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Role of Foreign Trade in Ensuring Food Security of the Countries of Central Asia

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This paper discusses trends in and patterns of trade in agricultural and food products in Central Asia. The analysis shows that these products' exports lose and imports increase its importance for all economies of Central Asia. Trade policies with regards to agricultural and food products vary greatly in the region from very liberal to quite protectionist. No correlation is observed between the type of trade regime and performance of agricultural production and trade. The paper also provides an overview of the recent changes in trade policies including those related to the creation of the Customs Union of Belarus, Kazakhstan and Russian Federation and their potential impact on agricultural and food trade in the region.

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1. Introduction

This paper analyses the role of international trade in the provision of food in Central Asia. Agricultural production and food industry have always been key economic sectors in Central Asia and major sources of exports for the region. At the same time, Central Asian countries traditionally depend on food imports, so the relationship between domestic production, exports and imports is important and dynamic for these countries.

For the last 10-15 years the countries of the region have undergone major changes in economic structure, trade patterns and policies. Understanding these new patterns and the current and potential impact of ongoing and forthcoming policy changes is necessary to effectively assess food security in Central Asia. Regional (rather than national) approaches in analysis of agricultural trade is also necessary because substantial part of agricultural trade is trade with neighbouring countries. Additionally, Central Asian countries critically depend on transit through each other's territories to access major markets for agricultural outputs.

For purposes of this study, the region of Central Asia is defined as including Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan. Turkmenistan, which is usually considered part of the region, is not discussed due to lack of data and its relatively small regional trade in agricultural and food products. The research covers the period 2000 to 2012, when regional economies had mostly recovered from transition shocks in the 1990s. Analysis of this time period also allows for the identification of longer-term trends.

In this study agricultural products and foods (agrifood products) include all products covered by the World Trade Organisation (WTO) Agreement on Agriculture excluding alcohol beverages[1] and including fish and fish products, fertilisers and other chemicals used in agriculture.

Section 2 discusses the role of trade in the regional food supply. Section 3 provides a detailed review of trends in and structure of agricultural trade in the four countries. Ongoing and potential future changes in regional trade policies are considered in Section 4. Section 5 summarizes the findings of the study and discusses policy implications of changes in trade patterns and policies.

[1] Harmonized System (HS) codes 2203-2208.

2. International Trade and Food Demand and Supply in Central Asia

After 2000, the countries of Central Asia experienced good economic growth (Table 1). The growth has been driven mostly by increases in outputs in extraction industries supported by massive foreign direct investments (FDI) and dramatic improvement in terms of trade for hydrocarbon-rich countries (Kazakhstan and Uzbekistan). Services have become another major source of growth supported by export revenues in Kazakhstan and Uzbekistan and remittances in Kyrgyzstan, Tajikistan and Uzbekistan. Agriculture grew at a slower rate than other economic sectors except in Tajikistan. In Kyrgyzstan, agricultural production even demonstrated negative growth in per capita terms. As a result, agriculture, which used to be one of the most important economic sector in all these countries, is gradually losing its central position (see Figure 1). This is especially evident in Kyrgyzstan and Uzbekistan.

[Table 1 here]

[Figure 1 here]

In 2000-2012 agricultural output in Central Asian countries was less dynamic than incomes and household consumption (Table 1). Consequently, agriculture has become less important as a source of livelihood for many people in rural areas. In Kyrgyzstan, Tajikistan and Uzbekistan, agricultural revenues are being partially replaced by remittances from labour migrants.

This discrepancy in growth rates suggests that there is a widening gap between domestic food production and food demand. This gap can be filled in by imports. Recent data on trade in agricultural goods and foods show a significant increase in the ratio of imports to domestic output of agriculture and the food industry (Figure 2). Imports have become more important as a source of food and agricultural produce. Interestingly, the degree of agriculture export orientation has not changed much; production for domestic consumption and production for exports grew at approximately the same rates.[2]

Agrifood imports have grown much faster than exports declined (Figure 2), so agrifood sector's openness[3] has a rising trend, with some fluctuations.

[2] Uzbekistan seems to demonstrate a significant decline in export share (Figure 2), which fell from 29 percent in 2007 to 20 percent in 2012. However, in 2011 it was equal to 31 percent, i.e. even somewhat above 2000 level. The 2012 decline may be a result of a bad harvest or other negative shocks affecting export crops rather than agriculture in general.

[3] Ratio of agrifood trade turnover to total output of agriculture and food industry.

[Figure 2 here]

The relationship between exports, imports and domestic production and consumption can be seen on the example of grain (mostly wheat), which is the main staple food in Central Asia (Figure 3). Three of four countries of the region strongly depend on imports of grain/flour; Tajikistan receives from imports a half of the grain it needs. Only Kazakhstan is fully self-sufficient in grain and exports more than half of the grain/flour produced.

[Figure 3 here]

A comparison of agrifood trade dynamics with the dynamics of general trade and gross domestic product (GDP) shows that agricultural exports become less important in the total trade structure and produce a smaller part of GDP (Figure 4a). The declining significance of agricultural exports is mostly due to the rapid growth of energy exports. For example, for many decades cotton fibre was the main export commodity of Uzbekistan. Today, natural gas exports generate much more foreign exchange for the country. In Kazakhstan wheat exports have become relatively less important for total exports and the economy, following growth of crude oil exports.[4]

[Figure 4 here]

Despite the increasing role of imports as a source of food in Central Asia, the share of agrifood imports in total imports and GDP has increased in Tajikistan only. In other countries it remained stable from 2000 to 2012 (food and non-food imports grew at the same pace), or declined slightly (in Uzbekistan, where a substantial part of foreign exchange is centralised by the government and is spent on machinery and equipment imports rather than food and consumer goods).

Key trends in regional agricultural trade include declining role of agriculture as a source of export income and an increasing role of imports in food supply in all countries of the region.

[4] Tajikistan seems to be the only exemption with an increasing share of agrifood exports in total exports. However, this is a statistical artifact since the share increase takes place not because agrifood exports were growing faster than other exports, but because exports of the country's main commodity, aluminum, have recently been partially reclassified from exports of goods to exports of services. This mechanically resulted in reduction of total exports of goods and a higher share of agrifood exports in them.

3. Trends in and Structure of Agricultural Trade in the Region

3.1. General Trends in Agricultural Trade in Central Asia

While agrifood exports are falling in relative terms, this does not necessarily means that they are falling in absolute terms.[5] Comparison of United States dollar (US$) nominal values of trade in agrifood products indicate a dramatic increase in both exports and imports in all Central Asian countries from 2000 to 2012 (Figure 5a). However, the purchasing power of the US dollar fell significantly in all four countries during the period under consideration.[6] A more accurate way of comparing 2000 and 2012 values would involve using trade values assessed at constant prices and exchange rates (Figure 5b). Analysis of real export values provides a different picture: good growth of agrifood exports was observed in Uzbekistan only; Kazakhstan's agrifood exports just slightly increased, and in Kyrgyzstan and Tajikistan exports decreased in real terms.

For imports, both nominal and real US$ values point to the same trend of rapid increases, while in real terms, growth rates are lower (and more plausible). In nominal terms, average growth rates of agrifood imports in Central Asia were about or above 20 percent per annum, while in real terms they were in the ranged from six to ten percent; still high, but comparable to other growth rates in these economies.

[Figure 5 here]

Analysis of product structure of Central Asian agrifood exports reveals a high concentration on few crops (Figure 6). In Kazakhstan, Tajikistan and Uzbekistan just one crop (wheat or cotton) provides more than half of all agrifood exports. Exports of fruits and vegetables are important for Kyrgyzstan, Tajikistan and Uzbekistan. Kazakhstan and Kyrgyzstan export some prepared foods (including beverages), and Uzbekistan exports fertilizers. Livestock products are almost completely missing in the structure of agrifood exports[7] despite the traditionally important role of livestock breeding in these economies. A common feature in agrifood imports is a substantial (30 to 40 percent) share of prepared foods. Kyrgyzstan,

[5] Discussion in this section is based on official data on agrifood exports and imports. This does not include informal cross-border trade in these products, which may be significant for some countries and products, and is considered in section 3.2.

[6] In Kazakhstan US$1 could buy as many goods and services in 2012 as US$0.23 in 2000. US$1 in 2012 was equivalent to US$0.33, 0.32 and 0.61 in Kyrgyzstan, Tajikistan, and Uzbekistan respectively in 2000.

[7] The only exemption is exports of dairy products from Kyrgyzstan.

Tajikistan and Uzbekistan import wheat grain and flour in large quantities. Other imported products include meat, fats and oils and fertilizers.

[Figure 6 here]

Partners for trade in agrifood products are somewhat different from those for trade in non-agrifood goods (Figure 7). Central Asian neighbours are more important for agrifood trade than for trade in other commodities for all four countries. This is not surprising since agrifood goods in Central Asia have low price-to-weight ratios. Additionally, some goods, such as fresh fruits and vegetables, are perishable and have high transportation costs so trade is limited to relatively short distances.

[Figure 7 here]

Russia, China and the European Union (EU) are key trade partners for Central Asia in general, and in agrifood trade. However, their combined share in agrifood exports and imports is lower than that in non-agrifood ones. Russia is an important partner for both exports and imports; it is a close neighbour of Kazakhstan and a traditional partner for other three countries, so the logic of trade with neighbours fully applies. China and the EU are significant export markets for Central Asia (except Kyrgyzstan) and their role as sources of imports varies from country to country. Other partners in agrifood trade include Belarus, Brazil, Turkey, Ukraine, and the US.

