UNIVERSITY
OF CENTRAL ASIA

Customs Union of Belarus, Kazakhstan and Russia: Trade Creation and Trade Diversion in Central Asia in 2010-2011

Roman Mogilevskii

Customs Union of Belarus, Kazakhstan and Russia: Trade Creation and TradeDiversion in Central Asia in 2010-2011

Roman Mogilevskii

Abstract

The paper discusses the impact of the Customs Union of Belarus, Kazakhstan and Russia on trade flows in Central Asia from the point of view of trade creation and trade diversion. It finds that the growth of trade between the members of the Customs Union is mostly due to different exogenous factors unrelated to the Customs Union. The paper also provides a rapid assessment of the Customs Union impact on different economic variables in Kazakhstan.

The Institute of Public Policy and Administration was established in 2011 to promote systematic and in-depth research on issues related to the socio-economic development of Central Asia, and explore policy alternatives.

This paper is part of research being conducted for the "Regional Cooperation and Confidence Building in Central Asia and Afghanistan" (RCCB) project supported by the Government of Canada, Department of Foreign Affairs and International Trade.

The Institute of Public Policy and Administration is part of the Graduate School of Development, University of Central Asia. The University of Central Asia was founded in 2000. The Presidents of Kazakhstan, the Kyrgyz Republic, and Tajikistan, and His Highness the Aga Khan signed the International Treaty and Charter establishing this secular and private university, ratified by the respective parliaments, and registered with the United Nations. The University is building simultaneously three fully-residential campuses in Tekeli (Kazakhstan), Naryn (Kyrgyz Republic) and Khorog (Tajikistan) that will open their doors to undergraduate and graduate students in 2016.

The Institute of Public Policy and Administration's Working Papers is a peer-reviewed series that publishes original contributions on a broad range of topics dealing with social and economic issues, public administration and public policy as they relate to Central Asia.

About the authors

Roman Mogilevskii, senior research fellow at the Institute and coordinator of the "Regional Cooperation and Confidence Building Project", is a candidate of physical-mathematical sciences, and has extensive experience in research of trade policy, public finance, macroeconomics of the countries of Central Asia and Eastern Europe.

roman.mogilevskii@ucentralasia.org

Contents

Tables

Figures

Acronyms

CA	Central Asian
CCT	Common Customs Tariff
CPI	Consumer Price Index
CU	Customs Union of Belarus, Kazakhstan and Russian Federation
EurAsEC	Eurasian Economic Community
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HS	Harmonized System
KR	Kyrgyz Republic
MFN	Most Favoured Nation
OCAC	Other Central Asian countries
OECD	Organization for Economic Cooperation and Development
PTA	Preferential Trade Agreement
RK	Republic of Kazakhstan
SES	Single Economic Space
TD	Trade Diversion
TC	Trade Creation
UN	United Nations
UN Comtrade	United Nations Commodity Trade Statistics Database
USA	United States of America
US$	United States Dollar
VAT	Value-Added Tax

1.   Introduction

The formation of the Customs Union (CU) of Belarus, Kazakhstan and the Russian Federation is probably the most important trade policy change in Central Asia in recent years. Kazakhstan is the largest economy of Central Asia, and Russia is an important trade and economic partner for Kazakhstan and Central Asian (CA) countries. Any regional trade agreement involving these two countries is capable of strongly affecting not only them, but also their neighbours.

The CU began operations in 2010. Initial analysis indicates that trade in goods between Kazakhstan and Russia and between CU countries and other CA countries[1] (OCAC) grew significantly in the last two years. For example, the turnover of trade between Kazakhstan and Russia in 2011 increased by 28 % in comparison to 2010, and the 2011/2010 growth rate of trade between the CU and OCAC is 19 %.[2] This major trade expansion may be due to the new environment created by the CU. However, it may be also due to the general economic recovery after the 2008-2009 crisis, growth of international commodity prices, and exogenous shocks, such as implementation of large investment projects.

It is important to understand whether the increase in trade attributable to the CU is due to the emergence of new trade flows, which became possible due to liberalisation of trade within the CU (*trade creation*), or due to the redirection of existing trade flows from countries outside the CU towards CU countries (*trade diversion*).

The purpose of this paper is to net out the effect of the CU formation on trade performance in Central Asia and to find evidence of CU-related trade creation and trade diversion. In relation to the CU, trade flows in Central Asia can be divided into three components. The first is trade between Kazakhstan (the only CA country that is a member of the CU) and its CU partners, Russia and Belarus. The second component is trade between Kazakhstan and OCAC, and the third is trade between OCAC, on one side, and Russia and Belarus, on the other side. All three components are considered in this paper. Additionally, to understand trade creation/diversion patterns for Kazakhstan, its trade with China (its major trade partner) and the rest of world is also taken into account. Analysis is based on official trade statistics provided by statistical and customs agencies of the countries of the region. When necessary, mirror statistics of trade partner countries are also employed.[3]

The CU is still a young entity, and many important anticipated effects, especially investment-related impacts, have not yet had a chance to materialise. This paper analyses the

---

[1]   In this paper, other CA countries (OCAC) include Afghanistan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

[2]   For comparison, in 2007-2010, the turnover of Kazakhstan-Russia and TC-OCAC trade increased at an annual average rate of 2 % and 7 % respectively.

[3]   Supplies of natural gas from Turkmenistan and Uzbekistan to Russia, which constitute a very significant component of trade between OCAC and CU, are not covered properly in Russian, Turkmen or Uzbek official statistics. Additionally, this trade does not seem to be affected by the CU and is therefore excluded from analysis in this paper.

first available evidence only, and its findings are by no means conclusive. Also, trade in goods is not the only component of economic relationships affected by the CU's creation. The CU and the Single Economic Space (SES), to which the CU has been upgraded from 1 January 2012, also have the potential to affect trade in services, investment flows, consumer prices, government revenues, employment and labour migration indicators. Many of these effects require much more time to evolve than trade-in-goods effects. Only limited evidence on these non-merchandise-trade effects is available to-date, and therefore only preliminary analysis of these issues is provided in this paper.

Section 2 provides information on the main policy changes related to the creation of the CU, and an overview of trade flows in all countries under consideration; it also includes a summary of the expectations experts have regarding CU outcomes for trade in the region. Section 3 describes the methodology applied in this paper for measuring trade creation and trade diversion associated with formation of the CU. Section 4 provides the results of quantitative assessment of trade creation/diversion effects for 2010-2011, analysed separately for formal and for informal trade flows.[4] Section 5 provides an over-view of economic changes in Kazakhstan other than exports and imports of goods and discusses any possible relationships between these changes and creation of the CU. Section 6 offers conclusions. Annex 1 provides a technical methodological statement supplementing Section 3, and Annex 2 contains detailed data on trade patterns and changes in the region.

2.   The Customs Union of Belarus, Kazakhstan and Russia: Facts and Expectations

2.1. Formation of the Customs Union and Potential Implications for Trade in the Region

The creation of the CU in its current form began in August 2006, when the leaders of the three participating countries, Belarus, Kazakhstan and Russian, decided to move forward with a full-fledged customs union.[5] The first legally binding agreements directly affecting trade of these countries became active on 1 January 2010. Table 1 includes a list of important milestones in the formation and operation of the CU.

---

[4]   Distinction between, and the importance of, different types of trade flows in Central Asia are discussed in Roman Mogilevskii, *Trends and Patterns in Foreign Trade of Central Asian Countries* (Bishkek: University of Central Asia, Institute of Public Policy and Administration Working Paper No. 1, 2012).

[5]   This is a second attempt to create a customs union of former Soviet countries. The first was undertaken in the mid-1990s and included Belarus, Kazakhstan and Russia, as well as Kyrgyzstan and Tajikistan. This first attempt was unsuccessful as the countries did not go beyond framework agreements, which were not legally enforceable.

**Table 1. Important steps in formation of the Customs Union
with direct implications for trade in the region**

Date	Event	Implications for trade
1 January 2010	Common customs tariff (CCT) implemented	Increase of import duties in Kazakhstan
1 July 2010	CU's Customs Code and related legislation (agreements on application of rules of origin and customs valuation etc.) implemented	Customs procedures in all CU countries harmonized
1 July 2011	Customs and other types of border control moved to external borders of the CU, some temporary exclusions from the CCT expired, and new rules for individuals entered into force	Internal custom borders mostly eliminated, import duties for some sensitive commodities (such as passenger cars) increased, and informal cross-border trade became more difficult

Source: Author's compilation based on CU's legislation[6]

Adoption of the CCT was the first practical measure with potential to affect the trade of member countries. Its introduction implied a substantial increase of import tariffs for Kazakhstan. According to estimates of experts from Kazakhstan,[7] the simple average most-favoured-nation (MFN) import tariff rate grew from 6.45 % before the CU to 12.1 % at CCT, and the trade-weighted average MFN import tariff rate changed from 4.3 % to 12.67 % correspondingly. This change made those imports, to which this tariff applies, less competitive in comparison to similar goods produced within the CU or in countries with preferential access to the CU market.

Importantly, tariffs on imports from OCAC to CU countries have not changed with the formation of the CU. The free trade regimes between CU countries, on one hand, and Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, on the other, established by bilateral agreements in the 1990s are still in force. Moreover, they have been reinforced by the 2011 CIS free trade agreement between Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Ukraine, which has already been ratified by Armenia, Belarus, Kazakhstan, Moldova, Russia and Ukraine. Reportedly, Uzbekistan is going to join this agreement soon. Afghanistan is eligible for preferential treatment under the CU's special regime for least developed countries and, therefore, faces zero import tariffs in all CU countries. Thus, the growth of import tariffs in Kazakhstan implied by the CCT is going to affect trade only with other partners, including OECD countries and China.

While tariffs for trade between Kazakhstan and OCAC have not changed, customs administration on the southern border of Kazakhstan, a now common external border of the CU, became tougher as of 1 July 2011. This includes the stricter implementation of rules of origin for goods imported to Kazakhstan, veterinary and phytosanitary controls, and other measures including control over quantities of goods imported by individuals. Trans-boundary movement of goods by individuals, who were eligible for simplified customs clearance regime, has long been the main means of informal trade in mostly Chinese consumer goods re-exported from Kyrgyzstan to Kazakhstan and Russia.

---

[6]   http://www.tsouz.ru/Docs/IntAgrmnts/Pages/Perechen_MDTS.aspx (accessed 5 December, 2012).
[7]   Oraz Jandosov and Lyaziza Sabyrova, "Tariff Protection Level in Kazakhstan: Before and After the Customs Union (Part II)," *RAKURS Center for Economic Analysis, Discussion Papers,* № 5.4, (Almaty: RAKURS, 2011).

The removal of the internal customs border between Kazakhstan and Russia creates a potential increase in their bilateral trade, reducing shipping time and costs. It could also simplify and make cheaper transit of goods originating from third countries via Belarus and Russia to Kazakhstan and vice versa. Joint CU membership could also contribute to the creation of a more beneficial environment for Russian products and businesses in Kazakhstan and Kazakh products and businesses in Russia.

Two effects could therefore be expected for foreign trade flows in the region: (i) the diversion of trade through the switch of Kazakh imports from countries which face increased tariffs and/or stricter customs procedures, to CU countries or countries that have free trade arrangements with the CU, and (ii) trade creation due to the reduction of trade barriers and the elimination of internal customs borders between CU countries. A quantitative ex-ante assessment of Kazakhstan by the World Bank[8] indicates that the net welfare effect of the CU depends on its success in removing trade barriers on the Kazakh-Russian border. The summary welfare effect can be positive, but only if progress is achieved in facilitating trade between Kazakhstan and Russia.

2.2. Key Trends in Trade of CU Countries

Understanding the impact of the CU on foreign trade of the participating countries requires accounting for trade trends and patterns prior to the CU.

Sources of data used for analysis of trade flows in this paper are provided in Table 2. All data are disaggregated at the Harmonized System 1996 (HS1996) four-digit level. Together, these data provide complete information on 2007-2011 trade flows within the CU and between the Union, on one hand, and OCAC and the rest of the world, on the other (also see footnote 3).

Table 2. Trade data sources

Country	Flows	Years	Source
Belarus	Exports to/imports from Kazakhstan, Russia and the rest of the world	2007 – 2011	UN Comtrade
Kazakhstan	Exports to/imports from Russia	2007 – 1st half 2010	UN Comtrade
		2nd half 2010	Customs Control Committee of the Ministry of Finance of the Republic of Kazakhstan (RK), Agency of the RK on Statistics
		2011	Eurasian Economic Commission, Agency of the RK on Statistics
Kazakhstan	Exports to/imports from the rest of the world	2007 – 2010	UN Comtrade
		2011	Customs Control Committee of the Ministry of Finance of the RK, Agency of the RK on Statistics

---

8   World Bank. "Assessment of Costs and Benefits of the Customs Union for Kazakhstan," *Report No. 65977-KZ*, (Washington DC: World Bank, 2012).

Country	Flows	Years	Source
Russia	Exports to/imports from the rest of the world	2007 – 2011	UN Comtrade
Kyrgyzstan	Exports to/imports from the CU members	2007 – 2011	UN Comtrade

Dynamics of trade totals and commodity structure for CU countries are shown in Figure 1. All three countries had similar trade dynamics in recent years. Their exports and imports grew very fast during the 2000s, with a peak in 2008. Adversely affected by the 2008-2009 global crisis,[9] CU members experienced a significant drop in trade volumes in 2009. In 2010 and 2011, they experienced economic recovery, and the recovery of their foreign trade was strong, particularly in 2011, when they registered absolute maximums of United States dollar (US$) values of their exports and imports.

