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### **Leibniz Institute of Agricultural Development in Transition Economies**

#### **Trade costs and agricultural trade in Central Asia**

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## ABSTRACT

Central Asian governments frequently express the goal of economic diversification, and specifically of diversifying their agricultural sector, but with little actual impact. Diversification has not happened because high trade costs discourage farmers, potential foreign investors and others from identifying new products that could be produced competitively. This paper reviews recent international literature on trade costs, and the limited Central Asian evidence. Because of high trade costs, the phenomenon of global value chains has scarcely touched Central Asia, apart from a few cases in the Kyrgyz Republic. The examples of clothing and beans illustrate how a Central Asian country has joined international value chains. The paper draws conclusions about how Central Asian countries wishing to diversify their agricultural sectors could draw upon this experience.

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JEL: F13; F14; Q17

Keywords: Trade costs, agricultural trade, Central Asia.

## ZUSAMMENFASSUNG

### HANDELSKOSTEN UND AGRARHANDEL IN ZENTRALASIEN

Viele zentralasiatische Regierungen verfolgen das Ziel der wirtschaftlichen Diversifizierung, insbesondere im Agrarsektor, allerdings oftmals mit geringer Wirkung. Hohe Handelskosten halten Landwirte, potenzielle ausländische Investoren und andere Akteure davon ab, neue Produkte zu entwickeln, die sie anschließend wettbewerbsfähig vermarkten können. Auf diese Weise wird eine wirtschaftliche Diversifizierung verhindert. Dieser Beitrag behandelt einige neuere internationale Arbeiten über Handelskosten und stellt empirisches Material mit Zentralasienbezug vor. Aufgrund der hohen Handelskosten hat Zentralasien, abgesehen von einigen Fällen in Kirgisistan, bisher kaum teil an globalen Wertschöpfungsketten. Beispiele aus den Bereichen Kleidung und Bohnenproduktion zeigen, wie ein zentralasiatisches Land in internationale Wertschöpfungsketten eingegliedert werden kann. Abschließend wird aufgezeigt, wie zentralasiatische Länder von diesen Erfahrungen lernen können, wenn sie eine weitere Diversifizierung ihrer Wirtschaft anstreben.

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JEL: F13; F14; Q17

Schlüsselwörter: Handelskosten, Agrarhandel, Zentralasien.



## 1 INTRODUCTION<sup>1</sup>

Central Asia's agricultural trade is heavily concentrated in cotton and, for Kazakhstan, wheat. Why is it hard to diversify? One reason is high trade costs, in money, time and uncertainty. Central Asian cotton and Kazakhstan's wheat are highly competitive (strong comparative advantage) and relatively time insensitive, but diversifying into, say, fruit and vegetables is different.

In the international trade literature, empirical research on trade costs has flourished since the 1990s, reflected in increased policy attention to trade facilitation and associated with the growing importance of global value chains. The evidence on trade costs in Central Asia is patchy but consistent, with survey evidence revealing perceptions of high trade costs and evidence from time/distance studies of high and variable costs along specified trade corridors. A consequence of high trade costs (in time and uncertainty, as well as money costs) has been extremely limited Central Asian participation in global value chains. The penultimate section provides examples from the Kyrgyz Republic of participation in clothing and vegetable value chains. The final section draws conclusions about the connection between trade costs and diversification.

## 2 TRADE COSTS AND TRADE FACILITATION

Trade facilitation has been high on the twenty-first century global trade policy agenda for two reasons. First, the substantial reduction in tariffs and non-tariff barriers during the GATT era (i.e. up to the establishment of the WTO in 1995) liberalized trade, but a border effect remained. Trade costs are defined as the difference between the cost of conducting international and domestic trade in the absence of trade policy barriers, and trade facilitation refers to measures to reduce trade costs. Second, since the 1980s the most dynamic part of global trade has been global value chains (GVCs), established by slicing up the production process across countries and trading tasks rather than finished goods. The success of GVCs depends critically on low cost of crossing borders, just-in time delivery and minimal inventories.

