



# Economic Premise

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## An Initial Estimation of the Economic Effects of the Creation of the EurAsEC Customs Union on Its Members

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*This note provides an initial estimation of some of the economic effects of creating the Eurasian Economic Community (EurAsEC) customs union. Relying on the computable general equilibrium model from the Global Trade Analysis Project (GTAP), results of the simulations consistently support the conclusion that, as an arrangement, the EurAsEC customs union (CU) would be a GDP-reducing framework in which the negative trade-diversion effects surpass positive trade-creation ones.*

The Treaty on Establishment of the Eurasian Economic Community was signed on October 10, 2000, by the presidents of five Commonwealth of Independent States (CIS) countries: Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation, and Tajikistan. Uzbekistan applied for membership in 2005 and was formally accepted in 2006, but suspended its membership in December 2008. Additionally, Armenia, Moldova, and Ukraine have “associated status.” EurAsEC’s original building block is the treaty creating a CU comprising Belarus, Kazakhstan, and Russia; that treaty was signed on March 29, 1996. EurAsEC’s main stated aims are, first, the ultimate (re)creation of a CU; and, later, development of a “single economic space” among its members, all of which were part of the former Soviet Union.

Discussions about the creation of such a common economic space involving the four largest CIS economies (respectively, Russia, Ukraine, Kazakhstan, and Belarus) resulted in an agreement of principle toward that aim, signed on February 23, 2003. However, the political developments in Ukraine in 2004 (compounded by Ukraine’s World Trade

Organization [WTO] accession in 2008 and the ongoing negotiations for a “deep free trade area” with the European Union [EU]) have limited Ukraine’s involvement in this process. In a meeting on August 16, 2006, therefore, a decision was made to establish a CU within the EurAsEC framework, comprising only Belarus, Kazakhstan, and Russia as initial members. The other EurAsEC members will join this CU when their economies are ready.

That decision received a significant boost with a surprise announcement in mid-2009: Belarus, Kazakhstan, and Russia declared that they would aim for a joint WTO accession after the creation of a CU among their three countries. This announcement was seen by some as reflecting the Russian government’s growing disillusion with its very lengthy WTO accession process (initiated in mid-1993 and now the longest-running effort of its kind in the history of the WTO); and was seen by others as confirming the limited commitment to reform that led to this lengthy accession process in the first place.<sup>1</sup> A “customs union commission” would be the CU managing body within the EurAsEC structure, comple-



mented by other structures (among them, the Interstate Council [where heads of state and government sit and which is the main decision-making body] and the Court [which acts as a CU dispute settlement mechanism, with apparent supranational powers]).

The introduction of a common external tariff (CET) schedule based on the 2007 amendment to the Harmonized System nomenclature and the elimination of nontariff barriers among those three countries were slated for January 1, 2010. Remarkably, given the complexity of such tasks, this deadline was achieved. Nevertheless, some very important elements (for instance, division of customs revenues among the three states) were not completed until the end of 2010. Additionally, the energy sector—a crucial economic sector for all three countries—has been integrated in a limited fashion into the initial harmonization effort.

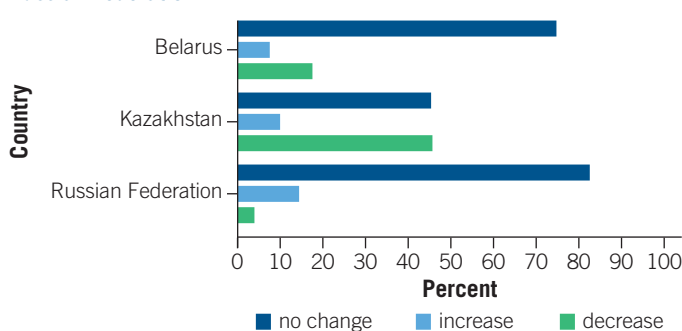
The EurAsEC point of departure was an already significant level of tariff schedules convergence between Belarus and Russia. As a result of the further harmonization introduced with the CET in early-2010, 7 percent of Belarus' approximately 11,200 tariff lines increased and 18 percent decreased. Among other items, tariffs on meat products, metals, and motor cars increased; those on apparel, footwear, machinery, mechanical appliances, and pharmaceutical substances decreased. In Kazakhstan, 10 percent of the tariff lines increased and 45 percent decreased. Increases were seen on means of transportation, wood, refrigeration equipment, pharmaceutical preparations, electro-mechanical domestic appliances, footwear, and apparel; there were decreases on agricultural products, hides and skins, and optical medical or surgical instruments and appliances. In Russia, 14 percent of the tariffs increased and 4 percent decreased. Tariffs on meat products, yeast, and some articles of apparel and clothing accessories rose; those on fruit concentrates, baby food, materials for photography, wool and fabrics, pharmaceutical substances, parts of footwear, and electromechanical appliances decreased.<sup>2</sup>