Figure 1. Dynamics and commodity structure of foreign trade of Customs Union countries

a) Exports of Belarus

b) Imports of Belarus

---
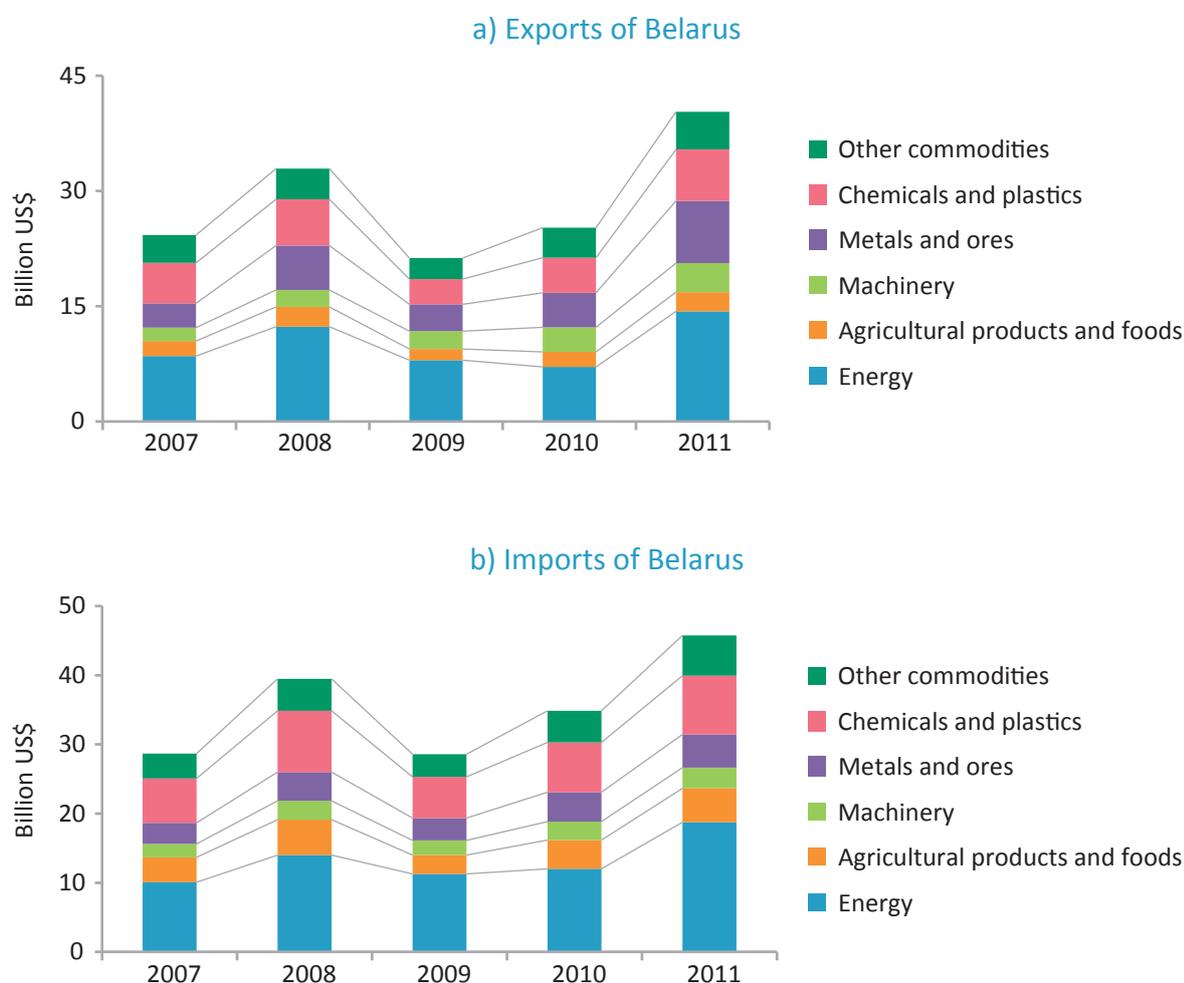
[9]   In 2009, GDP growth rates were 0.2 % in Belarus, 1.2 % in Kazakhstan, and -7.8 % in Russia, compared with 2000-2008 average GDP growth rates of 8.0 %, 9.4 % and 6.9 % respectively.

c) Exports of Kazakhstan
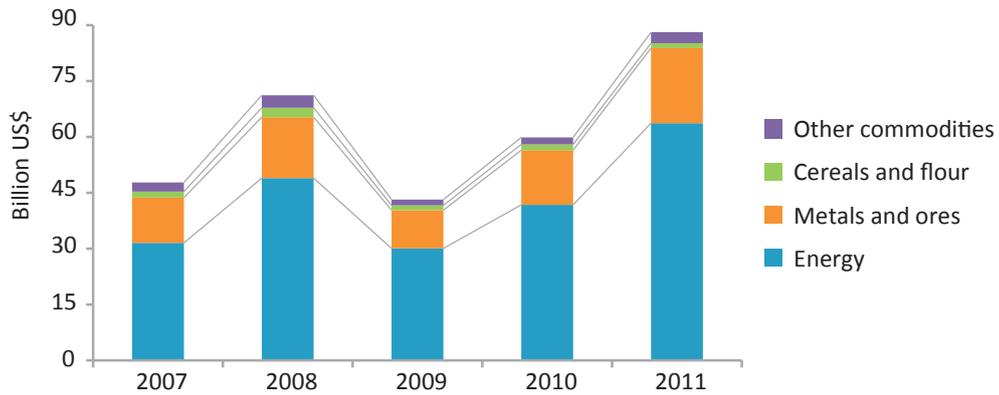
d) Imports of Kazakhstan
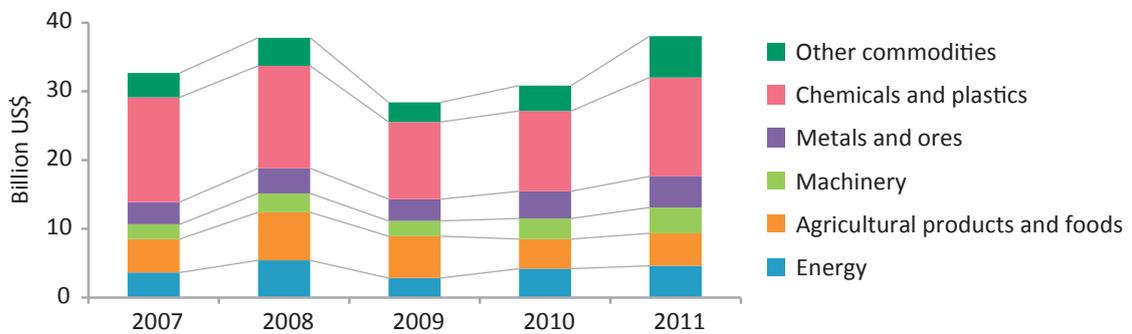
e) Exports of Russia
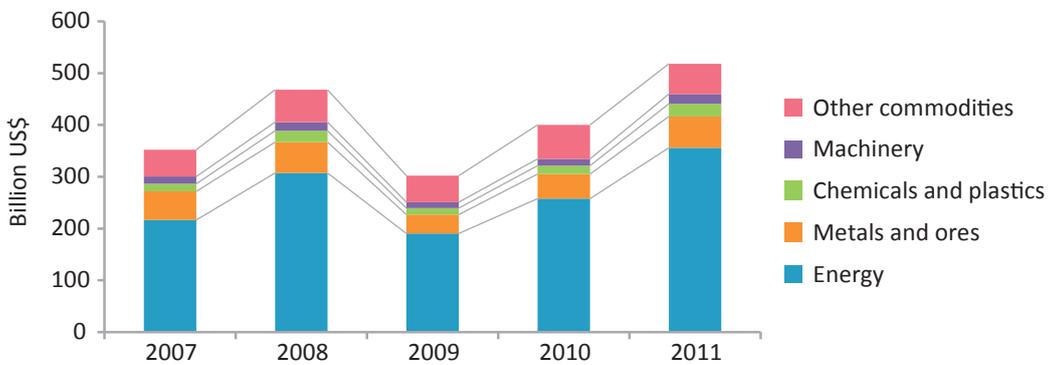
f) Imports of Russia
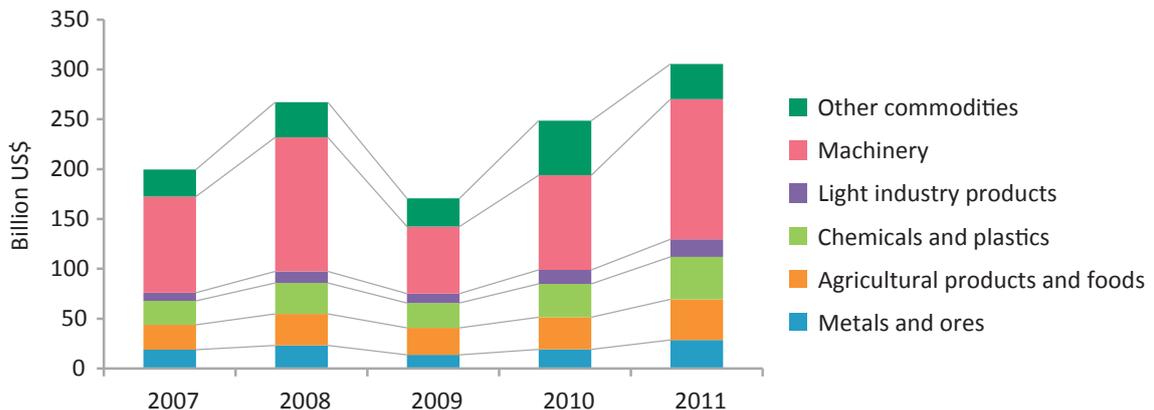
Source: UN Comtrade, Agency of the RK on Statistics

Energy products prevail in exports of all three countries, especially Kazakhstan and Russia (Figures 1a, 1c and 1e). Other important exports include metals and ores, and chemicals and plastics. Machinery occupies a significant share of exports in Belarus only, but is very big in the structure of imports of all CU countries. Other key import product groups include agricultural products and foods as well as chemicals and plastics. Imports of energy products and metals are important for Belarus and Kazakhstan.

Apart from general trends in trade, it is necessary to consider dynamics and structure of trade flows within the CU and between the CU and OCAC. Kazakhstan has a permanent deficit in trade with Russia, with imports about two times higher than exports (Figure 2). Kazakhstan's exports to Russia consist mostly of energy products and metals/ores. Russian exports to Kazakhstan are more diversified and include energy, metals, foods, chemicals and machinery and equipment. Kazakhstan is one of the main markets for Russian manufactured products.

Figure 2. Dynamics and commodity structure of trade between Kazakhstan and Russia

a) Exports from Kazakhstan to Russia

b) Exports from Russia to Kazakhstan
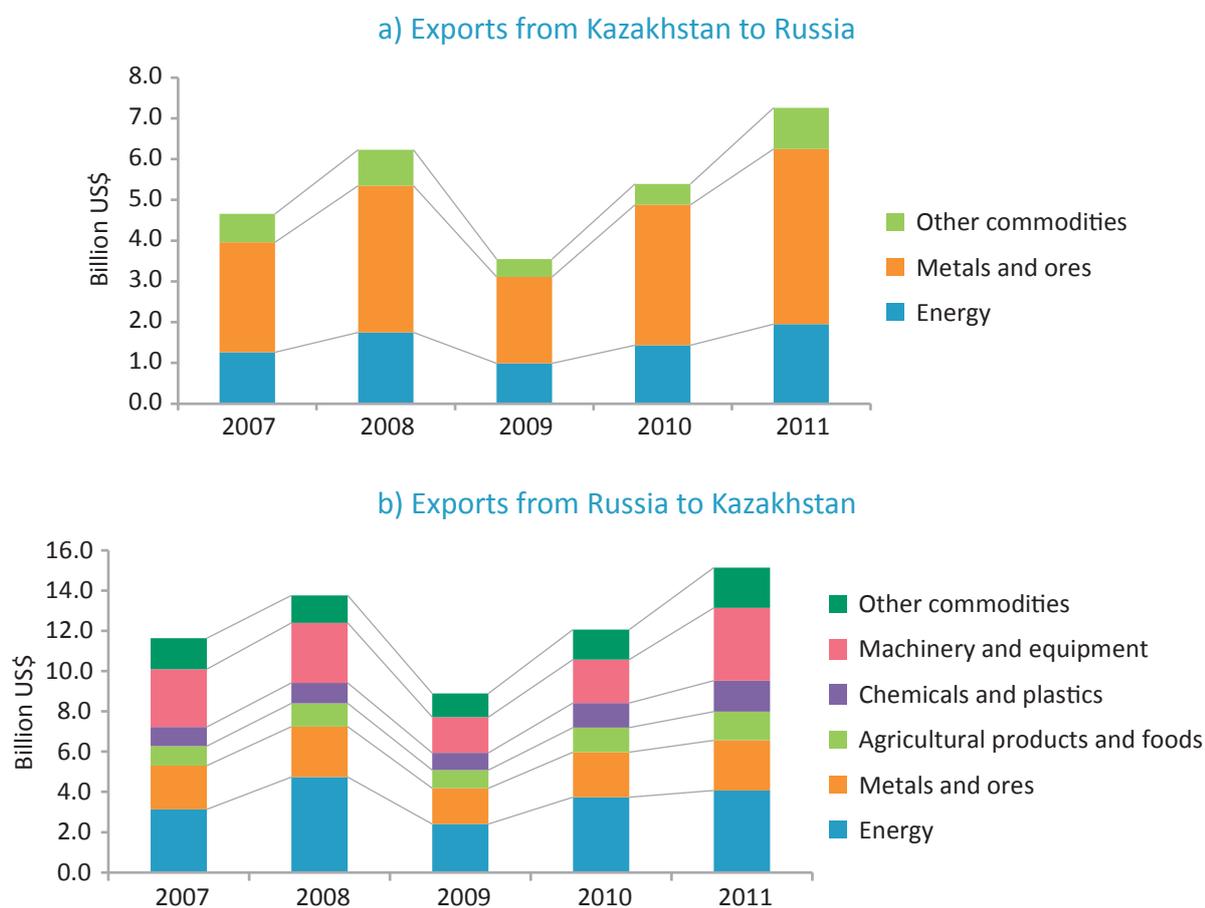
Sources: UN Comtrade, Eurasian Economic Commission

Trade between Kazakhstan and Belarus is small (Figure 3), and Kazakh imports from Belarus are consistently below its exports to Belarus which consist mostly of metals. The only exception to this pattern was in 2010, when Kazakhstan supplied oil products worth over US$300

million to Belarus;[10] a trade component that almost disappeared in 2011. Belarus exports different manufactured products to Kazakhstan, which include prepared foods, machinery and equipment, and chemicals.

