'On the list of eligible beneficiary counties under the tariff preference system' (as of 14 November 1996)[11]

c) the draft Common Customs Tariff (as of September 2009)[12]
d) the trade statistics data of 'The Personal Computer Trade Analysis System PC-TAS' (HS, 2003-2007 edition). For the purposes of the current research, we used trade statistics data for 2007 at the HS 6-digit level
e) the list of the HS six-level products and matching GTAP sectors (as supplied with GTAP software and hands-on documentation).

We calculated the weighted average applied tariff rates of the members of the Customs Union for GTAP sectors with respect to the major trading partners, making adjustments for preferences under the GSP scheme regarding eligible trading partners. Should weighted average tariff rates be unavailable for some GTAP sectors with regard to some trading partners (due to zero trade values between the respective regions), we used simple average tariff rates for the GTAP sectors instead.

For the purposes of our research, we prepared a suitable condensed GTAP database and designed the simulation experiment (i.e. introduced the relevant policy shocks for the CGE model) as follows:

a) *Sectoral aggregation*. In our GTAP database condensation, we used all the 57 GTAP sectors available
b) *Regional aggregation*. In our GTAP database condensation, we used the eight regions that stand for the members of the Customs Union and their major trading partners: (1) Russia; (2) Belarus; (3) Kazakhstan; (4) the rest of the CIS (including Georgia); (5) the European Union (EU-27); (6) the United States of America; (7) China; (8) rest of the world (i.e. all the regions on the GTAP database excluding those listed under (1) – (7))
c) *Applied tariffs adjustment*. We used the Alter Tax tool to update the tariff rates of the members of the Customs Union included on the GTAP database with respect to their major trading partners. These updated applied tariffs are the calculated weighted average (if available) applied tariff rates of the members of the Customs Union for the GTAP sectors with respect to third parties as indicated in the regional

9 Приказ ГТК РФ от 25 декабря 2003 г. N 1539 "О предоставлении тарифных преференций" (с изменениями от 9 июня 2004 г., 9 августа, 5 декабря 2005 г., 7, 28 декабря 2006 г., 23 апреля, 5 сентября 2007 г., 9 июля 2008 г., 13 марта 2009 г.).

10 Декрет Президента Республики Беларусь от 18 апреля 2003 г. № 14 «Об установлении тарифных преференций» (в ред. по состоянию на 13/05/2008)

11 Постановление Кабинета Министров Республики Казахстан от 20 июля 1995 г. N 1009 «Об утверждении перечня стран- пользователей схемой преференций Республики Казахстан» (в ред. по состоянию на 14/11/1996)

12 http://www.rgwto.com/reference.asp?doc_id=54565 (in Russian only).

aggregation section, or the simple applied tariff rates of the members of the Customs Union for the GTAP sectors (where weighted average rates are unavailable)

d) *Shocks*. In our experiment, we shock the source-specific tariffs of the members of the Customs Union as regards imports from their major trading partners outside the CIS (as we presume that tariffs within the CIS, including the Customs Union, remain intact at the zero level). The source-specific tariffs are shocked so as to match the calculated weighted average (if available) CCT rates of the members of the Customs Union for GTAP sectors with respect to third parties, or the simple applied average CCT rates for GTAP sectors (if weighted average rates are not available). In other words, applied tariff (weighted) average rates were 'replaced' with CCT (weighted) average rates. The results of the simulation provide a new general equilibrium for the model, subject to the altered tariff rates of the three contracting parties of the Customs Union.

Main results of the quantitative analysis and the effect on the countries

Table 1 provides a comparison of the applied tariffs of the Russian Federation (as of August 2009) versus the draft CCT (as of September 2009). It is apparent that the entry into force of the CCT entails some moderate tariff adjustments for Russia. Thus, tariff rates remain intact for about 82 % of product categories at the ten-digit level of the tariff nomenclature; or, in other words, tariff rates may be left as they are with respect to more than 85 % of total Russian imports from non-CIS countries.

