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# Trends and Patterns in Foreign Trade of Central Asian Countries

Roman Mogilevskii



WORKING PAPER NO.1, 2012





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## **Trends and Patterns in Foreign Trade of Central Asian Countries**

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### **Abstract**

One of the most important factors of economic development is foreign trade, and Central Asian economies are heavily dependent on trade. The paper discusses recent trends and patterns in the total and intra-regional trade of Central Asia (including Afghanistan) and assesses their importance and policy implications. The analysis covers both formal and informal trade flows.

### **Keywords**

Trade in Central Asia, Afghanistan, resource dependence, informal trade.  
JEL codes: F14, E26, O53.

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.

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The findings, interpretations and conclusions expressed in this paper are entirely those of the author and do not necessarily represent the view of the University of Central Asia

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## Acronyms

|          |  |
|----------|--|
| ADB      | Asian Development Bank                                       |
| CA       | Central Asian  |
| CAREC    | Central Asian Regional Economic Cooperation                  |
| CIF      | Cost, Insurance and Freight                                  |
| COMTRADE | United Nations Commodity Trade Statistics Database           |
| CU       | Customs Union of Belarus, Kazakhstan, and Russian Federation |
| DOTS     | Directory of Trade Statistics                                |
| EU       | European Union   |
| FOB      | Free On Board  |
| GDP      | Gross Domestic Product                                       |
| HHI      | Herfindahl-Hirschman Index                                   |
| HS       | Harmonized System  |
| IMF      | International Monetary Fund                                  |
| KR       | Kyrgyz Republic  |
| LCU      | Local Currency Unit  |
| LPI      | Logistics Performance Index                                  |
| MFN      | Most Favored Nation  |
| NBKR     | National Bank of the Kyrgyz Republic                         |
| NSC KR   | National Statistical Committee of the Kyrgyz Republic        |
| PPP      | Purchasing Power Parity                                      |
| RK       | Republic of Kazakhstan                                       |
| RT       | Republic of Tajikistan                                       |
| RU       | Republic of Uzbekistan                                       |
| UAE      | United Arab Emirates   |
| UN       | United Nations   |
| UNDP     | United Nations Development Programme                         |
| USA      | United States of America                                     |
| USSR     | Union of Soviet Socialist Republic                           |
| US\$     | United States dollar   |
| VAT      | Value-Added Tax  |
| WEO      | World Economic Outlook (publication and database of the IMF) |
| WDI      | World Development Indicators                                 |
| WTI      | World Trade Indicators                                       |

## 1. Introduction

Central Asia is a region which possesses many valuable resources and faces many challenges to its development<sup>1</sup>. Rich natural resources, an educated labour force, cultural diversity and strategic location, especially proximity to China, could serve as a good platform for development of the region's economies. Conversely, the region is landlocked and remote from most global economic centres, it has a small population and market size, underdeveloped infrastructure, and in some areas suffers from political instability and insecurity; all of which create risks for human development. The relationship between the multiple forces driving development and risks is dynamic. Understanding these dynamics requires consistent monitoring and careful evidence-based analysis of key development factors in the region.

One of the most important factors of economic development is foreign trade, and Central Asia has economies heavily dependent on trade. Due to difficulties in accessing global markets, trade between countries of the region may be particularly important. Existing literature provides a comprehensive analysis of the economic situation in Central Asia, and background information on trade performance in Central Asia<sup>2</sup> also highlights recent policy developments in the region, such as the formation of the Customs Union (CU) of Belarus, Kazakhstan and Russia.<sup>3</sup> However, trends in Central Asian (CA) economies' trade performance in general, and in intra-regional trade in particular, during the dynamic period after 2005 are insufficiently covered in the literature.

This paper discusses recent trends and patterns in the total and intra-regional trade of CA countries and assesses their importance and policy implications. In CA countries, trade activities are influenced by numerous external and internal factors, and trade policy is only one of them. The paper therefore focuses more on trade performance rather than trade policies. To do so, the paper reviews trade volumes and trade structure dynamics in each of the economies of the region, including merchandise trade and trade in services. Trade between CA countries is considered in more detail, and the analysis covers both formal and informal trade flows. The paper distinguishes between informal trade flows in consumer goods with welfare-increasing potential, and illicit trade in goods such as narcotics and weapons. The latter trade, although present in the region and important

<sup>1</sup> The author is grateful to Ralph Huenemann, Bohdan Krawchenko and Richard Pomfret for valuable comments and suggestions.

<sup>2</sup> United Nations Development Programme (UNDP), "Central Asia Human Development Report. Bringing Down Barriers: Regional Cooperation for Human Development and Human Security" (Bratislava, Slovak Republic: UNDP Regional Bureau for Europe and the Commonwealth of Independent States, 2005); Asian Development Bank. "Central Asia: Increasing Gains from Trade through Regional Cooperation in Trade Policy, Transport, and Customs Transit" (Manila: Asian Development Bank, 2006); Richard Pomfret, "The Central Asian Economies since Independence" (Princeton, NJ: Princeton University Press, 2006).

<sup>3</sup> World Bank, "Assessment of Costs and Benefits of the Customs Union for Kazakhstan". First Report under the Study of International Practice of Integration/Customs Unions, Report No. 65977-KZ. (Washington DC: ECSP1 Department, World Bank, 2012).



for some countries, is seen to have limited impact on legal economic activities and is therefore excluded from consideration.

For purposes of this paper, the region of Central Asia includes Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Afghanistan is not always considered part of Central Asia, and is often listed among South Asian countries, as in the World Bank's classification. However, from a trade perspective, the ties between Afghanistan and its northern neighbors are increasingly important and have the potential for substantial growth. Therefore, in this analysis, it is useful to include Afghanistan in the broader CA context.

The period under consideration in this paper is from 2000 to 2010, with 2010 being the last year for which a full set of required data was available. The 1990s were a dynamic and difficult period in the region. Afghanistan had a civil war, and the former Soviet republics gained independence in 1991, making often painful transitions to new institutions and market economies. In 1998 and 1999, their economies were hit hard by the global economic crisis. By 2000, the turbulent period of these countries' development was mostly over and key market economy mechanisms were in place. The attacks of September 11, 2001 led to dramatic change in Afghanistan, with significant impact on other CA countries. Altogether, these factors created a new environment which influenced foreign trade performance throughout the first decade of the 2000s.

This paper has the following structure: Section 2 offers a brief discussion of the trade environment in CA countries, including macroeconomic developments, trade policies, infrastructure, governance, and international price shocks. Section 3 provides an overview of trade data sources, the dynamics and structure of merchandise trade and trade in services, and common regional trends in trade. Section 4 provides a detailed discussion of intra-regional trade, with separate treatment of formal and informal trade and trade with Afghanistan. Section 5 summarizes key findings of the paper and discusses their policy implications.

## **2. Environment for trade development in the region**

From 2000 to 2010, foreign trade activities in Central Asia were affected by numerous factors including macroeconomic, trade and structural policies of the governments and international price developments. This paper does not aim to provide comprehensive analysis of each factor; each is addressed only in relation to its potential to influence trade performance of CA countries.

The first decade of the 2000s appeared to be a period of economic recovery in Central Asia, following the deep recession associated with the transitions of the 1990s. All CA countries demonstrated good economic growth: Turkmenistan recorded a double-digit average annual GDP growth rate, and in Afghanistan, Kazakhstan and Tajikistan these growth rates exceeded 8% (Table 1). Thus, domestic demand including demand for imported goods expanded substantially in all CA countries.

Table 1. Selected macroeconomic indicators of Central Asian countries

|                          | Average annual growth rates,<br>2001-2010, % |                     |                                  | 2010                 |   |                        |
|--------------------------|--|---------------------|----------------------------------|----------------------|---|------------------------|
|                          | GDP  | Prices <sup>3</sup> | Real exchange<br>rate (LCU/US\$) | GDP,<br>billion US\$ | GDP per capita at PPP,<br>current international dollar <sup>4</sup> | Population,<br>million |
| Afghanistan <sup>5</sup> | 8.9  | 8.6                 | -5.5                             | 15.5                 | 909   | 30.2                   |
| Kazakhstan               | 8.3  | 14.3                | -10.2                            | 148.0                | 12 015  | 16.4                   |
| Kyrgyzstan               | 3.9  | 8.2                 | -5.9                             | 4.6                  | 2 200   | 5.5                    |
| Tajikistan               | 8.0  | 20.3                | -7.2                             | 5.6                  | 1 923   | 7.7                    |
| Turkmenistan             | 13.2   | 12.2                | 0.9 <sup>6</sup>                 | 20.0                 | 6 805   | 5.4                    |
| Uzbekistan               | 6.9  | 25.5                | -1.5 <sup>6</sup>                | 39.0                 | 3 048   | 28.2                   |

Sources: World Economic Outlook (WEO) database, and author's calculations

Other macroeconomic factors directly affecting trade include inflation and exchange rate. Inflation in the region was quite high from 2001 to 2010. Only Afghanistan and Kyrgyzstan had average inflation rates somewhat below 10% per annum; in Tajikistan and Uzbekistan the decade's average annual inflation rate exceeded 20%. Until 2007 to 2008, nominal exchange rates of CA currencies to the US\$ behaved differently: some strengthened (Kazakhstan, Kyrgyzstan), and others remained stable (Afghanistan, Turkmenistan) or weakened (Tajikistan, Uzbekistan). In 2009, almost all local currencies devaluated against the US\$. Nonetheless, the rate of nominal devaluation of these currencies from 2000 to 2010 was much below the inflation rate in these countries for the same period. As a result, the exchange rates of all national currencies in the region (apart from Turkmenistan) appreciated in real terms against the US\$ and, importantly, against the Chinese *yuan*. This real appreciation of regional currencies reduced price competitiveness of commodities produced in these countries on both domestic and export markets.

Based on exchange rate data in Table 1, Turkmen and Uzbek commodities became cheaper and more competitive on the intra-regional market. It should be noted, however, that these two countries had (and still have) the strictest currency control policies in the region, employing multiple exchange rate regimes in the early and mid-2000s that led to informal currency markets (that continue functioning) in parallel to official ones. Informal exchange rates (measured as Local Currency Unit (LCU) /US\$) were considerably higher than the official exchange rate, however, the informal market premium to official rate mostly fell during the 2000s. In Uzbekistan, at the end of 2000, the informal market premium to official exchange rate was 300%;<sup>8</sup> by 2010, according to anecdotal evidence, the informal exchange rate of Uzbek *sum* to US\$ was only about 40% higher than the official one. Thus, based on informal exchange rates, it is possible that there was real appreciation and not depreciation of the Uzbek *sum* and Turkmen *manat* against other regional currencies. A significant part of intra-regional trade run by private economic agents (and especially in-

<sup>4</sup> Based on GDP deflator.

<sup>5</sup> Currency unit that has the same purchasing power of the US\$ in the United States.

<sup>6</sup> Data for 2003-2010.

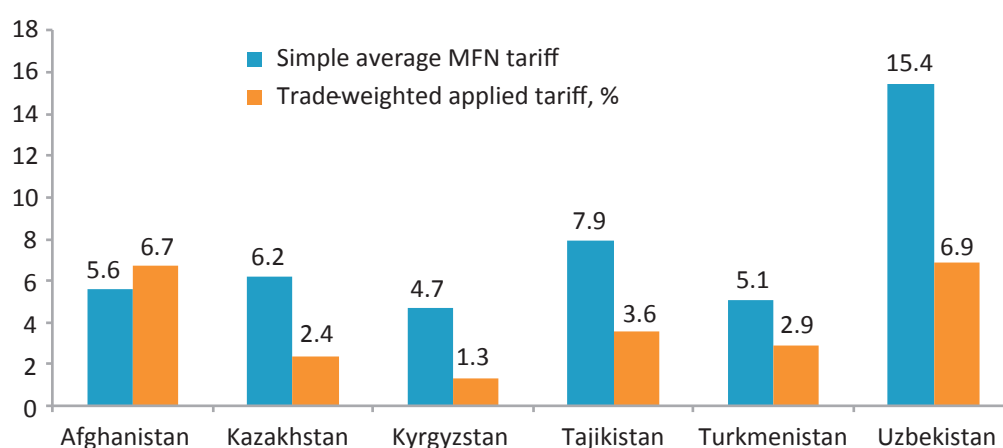
<sup>7</sup> Based on official exchange rate.

<sup>8</sup> Christoph B. Rosenberg and Maarten De Zeeuw, "Welfare Effects of Uzbekistan's Foreign Exchange Regime," IMF Staff Papers 48, no. 1(2001):160-178.

formal trade, see Section 4.2) is sensitive to these informal exchange rates, so in practice it does not seem as if there were dramatic changes in intra-regional competitiveness of goods from Turkmenistan and Uzbekistan.

Trade policies in the region are not particularly restrictive; for example, import tariffs are not high by global standards (Figure 1). Uzbekistan has the highest formal trade barriers in the region, but these barriers are related more to excises applied to an unusually broad list of commodities, rather than to the values of import tariffs (ADB, 2006). There were no dramatic changes in the trade regimes of CA countries in the 2000s. The only important change—the creation of the CU of Belarus, Kazakhstan and Russia—materialized in the second half of 2010 and thus did not significantly influence trade flows in the period under consideration. A larger impact of the CU on trade in the region is expected after 2010.