Figure 3. Dynamics and commodity structure of trade between Kazakhstan and Belarus

a) Exports from Kazakhstan to Belarus

b) Exports from Belarus to Kazakhstan
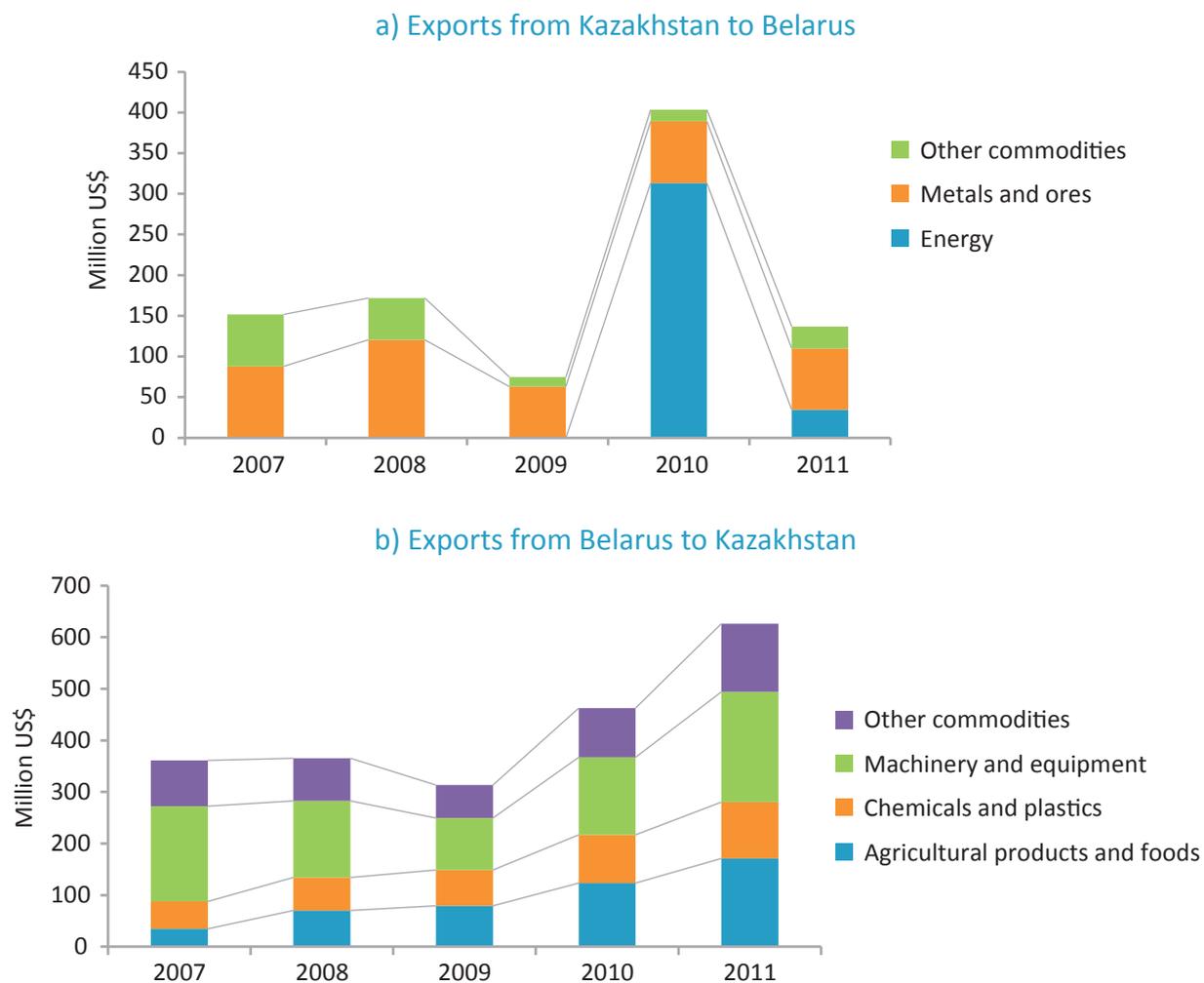
Source: UN Comtrade

Unlike trade with other CU members, Kazakhstan has a substantial positive balance of trade with OCAC (Figure 4). Kazakh exports to OCAC consist primarily of cereals and flour as well as energy products. Key commodities imported to Kazakhstan from OCAC include energy and agricultural products.

---

10   In 2010, Russia (the main supplier of oil to Belarus) introduced 100 % export duty for its crude oil exports (above a certain quantity) to Belarus, so Belarus imported energy products from other countries, including Kazakhstan. In 2011, Russia eliminated this export duty, and there remained no rationale for Belarus to import oil products from Kazakhstan.

Figure 4. Dynamics and commodity structure of trade between Kazakhstan and other countries of Central Asia

a) Exports from Kazakhstan to OCAC
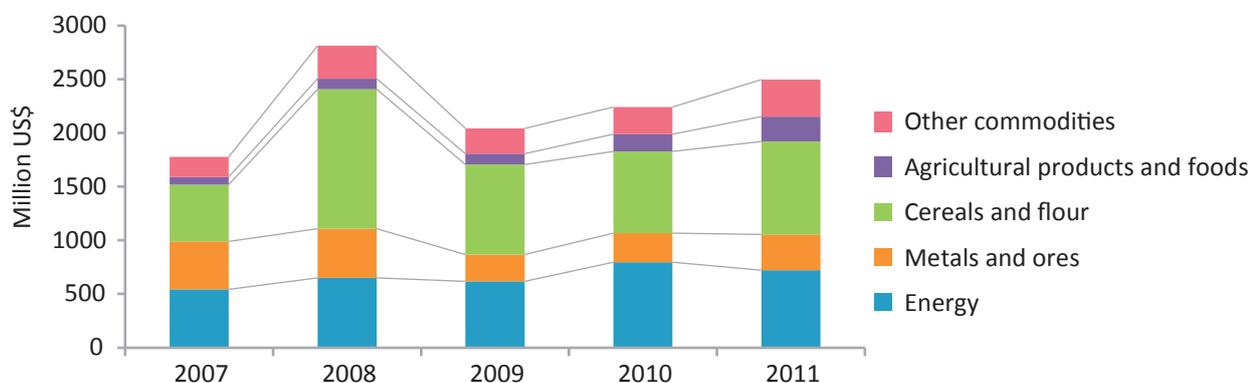
b) Exports from OCAC to Kazakhstan
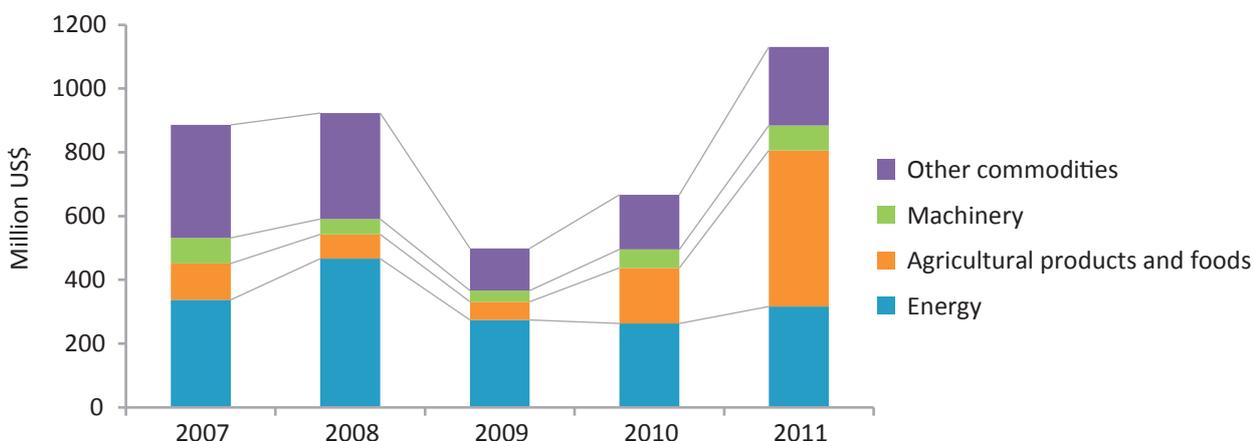
Sources: UN Comtrade, Agency of the RK on Statistics, Customs Control Committee of the Ministry of Finance of the RK

Russia is a significant trade partner of all CA countries, both for exports and imports. These countries have a big deficit in trade with Russia (Figure 5 and footnote 3). The OCAC export agricultural goods, light industry production and machinery (mostly passenger cars from Uzbekistan) to Russia. Russia supplies OCAC with energy products (especially oil products) and metals, which are a typical component of trade between most partners in the region. These countries are also a large market for Russian manufactured products.

Figure 5. Dynamics and commodity structure of trade between Russia and other countries of Central Asia

a) Exports from Russia to OCAC

b) Exports from OCAC to Russia
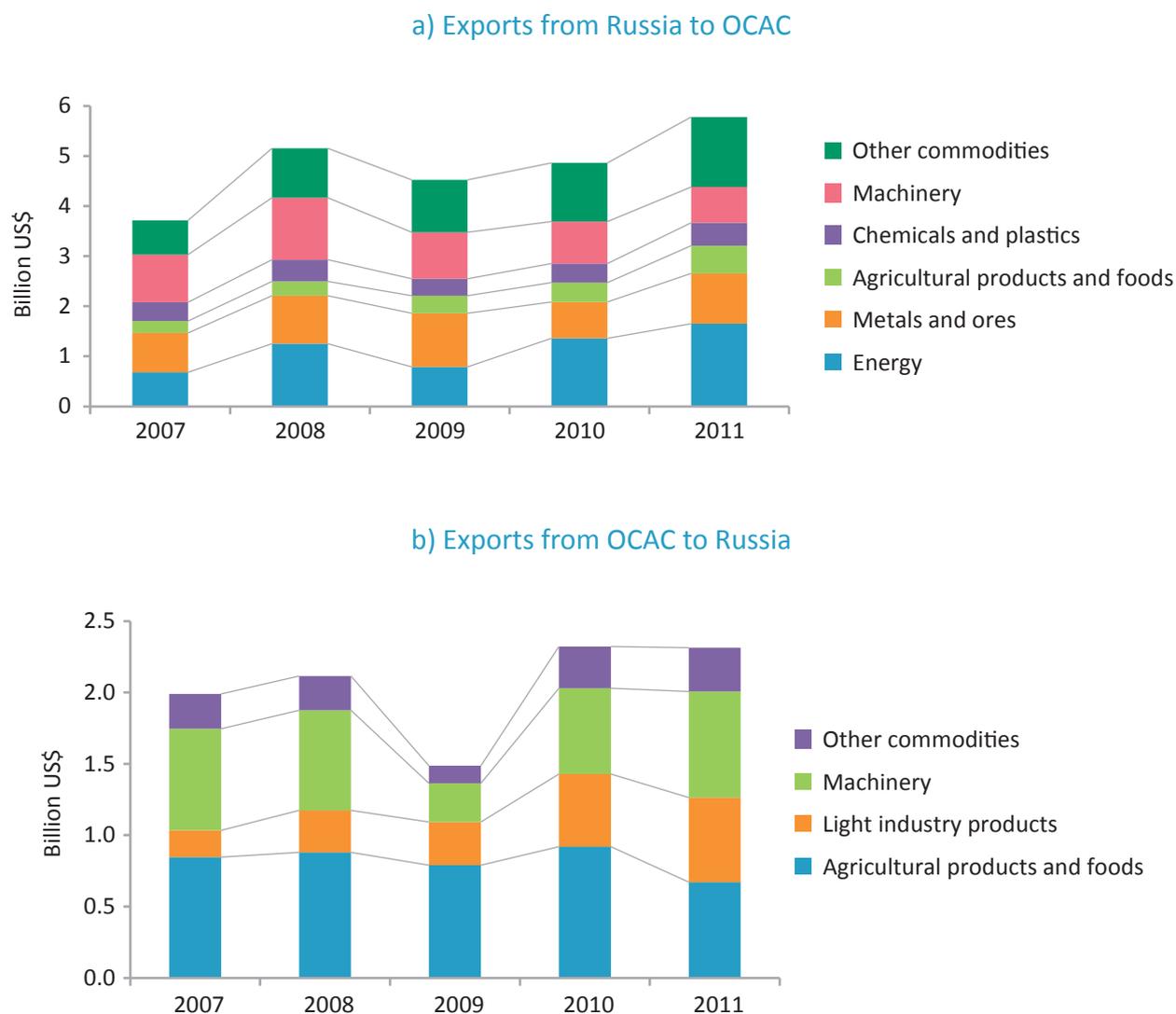
Source: UN Comtrade

Exports from OCAC to Belarus are very small, with over half being agricultural products (Figure 6a). OCAC's imports from Belarus are much larger (Figure 6b) and are dominated by machinery and prepared foods, especially sugar. In 2010-2011, Belarus reported increasing supplies of oil products to Afghanistan and Kyrgyzstan.

Figure 6. Dynamics and commodity structure of trade between Belarus and other countries of Central Asia

a) Exports from Belarus to OCAC

b) Exports from OCAC to Belarus
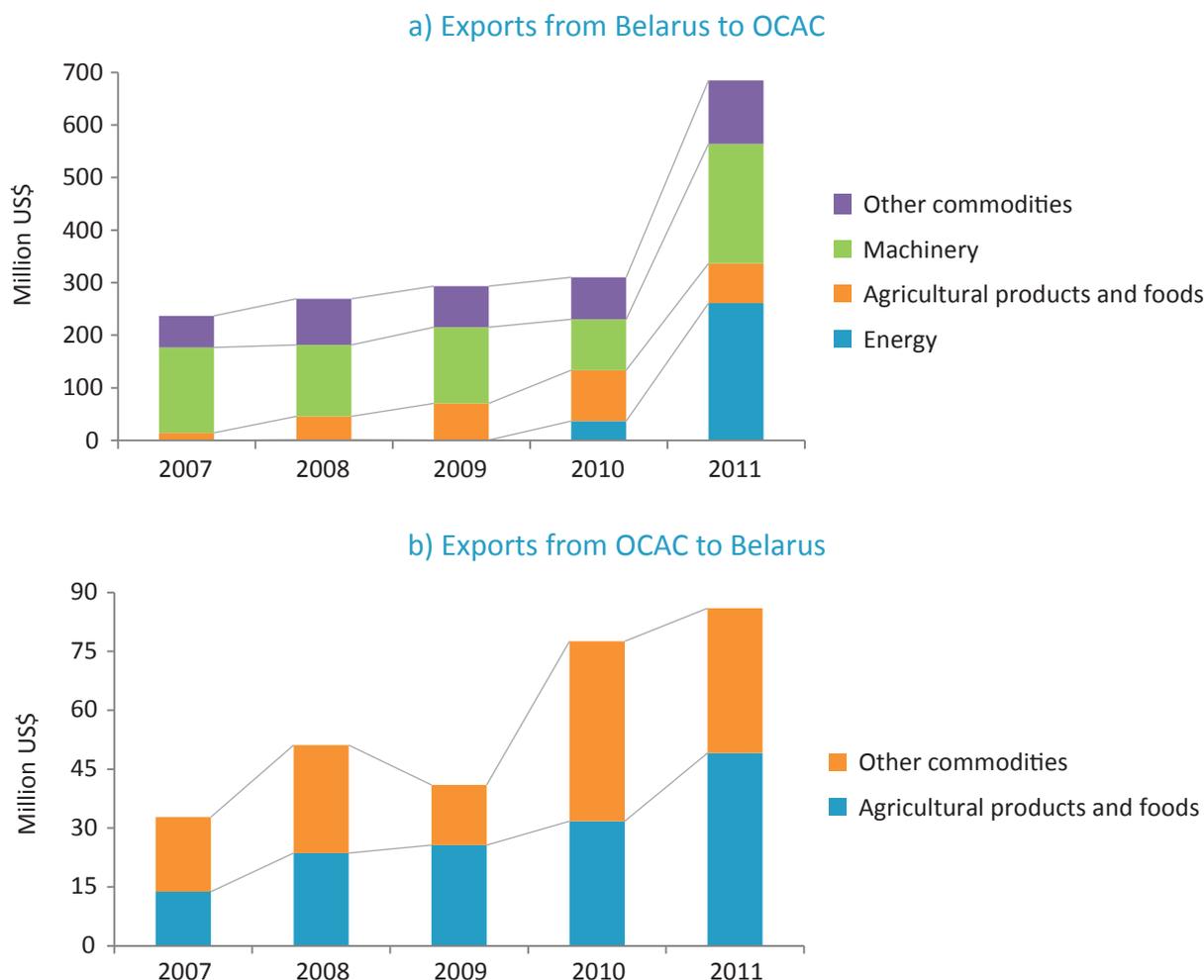
Source: UN Comtrade

Practically all key components of trade within the CU and between the CU and OCAC have had similar dynamics; growing during the boom period from 2000 to 2008, shrinking in 2009, and increasing again from 2010 to 2011.