Table 1 – Applied tariff rates of Russia (as of 2009) versus CCT rates (at the Commodity classification[13] ten-digit level)

	Applied tariff rates = CCT rates	Applied tariff rates > CCT rates	Applied tariff rates < CCT rates	Inconsistent data[14]
Frequency distribution of tariff lines of product categories at ten-digit level	82.03 %	11.45 %	3.32 %	3.21 %
Frequency distribution of imports value of Russia (excl. imports from CIS) of product categories at ten-digit level	85.26 %	8.84 %	4.23 %	1.67 %

Note: We used the Decision of the Government of the Russian Federation No. 718 of 27 November 2006 (as of August 2009) for applied tariff rates; the draft CCT[15] (as of September 2009); and the trade statistics of Russia for 2008 as the inputs for our calculations.

The results of the GTAP model simulation reflect the new state of general equilibrium in the world economy, subject to the shocked variable(s). Therefore, the model provides a number of economic indices and indicators as the experiment outcome. Some of the GTAP model indices and indicators are widely used in statistics and/or economics (e.g. GDP, percentage change in trade in goods/services for the regions under consideration, etc.), while other, more specific ones are used only in the GTAP model. We include a limited number of the resulting index and indicator values in our analysis and interpretation of the results of the simulation. These are:

1. the relative changes in GDP elements from the consumption side
2. the relative changes in the quantity of output of the sectors and regions under consideration
3. the relative changes in the values of exports/imports (for all GTAP sectors in total) of the members of the Customs Union
4. the relative changes in the quantity of exports/imports (for separate GTAP sectors) of the members of the Customs Union.

Let us start with an analysis of the simulated impact of the Customs Union on GDP decomposition from the consumption side (see Table 2 for details).

13 The Commodity Classification Applicable in the Conduct of Foreign Economic Activity is the ten-digit Russian nomenclature for tariff classification and trade statistics, and is based on the six-digit Harmonized Commodity Description and Coding System (HS).

14 Data consistency may be undermined for a number of reasons. For some product categories, the applied tariff rates are *ad valorem* whereas the relevant CCT rates are non *ad valorem*, and *vice versa*. We did not estimate the *ad valorem* equivalents for specific and combined tariff rates. Furthermore, the applied tariff nomenclature and the CCT nomenclature are incoherent with respect to some product categories.

15 See the CCT at: http://www.rgwto.com/reference.asp?doc_id=54565 for details (in Russian only).

For most of the regions under consideration (except Belarus), the estimated percentage changes in total GDP are deemed to be within ±1 %. The Customs Union is predicted to result in a 0.1 % increase in GDP for Russia and a 1.95 % rise for Belarus; however, it might result in a moderate contraction of 0.14 % of GDP for Kazakhstan. We attribute the minor effect of the CCT on the dynamics of Russian GDP to the moderate tariff adjustments associated with the entry into force of the CCT (given that the draft CCT was broadly based on the Russian applied tariff).

We did not proceed to an in-depth examination of how the shocks of the simulation of the Customs Union, through the succession of impacts on inter-related variables within the GTAP model, resulted in a contraction of GDP for Kazakhstan; we suppose that a reasonable explanation may be as follows: the draft CCT generally provides a higher level of protection than the applied tariff of Kazakhstan (i.e. it constitutes a supplementary policy distortion that creates additional 'deadweight' within the economy). In other words, higher tariffs decrease household demand for imported goods and services (e.g. for consumer goods) originating from regions beyond the Customs Union (and outside the CIS in general), as well as private sector demand (e.g. for equipment and intermediaries). Evidently, the trade diversion effect of the Customs Union fails to compensate for the undermining of demand for imports from Kazakhstan from outside the RTA. That limits economic activity in general, but this can hardly be offset by the government sector (since reduced imports and a slowdown in economic activities result in shrinking budgetary receipts from customs payments and taxation).

At the same time, we could argue that there is also trade creation, which is not evident from the calculation provided.