In other words, with the exception of Kazakhstan, the clear majority of the nontrade-weighted tariff lines actually remained unaffected. To a point, as noted above, that reflects the already high degree of harmonization that existed between Belarus and Russia (see figure 1).

### Estimating the CU Effects: The Model and the Data Set

This note will produce an initial estimation of the GDP, sectoral output, and trade flows arising from the creation of the EurAsEC CU. It must be said that, in principle, what (if any) significant economic change could arise from this process is unclear because the economies were already largely integrated in terms of trade. For instance, they were integrated via

**Figure 1. Changes in Tariff Lines for Belarus, Kazakhstan, and the Russian Federation**



Source: EurAsEC Secretariat.

the formally liberalized intra-CIS trade and the free trade area of Belarus and Russia. Several studies show that Belarus already “overtrades” with the CIS/Russia by more than 200 percent.<sup>3</sup> Namely, further negative GDP and welfare trade-diversion effects (that is, the dislocation of trade flows to less-efficient trade partners because of the introduction of a trade “tax wedge”) may be greater than any potential positive trade-creation ones, resulting in a regional trade arrangement that will be detrimental to the economies of the countries involved.

The framework that will be used for such estimations here is the GTAP model (RunGTAP, version 3.53) and GTAP 7 Data Base.<sup>4</sup> The current GTAP database has 57 economic sectors, which were aggregated here in the 15 sectors described in table 1. This reduced aggregation was chosen to facilitate the estimation process, while preserving enough detail to include the sectors most likely to be significantly affected by the CU (among them, energy and autos) and to include those sectors of greater importance for the national economies involved.

The set of input-output matrixes and tariff and tax data requirements of the GTAP 7 Data Base have been significantly expanded to CIS countries.<sup>5</sup> Additionally, its input-output matrix for Russia was updated. The total number of countries now covered by the GTAP model stands at 113, but this figure was aggregated in the set of 10 countries/regions enumerated in table 2, encompassing all the EurAsEC CU members and their most relevant trade partners.

### Estimating the CU Effects: The Results

It is important to point out that the convergence toward a CET does not simply imply a transposition of the existing Russian tariff lines to the other members of the CU. The Russian tariff schedule itself also changed (as was apparent in figure 1). Nor does it mean full harmonization. For instance, Kazakhstan was allowed to apply tariffs different

**Table 1. Sectors of the Model Used in the Simulations**

Sector	Description
1 Petrol	Petroleum, coal products
2 GasOil	Gas and oil
3 Financial	Financial services not classified elsewhere
4 Truck	Transport equipment not classified elsewhere
5 Auto	Motor vehicles and parts
6 GrainsCrops	Wheat, cereal, and grains not classified elsewhere, vegetables, fruits
7 MeatLstk	Meat and meat products, animal products not classified elsewhere
8 Extraction	Coal, minerals not classified elsewhere, forestry, fishing
9 ProcFood	Dairy and food products, sugar, beverages, tobacco
10 TextWapp	Textiles, wearing apparel, leather products
11 LightMnfc	Wood and paper products, metal products not classified elsewhere
12 HeavyMnfc	Chemical, rubber, plastic, and mineral products not classified elsewhere; electronic and machinery equipment
13 Util_Cons	Electricity, heating, water and gas manufacturing and distribution, construction
14 TransComm	Sea, air, and land transport not classified elsewhere; trade and communication
15 Other services	Insurance, business services not classified elsewhere, public administration

Source: GTAP, modified by the author.