These trade dynamics were affected by different exogenous factors, which were unrelated to changes in trade policies of member countries and their trade partners in the region. Two such important factors are: (i) Changes in international prices for energy products and metals, and (ii) Implementation of very large energy infrastructure projects in Kazakhstan.

Different energy products (coal, crude oil, oil products, natural gas) and ores and metals (iron, steel and articles thereof, and copper) occupy a large share in trade between all CU and CA countries. International prices for these commodities have been volatile in recent years, and this price volatility was reproduced in trade within the region of the CU and Central Asia. Trade between Kazakhstan and Russia is especially sensitive to these price changes. Figure 7 illustrates the range of price fluctuations, based on prices for two key products exported by Kazakhstan to Russia: coal (HS code 2701, 19 % of total exports to Russia in 2011) and iron ores and concentrates (HS code 2601, 20 % of total exports to Russia), and two key products

which Kazakhstan imports from Russia: crude oil (HS code 2709, 15 % of total imports from Russia) and oil products (HS code 2710, 8 % of total imports from Russia). The 2011 hike in prices for these commodities is particularly noticeable.

Figure 7. Growth of prices for key commodities in trade between Kazakhstan and Russia
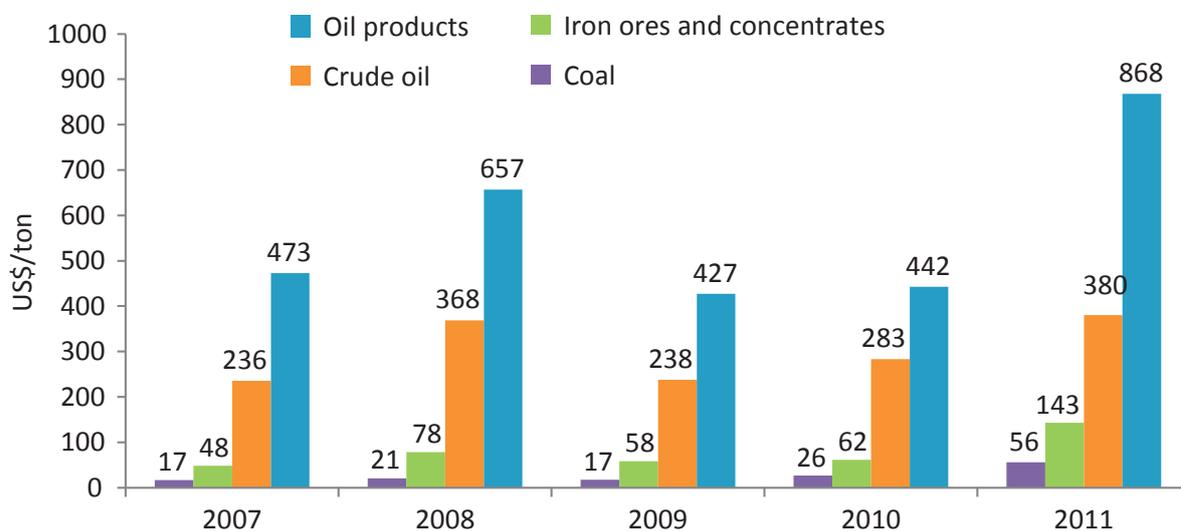
Source: UN Comtrade, Agency of the RK on Statistics

In recent years, two large energy infrastructure projects have been implemented in Kazakhstan: the Kazakhstan-China oil pipeline and a gas pipeline, which is a part of a Turkmenistan-China project. Construction of these pipelines required massive imports of pipes and other articles of steel. Based on the data on imports, the articles of steel were received primarily from China, Russia and Ukraine (HS code 73, see Figure 8), these imports achieved their maximum in 2008-2009. Due to these projects, the share of this commodity group in total imports went up to 12 % in 2008 and 16 % in 2009, in comparison to 7 % in 2007 and 2010. This, of course, resulted in increase of shares of China and Ukraine in Kazakhstan's imports during the implementation of the two projects.

Figure 8. Imports of articles of steel to Kazakhstan
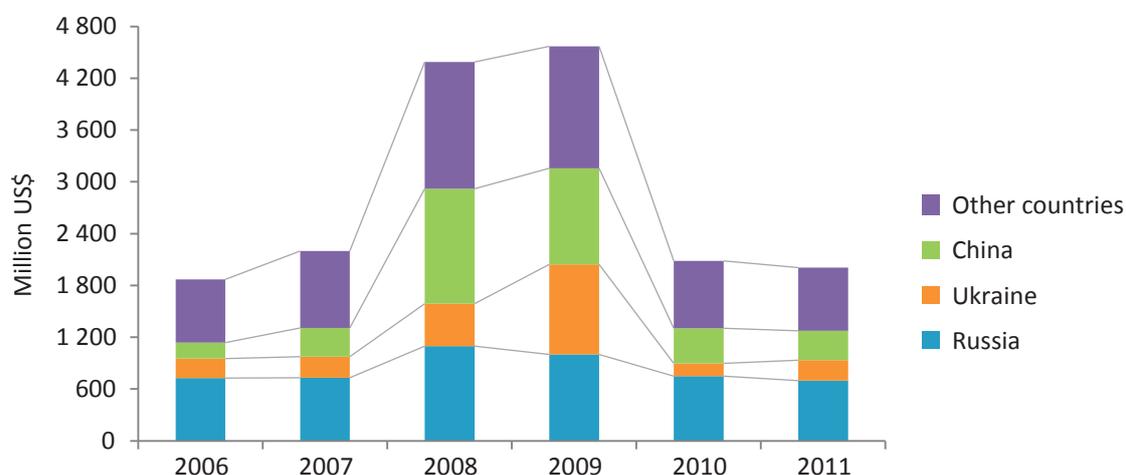
Sources: UN Comtrade, Agency of the RK on Statistics

In summary, the essential features of trade of CU countries for an analysis of the impact of the CU on trade flows in the region, include:

- Almost identical dynamics of all trade flows in the last five years, with fast growth until 2008, a big drop in 2009 and a strong recovery in 2010 and 2011;
- The concentration of trade between the majority of partners in the region in just a few commodities, with energy products, metals and ores, agricultural products and foods dominating;
- Availability of non-trade-policy exogenous shocks affecting trade in the region, such as dynamics of prices for energy and metals and the implementation of large investment projects.

3.   Measurement of Trade Creation and Trade Diversion

This paper uses a "trade share" approach[11] to assess the trade creation and trade diversion effects caused by the establishment of the CU. The approach considers commodity-disaggregated imports to a country for which trade creation and diversion effects are anticipated as a result of its accession to a preferential trade agreement (PTA). For any imported commodity, import shares of countries, which are and are not members of the PTA, are compared before and after its implementation. Trade diversion means increased shares of PTA members in total imports of a commodity accompanied by a simultaneous significant decrease of import shares of countries without preferential access to PTA member markets. If increases in some PTA members' shares are not accompanied by substantial decreases in other countries' share, this indicates trade creation. The approach allows for accounting of commodity-specific exogenous shocks unrelated to the PTA and affecting all imports regardless of their country of origin. The exogenous factors include, for example, fluctuations in international prices or in the importing country's total demand for this commodity, as import shares are not very sensitive to such shocks.

Taking into account the changeable general economic environment during the period under consideration, the multitude of exogenous shocks, and the relative youth of the CU as a functioning PTA, this relatively robust measurement approach that is not sensitive to minor deviations in data is useful. This implies using rather strict criteria for recognition of trade flow changes as trade creation or diversion.

Operationalisation of this approach to analyse the impact of the CU on trade in Central Asia requires further definitions. When one operates with a notion of "commodity-specific import share increase," it is necessary to specify:

(i)   Importing country(ies);
(ii) Exporting country(ies);
(iii) Commodities, for which measurements are made;
(iv) Years in which a share increase could happen; and
(v)   The base period against which a comparison of import values is performed.

---

[11]   Anne Krueger, "Trade creation and trade diversion under NAFTA," *National Bureau of Economic Research (NBER), Working Paper 7429*, (Cambridge: NBER, 1999).

In this paper, the importing country (i) is Kazakhstan, the only CA country to join the CU, the PTA under consideration. Taking into account the structure of trade of Kazakhstan and the focus of this paper on the impact of the CU in Central Asia, the exporting parties (ii) are: Russia (a main trade partner and CU member), Belarus (a relatively minor partner and CU member), OCAC (countries of interest in this study), China (a major trade partner outside the CU and a geographical neighbour, which might be strongly affected by the CU), and the rest of the world.

Kazakhstan's trade with other CU members and OCAC is concentrated on a limited number of goods (iii). Trade data also indicate that in many commodity groups, trade between these countries is small and unstable. In the situation of small absolute trade values, large import share increases/decreases may be caused by random exogenous shocks. To minimize the impact of these shocks, aggregated commodity categories are considered (see Table 3). The selection of these categories was based on data on the actual commodity structure of Kazakhstan's and OCAC's exports and imports (see Section 2.2). Commodities in each group seem to be subject to similar exogenous shocks and are thus relatively homogeneous.

Table 3. Definitions of commodity groups

Commodity group	HS1996 two/four-digit codes
Energy	27
Metals and ores	26, 28, 71-83
Cereals and flour	10-11
Agricultural products and foods	01-09, 12-23, 4101-4103, 4301, 5001-5003, 5101-5103, 5201-5202
Chemicals and plastics	29-40
Light industry products	41-43, 50-52 (except codes included in the category of "agricultural products and foods"), 53-65
Machinery	84-91
Other products	All other codes

The two years of CU operation, 2010 and 2011, is the only time period (iv) in which a share increase could have happened. It is worth considering each year separately as the depth of cooperation within the CU increased significantly during those years.

As for (v), the base for comparison, data in section 2.2 found that trade values and shares of different countries for different commodities fluctuated considerable in 2007-2009. Therefore, to comply with the robustness criterion formulated above, two share values (maximum and minimum for 2007-2009) are used as a base for comparison for each commodity and pair of partners under consideration. Trade increase is registered only when 2010 or 2011 share exceeds the share's 2007-2009 maximum value. Similarly, trade reduction is registered when 2010 or 2011 share appears to be below the share's 2007-2009 minimum value.

Increase of a trade share may take place in the context of falling absolute value of trade, and the reduction of a share may accompany an increase in absolute trade value. For example, the share of Russia in Kazakhstan's imports of energy products in 2010 (89.1 %) exceeded this share's maximum in 2007-2009 (87.1 %). At the same time, the absolute value of Kazakh energy imports from Russia was US\$3.74 billion, well below the 2007-2009 maximum value of

US$4.73 billion. This situation is possible due to the even larger drop in energy imports from other countries. It is not appropriate to talk about increase in trade with a partner, when the value of bilateral trade falls, even if it falls less than trade with other partners. Therefore in this paper, trade share increase in 2010 and 2011, in comparison to the period 2007-2009 is registered only when both trade share and absolute value of trade exceed 2007-2009 maximum values. The same rule applies to the recognition of a decrease in a trade share: not only does the share have to be less than the 2007-2009 minimum, but the US$ value of trade should also fall below its 2007-2009 minimum value.

Despite commodity aggregation, many of the trade flows under consideration are small, and their changes well might be a result of random shocks. To prevent attributing the impact of these random shocks to the influence of the CU, the comparison of trade shares and values is applied only to those flows with annual value above US$50 million (about 0.1 % of Kazakhstan's total imports). This further strengthens the robustness of the approach.

If all three requirements (increase in trade share, increase in absolute value of trade, and its size above US$50 million) are met, additional trade is recognised. For recognition of lost trade, trade share decrease, a drop in absolute value of trade with the amount of trade still exceeding US$50 million is required. Simultaneous availability of additional imports to Kazakhstan from Russia or Belarus and lost imports from other countries are considered as possible evidence of trade diversion.[12] Additional imports from Russia and Belarus, not accompanied by lost imports from other countries, are considered as potential evidence of trade creation. This evidence is then checked against some identifiable exogenous shocks unrelated to the CU.

Finally, to attribute changes in trade between CU members and OCAC to the implementation of the CU, the changes have to go in the same direction (increase/decrease) for all CU members; the CU could not increase trade between Kazakhstan and OCAC and simultaneously decrease trade between Russia in OCAC. If this is the case, then the reasons behind such simultaneous change are not related to the CU. Only after passing this last filter is the occurrence of trade creation or trade diversion registered.

This methodology is applied to analysis of imports to Kazakhstan. Similar, but reduced methodology is applied to other trade flows of interest in this paper, including exports from Kazakhstan to all destinations, and trade between other CU members and OCAC. Analysis of all imports of these countries are not performed in this paper either due to lack of data (the case of OCAC, where sufficient datasets only exist for Kyrgyzstan), or because non-CA countries (Russia and Belarus) are not the subject of analysis in this paper. Additionally, the Russian market is large and any changes in trade with Kazakhstan and OCAC are relatively minor and could not serve as grounds for trade creation/diversion analysis. Trade of Belarus with these countries is small in both absolute and relative terms, so, again, changes could not be attributed to the im-

---

12   In this paper trade diversion is not necessarily seen as a result of increase in import tariffs for non-CU members, while such increases are a possible reason for diversion. Trade diversion may also result from the CU economic agents' re-orientation towards their CU partners driven by longer-term considerations, such as expectations of a more stable business environment, better access to government procurement in other member countries, and common technical standards.

pact of the CU. Analysis of the trade flows is limited to registration of gained/lost trade. Trade shares in this context mean shares of exports from Kazakhstan (Russia, Belarus) to respective partners in total exports of Kazakhstan (Russia, Belarus). As data on OCAC exports are not fully available, importing countries' data on imports from OCAC are employed.