Sections 3.2 and 3.3 below provide more detailed discussion of agrifood trade within Central Asia and between Central Asia and its three largest trade partners.

3.2. Trends in Agricultural Trade within the Region

Detailed analysis of intra-region trade in agrifood products reveals that predominantly this is trade between Kazakhstan, on one side, and Kyrgyzstan, Tajikistan and Uzbekistan, on the other side. The trade between the latter three countries in agricultural goods and foods is small and unstable. In 2011-2012, the turnover of agrifood trade between the three countries was about US$40 million or well below one percent of their total agrifood trade turnover.

In contrast, trade between these three countries and Kazakhstan is quite large and represents a significant share of total agrifood trade for all partners (Figure 8). In 2012, total turnover of

this trade was US$1.6 billion.[8] Product structure of this trade is simple. Kazakhstan exports primarily wheat grain and flour, and some prepared foods to the other countries. In turn, they supply Kazakhstan with fruits and vegetables. Trade in other products is smaller and unstable and is insignificant at the regional and national levels. However, trade in other products have some local importance; for example, exports of dairy products from northern Kyrgyzstan to southern Kazakhstan. Kazakhstan has a stable positive balance in agrifood trade with its southern neighbours.

[Figure 8 here]

Trade in wheat grain and flour has been growing in both monetary and physical measurement units (Table 2). Both exports of grain and exports of flour have grown, but exports of grain grew much faster (more than tripled in six years, if measured in tons). As a result, the relationship between grain and flour has changed in favor of grain. This means that value addition in flour-milling has partially shifted from Kazakhstan to grain-importing countries.

[Table 2 here]

With regards to main exports in the opposite direction (fruits and vegetables from southern CARs to Kazakhstan), these were small (less than US$10-15 million) prior to 2010 (Figure 9). At that time, almost all Central Asian fruits and vegetables exports went to Russia. In 2010-2012, different pattern emerged; exports to Kazakhstan dramatically increased and exports to Russia fell simultaneously, while their sum has not changed significantly.[9]

[Figure 9 here]

These trends relate to officially registered trade in the region. There is also significant informal trade in agricultural goods and foods between all these countries, part of larger important informal trade in consumer goods. An assessment of the magnitude and structure of informal agrifood trade is difficult since there are no reliable statistics on these trade flows.

[8] Statistical Agency of the Republic of Kazakhstan. Mirror statistics generated by other countries provide similar numbers.
[9] Possible explanation of this strange dynamics is provided below in section 4.

Anecdotal evidence and fragmented studies[10] suggest that total turnover in turnover trade may be as high as tens of millions of US dollars; significant, but still less than official turnover of trade in wheat or fruits and vegetables. Informal trade includes exports of fruits, vegetables and fertilisers from Uzbekistan to Kazakhstan, Kyrgyzstan and Tajikistan and dairy products, meat and livestock from Kyrgyzstan to Kazakhstan. Some goods are re-exported. For example, "Kyrgyz" fertilizers are available in Kazakhstan even though Kyrgyzstan does not produce and export fertilisers; they are likely to be from Uzbekistan, re-exported from Kyrgyzstan.

3.3. Trends in Agrifood Trade with Main Partners Outside the Region

Agrifood trade between CARs and China grew in both directions from 2000 to 2012 (Figure 10). Central Asian exports to China primarily consist of cotton from Uzbekistan; about one-third of Uzbek cotton exports now go to China. Exports from China to Central Asia go mostly to Kazakhstan and Kyrgyzstan and include meat, fruit and prepared foods. China seems to compete successfully with southern CARs for the Kazakh market for fruit.

[Figure 10 here]

Dynamics of trade in agrifood products between CARs and the EU is rather uneven (Figure 11). However, if cleaned of fluctuations, which took place from 2007 to 2009, Central Asian exports to the EU in 2012 were the same as in 2000 in nominal terms, at US$500 million. This indicates a substantial decline in real terms (see related discussion in section 3.1). Unlike exports to China, Central Asian exports to EU are dominated by Kazakhstani grain and oil seeds, and include some cotton from all four countries.[11] In contrast, Central Asian imports from the EU grow steadily, with crisis-related decline in 2009. A major part of these imports is prepared food; reflection of increasing living standards in Central Asia and related increased demand for expensive food from Europe. Other EU exports to Central Asia are meat, dairy products and agricultural inputs.

[Figure 11 here]

[10] Such as (Ibragimova et al, 2012).

[11] The EU used to be a major market for cotton from Tajikistan and Uzbekistan in the early 2000s. Today, EU cotton imports from these countries have almost disappeared. This is the main reason for the negative dynamics of Central Asian exports to the EU.

Agrifood trade with Russia has different patterns for Kazakhstan than for other CARs. Kazakhstan has a large and increasing deficit in agrifood trade with Russia (Figure 12). Kazakhstani exports to Russia consisting of grain and some prepared foods stagnated in nominal terms in 2000-2012, while imports of prepared foods, dairy products, tobacco, agricultural inputs, fats and oils from Russia quickly grew. Kazakhstan is one of the largest markets for Russian prepared foods.

[Figure 12 here]

Exports from Kyrgyzstan, Tajikistan and Uzbekistan to Russia (Figure 13) grew from 2003 to 2010 and then collapsed in 2011-2012. This collapse may be a consequence of changes in export documentation rather in actual trade flows (see section 4). Exports from these three countries to Russia include mainly fruit, vegetables and cotton. Dynamics and product structure of imports from Russia are similar to Russian supplies to Kazakhstan with fast growth in imports of prepared foods and fats and oils.

[Figure 13 here]

4. Agricultural Trade Policies in the Region

4.1. Key Features of Trade Regime for Agrifood Products

Agricultural trade policies in the region vary reflecting different policy approaches adopted by the governments in the region. Most favoured nation (MFN) import tariffs may be used as an integral indicator of the degree of openness or restrictiveness of trade regimes in the region; the lower the tariff, the more liberal trade regime. Simple average MFN applied tariff for agricultural goods is highest in Uzbekistan, which is consistent with its reputation as the most protectionist regime in Central Asia (Figure 14). On this indicator, according to the WTO, Uzbekistan ranks 33 among 144 countries and customs territories in the world. Kazakhstan ranks 81st, with a tariff that is lower than the global median. Tajikistan is ranked 94th. Kyrgyzstan is ranked at 123rd, and belongs to the top quintile of countries with the most liberal regimes in the world for trade in agrifood products.

[Figure 14 here]

Trade-weighted average tariff rates, however, differ from statutory tariff values. In Kazakhstan the trade-weighted tariff is higher than in Uzbekistan, and in Kyrgyzstan it is higher than in Tajikistan. This means that in Kazakhstan and Kyrgyzstan the tariffs are applied to actual trade; their rates do not prevent businesses from importing agrifood products. In Tajikistan and Uzbekistan, the tariffs have more prohibiting role; goods, for which tariff rates are set high, are not imported at all.

All CARs are members of different trade agreements. Kyrgyzstan and Tajikistan are WTO members (since 1998 and 2013 respectively). Kazakhstan and Uzbekistan are in different stages of accession negotiations with WTO, with Kazakhstan expecting accession in 2014[12] and Uzbekistan still in the early stages of the process.

All four countries are participants of the Commonwealth of Independent States (CIS) Free Trade Agreement FTA).[13] This means that CARs apply zero import tariffs to each other. Russia, the CARs other major agrifood trade partner, is also a member of the CIS FTA and enjoys the free trade regime. The Agreement, however, provides for a few exemptions from free trade. These include export duties for oil seeds, raw hides, skins and wool (Kazakhstan), temporary import duties on flour and temporary export duties for cereals, fodder crops, raw hides, skins and wool, fertilisers (Kyrgyzstan[14]).

These export duties are designed to reduce or prevent the exports of raw products which governments would like to be processed domestically. Export duties are often imposed in order to increase domestic supply and keep consumer prices low. This is not the case in the region; very few items intended for final consumption are affected (with exception of some temporary duties on cereals and animal feed in Kyrgyzstan). Sometimes, countries introduce temporary export bans, for example, in 2011 and 2012 Kazakhstan banned exports of vegetable oil and wheat respectively. In the case of Kyrgyzstan, an additional function of export restrictions may be the prevention of re-exports of some goods needed for Kyrgyz agriculture, such as fertilisers.

Uzbekistan does not impose import or export duties. Instead, it imposes export bans to regulate exports and import excises[15] to regulate imports. Unlike Kazakhstan, export bans in

[12] http://www.primeminister.kz/news/show/29/kazahstan-planiruet-vstupit-v-vto-v-2014-godu-zhajtzhanova-/18-11-2013 (Accessed on 13 January 2014).

[13] As of the end of 2013, Tajikistan had not yet ratified this agreement.
Uzbekistan acceded to the FTA on special conditions, which allow this country to refrain from offering national regime to other parties and from abiding by WTO rules and norms, to which this FTA repeatedly refers, till Uzbekistan's WTO accession or 2020 (whatever is earlier).

[14] See (WTO, 2013).

[15] By not joining the WTO, Uzbekistan retains the right to have import excises much higher than excises for the domestic production of the same goods.