The emergence of GVCs as an important aspect of the global economy is typically placed in the late 1980s (BALDWIN, 2011). Since that time trade costs have fallen substantially, although measurement is fraught. The best measure is the gap between fob (free on board) and cif (cost insurance freight) values of traded goods, but few countries report consistent values. Figure 1 reproduces results for the four largest economies that do so. The striking feature is the almost continuous decline, and the absence of any visible impact of the massive increase in fuel costs between 1999 and 2007.<sup>2</sup> Descriptive studies highlight the cumulative impact of private sector productivity improvements (logistics, tracking etc.) and public sector improvements (streamlining customs and other procedures), while surveys indicate general

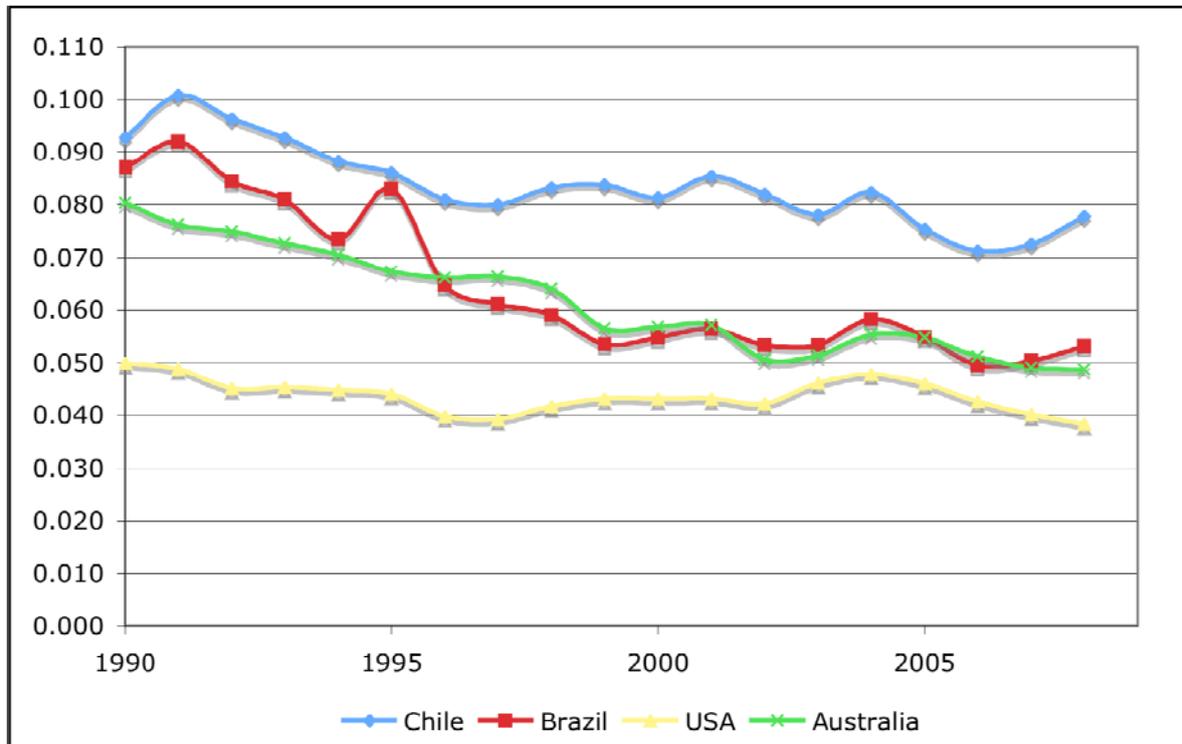
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<sup>1</sup> Background paper prepared for the research seminar "Agricultural Trade and Food Chain Development in the KRU/Central Asia Region" convened at the Leibniz-Institut für Agrarentwicklung in Transformationsökonomien (IAMO) in Halle, Germany, by Prof. Dr. Martin Petrick on 14 April 2014. The first two sections are based on research done with Patricia Sourdin on trade costs (SOURDIN and POMFRET, 2012) and for the Asian Development Bank on global value chains (POMFRET and SOURDIN, 2014). The paper also draws on my work on agriculture in Kazakhstan for the OECD (OECD, 2013; POMFRET, 2013). All views expressed are my own, and do not reflect positions of the ADB or OECD.

<sup>2</sup> In as yet unpublished research using more recent Australian data, we find that this pattern continued between 2008 and 2012, with no visible impact of global crises.

perceptions of improved port efficiency. Among exporters the most dramatic reductions in trade costs have been in countries most involved in GVCs, e.g. the Southeast Asian countries (POMFRET and SOURDIN, 2009).