The mathematical statement of the methodology used in this paper to estimate gained/lost trade in 2010-2011, which may be a result of CU activity, is provided in Annex 1.

It is worth noting that other methodologies for assessment of trade creation and diversion could be used. For example, A.Isakova and A.Plekhanov[13] use a different approach to assess trade creation/diversion effects related to the Customs Union with regards to the imports of Kazakhstan in 2010.[14] Findings based on two different methodologies are compared in Section 4.1.

4. Quantitative Assessment of the Impact of the Customs Union on Trade in Central Asia

Analysis below is provided separately for formal trade, for which detailed country and commodity disaggregated data exist, and for informal trade, for which only indirect data are available. Details of calculations based on the methodology described in Section 3 are provided in Annex 2.

4.1. Formal Trade

Tables A1-A14 provide information on exports and imports in seven country pairs or groups: Kazakhstan-Russia, Kazakhstan-Belarus, Kazakhstan-OCAC, Kazakhstan-China, Kazakhstan-the rest of the world, Russia-OCAC, and Belarus-OCAC. For each pair and trade flow direction, the tables contain data on 2007-2009 maximum and minimum commodity shares and absolute values, as well as shares and trade values for 2010 and 2011. The tables also indicate whether or not trade flows in 2007-2011 were below US$50 million ("Yes" in respective column; empty cell otherwise). The two last columns provide the estimation of gained/lost trade flows for 2010 and 2011. Positive values mean additional trade, negative values signify lost trade. Empty cells mean no significant change in trade.

The first observation one can make on these tables is the prevalence of empty cells. For many trade flows, changes in 2010-2011 were insignificant and provided no evidence of possible trade creation or diversion. Many non-zero values of gained/lost trade reported in Annex II are small and indicate minor or no trade creation/diversion effects. There are a few relatively large numbers for gained/lost trade, which require further analysis.

It is necessary to check whether or not changes could be linked to exogenous shocks unrelated to the CU. Some exogenous factors capable of affecting trade flows in the region in 2010-

---

[13] Isakova, Asel, and Plekhanov, Alexander. 2012. *Customs Union and Kazakhstan's Imports. CASE Network Studies & Analyses, No.442.* Warsaw: CASE-Center for Social and Economic Research**,** 2012.

[14] For trade between Kazakhstan, on one side, and Russia and Belarus, on the other side, only data for the first half of 2010 are used in this paper.

2011 are described in Table 4. These shocks relate to the implementation or completion of large infrastructure projects (see Section 2.2) and political events in Central Asia. The major increase in exports of energy products from Kazakhstan to China (Table A7) is largely due to the oil pipeline connecting these two countries, which increased its operations in 2010-2011.[15] This increase of energy exports from Kazakhstan seems to have nothing to do with the CU, which is not expected to impact exports from Kazakhstan to countries outside the CU. Similarly, the large increase in exports of the Kazakh metals to China cannot be attributed to the influence of the CU.

Table 4. Exogenous shocks unrelated to the Customs Union and capable of affecting trade of Kazakhstan and other Central Asian countries, 2010-2011

Exogenous shock	Implications for trade
Completion of construction and start of operations of oil and gas pipelines from Kazakhstan and Turkmenistan to China, 2010	• Drop in demand for construction materials (pipes) imported from China, Russia and Ukraine • Increase in exports of crude oil and natural gas from Kazakhstan and Turkmenistan to China
Increased use of the Northern Distribution Network for supplies to anti-terrorist coalition in Afghanistan, 2010-2011	• Increase in supplies of Russian oil products to Afghanistan
Political crisis and change of the government in Kyrgyzstan, 2010	• As a result of improved relationships with Kyrgyzstan, Russia eliminated export duty and increased supplies of oil products to Kyrgyzstan • Exile of the Kyrgyzstan's former president in Belarus may induce sales of oil products by Belarus to Kyrgyz companies • Border closures by Kazakhstan and Uzbekistan in 2010 made informal re-exports of Chinese consumer goods via Kyrgyzstan to Kazakhstan, Russia and Uzbekistan more difficult

Sources: Author's compilation based on UN Comtrade and media reports

The decline in Kazakhstan's imports of metals from other countries of the world (Table A10) should also be attributed to the completion of oil/gas pipelines construction (see Figure 8 and related discussion).

The increase of Kazakhstan's imports of light industry products from China is either unrelated to the CU, or is a by-product of the stricter customs administration on the Chinese-Kazakh border, resulting in some minor[16] formalization of these imports, which could be attributed to the CU impact.

The increase in Russian exports of energy products to OCAC (Table A11) is primarily due to supplies of oil products to Afghanistan, which may be a consequence of the more intensive use of the Northern Distribution Network. Another component of this increase could be due to increased supplies of oil products to Kyrgyzstan after the 2010 political crisis in this country. The increase of energy exports from Belarus to OCAC (Table A13) relates only to supplies

---

[15]   KazMunayGas, *Annual Report 2010* (Astana: KazMunayGas, 2010) and KazMunayGas, *Annual Report 2011* (Astana: KazMunayGas, 2011) http://www.kmg.kz/en/investors/reports/ (accessed 5 December, 2012).
[16]   Compared to the size of the informal trade flows discussed in section 4.2.

of oil products to Kyrgyzstan. Interestingly, the mirror Kyrgyz statistics do not show significant imports of oil products from Belarus in 2010-2011. This could be related to the 2010 events in Kyrgyzstan (see Table 4).

The simultaneous increase of OCAC's exports of agricultural products and foods to Kazakhstan in 2011 (Table A6) and the decline of these countries' exports to Russia (Table A12) are not attributable to the CU, as the CU would affect exports in the same direction causing either a joint increase or a joint decrease. Increased exports of agricultural products and foods from Kazakhstan to OCAC and declining exports of this commodity group to Russia are not linked to the CU either, as these changes relate to different commodities (prepared foods in the case of OCAC, and cotton fibre in the case of Russia).

All identified additional/lost trade flows in 2010-2011 are summarised in Table 5 for Kazakhstan and Table 6 for OCAC. In Table 5, items which seem to signal evidence of trade creation/diversion, are shown in bold.

There are only a few cases of possible trade creation/diversion in Table 5. Trade creation cases include increased supplies of chemicals and plastics, agricultural products and foods from Russia to Kazakhstan in 2010-2011 and the emergence of new exports of machinery (computers, HS code 8471) from Kazakhstan to Russia. There are also few trade diversion cases. One could be the partial replacement of Kazakh leather exports (HS code 4104) to China by leather footwear (HS code 6403) exports to Russia in 2011. This is an example of a desirable shift from exports of slightly processed raw materials to exports of manufactured products and is a clear case of trade diversion.

Table 5. Summary of identified significant gained/lost trade flows in Kazakhstan in 2010-2011, million US$

Commodity group	Partners								Exogenous shocks		Signs of trade creation (TC)/ trade diversion (TD)	
	Russia and Belarus		OCAC		China		Rest of the world					
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Imports of Kazakhstan												
Energy			-11		20			-9				
Metals and ores							-277	-1 002	+	+		
Agricultural products and foods	5	25	14	290							TC	TC
Chemicals and plastics	46	215		10							TC	TC
Light industry products					5	72						
Machinery		643			176	891		-1 660				TD

Commodity group	Partners								Exog-enous shocks		Signs of trade creation (TC)/ trade diversion (TD)	
	Russia and Belarus		OCAC		China		Rest of the world					
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Exports of Kazakhstan												
Energy	176	34			1 116	3 894			+	+		
Metals and ores					129	475						
Agricultural products and foods	-36	-71	48	110				-33				
Chemicals and plastics		9						-16				TD
Light industry products		67			-35	-77		-86				TD
Machinery		33						-83				TC

Source: Author's calculations

Table 6. Summary of identified significant changes in trade of other Central Asian countries with Russia and Belarus in 2010-2011, million US$

Commodity group	Exports to Russia and Belarus		Imports from Russia and Belarus	
	2010	2011	2010	2011
Energy			140	435
Metals and ores	3	11		
Agricultural products and foods		-117	36	
Chemicals and plastics	15			
Light industry products	50	17		
Machinery			-37	-213
Other products				327

Source: Author's calculations

The largest case of trade diversion relates to machinery imports to Kazakhstan in 2011. Imports from Russia and China sharply increased, while imports from the rest of the world (Germany, Italy, USA and Ukraine) fell dramatically in relative terms, and in the case of passenger cars, in absolute terms. Detailed analysis indicates that this shift particularly affected a few commodities including passenger cars (HS code 8703), trucks (HS code 8704), railway vans and wagons (HS code 8606), electric motors (HS code 8501) and vacuum pumps and compressors (HS code 8414). Commodities with HS code 87 were impacted by increases in import tariffs (a classical case of trade diversion). Other types of machinery were subject to only minor or no increase in tariffs. For these, the shift towards Russia may be motivated by longer-term reorientation to supplies from a key strategic partner, with which Kazakhstan is going to share rail and other service networks.

The case of passenger cars is illustrative (Figure 9). Japan, Germany and USA used to be the main sources of imported cars, occupying around 80 % of Kazakhstan's total market. For Ka-

zakhstan, the introduction of the CCT of the CU in 2010 meant a significant increase of import tariffs for passenger cars. The country had a temporary exemption from the CCT for imports of cars by individuals for personal use, which expired on 1 July 2011. The 2011 data already reflect the impact of higher import tariffs on car imports, showing an obvious decrease in import shares of traditional suppliers (their cumulative share fell to under 60 % in 2011) accompanied by a sizeable increase in market shares of Russian cars. Uzbekistan, which enjoys duty-free access to the market of Kazakhstan, appeared to be another beneficiary of the tariff.

Figure 9. Structure of passenger car imports to Kazakhstan by country of origin
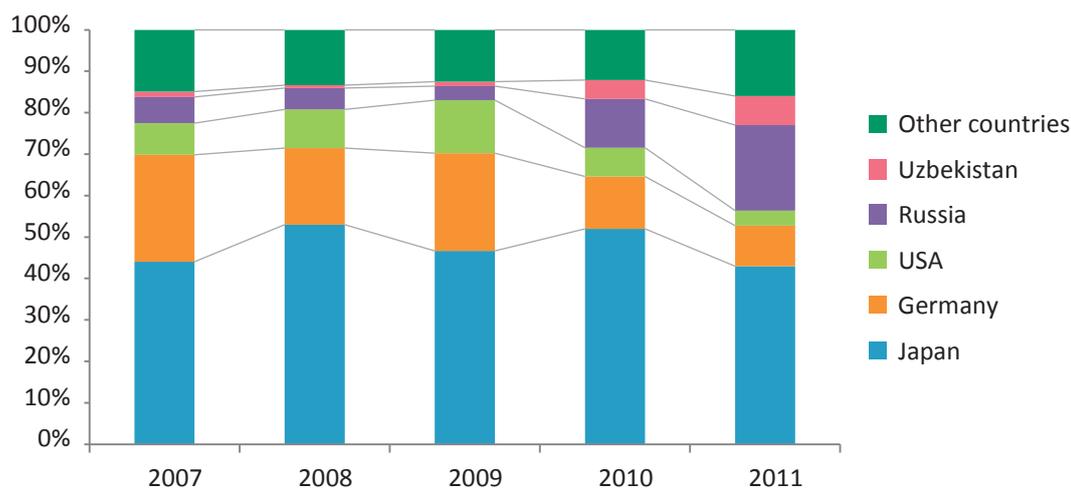
Sources: UN Comtrade, Agency of the RK on Statistics, EurAsEC

China, which also faces higher import tariffs, has increased its share on the machinery market of Kazakhstan. One possible explanation for this is that the introduction of the CCT contributed to the diversion of demand in Kazakhstan from more expensive and higher quality machines originating from OECD countries to their cheaper analogs produced in Russia, China and other countries.

Data on trade of OCAC with CU members (see Tables 5 and 6) suggest that changes in trade flows are minor and in many cases (including energy exports from Russia to OCAC and agricultural exports from OCAC to Russia and Kazakhstan) are unrelated to CU operations. The most significant trade loss is a reduction in imports of machinery to OCAC from Russia, due to a drop in exports of Russian vehicles (HS code 87) to Turkmenistan and Uzbekistan. Russian exports of these commodities to Kazakhstan increased dramatically in 2010-2011, so it is possible that these simultaneous changes indicate a change in Russian exports from countries outside the CU to those from CU members. There could be an economic rationale for such a shift, if the production capacity of the Russian vehicle manufacturers is fixed and costs of exports to Kazakhstan fall, while export costs for OCAC markets remain unchanged. Specific sector expertise is necessary to assess whether or not this combination of factors occurred. If they did, this would be another example of trade diversion.

The increase in OCAC exports of light industry products to Russia, driven mostly by growing Uzbek and Kyrgyz supplies of apparel, could also be a case of trade diversion, when goods originating from these countries enjoy a duty-free trade regime with Russia and become

more competitive on the Russian market due to lower transit costs (less time is to be spent now, when shipping goods across the border of Kazakhstan and Russia). In the Kyrgyz case, there could be some additional effect of trade formalization; stricter customs administration on the Kazakh-Kyrgyz border could create incentives for conversion of a portion of informal Kyrgyz exports of apparel into formal exports.

In summary, trade changes in 2010-2011 attributable to the CU are very limited and, with one exemption, not very large. Notable changes include:

- Cases of trade creation include Russian exports of chemicals and plastics, agricultural products and foods to Kazakhstan and Kazakh exports of computers to Russia.
- A minor case of transition from exports of a semi-fabricated product (leather) to exports of a higher-value-added product (leather footwear).
- A minor case of conversion of previously informal imports/re-exports from China into formal import/export flows.
- One large and a few smaller cases of trade diversion related to changes in the structure of machinery imports to Kazakhstan and, possibly, exports of Russian vehicles from OCAC to Kazakhstan.

These findings are broadly consistent with the results of the analysis of Kazakhstan's imports by Isakova and Plekhanov,[17] who also found the impact of the CU to be minor and identified some trade diversion effects. These authors, however, consider China to be a losing party in trade diversion cases. The analysis in this paper found the rest of the world, not China, to be the losing party, particularly developed countries such as Japan, USA and Germany, and Ukraine. This difference may be due to the fact that in this paper, the drop in imports of metals (mostly steel pipes) from China, the only commodity group for which imports from China actually fell in 2010, is not considered a case of trade diversion. Additionally, the findings in this paper are based on a full set of 2010 and 2011 data; this additional evidence could lead to a change in interpretation of trade diversion and identifying some minor trade creation effects.