Table 2 – The effect of the Customs Union: GDP composition from the consumption side

	1 Private sector consumption	2 Investment	3 Government sector consumption	4 Exports (+)	5 Imports (-)	Total
1 Russia	100.016 %	100.293 %	100.110 %	100.176 %	100.217 %	100.096 %
2 Belarus	101.888 %	100.982 %	102.003 %	101.692 %	101.396 %	101.945 %
3 Kazakhstan	99.727 %	96.959 %	99.725 %	100.447 %	98.871 %	99.859 %
4 RofCIS[16]	100.490 %	100.642 %	100.510 %	100.545 %	100.620 %	100.478 %
5 EU-27	99.990 %	99.996 %	99.990 %	99.978 %	99.981 %	99.990 %
6 USA	100.001 %	100.006 %	100.001 %	99.990 %	100.001 %	100.001 %
7 China	100.020 %	100.022 %	100.020 %	100.020 %	100.024 %	100.019 %
8 RofWorld[17]	99.988 %	99.991 %	99.988 %	99.983 %	99.983 %	99.989 %
Total:	**99.996 %**	**100.002 %**	**99.997 %**	**99.995 %**	**99.995 %**	**99.997 %**

Note: 100 % stands for the pre-simulation values of the respected variables.

The tariff adjustments associated with the CCT's entry into force were less spectacular as regards Belarus. Tariff rates on imports for some GTAP sectors were increased, while others were decreased. The trade diversion effect of the Customs Union is expected to be positive for Belarus, probably owing to the complementarity between the economy of Belarus and the economies of the other members of the Customs Union.

Moreover, due allowance should be made for the intensity of mutual trade between Customs Union members. The data in Table 3 demonstrate the estimated share of trade within the Customs Union and the CIS in the total trade of the members of the Customs Union. It is apparent that the Customs Union and CIS member states are major sources of the imports of both Belarus and Kazakhstan, which is not the case for Russia. The Customs Union and CIS countries are also a major destination for Belarusian exports. Consequently, the Customs Union is expected to have a more noticeable effect on Belarus than on Russia and Kazakhstan.

16 RofCIS stands for 'rest of the Commonwealth of the Independent States'.
17 RofWorld stands for 'rest of the World'.

Table 3 – Share of trade between the CU and the CIS in the total trade of Customs Union member states, as of 2007

	Share of imports from Customs Union/CIS in the total imports of the respective Customs Union member states			Share of exports to Customs Union/CIS in the total exports of the respective Customs Union member states		
Trading partners of the respective Customs Union member states	**Share of Russia's total imports**	**Share of Belarus's total imports**	**Share of Kazakhstan's total imports**	**Share of Russia's total exports**	**Share of Belarus's total exports**	**Share of Kazakhstan's total exports**
Customs Union member states	7.87 %	60.49 %	36.70 %	8.16 %	38.06 %	10.03 %
CIS-12 member states	16.04 %	66.27 %	44.57 %	14.50 %	46.23 %	16.68 %

Note: We used the Intracen 'Personal Computer Trade Analysis System' (HS, 2003-2007 edition) data as the inputs for our calculations.

Our analysis of the impact of the Customs Union on the quantity of output of the sectors and regions under consideration needs to be reserved to the most affected sectors (rather than all 57 GTAP sectors). The Customs Union is expected to trigger spectacular growth in the production of motor vehicles and parts (mvh)[18] in Russia. There are also significant positive dynamics in transport equipment not elsewhere specified (otn) and in the paddy rice (pdr) & processed rice (pcr) sectors, although the latter two will rise from a low base. Output in meat products not elsewhere specified (omt) and the wearing apparel (wap) sectors is predicted to decrease significantly, while the textiles (tex), leather products (lea) and wood products (lum) sectors are exposed to a moderate decline.