**Figure 1: Average Trade Costs (cif-fob gap), Australian, Brazilian, Chilean and US Imports, 1990-2008**



Source: SOURDIN and POMFRET, 2012.

Traders and investors are concerned about time costs as well as financial costs. Based on a survey of 7,302 companies in eight developing countries (including China and India), DOLLAR et al. (2004) concluded that customs clearance times are key determinants of foreign investment and of export status. HUMMELS and SCHAUR (2012) estimate that the cost of a day's delay in transport adds between 0.6 % and 2.1 % to the value of a manufactured good, with parts and components trade the most time-sensitive.<sup>3</sup> DJANKOV et al. (2006) estimated that each extra day of expected delay prior to shipment reduces trade flows by just over one percent, although some delays appear to be more destructive of trade than others, e.g. FREUND and ROCHA (2011) highlight the cost of transit delays in Africa and estimate that a one-day reduction in inland travel times would increase exports by seven percent. These results point to the importance of time costs for participation (or non-participation in the African setting) in global supply chains, and the need to keep larger inventories if trade is slow or unreliable. Because just-in-time delivery and minimal inventories are crucial to the profitability of GVCs, it is likely that variance in delivery times is at least as important as the average time taken, but we have little information on this.<sup>4</sup>

<sup>3</sup> This finding, clearly related to GVCs, is in conflict with popular ideas that the most time-sensitive items are perishable food or fashion goods.

<sup>4</sup> An exception is the thesis by BÜGE (2012), who highlights uncertainty as a trade cost.

Finally, it should be noted that GVCs are making development easier, because a country needs only identify niches rather than producing entire products (BALDWIN, 2011). At the same time, changing global market conditions in the form of international supply chains are making industrial policy more difficult, because it is harder for policymakers to identify niches and tasks where a supplier can contribute to a global value chain, than to follow the lead of other countries in identifying products in which a country may create a comparative advantage. Moreover, the heterogeneous firms literature (MELITZ and REDDING, 2012; MELITZ and BURSTEIN forthcoming) shows that within industries some firms are more productive than others, and not all firms in an export industry may be competitive enough to export. Thus, even if policymakers successfully identify an industry or a niche in which the country could have a comparative advantage, benefits available equally to the low- and high-productivity firms in the activity are wasteful.

### 3 TRADE COSTS IN CENTRAL ASIA

We do not have good *ad valorem* trade cost measures for the Central Asian countries. In the World Bank's *Doing Business 2014* rankings (Table 1), Kazakhstan ranked 50<sup>th</sup>., the Kyrgyz Republic 68<sup>th</sup>., Tajikistan 143<sup>rd</sup>., and Uzbekistan 146<sup>th</sup>. on the overall ease of doing business (Turkmenistan was not ranked), but the Central Asian countries rank more poorly on the ease of crossing international borders criterion: the Kyrgyz Republic 182<sup>nd</sup>., Kazakhstan 186<sup>th</sup>., Tajikistan 188<sup>th</sup>., and Uzbekistan 189<sup>th</sup>., out of 189 countries. In sum, Table 1 presents a mixed overall picture, but includes some of the worst countries in the world for ease of conducting international trade.

**Table 1: World Bank *Doing Business* Indicators, Central Asia**

	Overall Ranking	Trading Across Borders
Kazakhstan	50	182
Kyrgyz Republic	68	186
Tajikistan	143	188
Turkmenistan	n.r.	n.r.
Uzbekistan	146	189

Source: Doing Business 2014 at <http://www.doingbusiness.org/rankings> (accessed 12 February 2014).

Notes: Rankings based on 189 countries; n.r. = not reported.

The most convincing indicators of high trade costs are the data collected in the CAREC *Corridor Performance Measurement and Monitoring* (CPMM) program. These are based on a large number of trips, over 3000 in 2012, along the six corridors monitored by CAREC, and provide a detailed picture of the difficulties of conducting overland trade in Central Asia.<sup>5</sup>

The pattern is of some improvements in the physical infrastructure, but little attention paid to trade facilitation. For example, the Tashkent-Beyneu road (part of the E40 route to Berlin) has been upgraded so that speeds of 100kph are possible in parts and 60kph on most of it – a big improvement over the Kungrad-Beyneu section, which was a rough dirt road six years

<sup>5</sup> The methodology is based on the time-cost-distance method developed by UN-ESCAP. In contrast to earlier studies of *ad hoc* trips, CAREC's measurement consists of regular monitoring in conjunction with the freight forwarder associations. The 2012 sample consisted of 3,194 trips, of which 80 % were by road, 17 % by rail and 3 % inter-modal.

ago. In 2012, however, crossing the border took on average 30 hours at the Kazakhstani border post and 14 hours at the Uzbekistani post (CAREC, 2012: 24).