Uzbekistan are permanent and cover a broad range of products including cereals, live animals and meat, sugar, vegetable oil, raw hides, skins, silk and fur. Import excises are applied to an unusually broad list of goods including meat, dairy products, fruits, coffee, flour, vegetable oil, prepared foods, water and non-alcoholic beverages and cotton. Excise rates vary from 10 to 200 percent; some of them effectively stopping or reducing imports of excisable goods.

One of the most sensitive goods affected by import excises is wheat flour, which is the largest item of intra-regional trade in agrifood goods (see section 3.2). The import excise rate for this product is currently set at 11 percent in Uzbekistan. The rate used to be 15 percent, but it was reduced in August 2013, possibly as a reaction to the government of Kazakhstan's threat to reciprocate against countries creating barriers to Kazakh flour exports.[16] This reflects important policy changes in Uzbekistan, Kyrgyzstan and Turkmenistan which are now developing their own flour-milling industries and try to protect it against its main and more established competitor – Kazakhstan.

Comparisons of trade policy regimes and agricultural development and trade outcomes do not reveal a direct causal link between policies of protectionism or liberalism and faster or slower growth. Imports are rapidly growing in all countries, regardless of their level of protection. Exports are growing well (in absolute terms) in both more liberal Kazakhstan and more protectionist Uzbekistan. Agricultural production has a higher rate of growth in Tajikistan, which has fairly liberal trade policies, than in very liberal Kyrgyzstan and protectionist Uzbekistan.

However sensitive the tariffs and excises are for trade in some agrifood products, there are even more important impediments to intra-regional trade in agrifood goods. These include technical barriers to trade (TBT), customs administration and transport and other infrastructure limitations. The regulatory and administrative environments, business climate and physical infrastructure for international trade are measured by different international indices including Doing Business (DB) and the Logistics Performance Index (LPI) published by the World Bank.

In general, Central Asian countries fare poorly on both indices (Figure 15). On the DB component of "Trading across barriers," CARs rank in last decile, with Uzbekistan ranked as the worst performer among all ranked countries. These poor ranks are mostly due to very high export and import costs and time. Partially, this is a consequence of the landlocked

[16] http://news.nur.kz/274735.html (Accessed on 3 January 2014).

location of the countries of the region. However, poor infrastructure and unreliable transportation result in long delays and associated costs. This is especially relevant for such key export items of CARs as fruits and vegetables which are perishable and sensitive to delays in transportation. On the LPI, CARs rank somewhat better, particularly Kazakhstan. However, all of them are ranked in the lower half of the list. These rankings are due to issues related to infrastructure (all but Kazakhstan) and timeliness (all but Uzbekistan).

[Figure 15 here]

Many trade and logistical performance issues are related to policies "behind the border." These issues include, but are not limited to, structural reforms in the agricultural sector, functioning of land and capital markets for agricultural producers, agricultural inputs and the provision of public goods (e.g. irrigation), governance issues and corruption. However, some impediments for trade are regional in nature, including major transport corridors and transit arrangements.

Transport corridors and transit arrangements are central to the agenda of Central Asian Regional Economic Cooperation (CAREC) organisation, which brings together 10 countries of the region including all CARs and six international development organizations; with ADB as CAREC is coordinated by the Asian Development Bank (ADB).[17] An ambitious infrastructure investment and regulatory reform programme is being implemented under CAREC. However, much remains to be done before these efforts result in trade growth, particularly in simplifying administrative procedures and controlling corruption.

Central Asian agrifood exports also face so-called technical barriers for trade (TBT), which include compliance with requirements on health, veterinary and phytosanitary safety on import markets. The inability of Central Asian goods to comply with strict or unfamiliar requirements on the markets of the EU, China and other countries effectively limits exports of many Central Asian agrifood products to Russia and other traditional partners only.[18] This inability is partially due to underdeveloped veterinary and phytosanitary systems and quality infrastructure, including standardisation, metrology, testing, certification, and accreditation.

[17] (ADB, 2013a).

[18] Until creation of the Customs Union, these partners were less sensitive to the issues of compliance with existing technical requirements.

However, it is also partially due to high compliance costs,[19] which in combination with high transportation costs, make exports from Central Asia to distant markets uneconomical.

4.2. Influence of the Customs Union on Agrifood Trade in the Region

The Customs Union (CU) of Belarus, Kazakhstan and Russian Federation, which started operations in 2010, has the potential to significantly affect agrifood trade in the region. Under the CU, member countries apply common customs tariff, and share common external customs border and legislation on customs administration and sanitary and phytosanitary (SPS) and veterinary control systems. Along with the establishment of a common external border, these countries removed internal customs borders, so there is now no customs control on the border between Kazakhstan and Russia.

These policies have not affected import tariffs in trade within the CU and between CU countries and southern CARs; these were at zero before the CU was established and remains at this level under the CU. Key CU-induced changes are related to border-crossing regimes and the implementation of SPS and veterinary rules. As a result of standardisation of customs administration legislation and practices across the CU, the customs administration is stricter now at the borders between Kazakhstan and southern CARs. This has led to longer processing time for trucks on the border and an associated increase in transportation costs. According to the Corridor Performance Measurement and Monitoring implemented by ADB in cooperation with national transport associations in CAREC countries,[20] under the CU, the time required for trucks to cross the Kazakh-Russian border in either direction has dropped significantly (Figure 16). However, crossing borders between Kazakhstan and Kyrgyzstan, Uzbekistan and other countries now takes almost twice as long as it did before the CU. The CU therefore facilitates trade between Kazakhstan and Russia and inhibits trade between southern CARs and Kazakhstan. Notably, the summary time required to transit from southern CARs to Russia via the territory of Kazakhstan (time for crossing two borders) has not changed much.

[Figure 16 here]

[19] These include additional investments into required technological upgrades to ensure compliance plus the costs of testing and certification at laboratories located abroad, and payment for periodical visits of technical inspectors from destination countries.

[20] (ADB, 2013b).

These developments explain some trends in agrifood trade between Kazakhstan, southern CARs and Russia identified in sections 3.2 and 3.3. The removal of the trade barrier in hte form of a customs border between Kazakhstan and Russia contributed to trade creation[21] and the registered dramatic increase in Russian agrifood exports to Kazakhstan (see Figure 12a). Additionally, products formally exported from Kyrgyzstan, Tajikistan or Uzbekistan to Kazakhstan may still end up in Russia as goods between Kazakhstan and Russia do not require additional customs clearance. It may be just easier for exporters to clear these goods at the Kazakh customs border, if these goods are declared to be exported to Kazakhstan. Since 2010, significant amouhnts of fruits and vegetables from Kyrgyzstan, Tajikistan and Uzbekistan, which are officially exported to Kazakhstan, in fact can be exported to Russia. This may explain the dramatic increase in the fruit and vegetables exports from southern CARs to Kazakhstan and the seeming decline in these exports to Russia (Figure 9). The border crossing time from southern CARs to Russia appears to be neutral to the creation of the CU, and this is consistent with more or less stable total exports of fruits and vegetables to CU countries.[22]

TBT increasingly become an issue in CARs' agrifood exports to Russia and, after creation of the CU, to Kazakhstan. Well before the creation of the CU Russia introduced a ban[23] on imports of virtually all animal products and live animals from Central Asia because of the foot-and-mouth disease epidemics in these countries.

In 2012, Kazakhstan introduced a temporary ban on imports of the Kyrgyz dairy products, referring to lack of compliance with CU food safety requirements. This affected agricultural producers and dairy enterprises in northern Kyrgyzstan, whose key market is Kazakhstan. As a result, exports of dairy products from Kyrgyzstan to Kazakhstan dropped by 10 percent in 2012 in comparison to 2011 (a decline of less than US$3 million according to the State Customs Service of the Kyrgyz Republic). Some further decline is expected in 2013. While the ban has adversely influenced those enterprises which were directly affected, the decline is actually a small change even for the economy of Kyrgyzstan, which is the smallest in the region; less than 0.2 percent of total exports or less than 0.1 percent of GDP. This ban was mostly lifted in the second half of 2013 following a joint Kazakh-Russian inspection of dairy enterprises in northern Kyrgyzstan. Recommendations were made on how to ensure

[21] See (Mogilevskii, 2013) on the CU's trade creation and diversion effects.

[22] The fluctuations in the summary value have no clear trend in 2009-2012 (Figure 9) and may have more to do with whether a harvest is good or bad, rather than with the CU.

[23] The ban has been effective since 2003 for Tajikistan and Uzbekistan, since 2007 for Kyrgyzstan and since 2013 for some provinces of Kazakhstan. There is also a ban on imports of all poultry products from one province of Kazakhstan.

compliance with the CU requirements. In 2011, Kazakhstan introduced a similar temporary ban on potato imports from Kyrgyzstan due to the presence of the potato beetle. This ban was lifted in 2012.[24] While these TBT issues have arguably had only a limited effect on Central Asian economies so far, the increasing frequency of cases suggests that all Central Asian governments prioritise national quality infrastructure reforms, make necessary public investments and encourage producer investments into the technological upgrades necessary for strict compliance with foreign and domestic technical regulations. In addition to facilitating exports, this will ensure that domestic consumers the same safety standards as consumers in export destinations.

Thus, so far the impact of the CU on agrifood trade in Central Asia is less than one would expect and is limited to increased TBT. These measures are sensitive for selected sectors and regions only and have few implications at the national level.