The simulation results show that noticeably positive dynamics (exceeding +10 %) in the sectoral output of Belarus are predicted with regard to the production of motor vehicles and parts (mvh) and processed rice (pcr). Output in the motor vehicles and parts (mvh) and sugar (sgr) sectors are forecast also to grow significantly in Kazakhstan. Production in the textiles (tex); wearing apparel (wap); leather products (lea); machinery and equipment not elsewhere specified (ome); and wood products (lum) sectors will decline considerably (below -10 %) in Belarus.

Our experimental results reveal no sectors that are exposed to a significant deterioration in Kazakhstan.

Our next step is to assess the predicted relative changes in the values of exports/imports (for all GTAP sectors in total) of the contracting parties to the Customs Union. The results of the simulation, in terms of the value of trade of members of the Customs Union with their respective trading partners, is provided in Table 4.

18 Hereinafter, for convenience purposes, we provide in brackets the notation for the relevant GTAP sectors as specified by the model developers.

The total value of the increase in Russian exports and imports is anticipated at about 2 %. Imports into Russia from Belarus will increase by 9.4 %, while exports from Russia to Kazakhstan will surge by 18.8 %. The forecast changes in Russian imports from Kazakhstan and of Russian exports to Belarus are quite moderate (within ±1 %).

The next item to which we would like to give consideration is the simulated relative changes in the quantity of exports/imports (for separate GTAP sectors) of Customs Union members. The Russian Federation is expected to increase the import of motor vehicles and parts (mvh); sugar (sgr); paddy rice (pdr); and processed rice (pcr) from Customs Union partners and from the rest of CIS. Imports of wool and silk-worm cocoons (wol); leather products (lea); and gas (gas)[19] from regions outside the above-mentioned RTAs are also expected to rise. The forecast reflects a reduction in the import of textiles (tex); wearing apparel (wap); leather products (lea); wood products (lum); wool and silk-worm cocoons (wol); meat products not elsewhere specified (omt); and manufactures not elsewhere specified (omf), both from Customs Union partners and from the rest of CIS; as well as in the import of motor vehicles and parts (mvh); paddy rice (pdr); and processed rice (pcr) from other regions.

Russia's exports of motor vehicles and parts (mvh); transport equipment not elsewhere specified (otn); and electronic equipment (ele) to Customs Union partners and the rest of the CIS are expected to increase significantly although the small pre-simulation value of trade in the export of these 'advanced' goods will fail to approach the value of exports of commodities. Neither sector of the Russian economy is predicted to expand exports to trading partners outside of those within the Customs Union and in the rest of the CIS, while the CCT will result in a drastic decrease in motor vehicles and parts (mvh). The simulation data show that there are no sectors that are likely to benefit from a sustainable growth of exports to Customs Union partners and the rest of CIS, since certain positive dynamics of exports to some trading partners are essentially undermined by negative dynamics of exports to other partners within the sector under consideration.

19 Pre-simulation Russian imports of gas from trading partners beyond the Customs Union and the CIS are negligible. Such a simulation outcome is unrealistic for a number of reasons and constitutes a vivid example of the limitations of a formal CGE model as an analysis tool.

Table 4 – The simulated Customs Union effect on the trade of the Customs Union member states

The simulated changes in the value of imports of the Customs Union member states from the respective partners (%)									
	From Russia	**From Belarus**	**From Kazakhstan**	**From rest of the CIS-12**	**From the EU-27**	**From the USA**	**From China**	**From rest of the world**	**Total**
Imports of Russia		109.43	100.88	107.12	99.20	102.80	110.08	95.58	100.21
Imports of Belarus	100.54		100.47	102.62	102.93	102.04	112.99	103.72	101.39
Imports of Kazakhstan	118.40	119.01		116.14	85.96	91.76	99.33	91.43	98.87
The simulated changes in the value of exports of the Customs Union member states to the respective partners (%)									
	To Russia	**To Belarus**	**To Kazakhstan**	**To rest of the CIS-12**	**To the EU-27**	**To the USA**	**To China**	**To rest of the world**	**Total**
Exports of Russia		100.59	118.80	99.68	99.86	99.59	99.79	99.46	100.17
Exports of Belarus	110.24		119.63	93.32	95.44	95.92	93.40	93.09	101.82
Exports of Kazakhstan	100.89	100.51		100.00	100.40	100.72	100.38	100.41	100.46

Note: 100 % is the pre-simulation value of the export/import of goods and services of members of the Customs Union to/from their respective trade partners.