At many border-crossing points, delays have become longer since the monitoring began in 2009 and 2010. The longest delays are on the corridor with the highest volume of freight, the China-Kazakhstan railway. At the border crossing between China and Kazakhstan the average time at the Chinese border was 353 hours and at the Kazakhstani border 54 hours.<sup>6</sup> The exception to the long delays at the China-Kazakhstan rail border is the Chongqing-Duisburg train, which has special wagons to facilitate the gauge change and which is subject to simplified border formalities. The other big exception to the general pattern is that delays at borders between Russia and Kazakhstan have shortened since the establishment of the customs union. These exceptions suggest that governments could facilitate trade, but the political will to do so for intra-Central-Asian trade is lacking.

There is anecdotal evidence that the level and frequency of corruption has declined since the turn of the century. However, the 2012 CPMM annual report found that it is still prevalent at Central Asian borders. There was a 32 % chance that "unofficial payments" would be demanded at border crossing points.<sup>7</sup>

#### 4 UNCERTAINTY

The CPMM report highlights the large variation in trade costs not only between border crossing points, but also at different times. Uncertainty is also a problem with respect to access to export markets and to the infrastructure needed by traders.

Uncertainty of market access is a deterrent to creating new export items (trading at the extensive margin). It is always hard to document a non-event, but Kazakhstan as a non-WTO-member does not have any guarantee of market access in WTO members' markets and there is evidence that Kazakhstan has suffered from market access uncertainty in non-agricultural goods, e.g. in the administration of anti-dumping cases against Kazakhstan (see the Appendix). The pattern is of non-transparency, lengthy procedural delays, and punitive trade barriers, creating substantial uncertainty in the absence of any guarantee of market access or of due process if barriers are to be introduced.

BURKITBAYEVA and KERR (2013) report that Kazakhstan has also faced higher tariff barriers on its wheat exports as a result of not being a WTO member. For example, Turkey's most-favoured nation tariff on wheat is bound at 65 %, but in 2010 a tariff of 130 % was levied on wheat imports from WTO non-members. China's bound MFN tariff was also 65 %, but it levied tariffs of 180 % on wheat imports from WTO non-members. China has also imposed non-tariff barriers that could be challenged by a WTO member, e.g. requiring agricultural imports from Kazakhstan to be repackaged at the border.

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<sup>6</sup> Some of this is associated with the change of gauge, but delays are mostly associated with customs, quarantine, etc. It is difficult to allocate the time to one post rather than the other because delays at one crossing point lead to back-up of trains at the other, e.g. delays entering Kazakhstan lead to back-up on the Chinese border, and there is a suspicion that these 2012 data are influenced by the customs union's hardline towards goods entering the union from China (CAREC, 2012: 21).

<sup>7</sup> Corruption was often blamed for high trade costs in the 1990s, e.g. discontinuation of Kyrgyz exports of onions to Siberia was ascribed to the frequency with which bribes were extracted en route through Kazakhstan, ultimately making the trade unprofitable so that nobody benefited. Reports by UNDP (2005) and ADB (2006) raised these issues.

Other sources of uncertainty arise from poor hard and soft infrastructure, and from the landlocked Central Asian countries' need for transit if goods are not airfreighted. OECD (2013: 207-16) examines the beyond-farmgate costs incurred by Kazakhstan's wheat exporters, emphasizing the problems of access to key facilities such as elevator space and railway rolling stock in bumper harvest years such as 2011. These costs are least burdensome for large farms, which may own their own elevator and railcars, and well-connected farmers may obtain special treatment from the state railways. Other farmers complain not just about the increased cost in good-harvest years, but even more about the time and energy spent in searching for rail or elevator capacity when these become scarce.