The planned accession of Kyrgyzstan and Tajikistan to the CU is not going to change tariff regulation in intra-regional trade (zero tariffs as a rule with a few exemptions from the free trade regime), or veterinary and SPS requirements. Other relevant policy changes related to CU accession and agrifood trade may include increases in import tariffs applied to trade with third parties (China, the EU and others)[25] and a reduction in transportation costs for shipments from Kyrgyzstan and, to a lesser extent, from Tajikistan to Kazakhstan and Russia due to the eventual elimination of the Kazakh-Kyrgyz and Kyrgyz-Tajik customs borders.

The transition to the CU's common customs tariff may reduce agrifood imports from China (meat, fruits, prepared foods) and the EU (prepared foods), which are not high but are noticeable in Kyrgyzstan (11 percent of agrifood imports in 2012). In Tajikistan, these imports are small, just one percent of agrifood imports, so tariff changes will not have a measurable impact.

Changes in trade related to the elimination of the customs borders may produce some positive results for the Kyrgyz and Tajik economies, especially if they are accompanied by investments in agribusiness. However, there are other impacts of CU accession which are not directly related to agrifood trade. One is future of informal re-export activities which are a source of income and employment for hundreds of thousands of people in both Kyrgyzstan and Tajikistan.[26] If CU regulations are implemented strictly and abruptly on the Kyrgyz-

[24] Reduction in potato exports from Kyrgyzstan to Kazakhstan and Russia in 2012 in comparison to 2011 was US$8 million.

[25] This will require re-negotiating MFN tariff rate commitments adopted by Kyrgyzstan and Tajikistan, when they acceded to WTO.

[26] See (Mogilevskii, 2012) for a discussion of the activity, its rationale and related issues.

Chinese border, they will destroy the re-export business. This will have major adverse consequences for household incomes, employment and inflation in Kyrgyzstan. These effects, in turn, will impact Kyrgyzstan's trade in agrifood products.

CU accession may also result in a dramatic reduction in the use of the Bishkek-Torugart road connecting Kyrgyzstan with China. This road is being currently rehabilitated at a cost of hundreds of millions US dollars. The expected decline of imports from China could mean that the road would primarily serve much smaller domestic transport flows, a waste of the current investment. This example highlights the need for consistency and coordination between different policies within a country.

A comprehensive assessment of all these effects requires (i) Clear policy change scenarios, which do not exist since as the negotiation process between the CU and Kyrgyzstan has yet to produce a road map,[27] and (ii) Utilisation of a general equilibrium framework, which is beyond the scope of this paper.

5. Conclusions and Policy Implications

The research suggests that agriculture is becoming less important in all four Central Asian economies and is being replaced by mining and services. Agrifood products are also gradually losing their importance as a source of export revenue. Growing domestic demand for food is increasingly satisfied by imports. Due to the fast growth of imports, the agrifood sector increasingly depends on trade in all CARs.

Despite the relative decline of agrifood exports, in absolute terms these exports keep growing in Kazakhstan and especially in Uzbekistan. In all four countries, exports are concentrated on very few crops. In all but one (Kyrgyzstan), just one crop (cotton or wheat) provides more than half of total agrifood exports. In contrast, agrifood imports are quite diverse with a high share of prepared foods. Geographically, agrifood trade is more dependent on neighbours (other CARs and Russia/China) than trade in general is.

Intra-regional agrifood trade primarily consists of two streams: (i) Supplies of wheat grain and flour from Kazakhstan to southern CARs, and (ii) Supplies of fruits and vegetables from southern CARs to Kazakhstan and Russia (as discussed above, CAR exports to these two countries is difficult to separate). Trade in wheat grain and flour is undergoing a gradual shift from flour to grain caused by import-substitution policies aimed at the development of flour-milling industries in southern CARs.

[27] As of the end of 2013.

Trade with major partners outside the region (China, EU, and Russia) is experiencing fast growth of imports from these partner countries and sluggish or even negative real growth of exports from CARs to these capacious markets. Exports of cotton, the main product supplied by Central Asian economies to these markets, have been reoriented from the EU to China and other Asian markets.

Agrifood trade policies vary greatly in Central Asia ranging from a quite protectionist regime in Uzbekistan to a liberal regime in Kyrgyzstan. CARs participate in different trade agreements; Kyrgyzstan and Tajikistan are WTO members, and Kazakhstan is at an advanced WTO accession stage. All four countries are also members of CIS FTA and offer free trade regime to each other and to Russia. However, there are different exemptions from this free trade regime related to select export and import items and some, such as import excises or duties on flour, are quite sensitive.

Regulatory and administrative environments (including customs administration) and transport infrastructure greatly impede trade in the region. All CARs rank poorly in international indices on these dimensions. While transport infrastructure and trade facilitation issues are being addressed by the governments and their international partners, there is still long way to go until policies will produce tangible outcomes in terms of increased trade.

Additionally, technical barriers to trade have recently become another major impediment for agrifood trade.

The trade policy landscape in the region was substantially reformatted after creation of the Customs Union in 2010. The main impact on agrifood trade in the region is the stricter implementation of customs administration procedures and veterinary and SPS control rules. These measures have resulted in longer delays for trucks crossing the southern borders of Kazakhstan and in temporary bans on some agrifood imports. On the positive side, truck delays on the Kazakh-Russian border have shortened, so transit time for Kyrgyz and Uzbek trucks traveling to Russia via the territory of Kazakhstan has not changed much. Trade outcomes of these changes have so far been relatively minor.

With the planned accession of Kyrgyzstan and Tajikistan to the CU, one can expect modest effects for these countries. These include a decline in agrifood imports from China and the EU due to higher import tariffs. They will also experience increases in agrifood exports to Kazakhstan and Russia due to the eventual elimination of customs borders for Kyrgyz and Tajik exporters. Larger impact on food security in these countries, especially in Kyrgyzstan, may be related to the substantial reduction in re-export activities, which are major source of income for many people.

With regard to policy, the analysis suggests:

- The observed loss of dynamism of agricultural production and exports in CARs requires systemic and well-targeted government policy action in all countries of the region;
- Agrifood trade policy may have its role, but it is not going to be a primary policy tool, because there seems to be no correlation between the degree of agrifood trade policy protectionism or liberalism and agrifood performance
- Major and most urgent policy responses seem to be required behind the borders;
- Policies tackling TBT issues should be prioritised as an integral part of trade policy. An optimum mix of policies in all four countries would address public investments in national quality infrastructure; incentives for businesses to comply with domestic and export market technical requirements; and producer and consumer awareness raising on food safety issues;
- Anticipating CU accession by Kyrgyzstan and Tajikistan should include setting realistic expectations that are neither overly optimistic nor overly pessimistic; open discussion of costs and benefits of accession by all stakeholders allow for the formulation of feasible accession conditions, which are favourable to both current members and applicant countries; and
- Agrifood trade and other related policies addressing issues such as labour markets, transport and customs administration, should be consistent and coordinated to take into account interdependent, economy-wide change related to the CU.

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Table 1. Growth rates in Central Asia.

	GDP	GNI per capita	Value added in agriculture per capita	Household final consumption expenditure per capita
	Annual average growth rate, 2000-2012, %			
Kazakhstan	8.1	6.0	2.0	3.8
Kyrgyzstan	3.9	3.1	-0.1	2.6
Tajikistan	8.1	6.0	6.5	9.7
Uzbekistan	6.9	5.4	4.4	5.5

Source: WDI.

Table 2. Exports of wheat grain and flour from Kazakhstan to other CARs.

Product	2006	2007	2008	2009	2010	2011	2012
US$ million							
Wheat grain	55	140	176	145	177	236	344
Wheat flour	123	247	452	324	325	431	405
Total	178	387	628	468	502	668	748
Million tonnes							
Wheat grain	0.5	0.8	0.7	0.9	1.0	1.2	1.8
Wheat flour	0.9	1.3	1.3	1.3	1.4	1.5	1.7
Total	1.4	2.1	1.9	2.2	2.5	2.7	3.5
Share in total (by weight), %							
Wheat grain	38	40	35	39	42	45	52
Wheat flour	62	60	65	61	58	55	48
Total	100	100	100	100	100	100	100

Source: Statistical Agency of Kazakhstan.

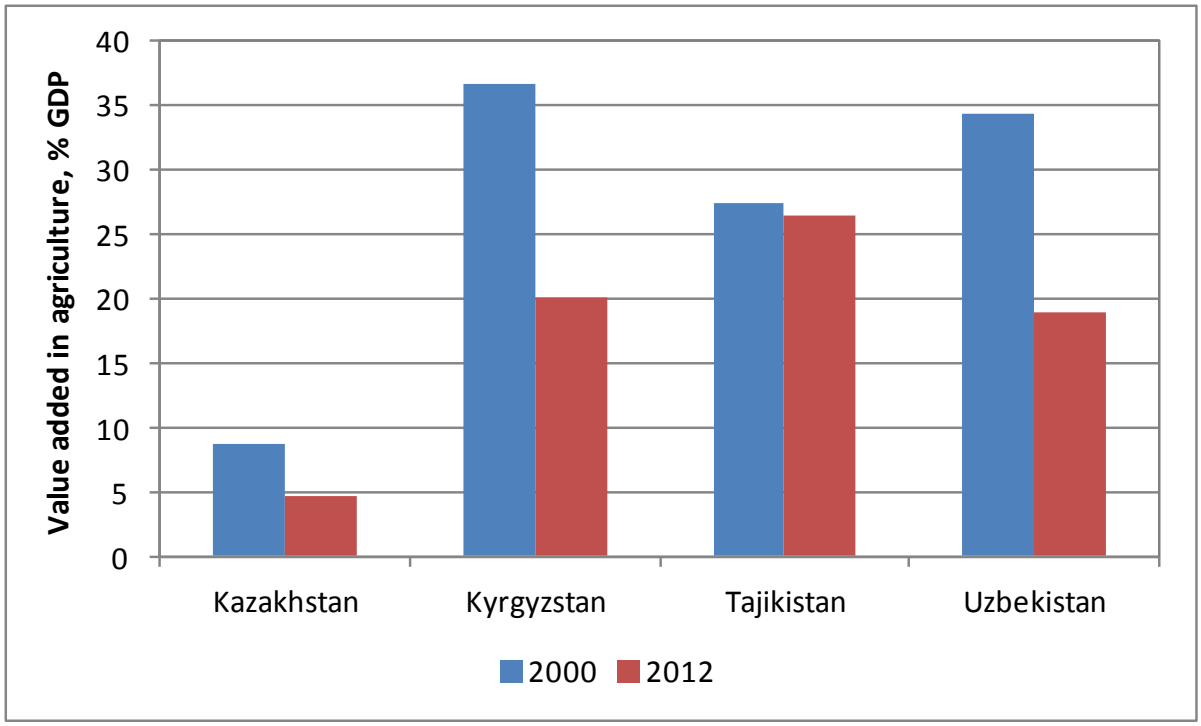


Figure 1. Role of agriculture in Central Asian economies.