**Table 2. Regions of the Model Used in the Simulations**

1 Russian Federation	6 Rest of Asia (including Oceania)
2 Belarus	7 Americas
3 Kazakhstan	8 EU-27
4 Ukraine	9 Africa
5 China	10 Rest of the world

Source: GTAP, modified by the author.

from those agreed in the CET to more than 400 tariff lines for a transition period lasting until 2015. There are also tariff quota lists for several products (usually those of an agricultural or husbandry nature) that vary for each CU member; and for 2010 at least, those lists are to be managed at the national level. Finally, as indicated above, there is the all-important question of the terms and time frame for incorporating the energy-related industries into the CU.<sup>6</sup>

These matters are further complicated by the fact that there is no full equivalency between the individual (or aggregate) CET tariff lines and the GTAP sectors and their respective tariffs (which are also calculated there as trade-weighted ones and so are country-specific), which introduce

many constraints to any modeling exercise. Therefore, the simulated tariff changes necessarily will have an approximate and indicative value relative to the actually observed changes. Of course, this does not invalidate the exercise because, by its very nature, any economic modeling effort always produces only indicative outcomes.

With these provisos in mind, what do the results tell us? First, an estimation is made of the CU implementation (parallel to a full removal of any remaining taxes between the CU members), excluding the energy-related sectors (namely, crude oil, gas, and processed petroleum products). The results are shown in table 3. Aggregate GDP results are either unambiguously negative (Belarus and Russia) or nonsignificant (Kazakhstan) for the CU members, and largely irrelevant for all the other main EurAsEC CU trade partners.<sup>7</sup> Looking at the results at an industry level, they are roughly as one would expect, with the exception of the somewhat counterintuitive gains in the textile/apparel and truck (or, more precisely, “other transport equipment”) sectors for Belarus and Kazakhstan and the exception of autos and heavy manufacturing for Belarus (given the greater tariffs, to approximate the Russian level).<sup>8</sup> Most other sectors experience noteworthy losses. Also, the trade balance worsens by approximately US\$4 billion in Russia, is unchanged for Belarus, and improves by roughly US\$350 million in Kazakhstan. (Both Kazakhstan and Russia usually run large trade surpluses, whereas Belarus traditionally experiences large trade deficits.)

Alternatively, one may estimate a scenario in which, with the implementation of the CU, there is a limited harmonization of the conditions in the energy sector—namely, crude oil and gas are traded in equal terms and processed petroleum products remain outside the CU. One might think of this as the central scenario in the short to medium term, given the difficult discussions concerning changes in taxation of the Belarusian exports of processed oil products (based on Russian crude oil imports).<sup>9</sup> These results are shown in table 4. The GDP effects now are negative across the board for the CU members, and the GDP losses experienced by Belarus (the country that arguably benefits more than other CIS economies from relatively preferential trade terms in gas and crude oil) almost double to more than 6 percent of GDP. Also for Belarus, the sectoral effects are now negative for almost all sectors, except the important petroleum products industry, which has significant positive gains and in this scenario is assumed *not* to be harmonized. The gains probably show that factors of production in sectors negatively affected migrate to this protected sector, increasing its output. Russia, with almost 90 percent of the EurAsEC CU aggregate GDP, has a GDP loss of more than 1 percent. The auto industry in Russia benefits somewhat, at the significant expense of that industry in its CU partners (as do Russia’s textile/apparel