The OECD report also highlighted the importance of good rural roads and cold chains for supply chains in dairy and meat products. Effective general-purpose support includes standard trade facilitation measures such as single windows and integrated border-crossing posts, as well as behind-the-border measures such as improved transport and communication infrastructure. Improvements in rural roads and mobile phone networks not only facilitate trade, but the ensuing trade is generally pro-poor.<sup>8</sup>

Similar constraints apply to the other Central Asian countries. The Kyrgyz Republic and Tajikistan are WTO members, but they are also the countries most dependent on transit facilities. In Uzbekistan and Turkmenistan, even more than in Kazakhstan, the difficulty of doing business and of trading across borders is a deterrent. The problem is less serious for gas or cotton or gold that have dedicated pipelines or whose high value/weight ratio makes airfreight an option, but it surely discourages investment in activities that could be part of GVCs.

## 5 CENTRAL ASIAN CASE STUDIES

There are few examples of Central Asian producers being involved in international value chains, and these involve the Kyrgyz Republic. During the 1990s the Kyrgyz Republic adopted the most open economic system in Central Asia, and in 1998 became the first Soviet successor state to join the WTO. One consequence was that it became the entrepôt through which consumer goods entered the region, and during the 2000s the country's bazaars became major trading hubs.

In 2008 the Dordoi bazaar in Bishkek employed 55,000 people, had 40,300 sales outlets and annual sales of \$2,842 million, of which \$2,131 million are estimated to have been foreign sales (to ultimate customers in Uzbekistan, Kazakhstan and Russia); facilities included overnight accommodation and well-organized local and long-distance transport facilities. The smaller Karasuu bazaar in Osh (annual sales in 2008 of \$684 million, of which \$400-500 million

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<sup>8</sup> For rural roads, this is the conclusion of LOKSHIN and YEMTSOV (2005) on Georgia, KHANDKER et al. (2006) on Bangladesh, MU and VAN DER WALLE (2007) on Vietnam, EDMONDS and FUJIMURA (2006) on the Greater Mekong Subregion, and DONNGES et al. (2007). Analysis of rural roads' contribution is hampered by endogeneity (e.g. roads are more likely to be built in areas with influential politicians that receive other benefits too, or be mistargeted due to political influence). AGGARAWAL (2013) analyzed the Indian rural road scheme which built all-weather roads between all villages with over 500 inhabitants and the nearest market; she found that new paved roads reduced price dispersion and increased the variety of available goods, and that beneficiary farmers were more likely to adopt new technologies (fertilizers or seeds). The evidence from this and other studies about the effect on education is mixed; better rural roads can facilitate school attendance, but also open up greater labour market opportunities for adolescents, increasing the opportunity cost of staying at school.

went to Uzbekistan) involved mainly ethnic Uzbek traders with family connections on both sides of the border.<sup>9</sup>

The logistics developed around the bazaars have facilitated the development of production for export, notably the rapid growth since the early 2000s of an export-oriented clothing industry located primarily in Bishkek and to a lesser extent in Osh (BIRKMAN et al., 2012; JENISH, 2014). At independence, textiles accounted for over 80 % of light industry production in the Kyrgyz republic and clothing for 15 %. Following disintegration of the unified Soviet economic space and the breakdown of supply chains, output of textiles and clothing collapsed in the 1990s. Re-emergence in the 2000s was based on clothing exports to Russia and Kazakhstan of better quality items than were coming from western China and beating eastern China producers on price. Textile production has not recovered, and accounted for less than 10 % of light industry production in 2010; the largest cotton textile producer went bankrupt in 2012. The clothing producers are mostly small and informal; official estimates are of exports of \$170 million in 2008 falling to \$155 million during the global recession in 2009, and of employment just over 100,000, but the actual numbers for exports and employment are believed to be three to four times higher. Material inputs are mostly imported, with a significant portion purchased at the Dordoi bazaar.

The open Kyrgyz economy has also had success in agricultural GVCs, importing know-how and inputs and benefitting from foreign intermediaries with knowledge of export markets. With the introduction of new bean varieties, primarily from Turkey, the land devoted to bean production in Talas oblast increased from 5,000 hectares in 1999 to 45,000 hectares in 2012, as small-scale farmers became competitive producers supplying export markets in Turkey, Bulgaria and Russia (TILEKEYEV, 2013). A combination of forces may have been necessary to stimulate the technology transfer and investment from Turkey, but some degree of policy certainty related to WTO membership and liberal trade policies surely helped.<sup>10</sup> Tilekeyev uses household survey data from May-June 2011 to show that households specializing in beans were significantly better off than non-bean-producers. By 2011 bean production generated employment for 162,000 people in Talas, and although still a minor player in the global market the Kyrgyz Republic was one of the top twenty bean exporters (HEGAY, 2013: 25).<sup>11</sup>