**Figure 1. Import tariffs in Central Asia and Afghanistan**



Source: World Trade Indicators (WTI)

An important impediment for trade in the region is the insufficient development and poor condition of infrastructure and trade facilitation. These factors are captured by the logistics performance index (LPI) developed by the World Bank<sup>9</sup> (see Table 2). In general, CA countries, especially the smaller ones, do not fare well on the majority of the indices. Key barriers for trade for these countries are associated with the inadequate quality of trade and transport infrastructure, underdeveloped logistics services, as well as inefficient custom clearance processes (See Table 2 for rankings of these variables in CA countries). Nonetheless, a comparison of 2007 and 2010 LPI values in Table 2 indicates that all countries of the region, and in particular Kazakhstan and Uzbekistan, achieved visible progress.<sup>10</sup> According to the LPI, the most notable improvements were in rankings for infrastructure and timeliness of international shipments.

<sup>9</sup> World Bank, Connecting to Compete 2010. Trade Logistics in the Global Economy. The Logistics Performance Index and Its Indicators (Washington DC: World Bank, 2010).

<sup>10</sup> The dramatic improvement in Kazakhstan and Uzbekistan's rankings (60-70 ranks up) in just three years could be attributed to a combination of actual improvements and changes in the LPI methodology.

**Table 2. Logistics performance index for Central Asian countries, 2007 and 2010**

|   | 2007    | 2010    |         |                 |                         |                      |                      |            |
|---|---------|---------|---------|-----------------|-------------------------|----------------------|----------------------|------------|
|   | Overall | Overall | Customs | Infra-structure | International shipments | Logistics competence | Tracking and tracing | Timeliness |
| Country rank (out of 150 countries in 2007 and 155 countries in 2010) |         |         |         |                 |                         |                      |                      |            |
| Afghanistan   | 150     | 143     | 104     | 139             | 141                     | 141                  | 128                  | 146        |
| Kazakhstan  | 133     | 62      | 79      | 57              | 29                      | 73                   | 85                   | 86         |
| Kyrgyzstan  | 103     | 91      | 71      | 118             | 39                      | 107                  | 132                  | 106        |
| Tajikistan  | 146     | 131     | 147     | 128             | 127                     | 125                  | 141                  | 98         |
| Turkmenistan  | n/a     | 114     | 119     | 101             | 137                     | 111                  | 126                  | 65         |
| Uzbekistan  | 129     | 68      | 107     | 70              | 83                      | 89                   | 63                   | 50         |

Source: World Bank<sup>8, 11</sup>

These improvements could be a result of massive investments into transport and energy infrastructure in the countries of the region by foreign partners, China, Iran and Russia, and international development organisations. Examples of large projects include the construction of oil and gas pipelines from Kazakhstan and Turkmenistan to China, the electricity transmission line from Uzbekistan to Afghanistan, and the rehabilitation of automobile road corridors in almost all countries of the region.

Another set of factors influencing foreign trade in the region is related to governance. Many CA countries are known for corruption and the ineffective and inefficient functioning of government agencies. This is reflected in Worldwide Governance Indicators developed by the World Bank (Table 3). All CA countries, except Kazakhstan, rank in the lowest quintile in terms of quality of governance. Poor governance adversely impacts trade by increasing transaction costs and reducing predictability of international shipments. Additionally, non-performing government institutions dealing with trade facilitation are slow to take remedial action and implement government trade policies.

**Table 3. Ranking of CA countries in Worldwide Governance Indicators**

|              | Rank <sup>11</sup> | Percentile in the ranking |
|--------------|--------------------|---------------------------|
| Afghanistan  | 209                | 100                       |
| Kazakhstan   | 138                | 66                        |
| Kyrgyzstan   | 171                | 81                        |
| Tajikistan   | 187                | 89                        |
| Turkmenistan | 201                | 96                        |
| Uzbekistan   | 199                | 95                        |

Source: World Bank,<sup>13</sup> and author's calculations

<sup>11</sup> World Bank. Connecting to Compete. Trade Logistics in the Global Economy.

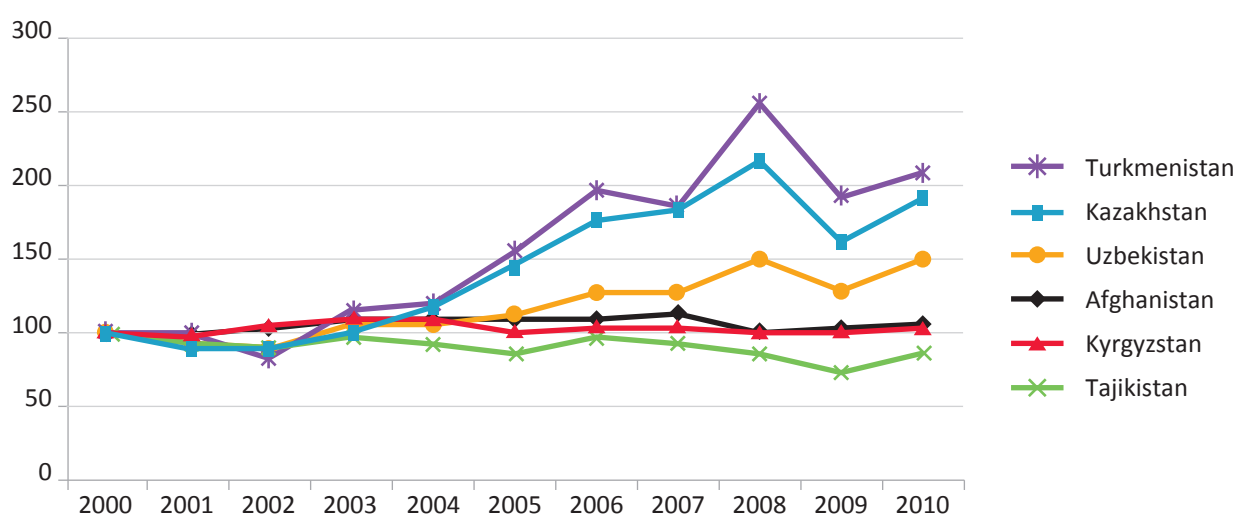
<sup>12</sup> Based on an average score for six governance dimensions (Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption) identified in the methodology of Worldwide Governance Indicators. Ranks range from 1 to 210; the lower the rank, the higher the quality of governance according to these indicators.

<sup>13</sup> World Bank, "The Worldwide Governance Indicators" (Washington DC: World Bank, 2011b). [www.govindicators.org](http://www.govindicators.org).

Apart from domestic policies and structural issues, trade performance of CA countries from 2000 to 2010 was affected by different external factors. One such factor is associated with the situation in Afghanistan and its dramatic change after September 11, 2001 (see Section 4.3).

Another important factor for CA economies was fluctuations in international commodity prices. International energy and metal prices rose from 1999 to 2008, dropped from 2008 to 2009, and recovered from 2009 to 2010. All CA countries, apart from Afghanistan, specialize in the export of energy products and metals, and some depend heavily on energy imports. So the region was strongly affected by these price developments.

**Figure 2. Dynamics of net barter terms of trade index**



Sources: World Development Indicators (WDI), and author's calculations

As shown in Figure 2, countries which are net energy exporters (Kazakhstan, Turkmenistan, and Uzbekistan) enjoyed a dramatic improvement in their terms of trade measured by the net barter terms of trade index.<sup>14</sup> Compared to 2000, by 2010, the relative prices of their exports in relationship to their import prices increased by 50-100%. In Afghanistan and Kyrgyzstan, price improvements for export commodities were mostly offset by increased fuel prices. For Tajikistan, imported energy price growth resulted in deterioration of its terms of trade from 2007 to 2010.

Changes in the macroeconomic and structural policies of the countries of the region and the external environment took place within the context of deep institutional change associated with their recently gained independence and transition to the market. By the 2000s, key market institutions in CA countries were in place, and the population had mostly completed its adaptation to new conditions. All these factors strongly influenced foreign trade performance in the decade 2000 to 2010.

<sup>14</sup> Net barter terms of trade index is a ratio of export unit value and import unit value indices.

### 3. Foreign trade flows in Central Asia in 2000-2010

#### 3.1. Trade data in Central Asia

A standard source of information on merchandise trade of different countries is the United Nations Commodity Trade Statistics Database (COMTRADE). This database contains export/import values and physical quantities disaggregated by trade partner and commodity. For Central Asia, however, the database has many gaps. In 2000-2010, only Kazakhstan and Kyrgyzstan regularly reported trade data to this database. Afghanistan provided data to COMTRADE from 1962 to 1977 and resumed reporting only in 2008. Tajikistan reported data for 2000 only; Turkmenistan supplied data from 1997 to 2000; and Uzbekistan has never reported its trade data to COMTRADE.

COMTRADE data on exports/imports of Kazakhstan and Kyrgyzstan are also incomplete. Since July 2010, with the creation of the CU of Belarus, Kazakhstan and Russia, trade within the CU is registered differently than trade with non-CU countries and is not included in the database submitted by Kazakh authorities to COMTRADE. Therefore, 2010 data for Kazakhstan only partially reflect its trade with other CU members. In the case of Kyrgyzstan, some commodities<sup>15</sup> export values are included in the totals in the reports to COMTRADE, but they are not shown separately.

In Kazakhstan, Kyrgyzstan and Tajikistan, practically all data missing from COMTRADE are available from the web-sites and publications of national statistical agencies and custom services. Afghanistan, Turkmenistan and Uzbekistan publish only aggregate data on their foreign trade flows. More detailed data on these countries are sometimes available in secondary sources, such as publications of local authors. Another resource is the IMF's Directory of Trade Statistics (DOTS), which provides data on bilateral trade totals for almost all possible pairs of countries, but not on the commodity structure of trade.

One source of disaggregated data, often used in the absence of official trade data, are mirror statistics provided by trade partners. This information source also does not always work in Central Asia. Some key export items, such as natural gas in the case of Turkmenistan and Uzbekistan, or gold in the case of Kyrgyzstan and Uzbekistan, are not reported or are reported only partially by importing countries. Additionally, some important trade partners of CA countries do not report to COMTRADE, such as Iran from 2007 to 2009, and CA countries themselves do not consistently report trade with each other.

Moreover, many trade data of CA countries, even if available, are known to be insufficiently accurate and biased partially due to weak registration systems (as in Afghanistan); special import taxation schemes which do not require precise reporting of import values (as in

<sup>15</sup> Such as radioactive elements, Harmonized System (HS) code 2844.



Kyrgyzstan); or because of widespread evasion of import tax payment in all CA countries. For the latter reason, in Central Asia (unlike other parts of the world) export data, which in most cases are not associated directly with any tax liabilities, are more reliable than import data. Discrepancies in trade partners' data strongly suggest the existence of considerable informal cross-border trade flows (see Section 4.2).

Thus, compiling a detailed dataset on foreign trade of Central Asian countries is not an easy task. Nonetheless, combining information from international databases (COMTRADE and DOTS) with national statistical data supplemented by a limited number of expert estimates—the approach used in this paper—seems to provide a reasonably complete and consistent picture of trade flows in the region.