4.2. Informal Trade

Informal trade in the region is dominated by imports of Chinese consumer goods to Kazakhstan, Kyrgyzstan and Tajikistan and their further re-exports to Russia, Uzbekistan, Afghanistan and possibly some other countries. This trade is implemented by individuals using a special import regime.[18] The methodology to estimate these flows (see Mogilevskii, 2012) is based on Chinese data on exports of light industry production to CA countries, which are then adjusted for domestic consumption and production in Kazakhstan, Kyrgyzstan and Tajikistan. Applying the same methodology to 2011 data, it is possible to trace the dynamics of informal imports and re-exports in recent years (Figure 10). In Kazakhstan and Tajikistan, informal imports grew in 2009-2011, while in Kyrgyzstan they declined in 2010 and recovered in absolute terms in 2011.

---

[17]   Asel Isakova and Alexander Plekhanov, 2012.

[18]   Detailed discussions of these flows can be found in World Bank publications. For example, see Bartlomiej Kaminski, *How the Kyrgyz Republic Has Seized Opportunities Offered by Central Asia's Economic Recovery* (Washington DC: World Bank, 2008).

Figure 10. Informal imports and re-exports of light industry products in Central Asian countries, 2009-2011

a) Kazakhstan

b) Kyrgyzstan
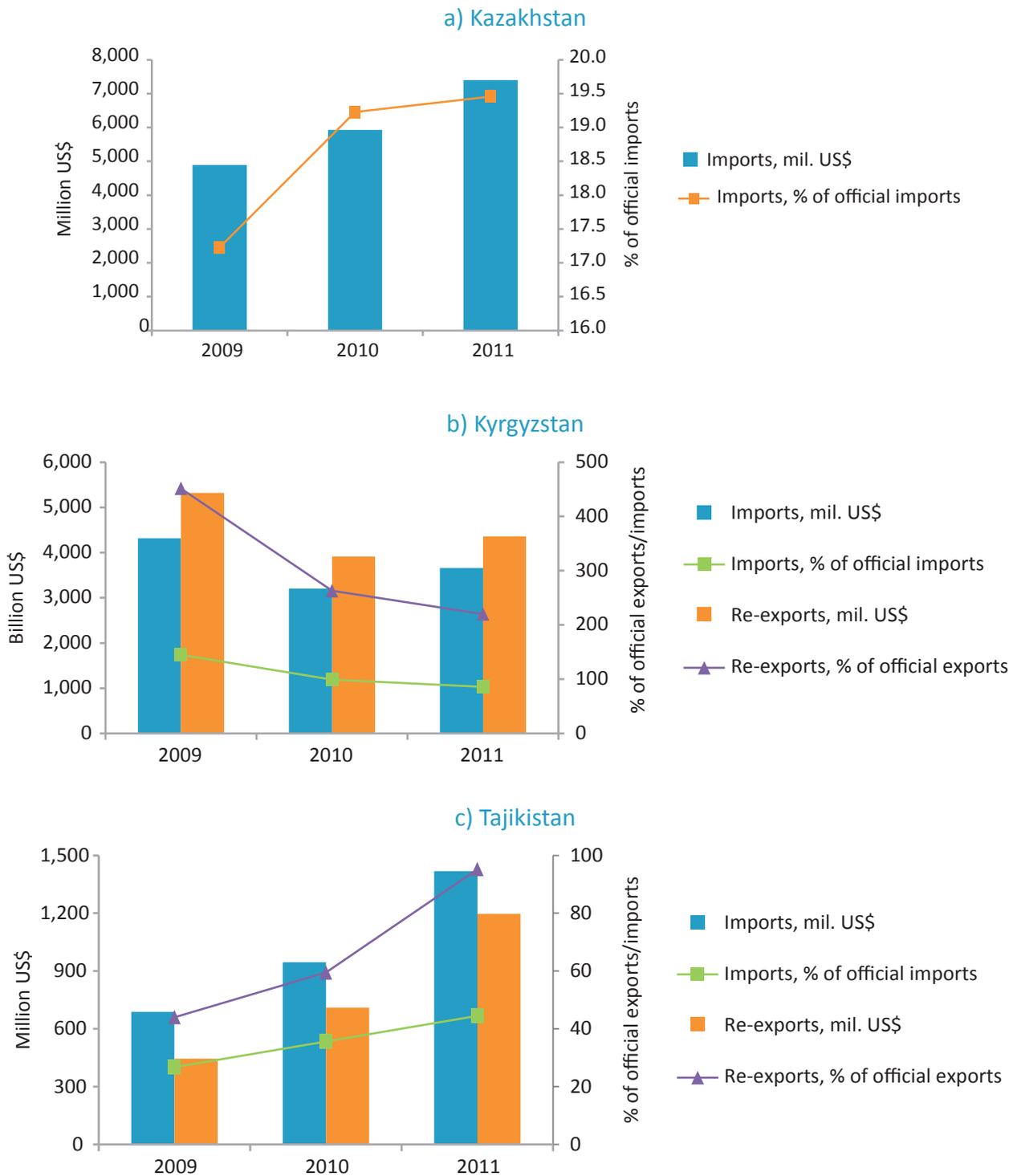
c) Tajikistan

Sources: UN Comtrade, Agency of the RK on Statistics, National Statistical Committee of the Kyrgyz Republic, National Bank of Tajikistan

Informal imports and re-exports in Tajikistan do not seem related to the CU, primarily because Chinese products to Tajikistan are not transported via CU territory and re-exports from Tajikistan go to Afghanistan and Uzbekistan, not the CU.

A larger portion of imported Chinese products to Kyrgyzstan are intended for the CU markets of Kazakhstan and Russia. The change of customs administration procedures on the Kazakh-Kyrgyz border, now a CU external border, should affect these trade flows. However, the 2010 fall in informal imports to and re-exports from Kyrgyzstan is not related to the CU, but to the political crisis in this country (see Table 4). In 2010, Chinese exports of light industry production in the amount of US$1 billion were diverted from Kyrgyzstan to Kazakhstan. In 2011, with political stabilisation in Kyrgyzstan, a partial reverse re-orientation of trade flows took place. According to official Chinese data, light industry exports to Kazakhstan fell by US$268 million and exports of these products to Kyrgyzstan increased by US$530 million; this increase is to be interpreted as a proportional increase in re-exports. The partial recovery of informal re-exports of Chinese goods via Kyrgyzstan in 2011 in comparison to 2010 could mean that:

- The stricter customs administration on the CU external border enacted in 2011 has neither stopped informal re-exports, nor has it prevented the increase in re-exports due to growing demand[19] for these goods; and
- The 2011 Kyrgyz re-exports value has not reached its 2009 level despite high demand in Kazakhstan and Russia. The increased transaction costs could, indeed, inhibit re-export activity.

According to both Chinese and Russian data,[20] direct exports of light industry products from China to Russia dramatically increased in 2010-2011.[21] It seems that combination of the 2010 Kazakh-Kyrgyz border closure and the introduction of stricter customs controls on the external borders of the CU (Kazakh-Chinese and Kazakh-Kyrgyz borders) made many traders switch to direct supplies of Chinese consumer goods to Russia. Thus, the CU has not eliminated informal imports/re-exports, but rather has contributed to the partial conversion of informal re-exports via Kyrgyzstan and Kazakhstan into direct exports to Russia.

This reduction in re-export flows has significant economic and social implications for Kazakhstan and especially Kyrgyzstan, which strongly depends on re-export activity.[22] Lower re-exports mean less employment and income for those engaged in the re-export business and associated activities, such as services for re-exporters and garment production. This change particularly adversely affects working women, who constitute the majority of those employed in these sectors.

5.   Possible Impact of the Customs Union on other Economic Variables in Kazakhstan

In addition to impacting merchandise trade flows, the CU has the potential to influence other economic factors, including trade in services, investments, consumer prices, government

---

[19]   In 2011, both Kazakhstan and Russia demonstrated 5-6 % growth of real GDP per capita, and their currencies exchange rates to the Chinese Yuan either appreciated (Russian ruble) or remained the same (Kazakh tenge). These factors contribute to the increase in demand for Chinese goods.

[20]   See UN Comtrade.

[21]   In 2011, the US$ value of these exports/imports increased by over 80 % in comparison to 2009.

[22]   See Roman Mogilevskii. 2012. *Re-export Activities in Kyrgyzstan: Issues and Prospects.* University of Central Asia, Institute of Public Policy and Administration Working Paper No. 9/2012.

budget revenues and employment. A detailed assessment of the CU's influence on these economic variables requires sufficiently long time series and disaggregated data and is outside of the scope of this paper. However, this section provides a rapid assessment of 2010-2011 changes in Kazakhstan, based on available information.

For trade in services and foreign direct investments (FDI), the "share" approach used for the assessment of merchandise trade could be applied. An increase in the share of Russia[23] in total exports/imports of services or total FDI may signal CU-related change. Data indicate that Russian shares in exports and imports of services in 2010-2011 were within a usual range of change (Figure 11). The share of Russia in total FDI grew in 2010-2011 after the crisis-related decline in 2009. In 2011, this share achieved its maximum (15 %) for the last several years, exceeding its previous peak value of 14.3 % in 2008. It is possible that an additional[24] FDI of US$147 million from Russia is related to the implementation of the CU. For Kazakhstan this amount reflected the equivalent of 0.7 % of total FDI in 2011.

Figure 11. Share of Russia in Kazakhstan's trade in services and incoming Foreign Direct Investment
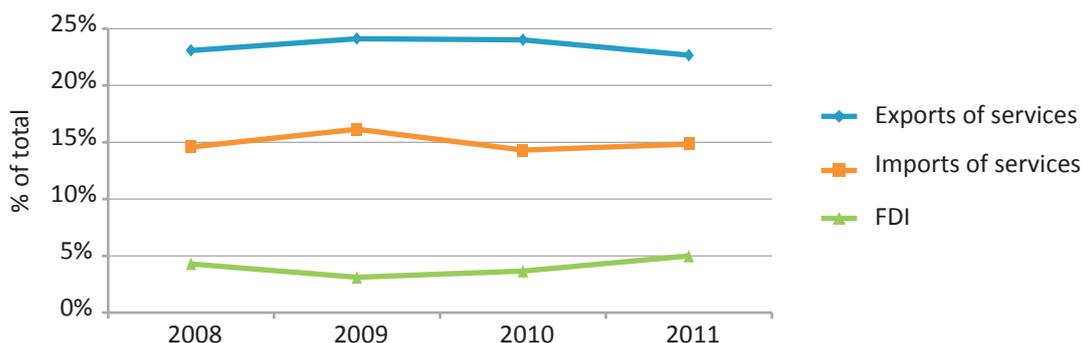
Sources: National Bank of the RK, Central Bank of the Russian Federation

Another area where the potential effects of the CU should be examined, are the dynamics of consumer prices. Theoretically, the increase in import tariffs may result in the growth of the consumer price index (CPI), as many categories of consumer goods are imported to Kazakhstan from China and other non-CU countries. The effect may be different for different population groups, with the economically disadvantaged either more or less affected than other segments of society. Available evidence (Figure 12) suggests that this type of impact was observed in 2008-2009, prior to the implementation of the CU. In 2010-2011, however, inflation was at 7-8 % per annum (lower than in previous years[25]) and inflation rates for the poorest and the wealthiest segments of the population differed only slightly, indicating no evidence of CU-induced inflation.

---

[23]   Belarus is minor partner of Kazakhstan for trade in services and FDI.
[24]   As described in section 3.
[25]   Apart from the crisis year of 2009, when prices went down everywhere including international markets.

Figure 12. Dynamics of Consumer Price Index for different economic segments of the population of Kazakhstan
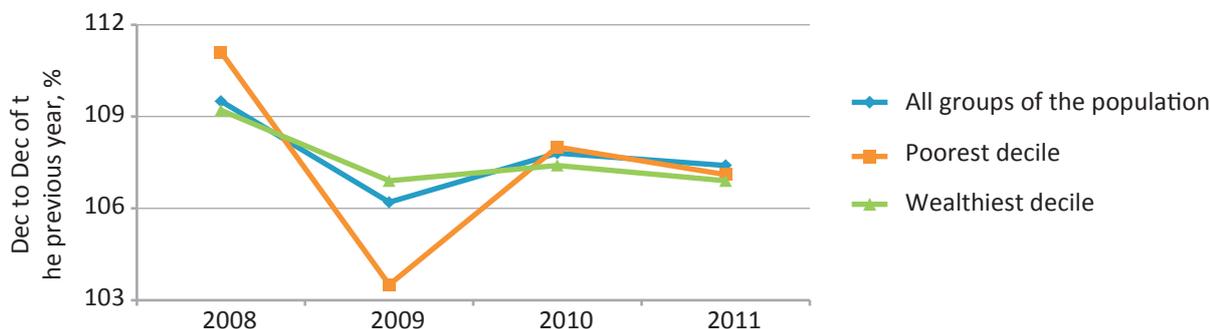
Source: Agency of the RK on Statistics

One can also expect a potential significant change of government revenue. The CU agreement on allocation of import duties between member countries, which entered into force on 1 September 2010, dramatically changed the system of import duties collection in the CU. Prior to its implementation, all import duties collected by the country's customs service went into the government budget. Now, Kazakhstan receives 7.33 % of total import duty collections in all three countries of the CU. Additionally, collections of import duties may increase in response to the increase in import duty rates associated with the adoption of the CCT (see section 2.1). Another revenue source which could be affected is VAT on imports, which could be sensitive to changes in customs administration rules and practices associated with the shift of customs control to the CU external borders (effective from 1 July 2011) and the increased import tariff which is a part of tax base of VAT. Data on Kazakhstan's government revenue (Figure 13) indicate that the country has gained much from that the CU-related change. Revenue from import duties increased from 2 % of total imports in 2008-2009 to 4.6 % of total imports in 2010 and further to 5.8 % of total imports in 2011. Additional import duty revenue attributable to the CU was 207 billion Kazakh tenge[26] or US$1.41 billion in 2011, which is equivalent to 3.9 % of total government revenue or 0.8 % GDP in that year. It remains to be seen whether this substantial revenue increase will be sustained in the medium-term; the revenue effect of the increase in import duty rates has a tendency to erode over time as importers try to minimise their costs while adapting to changes in import tariff. The import duty revenue sharing rate among CU members, which so far seems to be beneficial for Kazakhstan, is also subject to change.

Collections of VAT on imports did increase in 2010-2011. However, these collections (as a share of total imports) have not exceeded their 2008 value, so it seems premature to claim CU-related effects for this tax.