Unless otherwise indicated, the Customs Union will not spark substantial changes in the trade patterns of Belarus and Kazakhstan. The simulation results reflect the diversion of Belarus's imports of sugar (sgr); textiles (tex); wearing apparel (wap); leather products (lea); wood products (lum); and manufactures not elsewhere specified (omf) from Customs Union and CIS member states to imports from other trading partners. And, *vice versa*, the import of motor vehicles and parts (mvh); meat products not elsewhere specified (omt); and processed rice (pcr) from Customs Union and CIS members will partly substitute imports from other trading partners.

The effect of the Customs Union for Kazakhstan implies the diversion of imports of processed rice (pcr); sugar (sgr); wood products (lum); chemical, rubber and plastic products (crp); motor vehicles and parts (mvh); transport equipment not elsewhere specified (otn); and manufactures not elsewhere specified (omf) from regions outside

the Customs Union and the CIS to the import of products within these categories from other RTA member states. To some extent, Kazakhstan's import of meat products not elsewhere specified (omt) from Customs Union and CIS trading partners will be replaced by shipments from other regions.

The simulation results predict a contraction in the export from Belarus to most regions of wheat (wht); sugar cane; sugar beet (c_b); wool and silk-worm cocoons (wol); beef, sheep, goat and horse meat (cmt); meat products not elsewhere specified (omt); textiles (tex); wearing apparel (wap); leather products (lea); wood products (lum); electronic equipment (ele); machinery and equipment not elsewhere specified (ome); and manufactures not elsewhere specified (omf). The Customs Union will lead to a diversion of exports from Belarus of motor vehicles and parts (mvh) to countries outside the Customs Union and the CIS, and to exports to RTA member states. The experimental outcome gives a reason to expect the increased export from Belarus of sugar (sgr) and processed rice (pcr) to members of the Customs Union and a reduction in exports of paddy rice (pdr) to regions outside the RTAs.

The estimated impact of the Customs Union on exports from Kazakhstan will be as follows. The simulation results indicate a projected growth in trade in paddy rice (pdr) and processed rice (pcr) with Customs Union and CIS member states. A reduction in the export of motor vehicles and parts (mvh) to regions beyond the Customs Union and the CIS will, to some extent, be offset by increased exports to RTA member states. Unfortunately, the experimental outcome shows negative dynamics for Kazakhstan's exports of wool and silk-worm cocoons (wol) and transport equipment not elsewhere specified (otn) to most trading partners, as well as a reduction in the export of textiles (tex); wearing apparel (wap); leather products (lea); and wood products (lum) to regions outside the Customs Union and the CIS; along with a stagnation in exports from within these product categories to RTA member states.

In our analysis of the experimental outcome of the Customs Union featuring Russia, Belarus and Kazakhstan, we have explicitly indicated only the most affected sectors in terms of impact on the quantity of output and in terms of import/export dynamics. Other sectors were subject to a negligible or moderate effect of the new RTA (i.e. the percentage change in the indicators under consideration was usually within a range of ±10 %).

Our conclusions, based on the quantitative analysis of the results of the simulation, are as follows. The experimental outcome data give us every reason to believe that, at least in the short term, the Customs Union will not significantly influence the economic development of the three contracting parties. The projected changes in the value of GDP (within several per cent) are anything but spectacular. Actually, we have every reason to believe that future economic developments in Russia, Belarus and Kazakhstan will predominantly be attributed to other factors (e.g. the international economic crisis of the past years, commodity price volatility, economic reforms in Customs Union member states, etc.) rather than to the effect of the CCT.