## 3.2. Merchandise trade

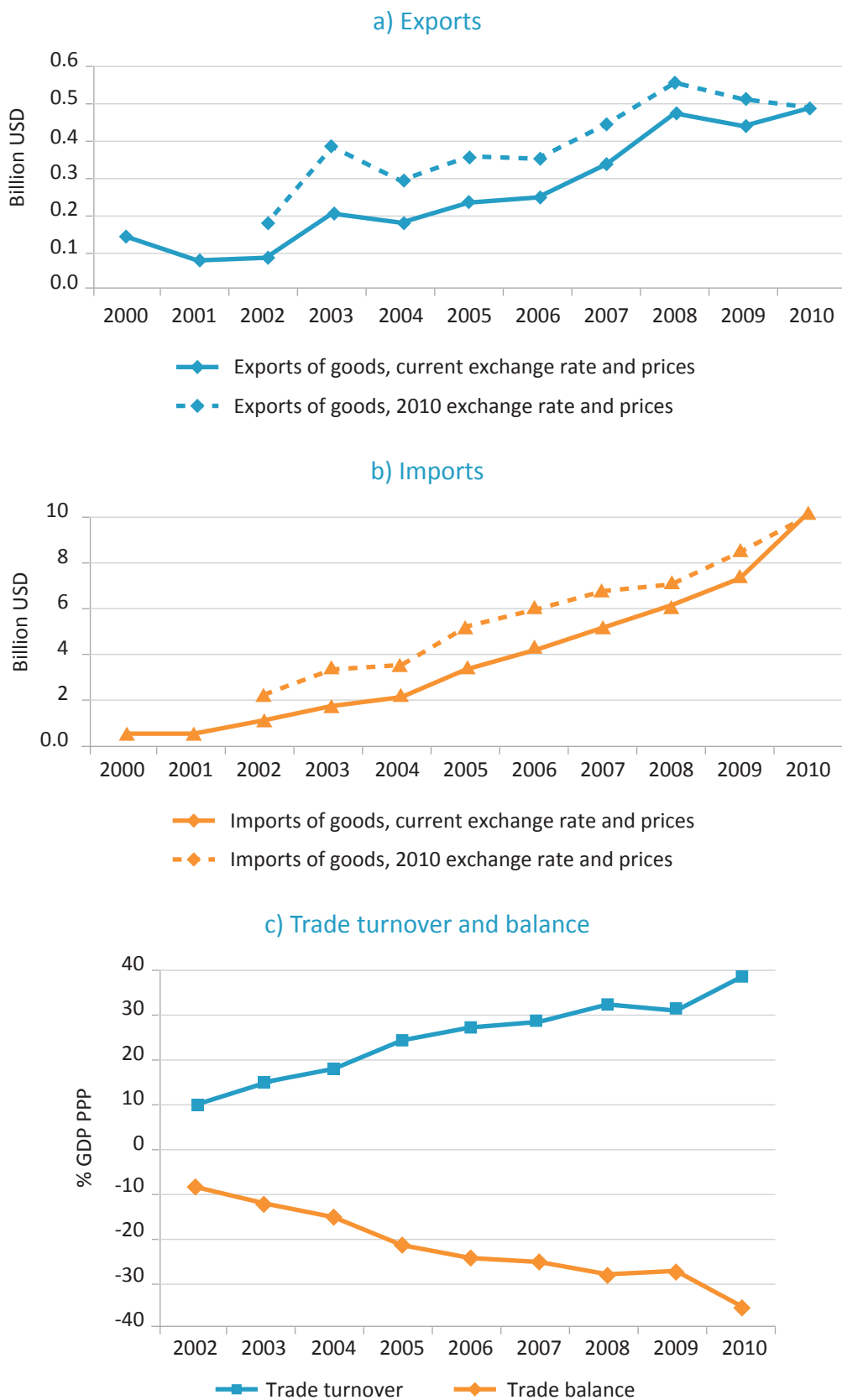
The review of export and import flows below is organized by country. It covers the dynamics of total volumes, turnover and surplus/deficit, commodity and the geographical structure of foreign trade of CA countries. Due to high inflation and fluctuating exchange rates in these countries in 2000-2010, the real purchasing power of US\$1 of export revenues and real costs of US\$1 of imports varied within a broad range. Thus, the dynamics of exports and imports expressed in current US\$ may not be an appropriate measure of change in real trade revenues and costs during this decade. To address this issue, in Sections 3.2.1-3.2.6 total exports and imports are provided both in current US\$ and in US\$ at 2010 exchange rate and prices.

### 3.2.1. Afghanistan

According to available data, exports from Afghanistan tripled in 2010 in comparison to 2002 (Figure 3a), while imports increased almost five times (Figure 3b). This dynamics of trade is related to the operations of the international anti-terrorist coalition in the country which has improved linkages with other parts of the world. As a result, the openness of the economy (share of trade turnover in GDP)<sup>16</sup> increased from a low 10% in 2002 to almost 40% in 2010 (Figure 3c). The trade deficit of Afghanistan is growing; it changed from an already high 9% of GDP in 2002 to a huge 35% of GDP in 2010. The deficit is financed by foreign aid flows to the country.

<sup>16</sup> In Sections 3.2.1-3.2.6, GDP is measured at purchasing power parity (from WEO database) in order to provide comparable valuation for non-tradable GDP components.

Figure 3. General trends in trade of Afghanistan

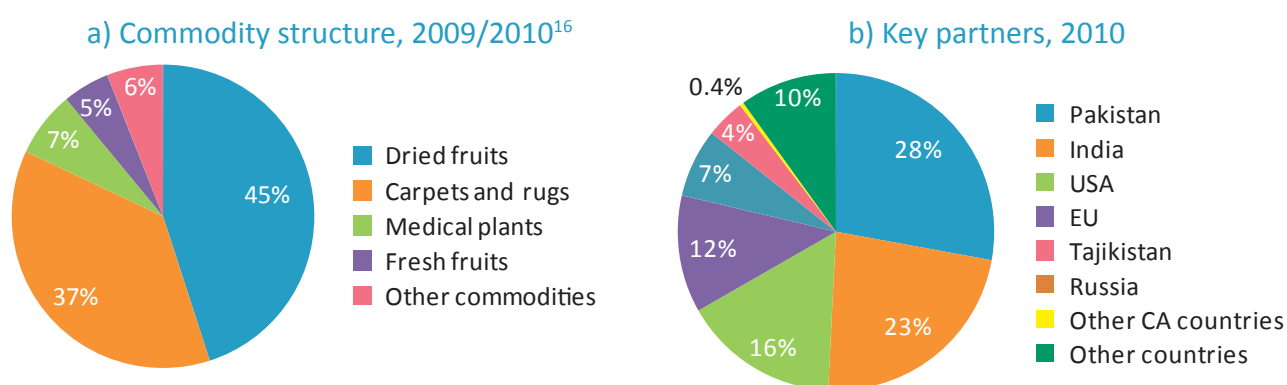


Sources: DOTS, COMTRADE, WEO database



There are no comparable dynamic data of satisfactory quality on the commodity structure of trade in Afghanistan. In the case of exports, different sources (COMTRADE, DOTS, Central Statistics Organization of Afghanistan) provide mostly consistent data (Figure 4a, b). Two main export commodities officially exported from Afghanistan are dried fruits and carpets and rugs. Smaller but also important commodities are medical plants and fresh fruits. This corresponds well to historical COMTRADE data: in 1977, the same commodities were at the top of the list of exports along with cotton fiber, fur skins and bovine hides. Half of current exports go to Pakistan and India; other relatively large markets for Afghanistan's products are the US and EU; to the north, Tajikistan and Russia also consume some share of the country's exports. This geography is also consistent with the 1977 pattern.

**Figure 4. Exports of Afghanistan**

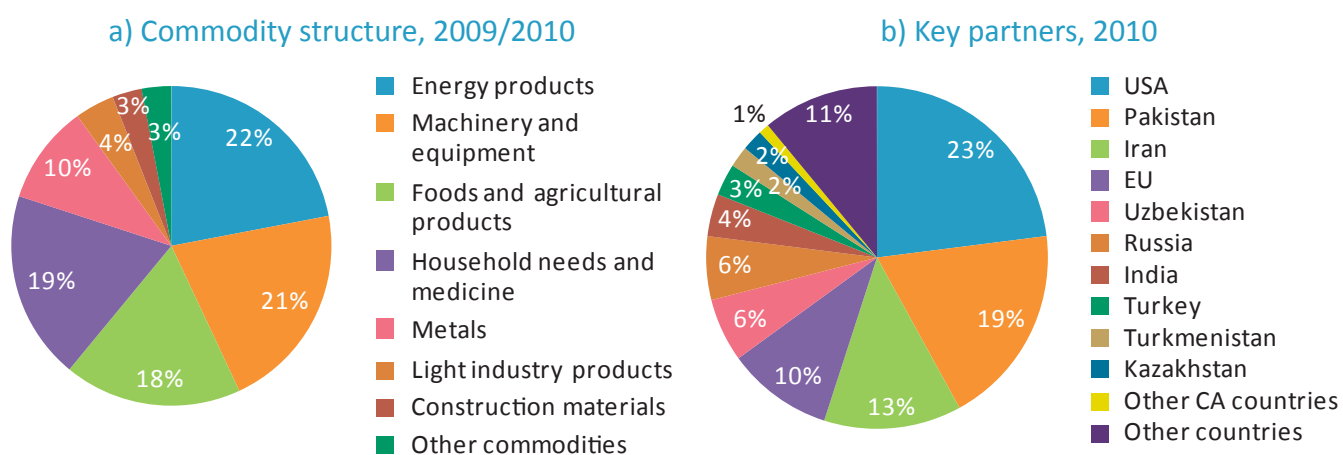


Source: Central Statistics Organization of Afghanistan

Sources: DOTS, COMTRADE

Sources for imports provide contradictory data. In this paper, the geography of imports is presented based on DOTS, while the commodity structure of imports is based on data reported by the Central Statistics Organization of Afghanistan (Figure 5a, b). According to both these sources, the country imports energy products, machinery, foods, consumer goods and medicines in almost equal shares. Main sources of imports are the US, EU and neighbours Pakistan, Iran and Uzbekistan.

**Figure 5. Imports of Afghanistan**



Source: Central Statistics Organization of Afghanistan

Sources: DOTS, COMTRADE

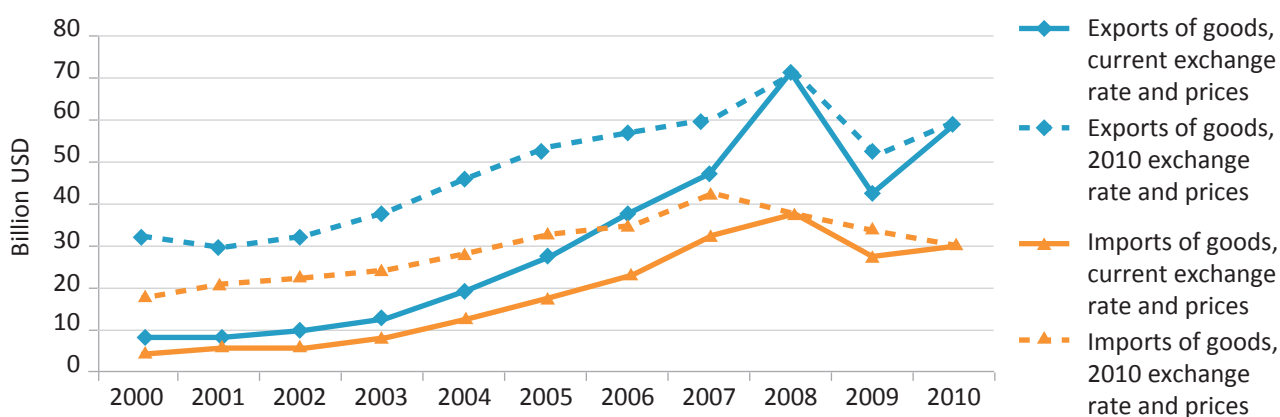
<sup>17</sup> 1388 according to the official calendar of Afghanistan.

### 3.2.2. Kazakhstan

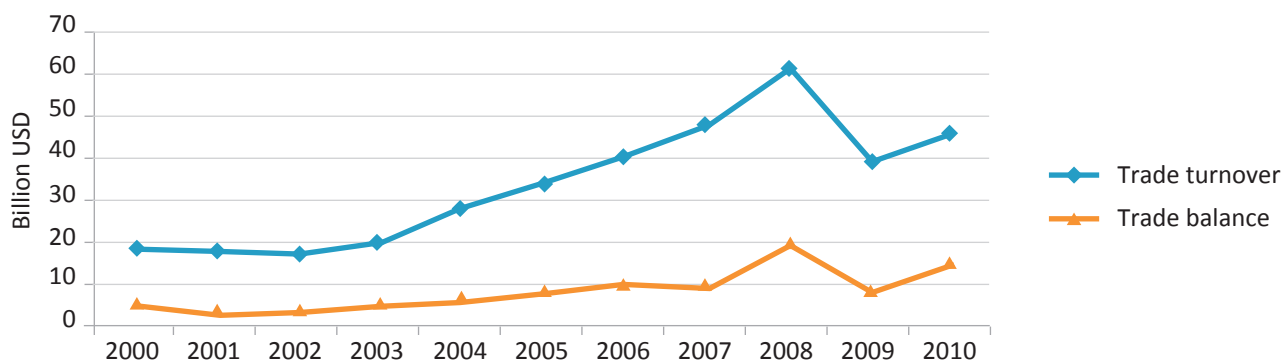
The period from 2000 to 2008 was one of very fast growth for Kazakhstan's foreign trade; both exports and imports increased eight-fold if measured at current US\$, or more than doubled if measured at the 2010 US\$ exchange rate and prices (Figure 6a). In 2009, Kazakhstan was hit hard by the global crisis and fall of international commodity prices; the value of exports declined by almost 40% and the value of imports by 25%. In 2010, with the recovery of oil prices, export revenues recovered and imports increased correspondingly. The role of trade in the Kazakh economy has increased substantially with the trade turnover just at 20% of GDP at Purchasing Power Parity (PPP) in 2000 and over 60% of GDP PPP in 2008; in 2010 the turnover was equal to 46% of GDP PPP (Figure 6b). Kazakhstan had a large positive trade balance throughout the 2000s, which at times approached 20% of GDP. The inflow of foreign exchange was partially spent on imports of services and labour and was partially channelled to the National Fund, the country's sovereign wealth fund. By the end of 2010, the Fund had accumulated near US\$40 billion or 20% of GDP.