Source: WDI.

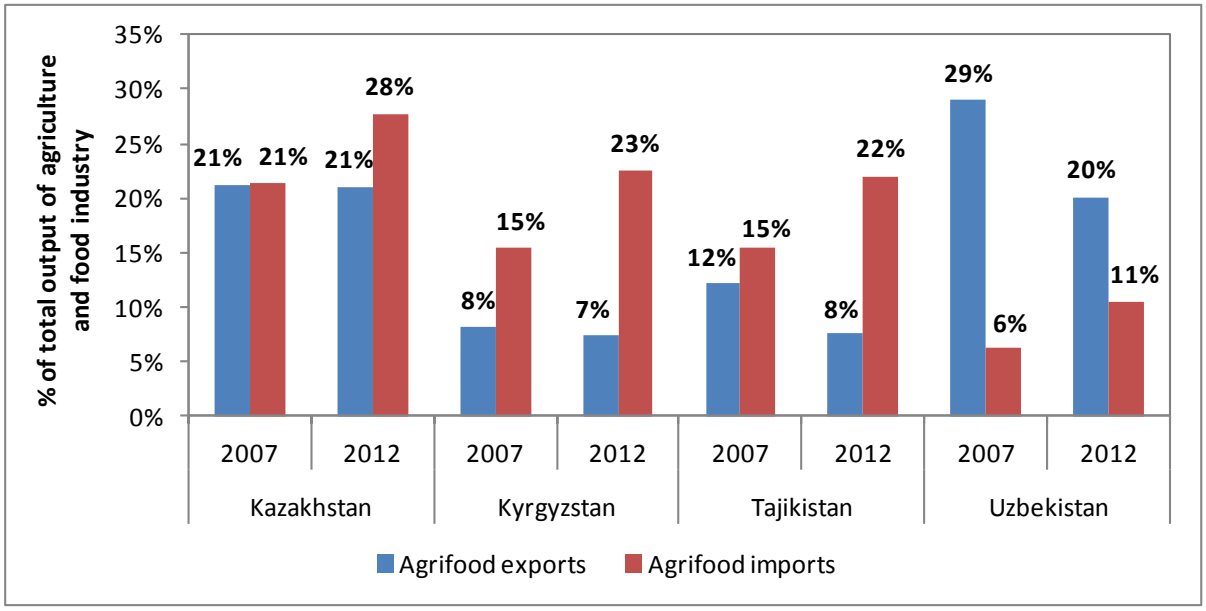
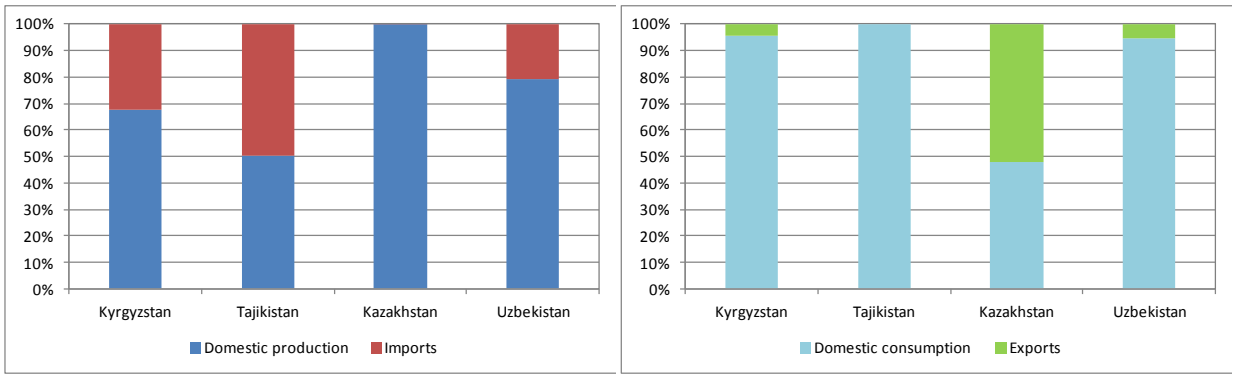


Figure 2. Contribution of trade into supply of and demand for agricultural products and food in the countries of Central Asia.

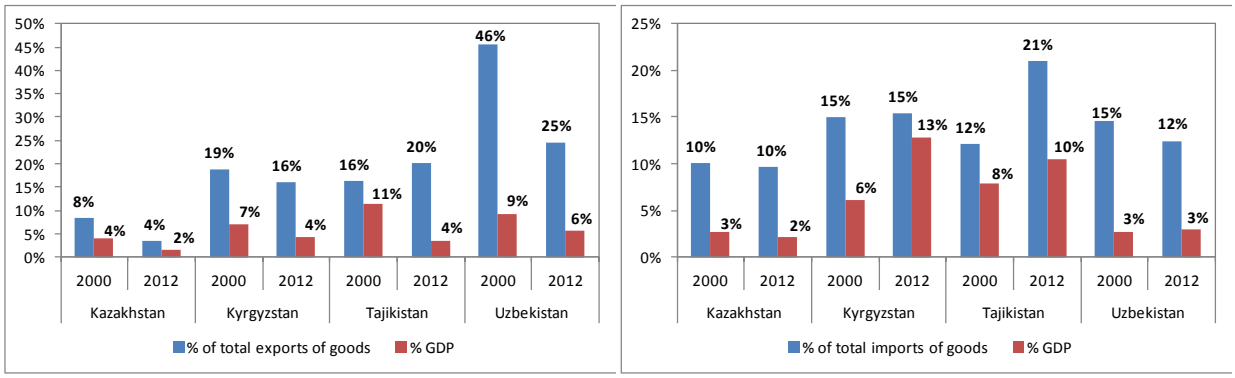
Sources: State statistical agencies of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.



a) Supply b) Demand

Figure 3. Supply of and demand for grain, 2012.

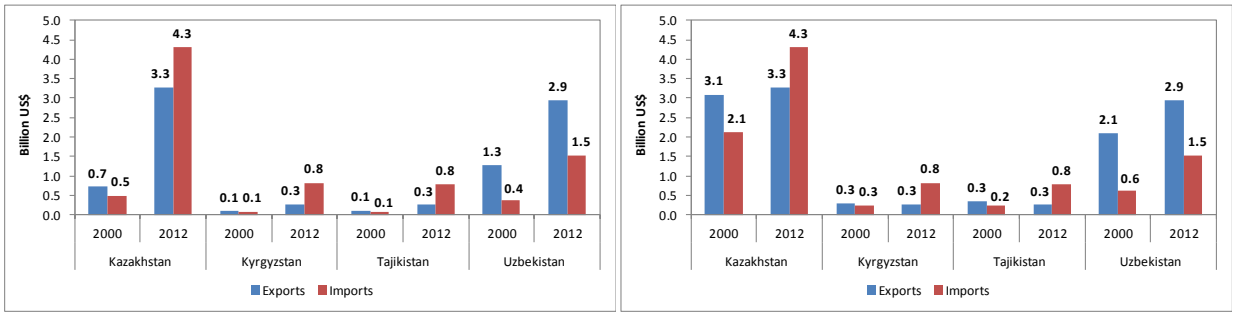
Sources: State Statistical Agencies of Kyrgyzstan and Tajikistan, United States Department of Agriculture (USDA) Foreign Agricultural Service.



a) Exports b) Imports

Figure 4. Trade in agricultural goods and foods as share of GDP and total trade in goods.

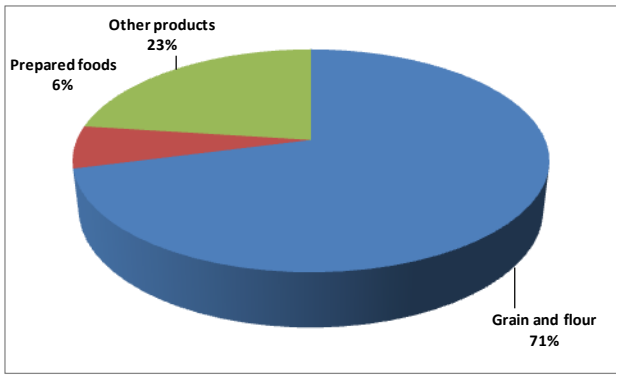
Sources: State Statistical Agencies of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, and International Monetary Fund (IMF) World Economic Outlook database.