**Table 3. Simulation Results of CU without Harmonization of Energy Sectors**

Sector	GDP CHANGES									
	Russian Federation	Belarus	Kazakhstan	Ukraine	China	Rest of Asia	Americas	EU-27	Africa	Rest of the world
		-0.38	-3.20	0.04	0.00	-0.03	0.01	0.00	0.00	0.03
Sector	Output changes per sector									
Petrol	0.15	0.66	-1.45	0.15	-0.10	0.08	0.08	0.17	0.08	0.01
GasOil	2.58	-0.45	2.77	-0.81	-0.54	-0.59	-0.54	-0.72	-0.48	-0.56
Financial	0.84	1.03	1.27	-0.04	0.01	-0.01	-0.01	-0.03	0.04	0.05
Truck	-11.54	12.47	6.40	-1.47	0.14	0.00	0.06	-0.03	1.22	0.77
Auto	1.16	8.58	-24.61	-1.75	0.01	-0.06	0.00	-0.04	0.54	0.05
GrainsCrops	-0.21	-3.92	-5.34	-0.21	0.02	0.00	0.04	0.08	0.19	0.20
MeatLstk	1.76	-4.19	-1.31	-0.51	0.00	0.00	-0.08	-0.03	-0.07	0.01
Extraction	-1.74	-6.51	-4.74	-0.89	0.00	-0.06	0.00	0.01	0.13	0.11
ProcFood	-2.27	-5.76	-2.53	-1.52	0.20	0.03	0.04	0.06	0.07	0.18
TextWapp	-2.70	7.10	11.37	1.18	-0.25	0.03	0.06	0.01	0.64	0.61
LightMnfc	-2.22	-3.69	0.82	-2.00	0.00	0.01	0.03	0.05	0.74	0.40
HeavyMnfc	-11.38	5.76	-11.84	-0.01	0.09	0.06	0.17	0.22	1.39	0.94
Util_Cons	-1.30	-0.45	-1.14	0.28	-0.03	0.04	-0.03	-0.09	-0.16	-0.32
TransComm	1.80	-0.87	1.51	-0.01	-0.03	-0.02	0.00	-0.01	0.07	-0.06
Other services	1.99	-3.04	3.74	0.13	0.01	0.00	-0.01	-0.02	-0.12	-0.06

Source: Author's estimations.

**Table 4. Simulation Results of CU with Partial Harmonization of Energy Sectors**

Sector	GDP CHANGES									
	Russian Federation	Belarus	Kazakhstan	Ukraine	China	Rest of Asia	Americas	EU-27	Africa	Rest of the world
		-1.25	-6.26	-0.43	0.07	-0.04	0.00	0.00	-0.05	0.00
Sector	Output changes per sector									
Petrol	8.53	210.78	75.94	4.34	-0.66	-0.37	-0.50	-4.18	-1.37	-3.33
GasOil	0.01	-44.97	-1.94	-3.45	0.50	0.42	0.22	0.91	0.40	0.65
Financial	2.11	-4.26	-0.35	-0.37	0.00	0.00	0.00	-0.01	-0.06	-0.02
Truck	-2.85	-10.22	9.74	-4.85	0.08	0.18	-0.03	0.05	-0.99	-0.02
Auto	4.71	-8.24	-23.33	-3.18	-0.03	0.04	-0.07	-0.07	-0.27	-0.39
GrainsCrops	-0.06	-3.96	-5.94	-0.58	0.03	0.02	0.05	0.14	0.09	0.09
MeatLstk	0.29	-3.84	0.08	-0.75	0.00	0.01	-0.10	-0.01	0.04	0.03
Extraction	1.13	-5.88	-2.89	-0.93	-0.04	-0.08	-0.05	-0.03	-0.18	-0.09
ProcFood	-1.98	-6.08	-2.55	-2.38	0.19	0.01	0.04	0.08	0.06	0.16
TextWapp	1.06	-26.60	2.92	-1.83	-0.11	0.18	0.04	0.08	-0.45	-0.29
LightMnfc	2.42	-18.83	-3.61	-3.89	0.03	0.05	0.00	0.06	-0.31	-0.11
HeavyMnfc	-3.29	-22.54	-12.97	-0.47	0.04	0.08	0.10	0.16	-0.75	-0.12
Util_Cons	-0.08	7.26	6.91	1.02	-0.09	-0.08	-0.06	-0.23	-0.09	-0.38
TransComm	0.62	2.27	2.79	-0.21	-0.05	-0.04	-0.02	-0.03	-0.17	-0.16
Other services	-0.37	5.68	1.13	-0.02	0.00	0.00	0.00	0.01	0.07	0.08

Source: Author's estimations.