The significance of the value chain lies in the emergence of many small and medium enterprises offering intermediary services. Several local companies have imported cleaning equipment, and they grade and pack the beans in standard 25kg and 50kg polypropylene bags and offer storage services. There is an active web-based market in transport services to Europe,

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<sup>9</sup> Data in this paragraph are from surveys in summer 2008 (WORLD BANK, 2009). KAMINSKI and RABALLAND (2009) and KAMINSKI and MITRA (2010) also analyze the bazaars' operation. The bazaars' stock came primarily from China. In 2001-12 the Kyrgyz Republic and China were the only countries in the neighbourhood that were WTO members, and Kyrgyz trade barriers were low. Customers from neighbouring countries took responsibility for traversing the more tightly regulated borders.

<sup>10</sup> Geography mattered as bean production was concentrated in two of the four rayons, Kara-Buura (72 % of cropland devoted to beans) and Bakai-Ata (87 % of cropland devoted to beans), both located between 1,000 and 1,400 metres above sea level (the other two rayons are lower and higher) and with plentiful water and a hot-weather growing season (May-August). Before independence transport links from Talas went primarily to Dzhambul (now Taraz) in Kazakhstan, and better road link to Bishkek had to be developed in the 1990s.

<sup>11</sup> On the negative side, an export-oriented monoculture exposes Talas to market volatility, especially as domestic consumption is low, and to risks of land degradation and disease (TILEKEYEV, 2013: 6). HEGAY (2013) reports that due to poor markets farmers do not always have access to clean seeds, and this is responsible for the spread of pathogens and declining yields.

Russia and China. In 2013 a Bulgarian company, emphasizing the reliable quality of the Talas beans, was negotiating a contract to provide packaging and marketing services for the EU market.

A deeper issue in Central Asia is the degree of respect for contractual or treaty obligations. The Kyrgyz Republic has bound tariffs and other commitments as a WTO member. However, negotiations for accession to the Belarus/Kazakhstan/Russia customs union are well-advanced (a road map was approved at the Eurasian Economic Commission's October 2013 summit), and membership in the customs union would involve substantial increases in Kyrgyz tariffs. In that situation, other WTO members will be able to claim compensation (WTO, 2013), or impose penalties on Kyrgyz imports. In sum, even when uncertainty seems to have been reduced, it is never certain in Central Asia.

## **6 CONCLUDING REMARKS**

Promotion of agricultural diversification is multi-faceted, requiring change not only in production but also beyond the farm-gate. Details will vary by crop and location, perhaps dependent on specific institutional setting, but in general terms the costs of doing business matter and, if the product is to be internationally competitive, trade costs are crucial. In Central Asia, reducing trade costs and promoting agricultural diversification will most likely favour small and medium-sized farms, reducing inequality as well as promoting growth.

Reducing trade costs involves improvements in both hard and soft infrastructure. In recent development literature rural roads have been highlighted, but in other cases rail or air connections may be important. The Central Asian evidence suggests that in this region, even when the hard infrastructure is upgraded, trade costs remain high due to poor soft infrastructure (reflected in lengthy border delays). Reduced trade costs are necessary to improve the availability of inputs, access to best-practice equipment and technology transfer, as well as for market access. Some of the impact will be at the farm-level, but intermediaries may also be an efficient means to integrate local production into global value chains. The Talas beans case study is revealing, insofar as it involved all of these aspects, and yet was unplanned by the national or local government.<sup>12</sup> What the Kyrgyz government did provide was a facilitating environment (land reform, WTO membership, etc.) and improved infrastructure (roads and web connectivity) that is lacking elsewhere in Central Asia.

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<sup>12</sup> This is consistent with the critique of Kazakhstan's top-down approach to agricultural diversification by WANDEL (2010), who advocates creation of an environment that stimulates entrepreneurial discoveries of profitable businesses.



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## APPENDIX: ANTI-DUMPING CASES AGAINST KAZAKHSTAN

Anti-dumping (AD) cases have frequently been brought against Kazakhstan, although these are often difficult to monitor. The pattern with respect to AD duties faced by Kazakhstan is of non-transparency, lengthy procedural delays, and sometimes punitive trade barriers. The eventual barriers may be the least problem. If exporters are hostage to never knowing when the decision will be made, but aware that it could involve a heavy punishment implemented without warning and once in place might take a long time to be repealed, then the uncertainty will discourage investment in equipment and in establishing the links required to be in a GVC.