---

[26]   This number is based on the following formulae $\Delta D = D_{2011} - DM_{2008} \times M_{2011}$, where ΔD– additional import duty revenue, D_{2011}– import duty revenue in 2011, DM_{2008} – share of import duty revenue in total imports in 2008, M_{2011}– total imports in 2011.

Figure 13. Dynamics of import-related tax revenue in Kazakhstan
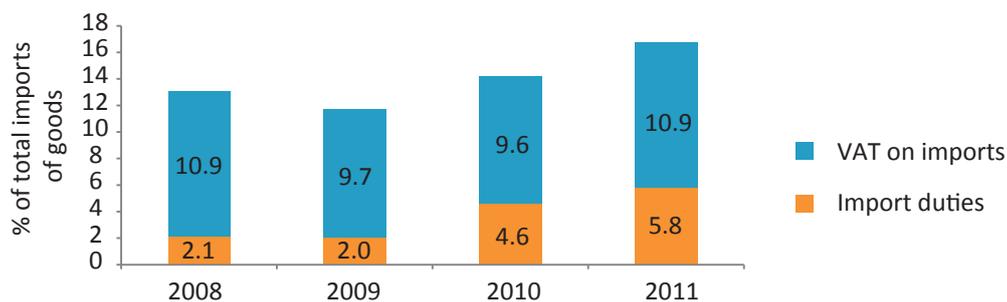
Source: Ministry of Finance of the RK, Agency of the RK on Statistics, National Bank of the RK

Finally, the emergence of new exports from Kazakhstan associated with the CU can contribute to the creation of new working places in this economy. This impact would be experienced differently by different segments of the labour force, including women and youth. The unemployment rate fell from 2008 to 2011 for all groups of the labour force, and participation rate increased in 2010-2011, after a decline in the crisis year of 2009 (Figure 14). The employment gain in manufacturing, the sector which could benefit most from trade creation, is small for men and almost absent for women. Analysis of sector shares in 2011 employment increases suggests that new working places were created mostly in government services and, to a lesser extent, in market services. Both sectors do not seem to benefit from the trade creation discussed in Section 4. However, the CU-related government revenue gain could be related to the financial support of 26,000 new government jobs. Women are well represented in these services, and therefore benefited considerably from this labour market change. However, directly attributing the additional hire of workers in education, health and social services to the CU seems risky. These employment changes are primarily driven by the social policies of the Government of Kazakhstan, and the Government has other resources to support their implementation.

Figure 14. Dynamics of selected labour market indicators in Kazakhstan

a) Unemployment rate
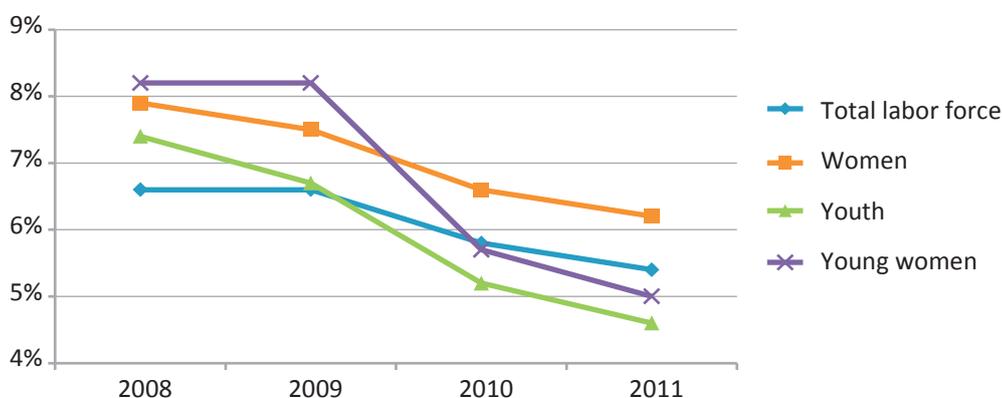
b) Labour force participation rate
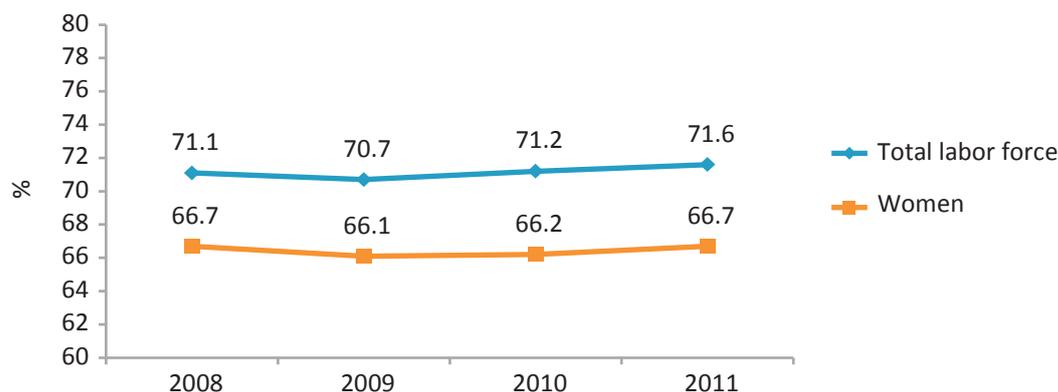
c) Sector shares in employment increase, 2011-2010
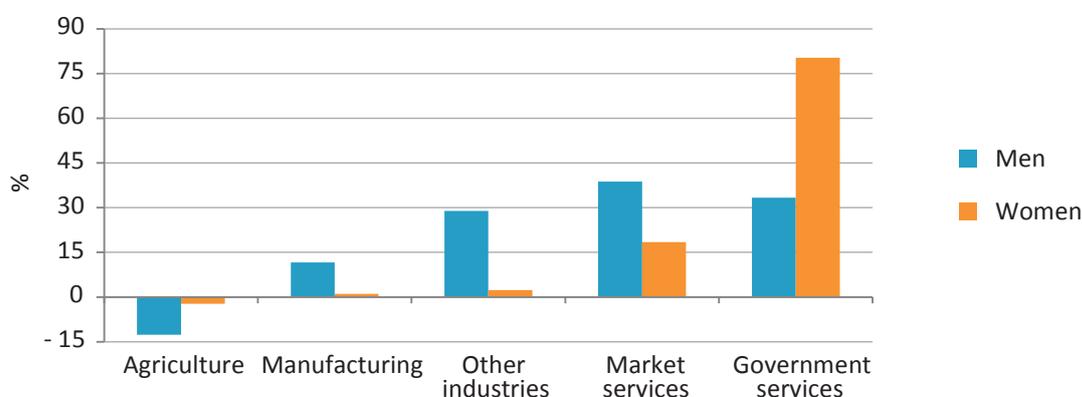
Source: Agency of the RK on Statistics

In summary, at this point, identifiable impacts of the CU on economic variables in Kazakhstan, other than merchandise trade, are either small (increases in FDI from Russia), or absent, with one notable exemption. The CU impact on government revenue is positive and relatively large.

6.　Conclusions

The above analysis of the impact of the implementation of the CU indicates that at this point, the major increase in merchandise trade between Kazakhstan and Russia is mostly due to the growth of energy and metal prices in 2010 and, especially, in 2011. The same growth of commodity prices stays behind the increase in trade between Kazakhstan and Russia, on one side, and OCAC, on the other side.

Analysis of possible trade creation and trade diversion associated with the CU is also critically dependent on the identification of exogenous shocks unrelated to changes in trade policy. Large investment projects and recent and ongoing political changes in Central Asia allows for disqualification of many cases, which, at first glance, may indicate trade creation/diversion.

However, it is possible to identify several trade flow changes, which indicate genuine trade creation and trade diversion. Trade creation between Kazakhstan and Russia include in-

creased supplies of Russian chemicals and plastics, agricultural products and foods and Kazakh exports of computers. The conversion of semi-fabricated products (leather) exports from Kazakhstan to markets outside the CU into exports of higher-value-added products (leather shoes) to Russia, and another the partial conversion of informal imports/re-exports into formal import/export flows should be noted. The largest change is trade diversion in imports of machinery and equipment to Kazakhstan with machinery from developed countries being replaced by Russian and Chinese products.

The CU-attributable impacts in trade between the CU and OCAC are even fewer and subject to reservations. These include reduced exports of Russian vehicles to OCAC, and increased exports of Uzbek passenger cars and Uzbek and Kyrgyz apparel to Russia.

The estimate for the diversion of machinery imports to Kazakhstan is US$1.66 billion in 2011, equivalent to 4.4 % of Kazakhstan's total imports that year. Other impacts are smaller in absolute terms, atUS$200 million or less. All impacts were stronger in 2011 than in 2010, which is consistent with the deepening integration in the CU and the widening sphere of influence of CU regulations.

Informal trade flows did not end, despite stricter CU-related customs controls on the Kazakh-Chinese and Kazakh-Kyrgyz borders, which are now external borders of the CU. The main impact of the CU in the informal trade sector seems to be a partial conversion of informal re-exports of Chinese light industry products via Kyrgyzstan and Kazakhstan into direct exports to Russia.

The analysis of the impact of the CU on economic factors in Kazakhstan other than merchandise trade indicates one major (albeit possibly short-term) effect related to the cross-country import duty revenue allocation adopted in the CU. This appears to be highly beneficial for Kazakhstan; estimated additional revenue of the government from this source in 2011 exceeds US$1.4 billion. There are also some signs of a switch of FDI towards Russia, but the impact of this is some ten times smaller than the impact on government revenue. Any impact on trade in services, consumer prices, employment (including female employment) effects of the CU are either small, or not-identifiable with available data.

The cumulative effect of the CU on the economy of Kazakhstan seems to be ambiguous, with welfare losses from trade diversion offset by additional government revenue. The impact on OCAC is small, with Uzbekistan possibly gaining from somewhat better market conditions in the CU for its exports of apparel and passenger cars.

In conclusion, the actual cumulative impact of the CU on Kazakhstan and other Central Asian economies so far is well below expectations and below early estimates (which 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. The situation will further change as relationships within the CU and the SES mature and partners outside the CU adapt to new realities. Careful monitoring and analysis of developments is necessary for member countries of the CU, but also for CU neighbours in Central Asia, some of which (Kyrgyzstan and Tajikistan) may consider joining the CU.

References

Asel Isakova and Alexander Plekhanov. "Customs Union and Kazakhstan's Imports." *CASE-Center for Social and Economic Research Network Studies & Analyses, No.442*. Warsaw: CASE-Center for Social and Economic Research**,** 2012.

Oraz Jandosov and Lyaziza Sabyrova. "Tariff Protection Level in Kazakhstan: Before and After the Customs Union (Part II)." *RAKURS Center for Economic Analysis Discussion Papers,* № 5.4. Almaty: RAKURS, 2011.

Bartlomiej Kaminski. *How the Kyrgyz Republic Has Seized Opportunities Offered by Central Asia's Economic Recovery*. Washington DC: World Bank, 2008.

KazMunayGas. *Annual Report 2011*. Astana: KazMunayGas, 2011. http://www.kmg.kz/en/investors/reports/ (accessed 5 December, 2012).

____. *Annual Report 2010.* Astana: KazMunayGas, 2010. http://www.kmg.kz/en/investors/reports/ (accessed 5 December, 2012).

Anne Krueger. "Trade creation and trade diversion under NAFTA." *National Bureau of Economic Research (NBER) Working Paper 7429*. Cambridge: NBER, 1999.

Roman Mogilevskii. *Trends and Patterns in Foreign Trade of Central Asian Countries*. Bishkek: University of Central Asia, Institute of Public Policy and Administration Working Paper No. 1, 2012.

____. *Re-export Activities in Kyrgyzstan: Issues and Prospects.* Bishkek: University of Central Asia, Institute of Public Policy and Administration Working Paper No. 9, 2012.

World Bank. "Assessment of Costs and Benefits of the Customs Union for Kazakhstan." *Report No. 65977-KZ*. Washington DC: World Bank, 2012.

Annexes

Annex 1. Algorithm of Quantitative Assessment of Gained/Lost Trade, 2010-2011

The following notation is used:

c – Commodity group, c = {Energy products; Metals and ores; Cereals and flour; Agricultural products and foods; Chemicals and plastics; Light industry products; Machinery; Other products; Total};

t – Year in the period under consideration, t = {2007; 2008; 2009; 2010; 2011};

τ – Year, in which trade change is assessed, τ = {2010; 2011};

i – Exporting country/group of countries, j – importing country/group of countries; i, j = {Kazakhstan; Russia; Belarus; Other Central Asian countries; China; Rest of the world; World};

$T_{c,t}^{i,j}$ – Trade flow (exports X or imports M) of commodity group c from country i to country j in year t, million US\$;

$SX_{c,t}^{i,j} = X_{c,t}^{i,j} / X_{c,t}^{i,world}$ – Share of exports of commodity group c from country i to country j in year t in the exporting country's total exports of commodity group c in year t;

$SM_{c,t}^{i,j} = M_{c,t}^{i,j} / M_{c,t}^{world,j}$ – Share of imports of commodity group c from country i to country j in year t in the importing country's total imports of commodity group c in year t;

$minT_{c,7-9}^{i,j} = \min\left(T_{c,2007}^{i,j}, T_{c,2008}^{i,j}, T_{c,2009}^{i,j}\right)$ – Minimum value of in 2007-2009;

$maxT_{c,7-9}^{i,j} = \max\left(T_{c,2007}^{i,j}, T_{c,2008}^{i,j}, T_{c,2009}^{i,j}\right)$ – Maximum value of in 2007-2009;

$minT_{c,7-11}^{i,j} = \min\left(T_{c,2007}^{i,j}, T_{c,2008}^{i,j}, T_{c,2009}^{i,j}, T_{c,2010}^{i,j}, T_{c,2011}^{i,j}\right)$ – Minimum value of in 2007-2011;

$maxT_{c,7-11}^{i,j} = \max\left(T_{c,2007}^{i,j}, T_{c,2008}^{i,j}, T_{c,2009}^{i,j}, T_{c,2010}^{i,j}, T_{c,2011}^{i,j}\right)$ – Maximum value of in 2007-2011;

$minST_{c,7-9}^{i,j} = \min\left(ST_{c,2007}^{i,j}, ST_{c,2008}^{i,j}, ST_{c,2009}^{i,j}\right)$ – Minimum value of in 2007-2009;

$maxST_{c,7-9}^{i,j} = \max\left(ST_{c,2007}^{i,j}, ST_{c,2008}^{i,j}, ST_{c,2009}^{i,j}\right)$ – Minimum value of in 2007-2009;

$minT$ = {$minX$, $minM$}; $maxT$ = {$maxX$, $maxM$}; ST = {SX, SM}; $minST$ = {$minSX$, $minSM$}; $maxST$ = {$maxSX$, $maxSM$};

$\Delta X_{c,\tau}^{i,j}$ – Change in exports of commodity group c from country i to country j in year τ, which may be associated with creation of the Customs Union;

$\Delta M_{c,\tau}^{i,j}$ – Change in imports of commodity group c from country i to country j in year τ, which may be associated with creation of the CU.