Figure 6. General trends in trade of Kazakhstan

#### a) Exports and imports



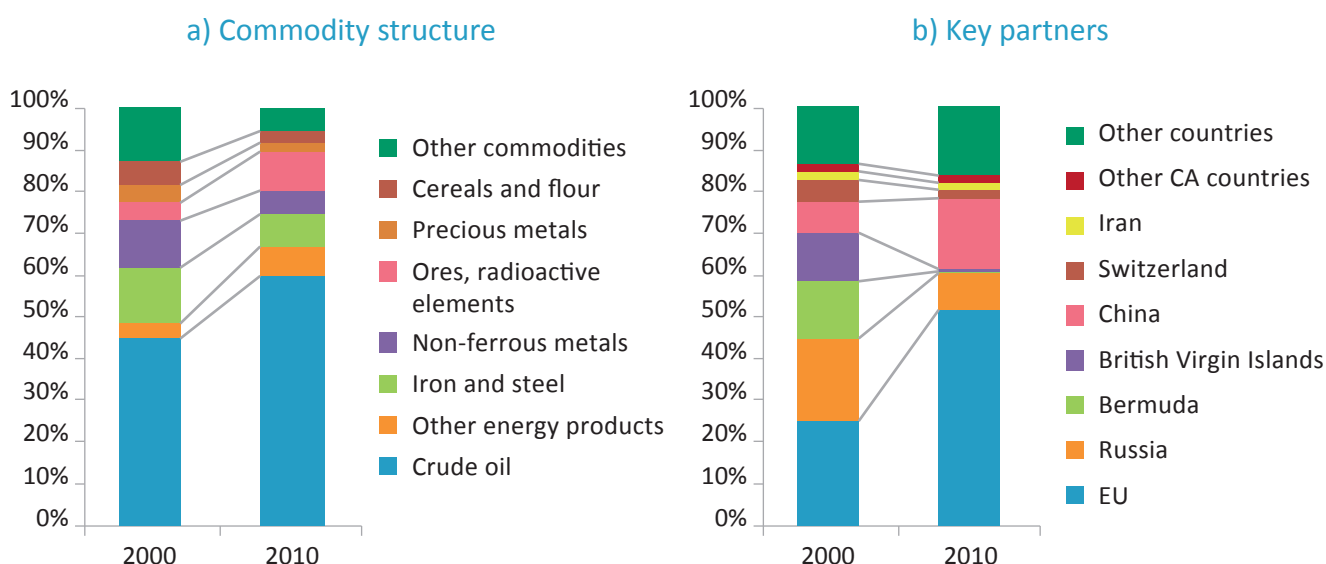
#### b) Trade turnover and balance



Sources: COMTRADE, Agency of Statistics of the RK, WEO database

The enormous growth of exports was achieved mostly due to the increase in the physical volumes of exports and price of oil, oil products, gas and radioactive elements/uranium (Figure 7a, b). The EU and China are the main buyers of these commodities, and their shares as export markets have increased. Export values of other key commodities (ferrous and non-ferrous metals including gold, cereals and flour) have grown, but to a lesser extent than oil exports, and thus the shares of these goods in total exports fell in 2010 in comparison to 2000. This also led to a decline in the shares of Russia and Switzerland, which massively import these commodities from Kazakhstan. For the period 2000- to 2010, Kazakhstan mostly eliminated offshore destinations of its oil exports (Bermuda and British Virgin Islands). Exports of goods other than energy products, metals and cereals are small in Kazakhstan; their share in total exports fell from 14% in 2000 to 6% in 2010; falling by 21% in absolute terms if measured at 2010 exchange rates and prices.

Figure 7. Exports of Kazakhstan

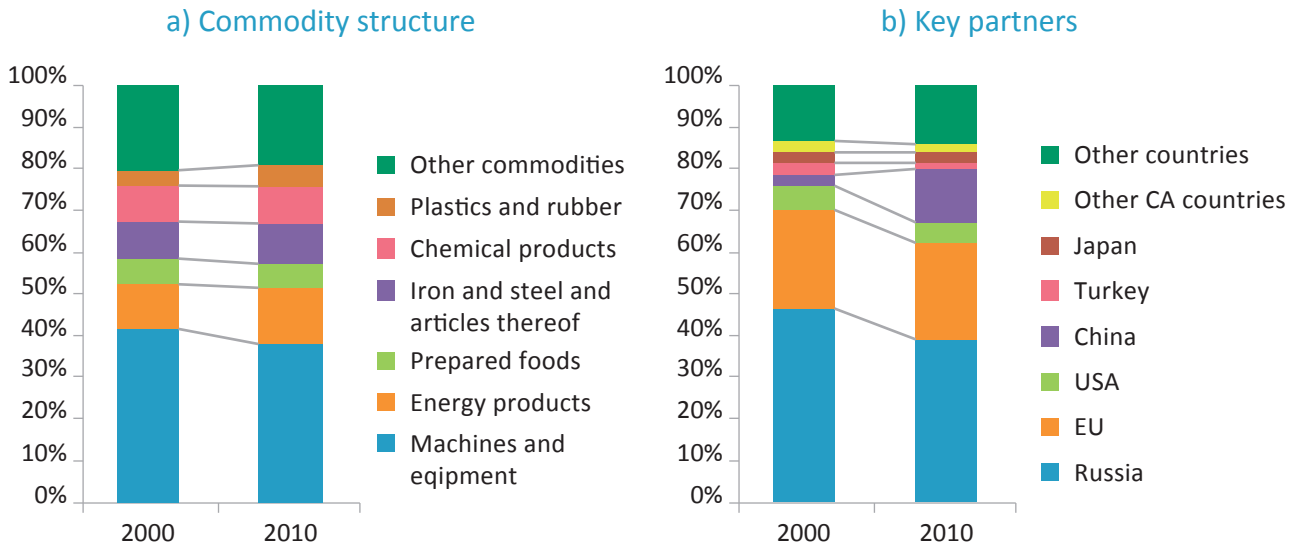


Sources: COMTRADE, Agency of Statistics of the RK

Kazakhstan's imports are dominated by machinery and equipment (Figure 8a, b). Other important imported items include energy products (crude oil, oil products and natural gas),<sup>18</sup> prepared foods, and chemicals. There were no major changes in the commodity structure of imports between 2000 and 2010. Russia remains the main partner of Kazakhstan for imports, although its share fell by seven percentage points from 2000 to 2010. This share has been captured primarily by China, which is now the third largest source of imports after Russia and the EU.

<sup>18</sup> These are the same commodities which constitute the bulk of exports from Kazakhstan. This phenomenon of intra-industry trade seems to be based on geography and existing infrastructure: it is cheaper to supply Russian oil to some Kazakh refineries and to sell crude oil from new deposits in Western Kazakhstan to Europe.

Figure 8. Imports of Kazakhstan



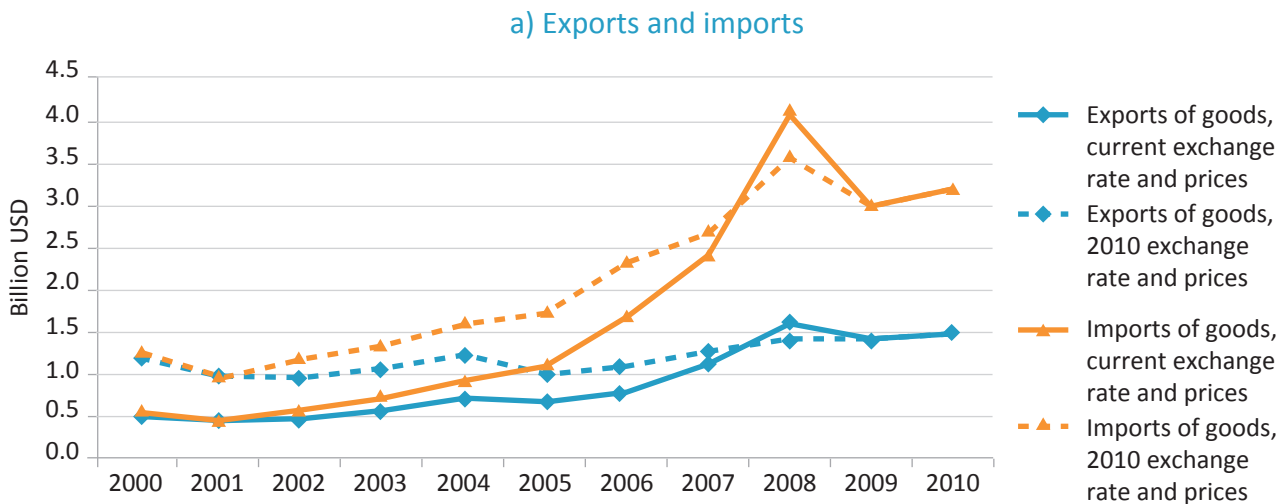
Sources: COMTRADE, Agency of Statistics of the RK

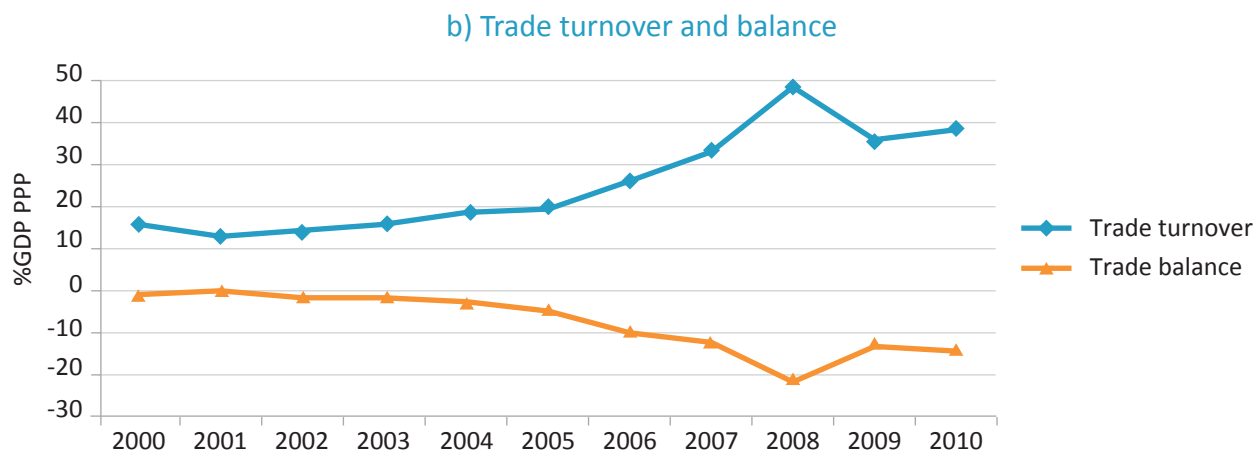
It remains to be seen how the geographical and commodity structure of Kazakhstan’s foreign trade will change with the creation of the CU of Belarus, Kazakhstan and Russia.

### 3.2.3. Kyrgyzstan

During the period 2000-2010, exports from Kyrgyzstan grew by just 29% (at constant exchange rate and prices, see Figure 9a), much less than that of Kazakhstan. For the same period of time, imports increased 2.5 times. Kyrgyzstan, which started the period of time under consideration with an almost zero trade balance, now has a persistent trade deficit exceeding 10% of GDP (Figure 9b). The gap between exports and imports started to widen in 2005, corresponding with the hike in labour migration and informal re-exports, which are two major sources which allow financing the deficit. Largely because of the growth of imports, the openness of the economy achieved the level of 40-50% of GDP.

Figure 9. General trends in trade of Kyrgyzstan

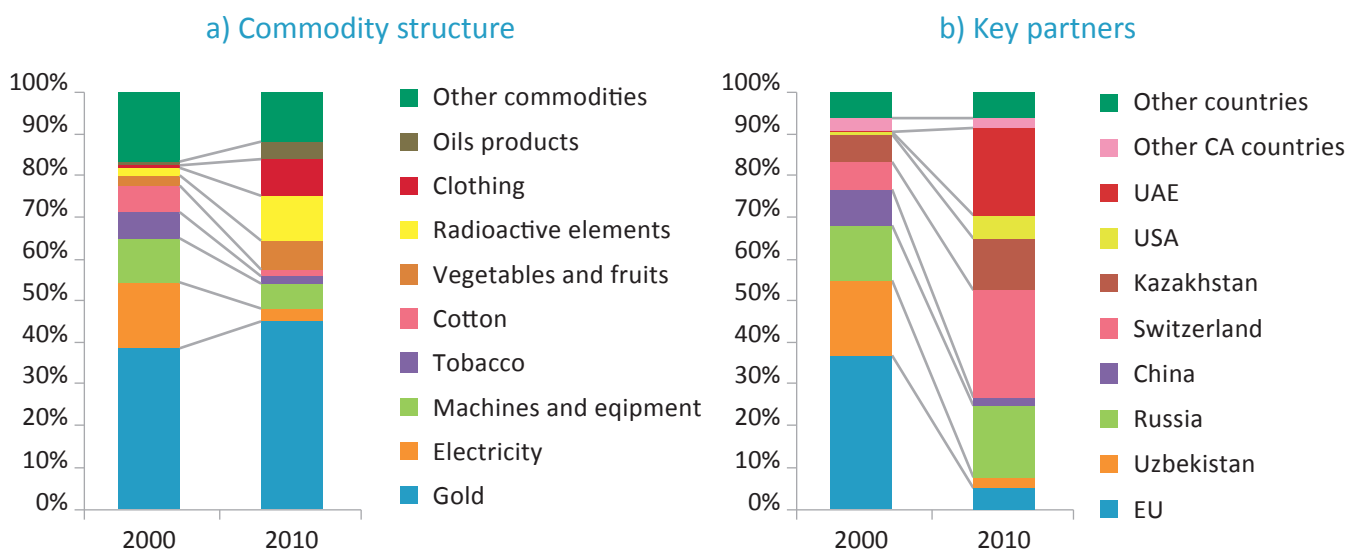




Sources: COMTRADE, National Statistical Committee of the KR, WEO database

The main export commodity of Kyrgyzstan is gold (40-45% of exports, Figure 10a), which was directed to different countries (Switzerland, Germany, United Arab Emirates, China) in different years. This explains some of the significant changes in the geographical structure of exports from 2000 to 2010 (Figure 10b), including the fall in the EU's share of total exports. However, since this was due to only one commodity, the EU's share of exports may increase again in the future.