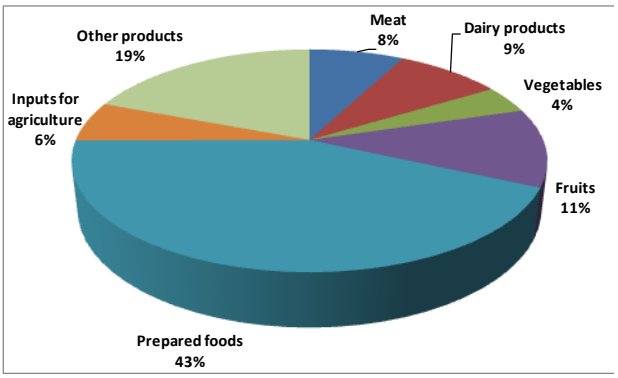
a) Current prices and exchange rates b) 2012 prices and exchange rates

Figure 5. Dynamics of trade in agricultural goods and foods.

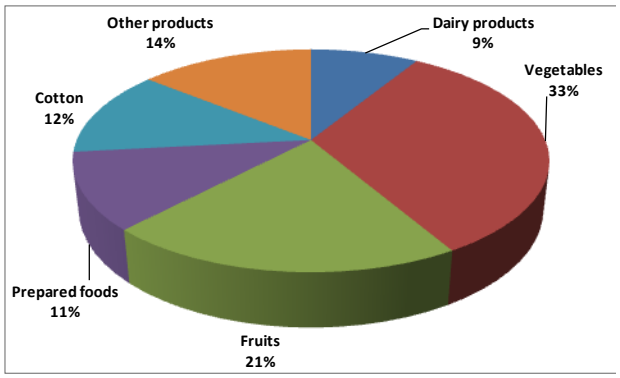
Sources: State Statistical Agencies of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, IMF World Economic Outlook database.



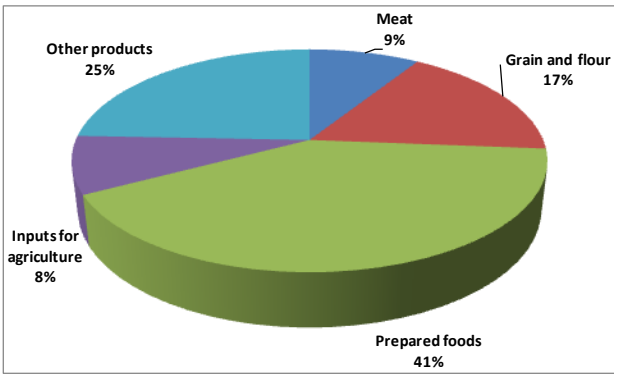
a) Kazakhstan – Exports



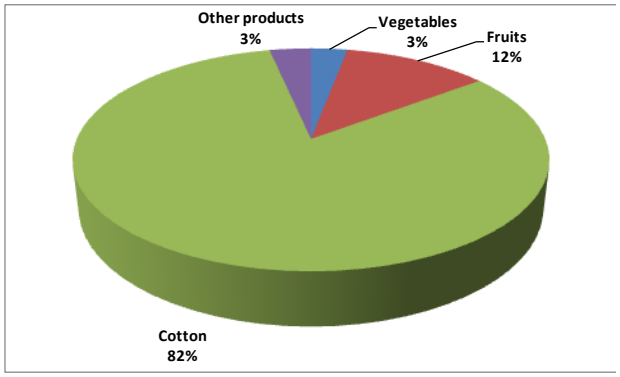
b) Kazakhstan – Imports



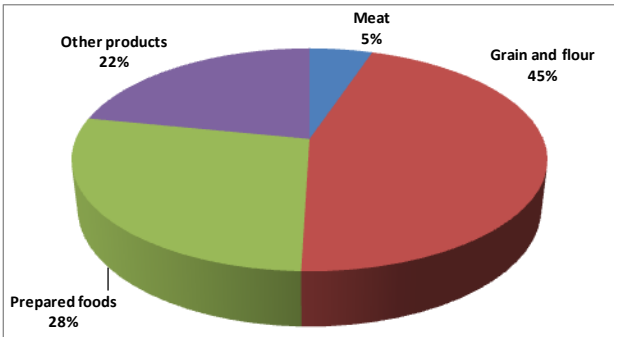
c) Kyrgyzstan – Exports



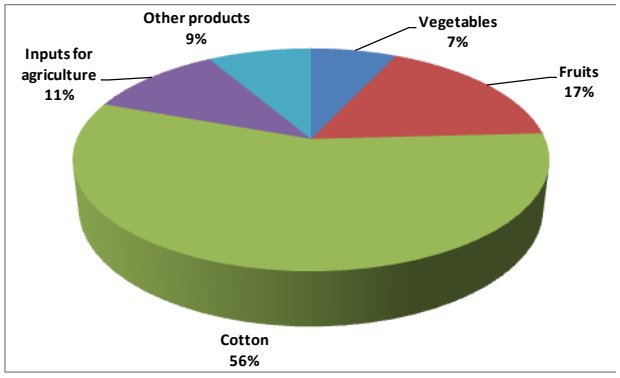
d) Kyrgyzstan – Imports



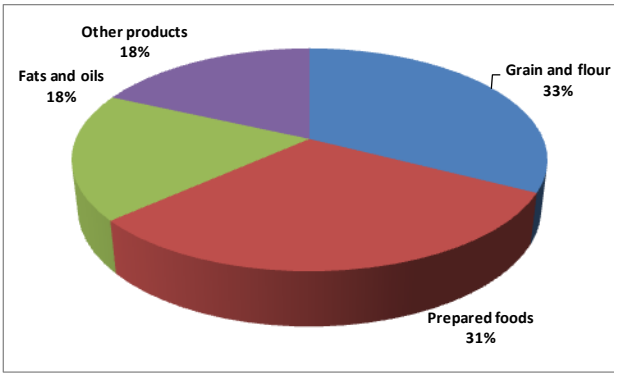
e) Tajikistan – Exports



f) Tajikistan – Imports



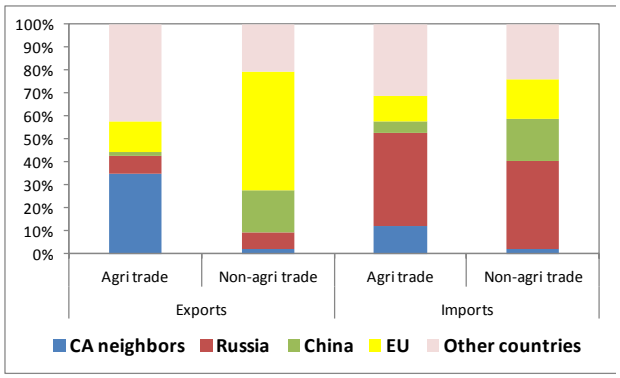
g) Uzbekistan – Exports



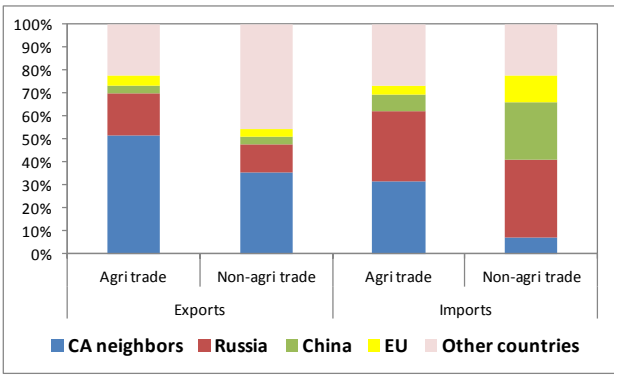
h) Uzbekistan – Imports

Figure 6. Product structure of agricultural trade in Central Asia, 2012.

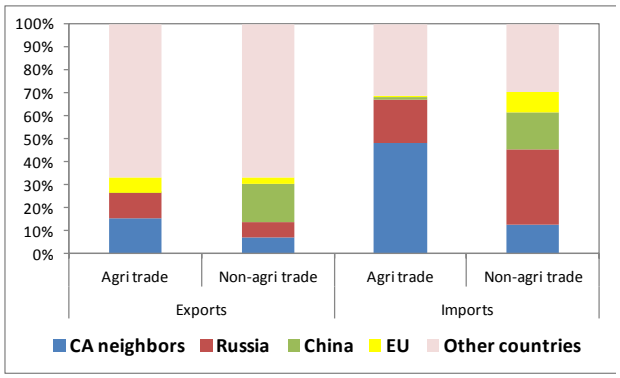
Sources: State Statistical Agencies of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.