and light industry sectors, and as do the truck and textile/apparel industries in Kazakhstan). Additionally, the trade balance worsens by almost US\$11 billion in Russia, by more than US\$800 million in Belarus,<sup>10</sup> and by almost US\$800 million in Kazakhstan. As before, the rest of the world is just marginally affected, albeit sectoral effects of importance may again be found in Ukraine, a trade partner for whom the EurAsEC CU is an important market.<sup>11</sup>

Finally, we estimate the results of a full harmonization of the energy sectors trade tax treatment, parallel to creation of the CU. These results are shown in table 5.<sup>12</sup>

Again, the results are unambiguously negative for all CU members, and again Belarus has the greatest GDP losses among all countries. Nevertheless, the GDP losses are halved for both Belarus and Russia when compared with the previous scenario. That result may reflect both economies adjusting away from the suboptimal allocation of resources. For instance, that led Belarus to concentrate excessively in economic sectors for which it has no real or only limited comparative advantages. This process may help erase some of the trade-diversion GDP losses caused by creating the EurAsEC CU, but it doesn't hide the underlying GDP-

reducing nature of the arrangement. The sectoral pattern of results is again similar to the previous scenarios (that is, overwhelmingly negative), as are the ones in the non-CU trade partners. Finally, the trade balance worsens by almost US\$11 billion in Russia, close to US\$600 million in Belarus, and more than US\$800 million in Kazakhstan.

## Conclusions

In this brief note, an initial estimation of some of the economic effects of the creation of the EurAsEC CU was performed, using the GTAP CGE model. The simulations presented here have some weaknesses and limitations, suggesting that the results should be seen as more indicative than prescriptive. Nevertheless, the results of all different scenarios *consistently* support the conclusion that, as an arrangement, the EurAsEC CU would be a GDP-reducing framework wherein the negative trade-diversion effects clearly overwhelm any positive trade-creation effects. In general, GDP falls and most industries are negatively affected by the arrangement (regardless of the assumptions used) and the external positions of the CU members worsen. This result

**Table 5. Simulation Results of Full CU**

	GDP CHANGES									
	Russian Federation	Belarus	Kazakhstan	Ukraine	China	Rest of Asia	Americas	EU-27	Africa	Rest of the world
	-0.66	-2.77	-0.54	0.11	-0.04	0.00	0.00	-0.04	0.00	-0.12
Sector	Output changes per sector									
Petrol	-9.32	34.63	26.76	10.26	0.10	-0.07	0.39	0.33	0.41	0.80
GasOil	-1.40	-39.31	-2.17	-4.84	0.27	0.09	0.01	0.56	0.14	0.36
Financial	2.01	-2.62	-0.26	-0.49	0.01	-0.01	0.00	0.00	-0.04	0.03
Truck	-1.20	-4.76	10.65	-6.50	0.08	0.10	-0.03	0.05	-0.43	0.36
Auto	5.49	-3.83	-22.96	-3.95	-0.02	0.00	-0.06	-0.07	-0.07	-0.24
GrainsCrops	0.14	-0.47	-5.63	-0.82	0.03	0.02	0.05	0.12	0.12	0.13
MeatLstk	0.57	0.26	0.01	-0.79	0.01	0.01	-0.10	-0.01	0.01	0.04
Extraction	1.13	-7.53	-3.02	-0.68	-0.01	-0.07	-0.01	0.00	-0.06	-0.03
ProcFood	-1.54	-1.67	-2.51	-2.73	0.20	0.02	0.04	0.09	0.06	0.19
TextWapp	2.16	-19.49	3.61	-3.08	-0.12	0.13	0.04	0.07	-0.16	0.08
LightMnfc	3.11	-14.93	-3.44	-4.91	0.02	0.02	0.00	0.04	-0.06	0.03
HeavyMnfc	-1.70	-12.18	-11.26	-1.02	0.02	0.06	0.10	0.07	-0.20	0.04
Util_Cons	0.28	5.91	7.09	1.28	-0.09	-0.03	-0.05	-0.24	-0.10	-0.45
TransComm	0.95	3.93	2.94	-0.30	-0.04	-0.03	-0.02	-0.05	-0.11	-0.20
Other services	-0.15	11.75	1.16	-0.06	0.02	0.00	0.00	0.03	0.01	0.09

Source: Author's estimations.



compares poorly with the largely positive effects arising from multilateral trade integration (such as WTO accession<sup>13</sup> and free trade areas with the EU).<sup>14</sup>

## Notes

1. For an overview of the expected effects of Russia's WTO entry, see Alekseev et al. (2004); for the effects in Belarus, see Pavel and Tochitskaya (2005) or an earlier analysis of the Belarus case by Vinhas de Souza and Bakanova (2002). A recent overview of the trade relations between Belarus, the EU, and CIS/Russia is available at Tochitskaya and Vinhas de Souza, (2009).