The change in exports and imports, which may be associated with creation of the CU, is calculated by the formula:

$$\Delta X_{c,\tau}^{i,j} = \begin{cases} X_{c,\tau}^{i,j} - maxSX_{c,7-9}^{i,j} X_{c,\tau}^{i,world}, \\ \qquad \text{if } X_{c,\tau}^{i,j} > maxX_{c,7-9}^{i,j} \text{ and } SX_{c,\tau}^{i,j} > maxSX_{c,7-9}^{i,j} \text{ and } maxX_{c,7-11}^{i,j} > 50, \\ X_{c,\tau}^{i,j} - minSX_{c,7-9}^{i,j} X_{c,\tau}^{i,world}, \\ \qquad \text{if } X_{c,\tau}^{i,j} < minX_{c,7-9}^{i,j} \text{ and } SX_{c,\tau}^{i,j} < minSX_{c,7-9}^{i,j} \text{ and } maxX_{c,7-11}^{i,j} > 50, \\ 0, \text{ otherwise}; \end{cases}$$

$$\Delta M_{c,\tau}^{i,j} = \begin{cases} M_{c,\tau}^{i,j} - maxSM_{c,7-9}^{i,j} M_{c,\tau}^{world,j}, \\ \qquad \text{if } M_{c,\tau}^{i,j} > maxM_{c,7-9}^{i,j} \text{ and } SM_{c,\tau}^{i,j} > maxSM_{c,7-9}^{i,j} \text{ and } maxM_{c,7-11}^{i,j} > 50, \\ M_{c,\tau}^{i,j} - minSM_{c,7-9}^{i,j} M_{c,\tau}^{world,j}, \\ \qquad \text{if } M_{c,\tau}^{i,j} < minM_{c,7-9}^{i,j} \text{ and } SM_{c,\tau}^{i,j} < minSM_{c,7-9}^{i,j} \text{ and } maxM_{c,7-11}^{i,j} > 50, \\ 0, \text{ otherwise}. \end{cases}$$

Annex 2. Tables

Table A1. Assessment of changes in exports from Kazakhstan to Russia

Commodity groups	Shares, % of total exports of Kazakhstan				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	3.3	4.0	3.4	3.1	987	1 745	1 433	1 953			
Metals and ores	20.6	22.2	23.5	21.3	2 122	3 599	3 448	4 294			
Cereals and flour	2.7	5.3	2.4	2.7	34	88	38	36			
Agricultural products and foods	36.2	43.9	25.2	16.4	156	233	120	85		-36	-71
Chemicals and plastics	13.3	22.7	24.8	25.7	25	48	43	76			9
Light industry products	1.8	2.2	8.4	60.8	6	12	7	79			67
Machinery	27.7	34.2	39.3	52.0	137	352	187	385			33
Other products	20.3	27.3	18.5	26.9	64	163	114	348			

Sources: UN Comtrade, Agency of the RK on Statistics, EurAsEC, author's calculations

Table A2. Assessment of changes in imports to Kazakhstan from Russia

Commodity groups	Shares, % of total imports of Kazakhstan				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	84.9	87.1	89.1	87.9	2 407	4 730	3 740	4 074			
Metals and ores	29.1	44.5	52.0	52.8	1 775	2 509	2 239	2 488			
Cereals and flour	52.6	65.7	66.3	54.2	34	51	27	44			
Agricultural products and foods	40.8	44.9	40.5	37.8	905	1 156	1 219	1 420			
Chemicals and plastics	26.9	29.7	30.7	34.2	853	1 023	1 216	1 550		39	207
Light industry products	21.7	25.3	20.4	19.7	81	98	97	169			
Machinery	15.8	20.0	18.5	25.1	1 777	2 974	2 164	3 614			641
Other products	34.3	44.8	43.0	35.1	1 046	1 399	1 359	1 781			

Sources: UN Comtrade, Agency of the RK on Statistics, EurAsEC, author's calculations

Table A3. Assessment of changes in exports from Kazakhstan to Belarus

Commodity groups	Shares, % of total exports of Kazakhstan				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.0	0.0	0.4	0.1	0	0	176	35		176	34
Metals and ores	0.4	0.6	0.4	0.4	46	106	61	75			
Cereals and flour	0.1	2.0	0.0	0.1	1	33	1	2	Yes		
Agricultural products and foods	0.2	0.7	0.2	1.1	1	4	1	6	Yes		
Chemicals and plastics	1.8	3.1	2.9	4.6	3	7	5	14	Yes		
Light industry products	0.0	0.2	0.1	0.1	0	1	0	0	Yes		
Machinery	0.9	2.6	0.6	0.7	4	33	3	5	Yes		
Other products	0.1	0.2	0.1	0.0	0	2	0	1	Yes		

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A4. Assessment of changes in imports to Kazakhstan from Belarus

Commodity groups	Shares, % of total imports of Kazakhstan				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.0	0.0	0.0	0.0	0	0	0	1	Yes		
Metals and ores	0.3	0.3	0.6	0.5	16	20	28	25	Yes		
Cereals and flour	0.0	0.3	5.0	7.7	0	0	2	6	Yes		
Agricultural products and foods	1.7	3.9	4.1	4.5	36	87	122	171		5	25
Chemicals and plastics	1.8	2.2	2.4	2.4	57	71	96	109		7	8
Light industry products	2.2	3.2	2.4	1.8	8	12	11	16	Yes		
Machinery	1.1	1.4	1.4	1.5	136	211	159	214			2
Other products	1.6	2.0	1.9	1.6	47	64	60	84			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A5. Assessment of changes in exports from Kazakhstan to other Central Asian countries

Commodity groups	Shares, % of total exports of Kazakhstan				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	1.3	2.1	1.9	1.1	542	651	796	720			
Metals and ores	2.4	3.7	1.8	1.7	248	458	270	333			
Cereals and flour	32.0	66.4	49.1	65.3	528	1 297	763	865			
Agricultural products and foods	13.9	23.5	33.6	44.9	74	101	160	232		48	110
Chemicals and plastics	23.0	43.3	35.1	32.0	54	62	60	94			
Light industry products	0.2	1.1	2.8	2.6	1	4	2	3	Yes		
Machinery	4.1	19.0	12.5	11.0	38	128	60	81			
Other products	14.5	33.8	20.9	12.9	92	117	129	167			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A6. Assessment of changes in imports to Kazakhstan from other Central Asian countries

Commodity groups	Shares, % of total imports of Kazakhstan				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	8.6	9.7	6.3	6.8	274	466	263	316		-11	
Metals and ores	0.5	2.2	0.9	1.0	32	109	40	49			
Cereals and flour	0.1	0.2	1.0	0.0	0	0	0	0	Yes		
Agricultural products and foods	2.6	5.3	5.8	13.1	57	114	174	490		14	290
Chemicals and plastics	1.3	1.4	1.3	1.6	40	50	52	72			10
Light industry products	1.8	1.8	3.2	4.9	7	8	15	42	Yes		
Machinery	0.3	0.5	0.5	0.5	34	80	59	78			
Other products	2.2	6.3	2.0	1.6	53	198	64	83			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A7. Assessment of changes in exports from Kazakhstan to China

Commodity groups	Shares, % of total exports of Kazakhstan				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	8.4	9.0	13.3	15.2	2 520	4 419	5 536	9 645		1 116	3 894
Metals and ores	16.3	29.3	30.2	31.7	2 461	3 023	4 437	6 395		129	475
Cereals and flour	0.0	0.0	0.5	0.2	0	0	8	3	Yes		
Agricultural products and foods	1.0	2.2	3.5	3.8	6	10	17	19	Yes		
Chemicals and plastics	0.2	4.6	12.7	7.8	0	6	22	23	Yes		
Light industry products	64.7	84.7	23.5	5.6	293	453	20	7		-35	-77
Machinery	0.3	0.4	0.6	1.7	2	4	3	13	Yes		
Other products	11.8	15.7	12.7	14.5	34	126	79	187			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A8. Assessment of changes in imports to Kazakhstan from China

Commodity groups	Shares, % of total imports of Kazakhstan				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.7	1.4	1.5	2.1	21	78	61	98			20
Metals and ores	12.8	23.2	15.3	14.0	626	1 619	661	658			
Cereals and flour	10.8	14.9	7.1	3.8	6	11	3	3	Yes		
Agricultural products and foods	1.9	5.1	4.2	4.0	40	112	126	149			
Chemicals and plastics	8.8	10.0	9.3	9.9	283	364	367	449			
Light industry products	21.8	29.6	30.7	38.0	83	133	145	328		5	72
Machinery	10.8	13.0	18.5	20.0	1 402	1 986	2 162	2 877		176	891
Other products	13.7	18.2	13.9	9.0	331	649	439	459			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A9. Assessment of changes in exports from Kazakhstan to the rest of the world

Commodity groups	Shares, % of total exports of Kazakhstan				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	94.3	95.1	94.2	80.6	28 422	46 515	39 360	51 291			
Metals and ores	73.5	76.6	74.3	45.0	2 585	4 347	10 908	9 081			
Cereals and flour	30.8	60.7	48.4	31.6	22	35	752	418			
Agricultural products and foods	40.2	41.5	41.0	33.9	1 031	1 449	195	175			-33
Chemicals and plastics	35.4	61.8	37.2	29.8	2 175	2 513	64	88			-16
Light industry products	97.0	97.9	88.7	30.9	265	333	76	40		-7	-86
Machinery	45.9	65.5	47.5	34.6	9 267	12 069	226	257			-83
Other products	39.0	65.0	60.6	45.6	1 262	2 122	375	588			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A10. Assessment of changes in imports to Kazakhstan from the rest of the world

Commodity groups	Shares, % of total imports of Kazakhstan				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	4.3	5.4	4.6	3.1	154	235	195	145			-9
Metals and ores	52.9	70.1	46.5	31.6	2 585	4 347	2 002	1 491		-277	-1 002
Cereals and flour	34.0	47.0	27.7	34.3	22	35	11	28	Yes		
Agricultural products and foods	48.1	52.8	49.7	40.6	1 031	1 449	1 494	1 526			
Chemicals and plastics	67.3	69.6	65.6	51.9	2 175	2 513	2 602	2 348			
Light industry products	69.7	74.2	74.1	35.5	265	333	351	306			
Machinery	78.6	82.6	79.6	52.9	9 267	12 069	9 295	7 607			-1 660
Other products	46.8	59.5	53.1	52.6	1 262	2 122	1 679	2 669			

Sources: UN Comtrade, Agency of the RK on Statistics, author's calculations

Table A11. Assessment of changes in exports from Russia to other Central Asian countries

Commodity groups	Shares, % of total exports of Russia				Value of exports, million US$				Exports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.3	0.4	0.5	0.5	682	1 254	1 358	1 652		104	175
Metals and ores	1.4	2.9	1.5	1.7	786	1 068	725	1 004			
Cereals and flour	0.9	3.5	1.3	1.7	39	125	34	82			
Agricultural products and foods	6.3	6.7	7.4	6.7	239	352	390	553		36	
Chemicals and plastics	2.0	2.7	2.3	1.9	337	433	381	455			
Light industry products	4.0	7.4	4.3	2.9	32	40	26	32	Yes		
Machinery	6.7	7.8	6.4	3.9	932	1 236	837	719		-30	-213
Other products	1.4	2.2	1.9	2.9	610	893	1 113	1 283			327

Sources: UN Comtrade, author's calculations

Table A12. Assessment of changes in imports to Russia from other Central Asian countries

Commodity groups	Shares, % of total imports of Russia				Value of imports, million US$				Imports < US$50 mil. in 2007-2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.0	0.4	0.2	0.4	0	10	5	24	Yes		
Metals and ores	0.3	0.4	0.4	0.4	40	77	80	123		3	11
Cereals and flour	0.0	0.0	0.0	0.0	0	0	0	0	Yes		
Agricultural products and foods	2.8	3.4	2.8	1.6	789	880	920	671			-117
Chemicals and plastics	0.2	0.3	0.4	0.3	46	82	125	115		15	
Light industry products	2.3	3.2	3.6	3.3	187	304	509	591		50	17
Machinery	0.4	0.7	0.6	0.5	271	713	599	743			
Other products	0.1	0.3	0.2	0.2	38	81	81	46			

Sources: UN Comtrade, author's calculations

Table A13. Assessment of changes in exports from Belarus to other Central Asian countries

Commodity groups	Shares, % of total exports of Belarus				Value of exports, million US$				Exports < US$50 mil. in 2007–2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.0	0.0	0.5	1.8	0	1	37	261		36	260
Metals and ores	0.3	0.9	0.6	0.6	6	13	11	14	Yes		
Cereals and flour	0.9	7.9	9.8	13.9	0	4	5	11	Yes		
Agricultural products and foods	0.8	3.0	3.0	2.0	14	70	97	75			
Chemicals and plastics	0.5	1.0	0.7	0.7	26	35	30	58			
Light industry products	0.7	1.1	0.7	0.8	8	10	9	12	Yes		
Machinery	2.3	4.4	2.1	3.4	136	162	97	227		-7	
Other products	0.9	1.3	1.0	0.8	19	34	25	27	Yes		

Sources: UN Comtrade, author's calculations

Table A14. Assessment of changes in imports to Belarus from other Central Asian countries

Commodity groups	Shares, % of total imports of Russia				Value of imports, million US$				Imports < US$50 mil. in 2007–2011	Gained (+)/lost (-) trade, mil. US$	
	2007-2009		2010	2011	2007-2009		2010	2011		2010	2011
	Min	Max			Min	Max					
Energy	0.0	0.0	0.0	0.0	0	1	0	0	Yes		
Metals and ores	0.0	0.2	0.0	0.0	1	4	1	1	Yes		
Cereals and flour	0.0	0.0	0.0	0.0	0	0	0	0	Yes		
Agricultural products and foods	0.7	1.2	1.2	1.6	14	26	32	49	Yes		
Chemicals and plastics	0.0	0.1	0.6	0.3	1	3	27	13	Yes		
Light industry products	0.6	0.8	0.9	1.1	4	7	8	13	Yes		
Machinery	0.1	0.2	0.1	0.1	5	15	9	10	Yes		
Other products	0.0	0.0	0.0	0.0	1	1	1	1	Yes		

Sources: UN Comtrade, author's calculations