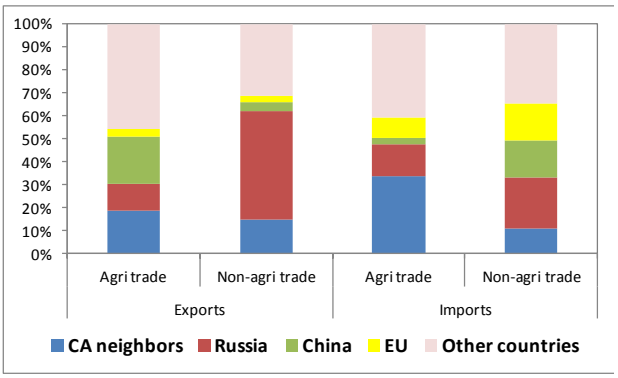
a) Kazakhstan



b) Kyrgyzstan



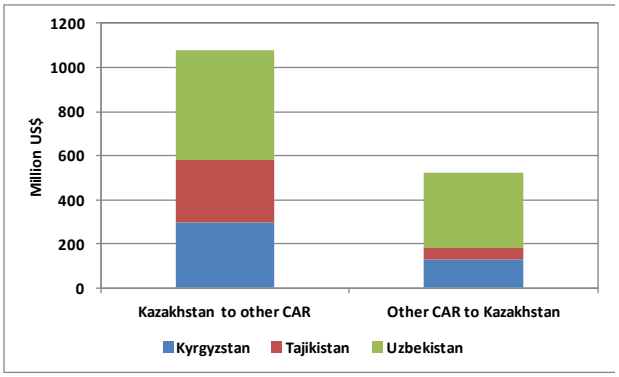
c) Tajikistan

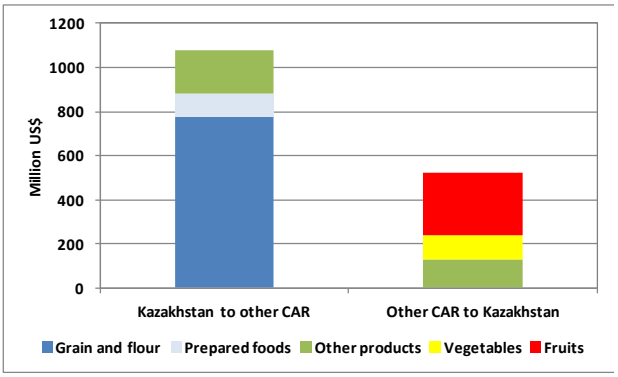


d) Uzbekistan

Figure 7. Geography of agrifood trade in Central Asia, 2012.

Sources: State Statistical Agencies of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

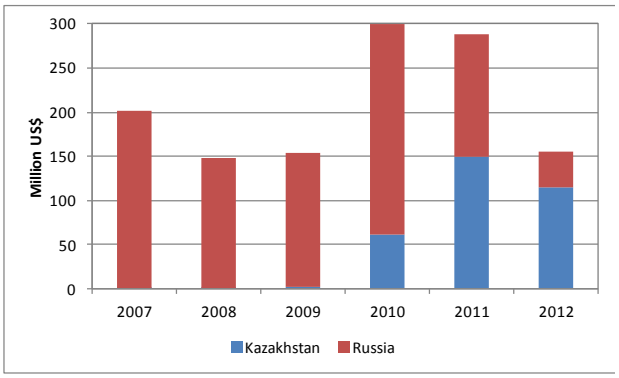


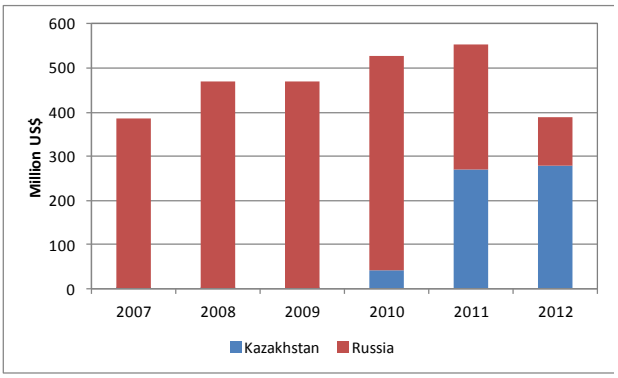


a) Geography b) Product Structure

Figure 8. Trade in agricultural goods between Kazakhstan and other CARs, 2012.

Source: Statistical Agency of the Republic of Kazakhstan.

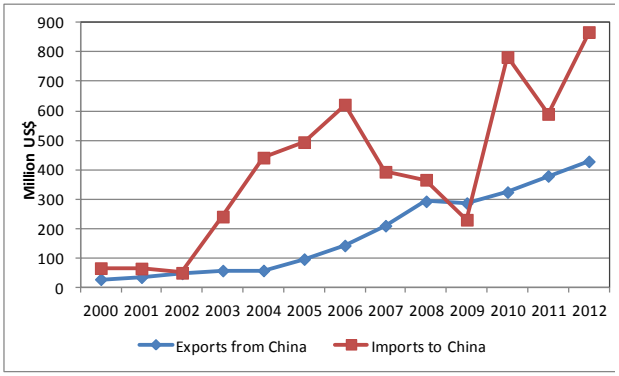


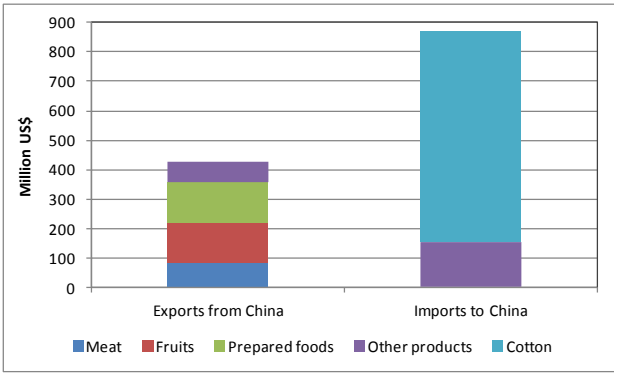


a) Vegetables b) Fruits

Figure 9. Imports of vegetables and fruits to Kazakhstan and Russia from other CARs.

Sources: Statistical Agencies of Kazakhstan and Russia.

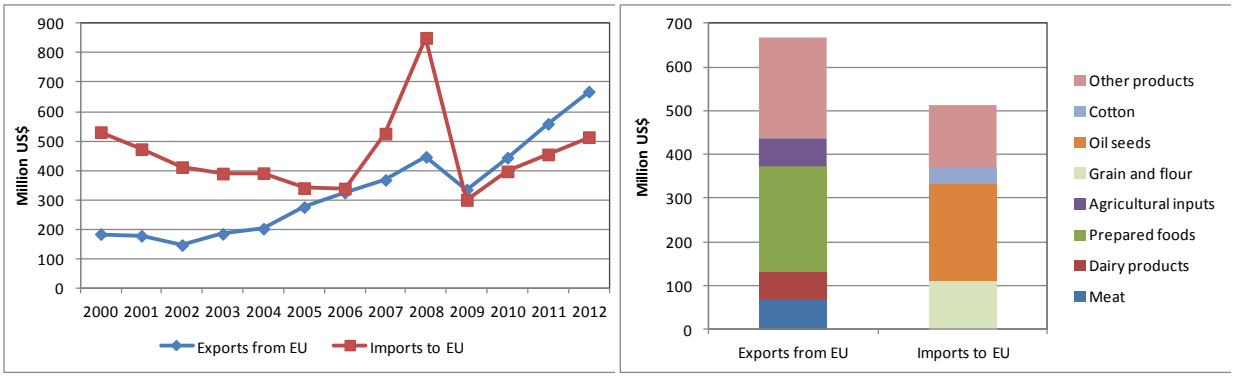




a) Dynamics b) Commodity Structure, 2012

Figure 10. Trade in agricultural goods and foods between CARs and China.

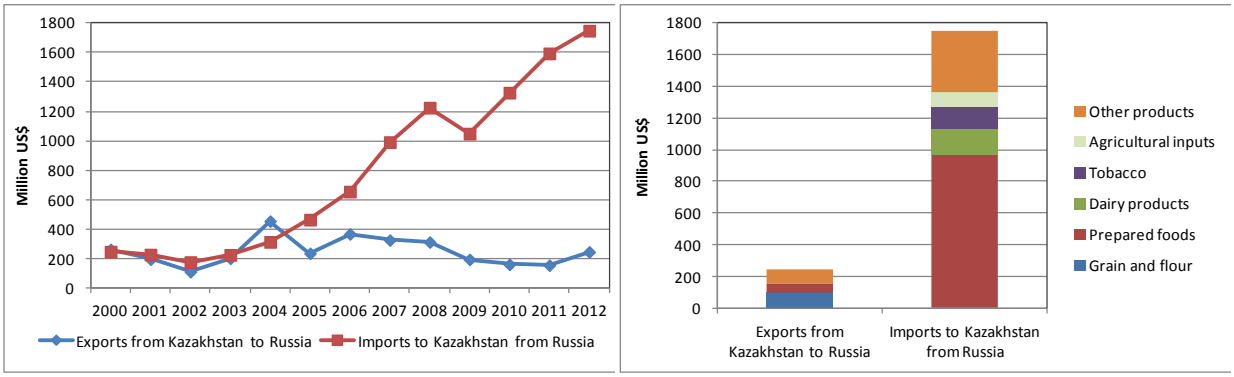
Source: Data reported to UN COMTRADE by China.



a) Dynamics b) Commodity Structure, 2012

Figure 11. Trade in agricultural goods and foods between CARs and the European Union.