2. For another 376 CET tariff lines (mainly in textiles and footwear) for all CU members, it was unclear if the CET introduction would increase or decrease rates because of different national classifications for products.

3. Specifically, the CIS share should be less than 15 percent, although it actually is close to 50 percent—mostly as a result of trade with Russia. Kazakhstan overtrades with the CIS by 70 percent, whereas Russia's share is the predicted one. Conversely, Belarus significantly undertrades with the EU, using almost half of its predicted trade share (see Shepetylo [2009]).

4. The GTAP model is a quasi-dynamic computable general equilibrium (CGE) multiregion global trade model, in which interregional links come mostly from bilateral trade flows, and input-output and social accounting matrixes represent the countries' different productive structures. See Hertel and Tsigas (1997) for a comprehensive description. A CGE model is a state-of-the-art workhorse tool for simulation analyses of the effects of the creation of regional trade agreements.

5. The CIS countries now included in the GTAP are Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Russia, and Ukraine. Therefore, all EurAsEC CUs are in the data set. This expansion of the GTAP database toward the CIS was one of the main aims of one of the working packages of the EU "Eastern Neighbourhood: Economic Potential and Future Development" project. This particular working package (namely, "Analysis of the Economic and Institutional Consequences of WTO Accession and of Future EU-CIS Free Trade Agreements") was designed by Lúcio Vinhas de Souza while at the Kiel Institute for World Economy, one of the partners in that project.

6. This also includes long-term questions—such as the granting of exports and imports monopoly rights (fully excluded from the CU competences); and in Russia, where gas exports are a state monopoly, this situation will not be affected by the CU creation.

7. Those GDP results should be seen as a percentage change in relation to a non-CU benchmark.

8. Those results should be seen as a percentage change in the output of the sector in relation to a non-CU benchmark.

9. For a description of the terms of the Belarus-Russia energy trade, see Gatovsky and Kashinskaya (2006); for an analysis of the energy trade between Russia and the CIS countries, see Lysenko and Vinhas de Souza (2007). In December 2010, an agreement was announced between Belarus and Russia in which Russia would continue to provide Belarus with a tax-free amount of oil for domestic consumption, and Belarus would be responsible for collecting and transferring to the Russian treasury revenues of processed oil products exported from its territory. (It should be noted that, as of late-January 2011, the *actual* terms of the agreement are still being negotiated.)

10. For Belarus—the country among EurAsEC CU members with by far the most fragile external position (that is, systematically very large trade and current account deficits and low foreign currency reserves)—that would have implied in 2010 an increase in the trade deficit from an already huge 14 percent to approximately 17 percent of GDP.

11. The positive effect in the Ukraine petrol industry that partially compensates for the negative effects elsewhere may just reflect the nonadjustment of the terms of trade in some energy products. The sector does not operate under full market conditions, given external subsidies (by Russia) and domestic cross-subsidisation (see Lysenko and Vinhas de Souza [2007]).

12. All estimations presented in this report underwent several types of robustness analysis (reestimation of the models by robust multistep solution algorithms, which reduce linearization errors) and sensitivity analysis (to parameter and shock values); and these analyses confirmed the results.

13. On December 7, 2010, Russia signed an agreement with the EU that, in principle, eliminates the remaining outstanding bilateral issues in the Russian WTO accession negotiations. This agreement might open the way for a WTO entry by 2011-12, finalizing a process that has lasted for more than 17 years (and thereby achieving the dubious distinction of being the longest accession process in the history of the WTO).

14. Among many sources, see Alekseev et al. (2004); Pavel and Tochitskaya (2005); and Tochitskaya and Vinhas de Souza (2009).

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