Figure 10. Exports of Kyrgyzstan



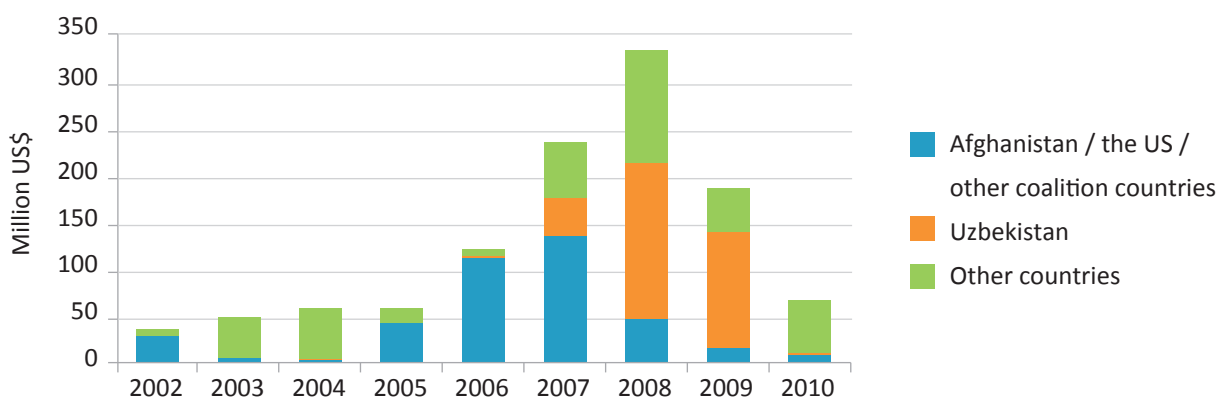
Sources: COMTRADE, National Statistical Committee of the KR

Other important export commodities include radioactive elements, electricity, agricultural products and foods. Unlike other CA economies, exports of manufactured goods (machinery and equipment, clothing) constitute a significant and growing share of exports (14% in 2010). Electricity has proved to be a volatile component of Kyrgyz exports; it used to be the second largest export item at the end of 1990s; from 2001 to 2008, its exports fell consider-

ably, but increased from 2009 to 2011. These fluctuations are mostly related to changes in Uzbekistan's demand for Kyrgyz electricity. The two main markets for non-gold exports of Kyrgyzstan are Russia and Kazakhstan; these countries are the main buyers of Kyrgyz manufactured goods, including garments, electrical equipment and assorted machinery.

A substantial portion of Kyrgyz exports are re-exports. Re-exports have two components: formal and informal (for discussion of informal re-exports see Section 4.2). Formal re-exports are those reflected in official statistics and include mostly oil products and some diverse machinery and equipment. One reason for re-exporting is that Manas airport near the capital Bishkek, hosts an American airbase, supporting the anti-terrorist coalition operating in Afghanistan, which requires massive fuel supplies. Another reason is Kyrgyzstan's ability to buy oil products from Russia without export duty, i.e. cheaper than some other countries. In reality, all exports of oil products from Kyrgyzstan are re-exports, because the capacity of the country's domestic refineries is either too small to serve export supplies on the reported scale,<sup>19</sup> or, in the case of kerosene for aircraft, non-existent. The re-export of oil products achieved its peak in 2008 (Figure 11).

Figure 11. Exports/re-exports of oil products from Kyrgyzstan

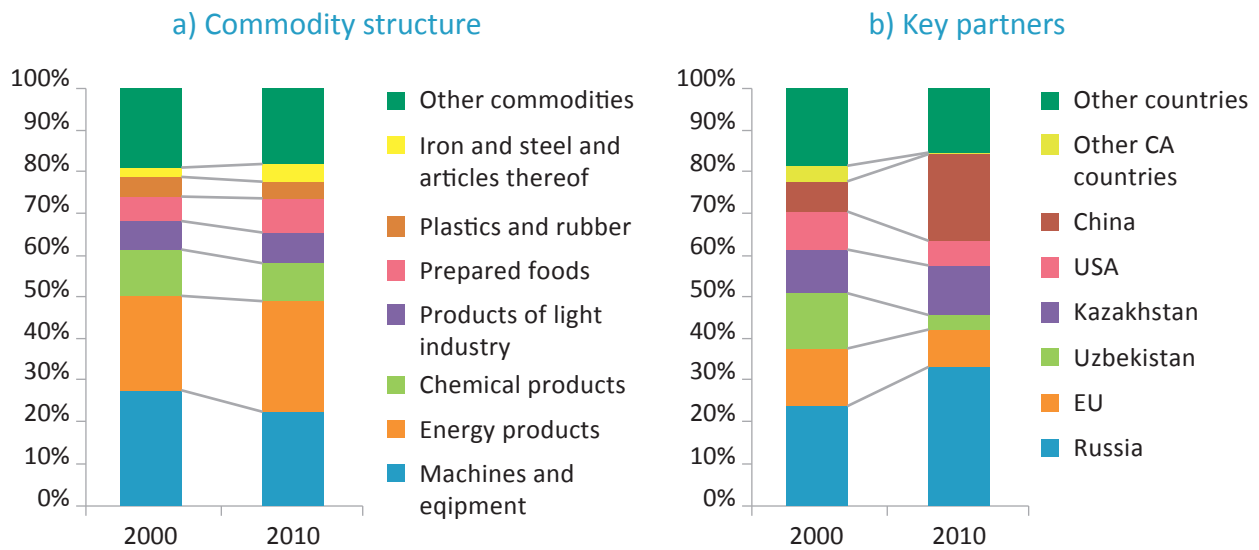


Sources: COMTRADE, National Statistical Committee of the KR

Kyrgyzstan's imports (Figure 12a, b) are dominated by machine and equipment, and energy products as well as various consumer goods. It appears that only part of consumer goods imports are reflected in the official statistics of Kyrgyzstan. Russia, China and Kazakhstan have significantly increased their shares on the Kyrgyz market. This geographical re-orientation of trade is partly due to the rise of re-export activities based on imports from China and Russia and partly due to the actual re-orientation of trade, including a sharp reduction in imports of energy products from Uzbekistan.

<sup>19</sup> According to NSC KR, in 2008 total domestic production of gasoline was 13 thousand tons, while exports and imports were 54 and 334 thousand tons respectively. That same year, the volumes of production, export and imports of diesel fuel were 60, 75 and 141 thousand tons respectively.

Figure 12. Imports of Kyrgyzstan



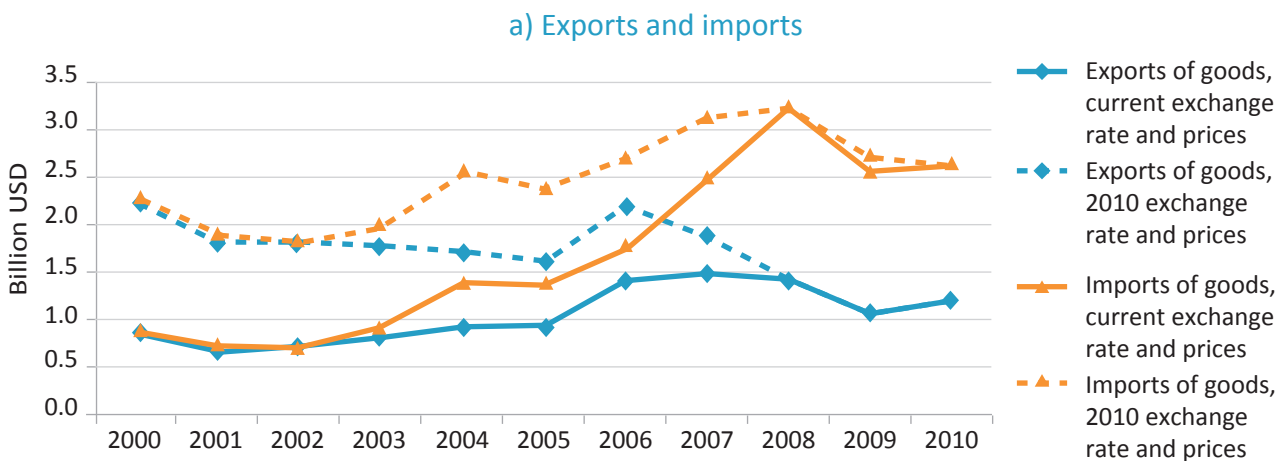
Sources: COMTRADE, National Statistical Committee of the KR, State Custom Service of the KR

In the case of Kyrgyzstan, more than any other CA country, a comprehensive picture of foreign trade can be obtained only by considering informal trade flows, as well as the formal flows.

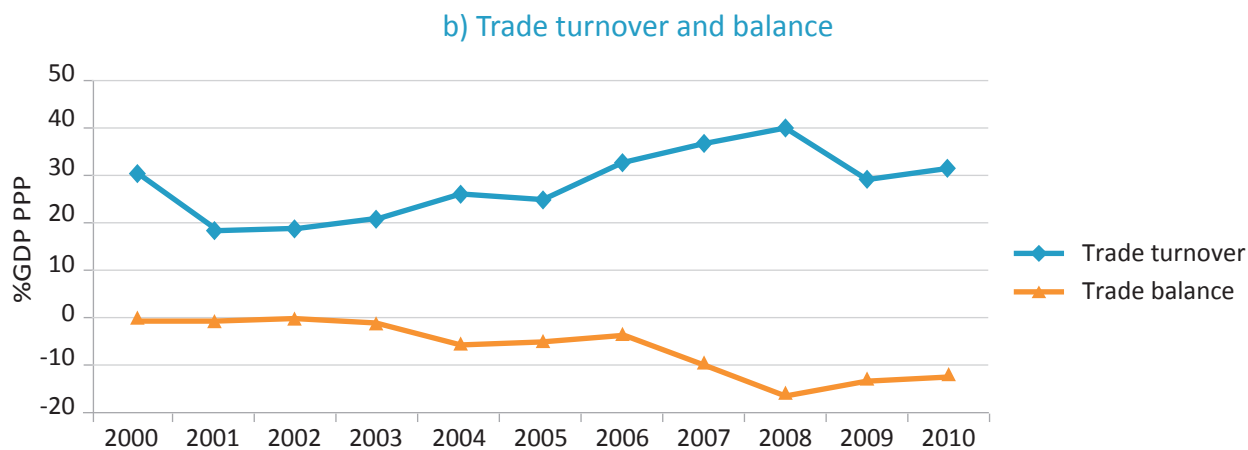
### 3.2.4. Tajikistan

In the period under study, Tajikistan was the only CA country that registered a decline in exports measured at constant exchange rate and prices (Figure 13a); in 2010, exports were about 45% less than in 2000. By contrast, imports grew by 17%. As a result, trade turnover changed very little, staying at the level of 30% of GDP (Figure 13b). The trade deficit is very large; since 2008 it exceeds 10% of GDP. It should be noted that these data do not take into account that for the last few years: (i) part of aluminum exports are shown in statistics as exports of services, not goods (see Section 3.3); and (ii) informal trade flows in Tajikistan, similar to Kyrgyzstan, have become very important.