In the USA, duties imposed or cases begun in the Soviet era took many years to be repealed or for a decision to be reached. AD duties on titanium sponge imports from Kazakhstan that had been introduced in the Soviet era were only revoked in July 1998. An AD investigation started in 1991 against uranium from Kazakhstan and other Soviet republics was dropped in July 1999; although there was no outcome, the threat deterred exports throughout the 1990s.<sup>13</sup> In the first AD case by the USA specifically against Kazakhstan (at least that I can document), the USITC terminated the investigation against hot-rolled steel imports in July 2001 when Kazakhstan agreed to observe minimum prices on its exports to the USA.<sup>14</sup> In November 2001 the USA imposed preliminary AD duties of 180.86 % on imports of silico-manganese from Kazakhstan, and in March 2002 the final AD duties were set at 247.88 %.<sup>15</sup>

The EU has imposed AD duties on Kazakhstan, even when the harm to domestic producers was negligible, and the barriers could last for years before repeal. In 1993 the EU imposed AD duties on imports of ferro-silicon (an input into steel-making) from Kazakhstan. In March 2001 the EU announced it was dropping its AD duties on ferro-silicon, because although imports had dropped to zero EU firms had not benefited, but in 2006 the EU producers revived the complaint and in 2007 AD duties of 5-34 % were placed on ferro-silicon imports from Kazakhstan and four other countries (VON SETH, 2012).<sup>16</sup> In 2005 the EU introduced quotas on hot-rolled steel imports from Kazakhstan.

A pattern in the 21<sup>st</sup> century has been for increased use of AD duties by middle-income countries. In April 2002 Argentina imposed AD duties on hot-rolled steel imports from Kazakhstan.<sup>17</sup> In August 2002 Russia introduced anti-dumping duties of 36.9 % on imports of zinc-coated rolled ferrous metals from Kazakhstan. In May 2003 Thailand imposed anti-dumping duties on hot-rolled steel imported from 14 countries including South Africa,

<sup>13</sup> Michael Knapik and Elaine Hiruo, "ITC Issues Decision in Kazakhstan Case," *Nuclear Fuel*, 9 August 1999, pp. 2, 12.

<sup>14</sup> AD duties of 243 % were imposed on hot-rolled steel from the other eight countries being investigated at the same time. Kazakhstan probably agreed to voluntary restraint because its non-market status would have resulted in higher AD determinations. A separate dumping complaint in the USA was settled in April 2002 when Kazakhstan agreed to observe minimum prices on its exports of cold-rolled steel to the USA of \$487.10 per tonne.

<sup>15</sup> In July 2013 the USITC heard testimony from the three main US silicomanganese producers that continuation of the AD duties was essential to prevent "a flood of cheap imports from Kazakhstan", <http://www.gaalloys.com/index.php/news/33-news/112-itc-hearing-on-simm>.

<sup>16</sup> von Seth reports that in December 2007 the EU placed AD duties on imports of silico-manganese from Kazakhstan, but temporarily suspended the duties when prices increased – presumably in response to pressure from steel producers who silico-manganese.

<sup>17</sup> Argentina followed the US lead in requiring a voluntary export price agreement on cold-rolled steel from Kazakhstan under threat of AD action; the minimum price was similar to that set by the USA in April 2002.

Japan, Russia and Kazakhstan (duty set at 109 %), but in July it announced that they would be lifted. In January 2004 China introduced anti-dumping duties of up to 55 % on cold-rolled steel imports from five countries, including Kazakhstan. In November 2013 Indonesia imposed antidumping duties on hot-rolled steel imports from Kazakhstan.

WTO members may be subject to AD duties, but they have rights with respect to process that can be enforced through the dispute settlement mechanism. Kazakhstan does not have any rights with respect to access to WTO members' markets. Indeed there is not even a transparency requirement, so it is hard to document when investigations have occurred, and there are surely far more cases than I have mentioned here. Finally, it is noteworthy that all of the AD cases mentioned involved intermediate goods, and that the users of the goods did not step up to demand access to Kazakhstan's products at the offer price.

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