The effect of the Customs Union on some sectoral markets in Russia, Belarus and Kazakhstan will turn out to be somewhat significant, although the sectors subject to the apparently biggest dynamics (a percentage change beyond ±10 %) in terms of the quantity of output and/or foreign trade are essentially fewer in number than those sec-

tors that show no or only moderate dynamics. The motor vehicles and parts (mvh), paddy rice (pdr) and processed rice (pcr) sectors of the three countries will see a boost to output owing to the effect of the CCT, although we expect that there will be some declining sectors that will not be the same for the contracting parties. The trade creation effect and the trade diversion effect are expected to spark off some dramatic changes in the trade patterns of Russia, Belarus and Kazakhstan with respect to a number of GTAP sectors.

Recommendations for further study

One should bear in mind the limitations of a formal CGE model that does not take into consideration recent developments in the world economy (e.g. the global economic crisis, technological progress, factor availability, etc.). Due adjustment for the structural changes in the global economy is intended by the developers of the GTAP model to be reflected in future versions of the GTAP database rather than through being able to trace such changes through shocks within an experimental approach. Consequently, the results of simulations may not match expectations in terms of the accuracy of the forecast.

In our study, we took into consideration the effect of the CCT only as the GTAP model implies no trade policy shocks designed for the simulation of non-tariff measures. However, various non-tariff measures nowadays play an important role in the regulation of foreign trade. A number of treaties on the harmonisation of trade policy (including non-tariff measures) have been negotiated under the auspices of the Customs Union, although some gaps in the rules on the administration of non-tariff measures have not yet been closed. Even with the introduction of a Customs Code, not all the formalities have become clear, while many hindrances still exist for companies as well as for customs authorities. Furthermore, we are aware of some implementation problems, since it sometimes takes time for the agencies responsible to make the appropriate adjustments in their operations so as to let them perform their new and/or altered functions.[20] Taking into consideration the goodwill of members of the Customs Union, we have every reason to believe that such shortcomings will soon be eliminated. Nevertheless, due allowance should be made for the reduced accuracy of the numerical results of a simulation of the effects of the CCT, since our experiments were not designed to take into account the reform of non-tariff measures associated with the creation of the RTA.

Moreover, the rules of the Customs Union and CCT, once adopted and put into force, will not remain intact forever. According to Igor Shuvalov, the Senior Deputy Prime Minister of Russia, the members of the Customs Union intend to make some adjustments to the CCT semi-annually (if necessary).[21] Andrei Kobyakov, the Deputy Prime Minister of Belarus, has mentioned at least five suggestions on the amendment

20 For example, some Russian newspapers (e.g. *Rossiyskaya Gazeta*/*Российская газета* http://www.rg.ru) and websites (e.g. 'The Information Agency for Russia's WTO Accession' http://www.wto.ru) reported problems affecting the administration of the licensing of imports with respect to alcohol, communications equipment for 3G networks, etc. in January 2010.

21 Rossiyskaya Gazeta, «Российская газета» — http://www.rg.ru, January 28, 2010.

of the CCT which had been made by the end of January 2010.[22] The upcoming tariff adjustments also make less reliable the simulation results of the effect of the Customs Union.

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Concluding our study, we would like to point out that the creation of a customs union is a very important and, occasionally, crucial decision for any state and its trade policy. The sequencing of reforms could be critical, but the most essential point is integration with the global trading system and the formulation of an effective trade policy on all possible levels: national; regional; and multilateral. The political decision should have a substantial economic background, while the formulation of trade policy at the regional level needs to be a consistent process. All the partners in the regional grouping are supposed to have a detailed plan and a strong understanding as to how the RTA could contribute to the modernisation of the economy, deeper integration in the multilateral trading system and an improvement in the image of the region as a respectable world economic partner. Any foreign experience is of great importance; however, it should be applied only with an allowance for specific domestic features and culture as well as the previous economic development of the region under consideration.

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