Figure 13. General trends in trade of Tajikistan



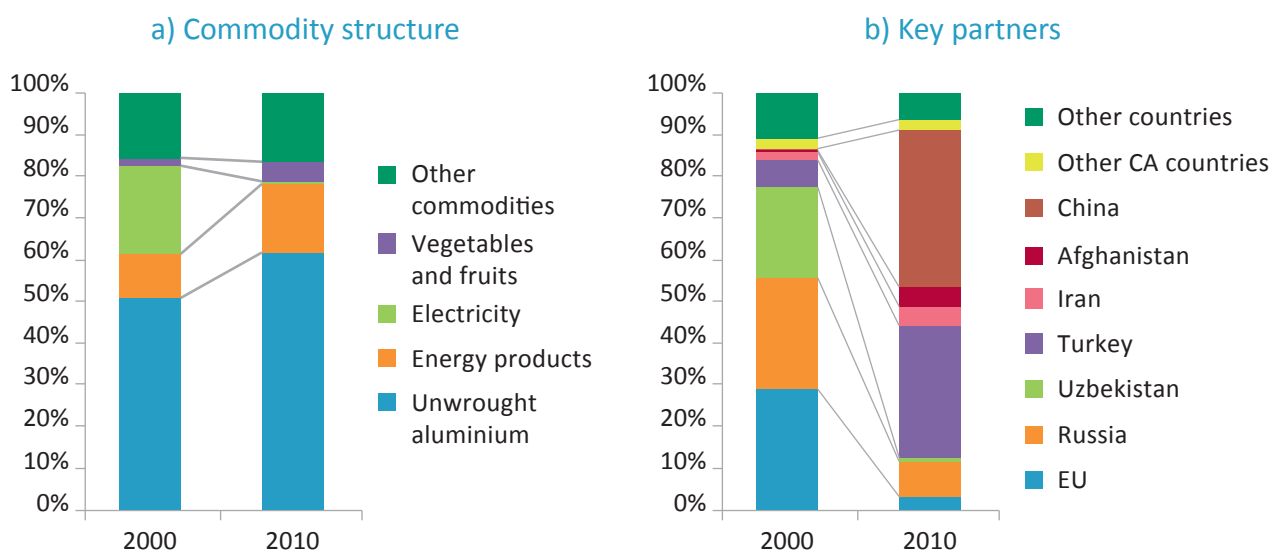




Sources: COMTRADE, Agency on Statistics of the RT, WEO database

The main export commodity of Tajikistan is unwrought aluminum (Figure 14a, b). From 2000 to 2010, its share in total exports increased from 51% to 62%. The destinations of aluminum exports have completely changed, from the EU and Russia in 2000, to China and Turkey in 2010, which explains the major changes in the share of all these countries/country groups in the geographic structure of exports from Tajikistan. The second largest export commodity is cotton fiber. If measured at the 2010 exchange rate and prices, exports of cotton fiber remained constant from 2000 to 2010. However, due to a general contraction of exports, the share of this commodity in total exports increased from 11% to 17%. The geography of cotton sales has also changed from Switzerland, Latvia and Slovakia to Turkey, Iran and Pakistan, with Russia maintaining its place as one of the largest buyers. Recently, Tajikistan has also increased its exports of fruits and vegetables, which go primarily to Russia. Electricity exports to Uzbekistan have now almost disappeared. Due to these changes, the composition of key export markets in 2010 (China, Turkey, and Russia) was very different from that in 2000 (EU, Russia, and Uzbekistan).

Figure 14. Exports of Tajikistan

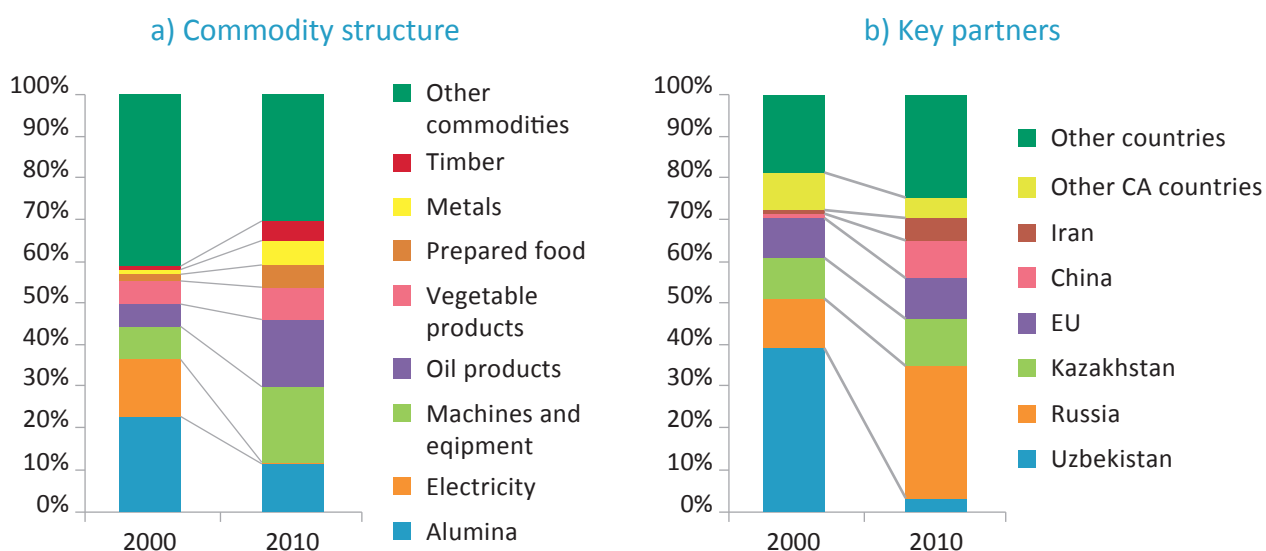


Sources: COMTRADE, Agency on Statistics of the RT



Unlike other CA countries, there were quite a few changes in the structure of imports from 2000 to 2010 in Tajikistan (Figure 15a, b). First, the share of alumina fell dramatically because of the low growth rate of aluminum exports, for which alumina is a raw material. Second, there was a substantial decline in the imports of electricity from Uzbekistan. Third, imports of machinery, metals, timber and oil products increased considerably, reflecting the increase in public and private investments in the country in such areas as road rehabilitation, hydropower plant construction and housing construction. Imported capital goods and intermediate products for these investment activities came primarily from Russia, China and Iran, which explains the increase in these countries' shares in total imports. Uzbekistan is no longer a main trade partner of Tajikistan, for either exports or imports.

Figure 15. Imports of Tajikistan

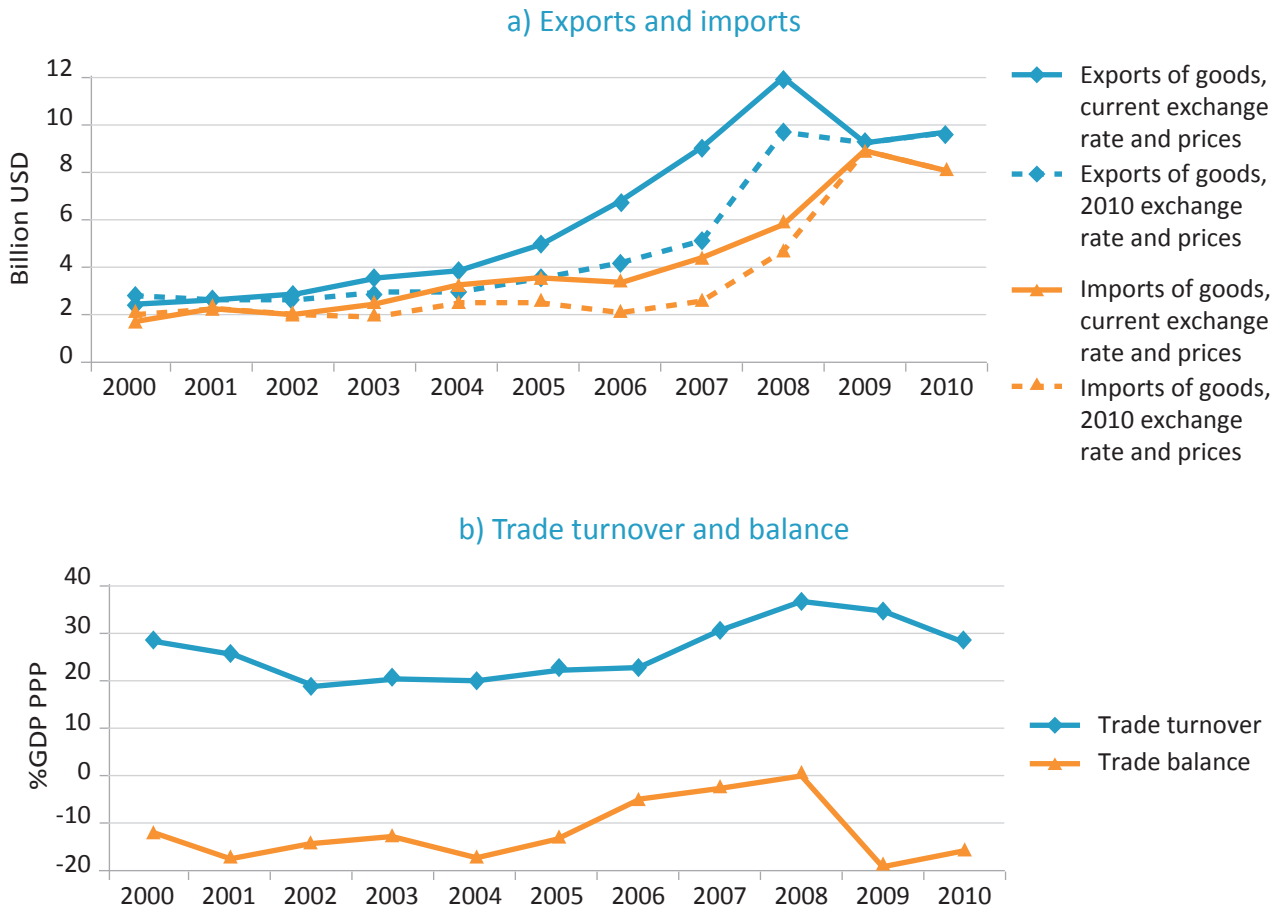


Sources: COMTRADE, Agency on Statistics of the RT

### 3.2.5. Turkmenistan

In the 2000s, Turkmenistan demonstrated the fastest growth of trade in the region (Figure 16a). Over the decade its exports more than tripled and imports quadrupled. The economy is very open with trade turnover fluctuating at around 50% of GDP (Figure 16b). Turkmenistan, like Kazakhstan, has a persistent positive balance of trade, which went as high as 20% GDP in 2008, but fell in 2009-2010.

Figure 16. General trends in trade of Turkmenistan

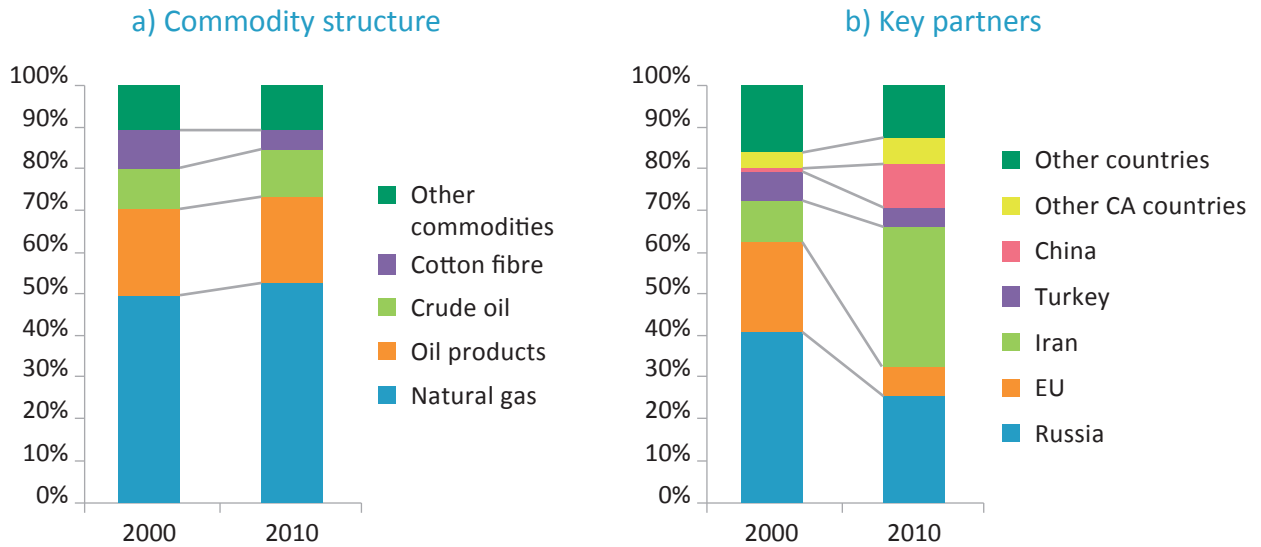


Sources: State Committee of Turkmenistan on Statistics, DOTS, WEO database

Exports of the country are based on just four items (Figure 17a): natural gas (half of total exports), oil products (one-fifth of total exports), crude oil (one-tenth), and cotton fiber (under one-tenth). There were no dramatic changes in the commodity structure of exports between 2000 and 2010; the share of all energy products marginally increased and the importance of cotton as an export commodity somewhat declined. However, while exported commodities remained mostly the same, the geography of exports changed greatly (Figure 17b). Russia, the sole destination of natural gas in 2000, received less than 50% of exported gas in 2010. Gas supplies were re-oriented to Iran and China when new pipelines to these countries started operations in 2009 and 2010. According to expert estimates,<sup>20</sup> gas exports are now shared between Russia, Iran and China in the proportion 30:30:40. Exports of crude oil and oil products, which used to go to the EU, the main buyer of these supplies, have also been partially channeled to Iran, making it the number one market for Turkmenistan's exports.