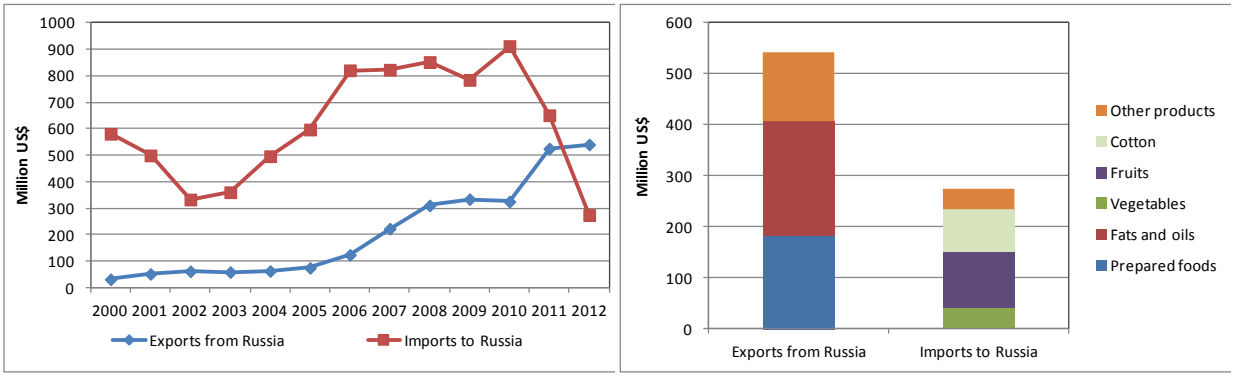
Source: Data reported to UN COMTRADE by EU Countries.



a) Dynamics b) Commodity Structure, 2012

Figure 12. Trade in agricultural goods and foods between Kazakhstan and Russia.

Source: Statistical Agency of the Republic of Kazakhstan.



a) Dynamics b) Commodity Structure, 2012

Figure 13. Trade in agricultural goods and foods between other CARs and Russia.

Source: Data reported to UN COMTRADE by Russia.

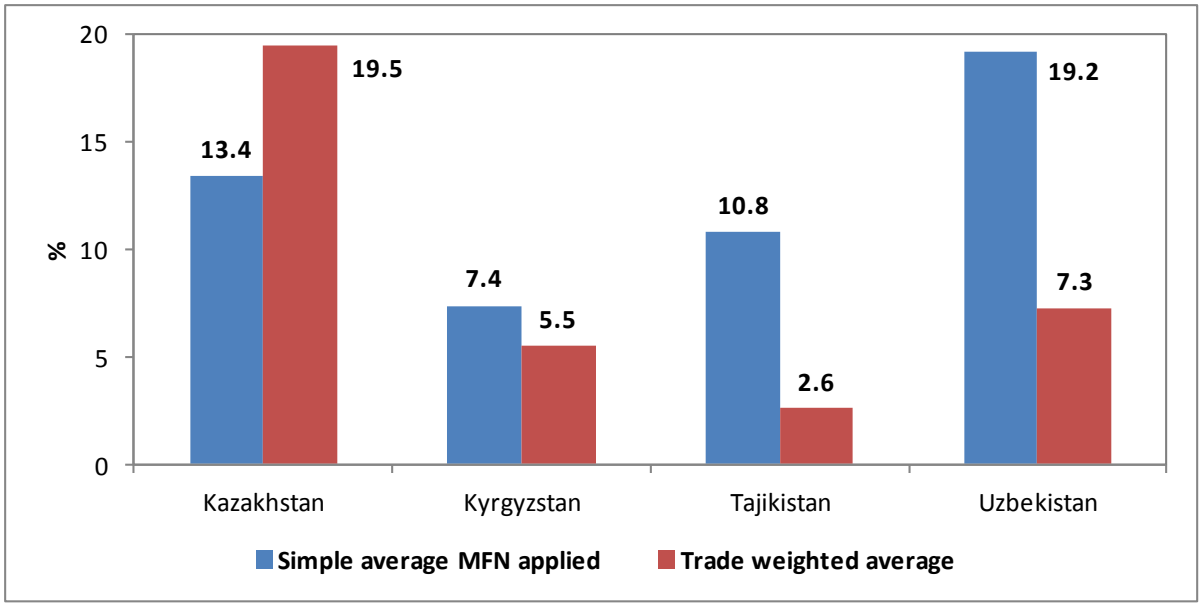


Figure 14. Import tariffs for agricultural goods.

Sources: WTO, World Bank.

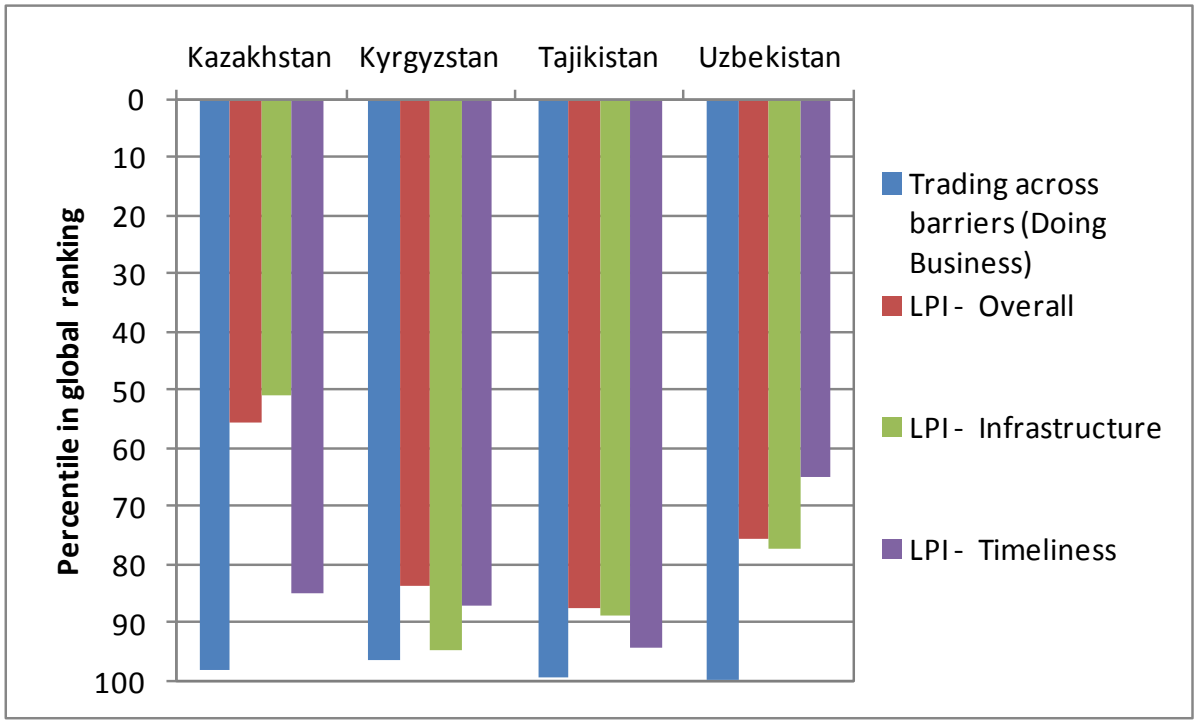


Figure 15. Ranking of CARs on global trade-related indices.

Source: World Bank.

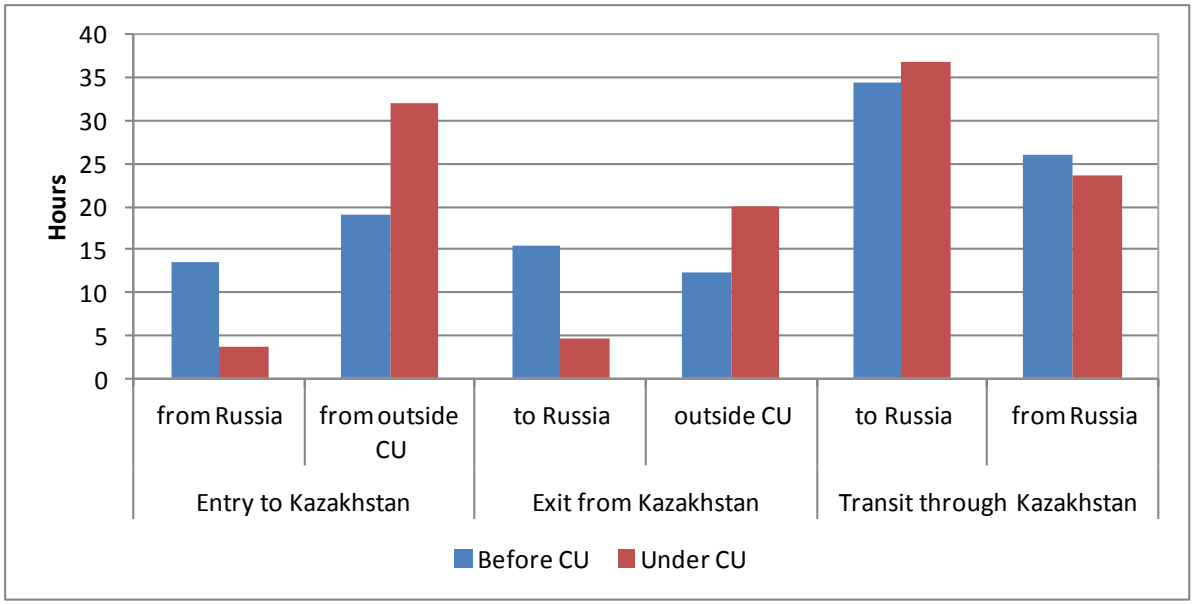


Figure 16. Influence of the Customs Union on Kazakhstan borders-crossing time for trucks.

Source: Asian Development Bank, and authors' calculations.