<sup>20</sup> Ishanguly Jumaev, "Foreign Trade of Turkmenistan: Policy, Trends, Problems and Prospects," Institute of Public Policy and Administration Working Paper (Bishkek: University of Central Asia, 2012).

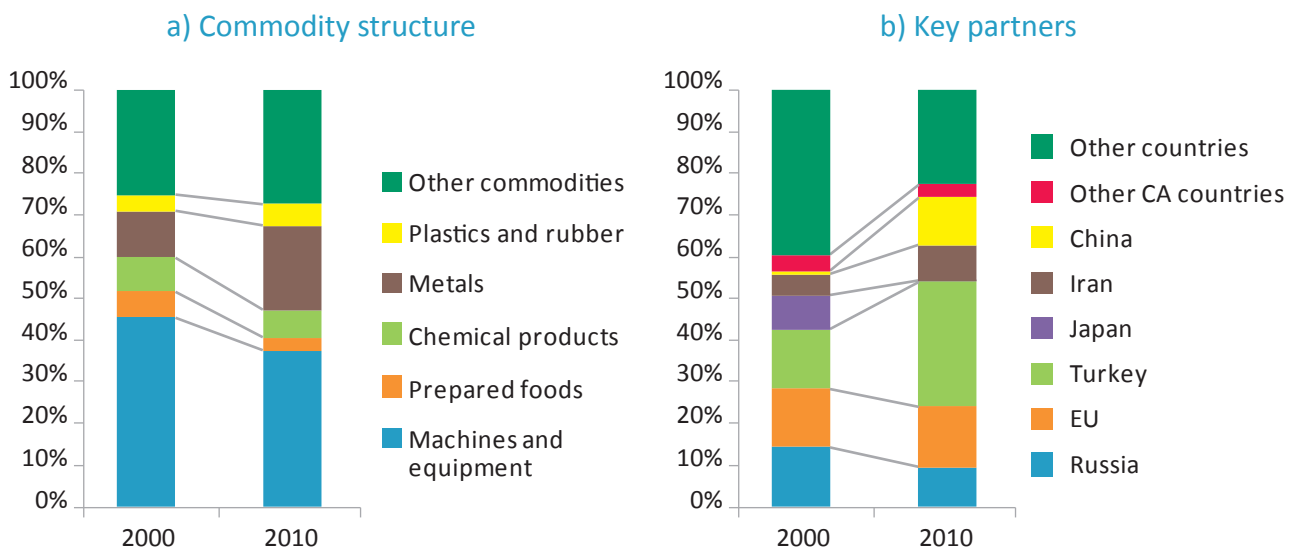
**Figure 17. Exports of Turkmenistan**



Sources: COMTRADE, State Committee of Turkmenistan on Statistics, (Jumaev, 2012), and author's estimates

The commodity structure of imports did not change much except for the increase in the share of metals (Figure 18a). This is most likely related to the extensive investment program implemented in the country, including the construction of new pipelines. However, as in the case of exports, the geography of imports changed significantly over the decade (Figure 18b). Turkey has become the largest source of imports; China sharply increased its position on the Turkmen market; and Iran increased its share in total imports. The EU managed to maintain its share. Russia's role as a supplier of goods to Turkmenistan fell substantially and Japan lost this market completely.

**Figure 18. Imports of Turkmenistan**

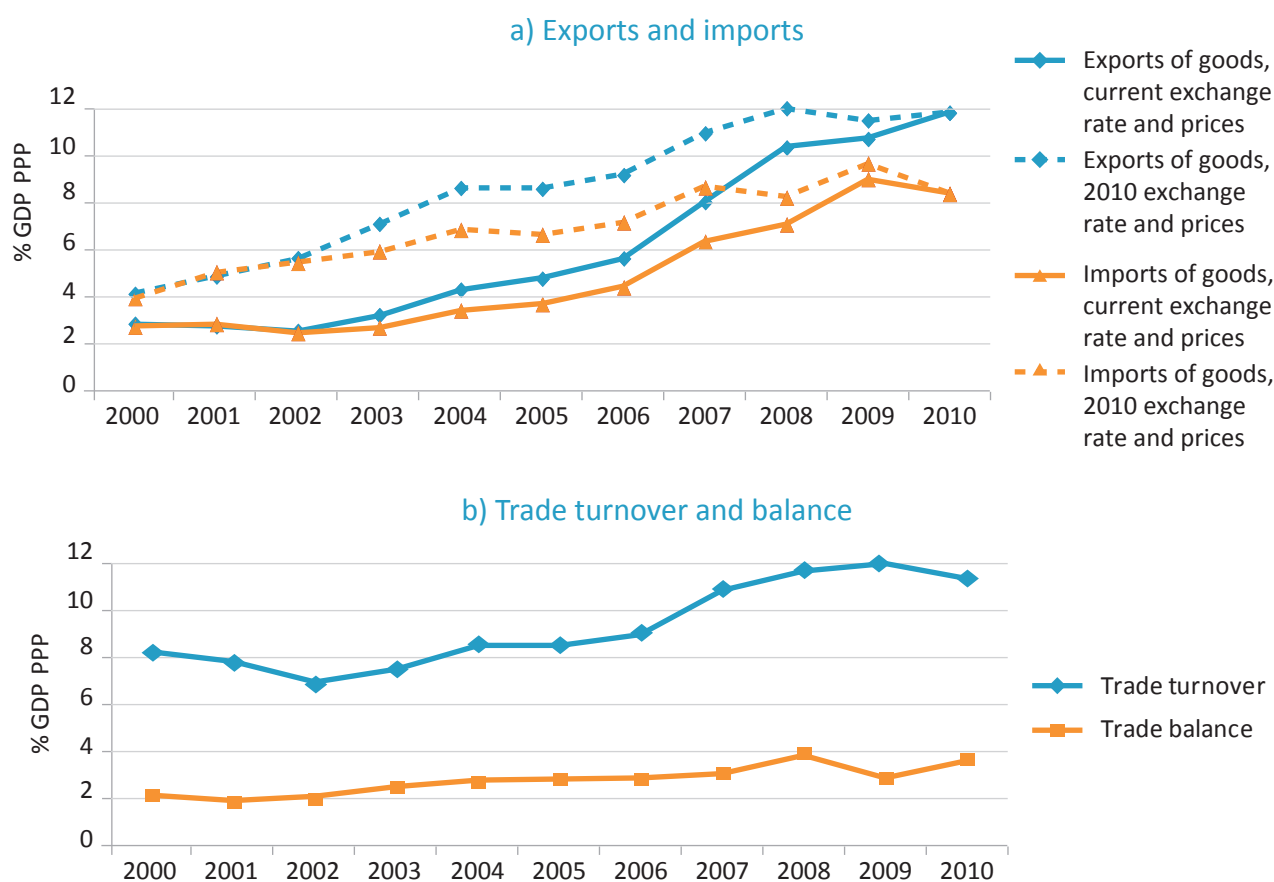


Sources: COMTRADE, State Committee of Turkmenistan on Statistics, Jumaev

### 3.2.6. Uzbekistan

The first decade of the 2000s appeared to be a period of significant improvement in the trade performance of Uzbekistan. Exports almost tripled, and imports doubled (Figure 19a). The economy began the decade with a zero trade balance (Figure 19b), and due to faster growth of exports, it managed to have a sizeable (although less impressive than in Kazakhstan and Turkmenistan) positive trade balance of 5% GDP in 2010. Because of these developments the openness of the economy increased from 12% of GDP in 2002 to 20% or more from 2007 to 2010. Nonetheless, this indicator has the lowest value in Central Asia; Uzbekistan is somewhat less dependent on trade than other countries of the region.

**Figure 19. General trends in trade of Uzbekistan**



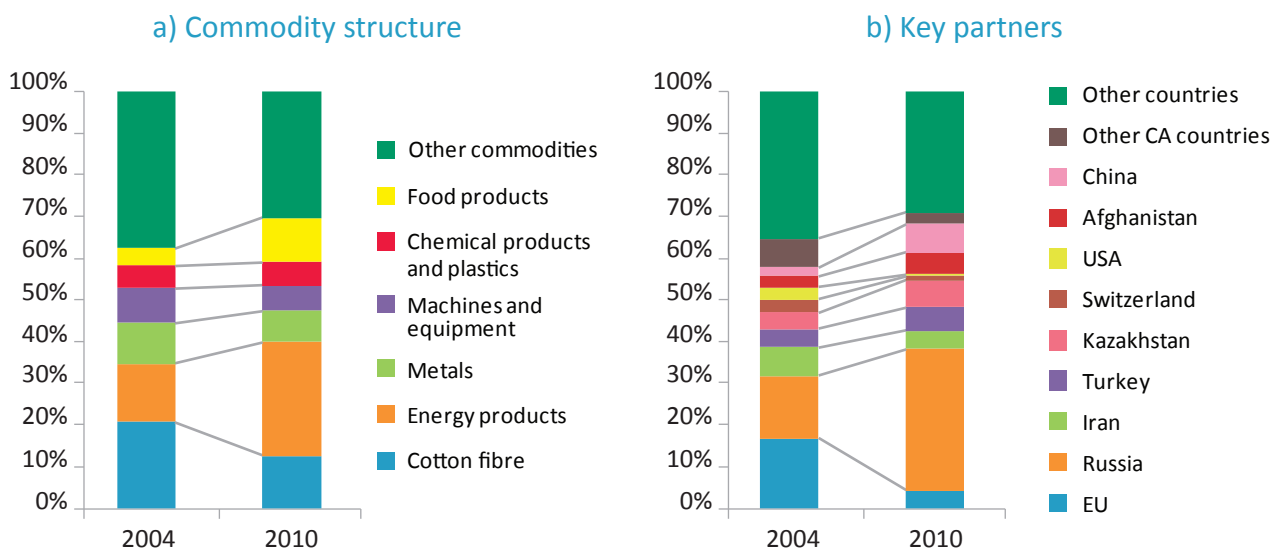
Sources: State Committee of the RU on Statistics, WEO database

Uzbekistan publishes only aggregated data on the commodity structure of its exports and imports, and the earliest data available are for 2004. One can observe substantial changes in the structure of exports (Figure 20a). The share of energy products (comprised of 80% natural gas and 20% oil products<sup>21</sup> and recently electricity has become a noticeable export item) almost doubled, while the share of cotton fiber almost halved. Food (grapes, fruits and vegetables) have become a much more important export item; however, exports of fruits and

<sup>21</sup> Shares of selected products in broad commodity categories, discussed in this paragraph, are based on 2008 data provided in: Center for Economic Research, "Structural Changes in the Uzbek Economy: Achievements, Problems and Prospects," Policy Paper (Tashkent: CAREC Institute, 2010).

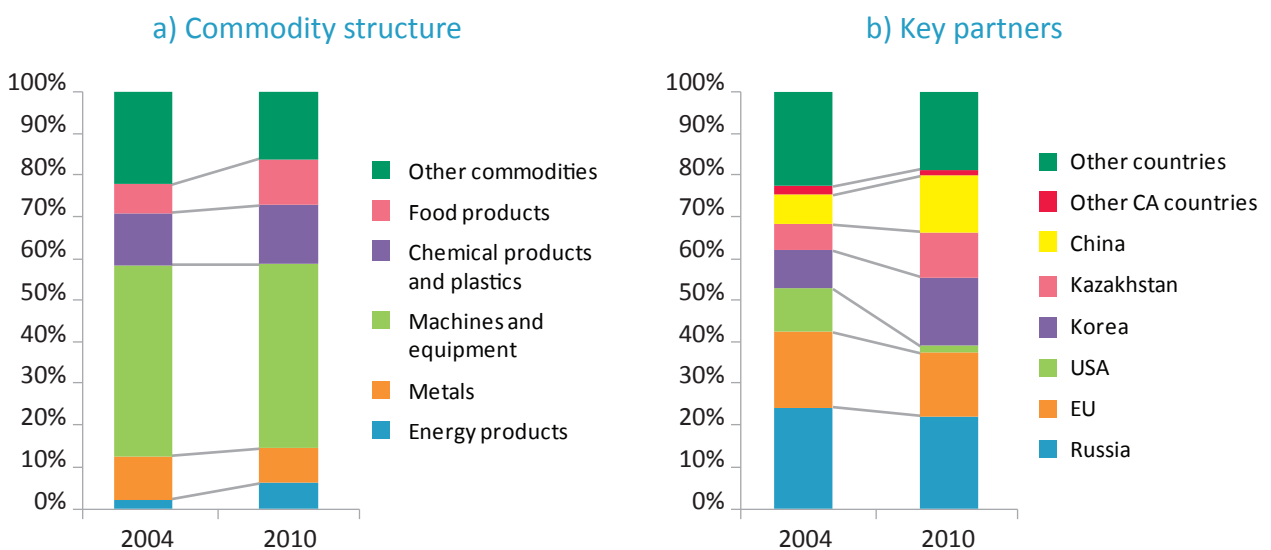
vegetables are volatile based on the quality of the harvest. Exports of metals (30% ferrous metals, 50% copper and 20% zinc and others), machines and equipment (about 80% are passenger cars) and other commodities (in which the shares of gold and radioactive elements are about 80% and 5% correspondingly) mostly stagnated from 2004 to 2010. Thus, export growth in Uzbekistan is primarily due to increased sales of natural gas. In the decade under consideration, all supplies of natural gas and the larger proportion of fruits and vegetables were directed to Russia, whose share as an export market increased from 15% in 2004 to 34% in 2010 (Figure 20b). Other countries now receiving an increasing share of exports from Uzbekistan include China, Afghanistan,<sup>22</sup> Kazakhstan, and Turkey. Concurrently, the EU, the US, and Switzerland have become much less important export destinations. The re-orientation of Uzbek exports from developed countries' markets to markets in Asia is clear.

Figure 20. Exports of Uzbekistan



Source: State Committee of the RU on Statistics

Figure 21. Imports of Uzbekistan



Source: State Committee of the RU on Statistics

<sup>22</sup> Partially due to a new transmission line supplying electricity to Afghanistan.

According to official statistics, the share of machinery and equipment in total imports in Uzbekistan is the highest in the region (Figure 21a). This reflects the government's policy directed at the industrial development of the economy and the government's higher degree of control over foreign exchange resources, which could be spent on imports. Another important feature of the import structure in Uzbekistan is the relatively low share of consumer goods (included in the "Other commodities" category in Figure 21a). At the same time, it is well-known that a substantial part of informal trade in consumer goods in the region is related to the re-export of these goods from China to Uzbekistan. It is therefore possible that the actual structure of imports (including informal ones) in this country is somewhat different from that presented in the figure, with investment goods representing a lower share and a higher share accounting for consumer goods. Changes in the structure of imports between 2004 and 2010 are not significant: imports of energy and food products have grown, and imports of metals and machinery have somewhat reduced. In terms of the geography of imports (Figure 21b), Russia and the EU are largely maintaining their shares, while imports from the Republic of Korea, China and Kazakhstan have increased substantially. Imports from the US declined significantly in both relative and absolute terms.

### **3.2.7. Common trends in trade of CA countries**

The country profiles above reveal some commonalities across the region. Firstly, primary products (hydrocarbons, metals, cotton and other agricultural products) dominate the structure of exports of all CA countries. The share of manufactured goods in exports is low in Afghanistan, Kyrgyzstan and Uzbekistan and insignificant in the three other countries. Afghanistan and Uzbekistan's exported manufactured goods are essentially represented by single commodities, carpets in the case of Afghanistan and passenger cars in the case of Uzbekistan.

Secondly, export performance appeared to be closely correlated with dynamics of international prices for key commodities. Three countries, which demonstrated very fast growth of exports in the decade (Kazakhstan, Turkmenistan, and Uzbekistan), are those rich in hydrocarbons, which enjoyed a major spike in their terms of trade (see Section 2 and Figure 2). Kyrgyzstan did not experience any significant change in its terms of trade, and export growth was modest. The terms of trade for Tajikistan deteriorated and its exports declined.

Thirdly, trade is not balanced in any of these countries, which typically have either a large positive balance or large trade deficits. In all three countries with trade surplus (Kazakhstan, Turkmenistan and Uzbekistan) the surplus is accumulated in sovereign wealth funds and either saved or used for financing public investment programs. Countries with large deficits finance them with income sources such as remittances (Kyrgyzstan and especially Tajikistan), revenues from informal trade and re-exports (Tajikistan and especially Kyrgyzstan), and foreign aid (Kyrgyzstan, Tajikistan, and especially Afghanistan). Some countries of the region may also receive significant inflows of foreign exchange from illicit trade in drugs, but these resources do not seem to be an important source of imports financing. Income from illicit activities is concentrated in the hands of a small group of people who tend not to invest much at home, but rather channel their earnings to safe havens outside the region. The inflow of foreign exchange from illegal exports is mostly balanced by capital flight out of these countries.

Another common feature of trade dynamics in CA countries is the strong increase in imports. This could be due to robust growth of GDP and domestic demand in the region after 2000

and the strengthening of national currencies (see Section 2). As a result, the economies of the region are more open now than they were in 2000.

Exports of all CA countries are concentrated on a small number of commodities and external markets. The extent of trade concentration can be measured by the share of three largest commodities/partner countries in total exports/imports or the Herfindahl-Hirschman index (HHI)<sup>23</sup> which allows a more accurate measure of changes in trade concentration. (The values for 2000 or earliest possible years, and 2010 are provided in Table 4.) The commodity concentration of exports increased in all CA countries for which data are available.<sup>24</sup> Geographically, the picture is less uniform – concentration increased in four countries and fell in two (Kazakhstan and Turkmenistan). These two countries benefited from new infrastructure—gas and oil pipelines to China and Iran—which allowed for diversification of the geography of exports. There are insufficient data to identify common trends in the commodity concentration of imports. However, geographically imports became more concentrated in all countries except Kazakhstan.

**Table 4. Trade concentration in Central Asia**

|                | Commodity concentration                        |                    |        |                      | Geographical concentration                 |      |        |        |
|----------------|--|--------------------|--------|----------------------|--|------|--------|--------|
|                | Share of three largest commodities, % of total |                    | HHI    |                      | Share of three largest markets, % of total |      | HHI    |        |
|                | 2000   | 2010               | 2000   | 2010                 | 2000 <sup>25</sup>                         | 2010 | 2000   | 2010   |
| <b>Exports</b> |  |                    |        |                      |  |      |        |        |
| Afghanistan    | ...  | 88.8               | ...    | ...                  | 56.0                                       | 66.6 | ...    | ...    |
| Kazakhstan     | 62.0   | 68.6               | 0.4882 | 0.6109               | 45.4                                       | 41.9 | 0.2453 | 0.2162 |
| Kyrgyzstan     | 60.9   | 60.0               | 0.4086 | 0.4467               | 59.3                                       | 63.7 | 0.2984 | 0.3242 |
| Tajikistan     | 77.7   | 79.3               | 0.5369 | 0.6207               | 77.2                                       | 77.5 | 0.3861 | 0.4208 |
| Turkmenistan   | 80.0   | 84.2               | 0.5259 | ...                  | 66.8                                       | 68.4 | 0.3834 | 0.3407 |
| Uzbekistan     | ...  | 60.4 <sup>26</sup> | ...    | 0.3029 <sup>26</sup> | 29.8                                       | 47.5 | 0.2065 | 0.3407 |
| <b>Imports</b> |  |                    |        |                      |  |      |        |        |
| Afghanistan    | ...  | ...                | ...    | ...                  | 44.3                                       | 54.8 | ...    | ...    |
| Kazakhstan     | 11.9   | 13.3               | 0.0766 | 0.0843               | 59.9                                       | 57.9 | 0.4470 | 0.3811 |
| Kyrgyzstan     | 24.8   | 29.4               | 0.1426 | 0.2173               | 47.7                                       | 66.3 | 0.2479 | 0.3629 |
| Tajikistan     | 62.2   | 32.6               | 0.3550 | 0.2024               | 43.5                                       | 52.3 | 0.2834 | 0.3016 |
| Turkmenistan   | 7.2  | ...                | 0.0839 | ...                  | 40.4                                       | 50.9 | 0.1924 | 0.2557 |
| Uzbekistan     | ...  | ...                | ...    | ...                  | 43.6                                       | 52.0 | 0.2018 | 0.2268 |

Sources: COMTRADE, national statistical agencies of CA countries, author's calculations

$$^{23} HHI = \left( \sqrt{\sum_{i=1}^{i=N} (v_i / V)^2} - \sqrt{1/N} \right) / (1 - \sqrt{1/N})$$

$N$  - number of markets/commodities (based on 4 digit codes of HS 1996).

$v_i$  - exports/imports to/from country  $i$  or of commodity  $i$ .

$V$  - total exports/imports.

This index ranges from 0 to 1; the larger value of the index, the higher concentration of trade.

<sup>24</sup> Although there are no comparable data for Uzbekistan, it could be surmised that the increase in its exports in the 2000s was due to just two commodities (natural gas and passenger cars), so their share in total exports had to grow.

<sup>25</sup> 2003 for Afghanistan, 2004 for Uzbekistan.

<sup>26</sup> Data for 2008.



There are also some common trends in trade of CA countries with partners outside the region. The main export partners of CA countries are the EU, Russia and China (Table 5). The roles of the EU and China as export markets increased dramatically between 2000 and 2010. In the case of the EU, this is mostly due to growing exports of crude oil and oil products from Kazakhstan which go to different EU countries. In the case of China, the increase is partly a result of trade creation (the additional production of crude oil, copper and other metals going to China) and partly a result of trade diversion. During the 2000s, a significant portion of exports including gold, aluminum and cotton were reoriented from other markets to China. Russia's role as export market for CA economies has reduced but remains large and exports to this country increased in real terms in 2010 in comparison to 2000. Unlike exports to the EU and China, which consist predominantly of hydrocarbons and metals, exports to Russia are more diversified and the share of manufactured products in these exports is higher, with Russian being the main destination of Uzbek cars, Kazakh machinery and Kyrgyz garments.

**Table 5. Exports of Central Asian countries to key markets outside the region**

|                    | 2000         |                    | 2010         |                    |
|--------------------|--------------|--------------------|--------------|--------------------|
|                    | Billion US\$ | % of total exports | Billion US\$ | % of total exports |
| European Union     | 3.7          | 23.8               | 31.9         | 37.7               |
| Russia             | 3.6          | 23.3               | 13.8         | 16.4               |
| China              | 0.7          | 4.8                | 12.4         | 14.6               |
| Iran               | 0.5          | 3.3                | 4.0          | 4.8                |
| Turkey             | 0.4          | 2.5                | 2.7          | 3.1                |
| Switzerland        | 0.6          | 4.1                | 1.7          | 2.0                |
| USA                | 0.2          | 1.5                | 1.1          | 1.3                |
| Japan              | 0.08         | 0.5                | 0.56         | 0.7                |
| Korea, Republic of | 0.14         | 0.9                | 0.38         | 0.4                |
| India              | 0.06         | 0.4                | 0.26         | 0.3                |
| Pakistan           | 0.04         | 0.3                | 0.20         | 0.2                |

Sources: COMTRADE, DOTS, national statistical agencies of CA countries

In 2010, these three main destinations of CA exports, Russia, EU and China, represented over two-thirds of total exports of the countries of the region, up from one-half in 2000. This is mostly due to the increased commodity concentration of exports with the main export commodities in all countries (apart from Afghanistan) going to the EU, Russia and/or China. Other important export markets include Iran, Turkey, Switzerland, and the US, which buy different primary commodities in Central Asia, including natural gas, gold, uranium, and cotton. Other large Asian economies, such as Japan, India, and Korea or other close neighbors such as Pakistan are not important export destinations.

It is worth noting that for many CA export commodities nominal countries of destinations (indicated in the exporting country's statistics) are not necessarily actual destination countries. For example, in 2010 Turkmenistan and Uzbekistan reported Russia as a major buyer of their natural gas. However, Russia did not report any imports of natural gas from these coun-



tries.<sup>27</sup> In the same year Kyrgyzstan reported exports of gold to Switzerland worth US\$386 million, while Switzerland's reported imports of this commodity from Kyrgyzstan were only US\$111 million. More examples of this kind could be easily provided. One possible explanation for this phenomenon is that the nominal destination countries re-export Central Asian commodities. Russia for example does not buy natural gas from Central Asia for domestic consumption, but to sell it to other countries. The situation is therefore similar to informal trade in the region, which also involves large volumes of re-exports. Other rationale for this discrepancy in CA and mirror statistics is possible, and data on the geography of CA exports are to be treated with caution.

Changes in the geographical structure of CA imports have been less significant (Table 6). Russia continues to be the main source of imports for the region, supplying energy products and manufactured products. The EU is in second place, providing various machinery and equipment to Central Asia. Over the decade, China progressed from providing few imports to Central Asia in 2000 to providing over 10% of total imports to the region in 2010, making it the third largest source of imports, according to CA countries' official data. The data do not take into account huge informal imports of Chinese consumer goods, especially textiles (Section 4.2). Official imports from China consist largely of machinery and equipment, metals and consumer goods. The fourth large source of imports to the region is the US, but this is mostly due to its supplies to Afghanistan; the share of US imports of the other five CA countries is not significant. Turkey is an important partner of all CA economies for imports with a diversified commodity structure of supplies to the region. Korea, Pakistan, Iran and India are also in the top ten importers, primarily due to their strong economic ties with Uzbekistan (for Korea) and Afghanistan. Japan is losing its position in the CA market with its share falling from 3.0% of total imports in 2000 to 1.4% in 2010.

**Table 6. Imports of Central Asian countries from key partners outside the region**

|                    | 2000         |                    | 2010         |                    |
|--------------------|--------------|--------------------|--------------|--------------------|
|                    | Billion US\$ | % of total imports | Billion US\$ | % of total imports |
| Russia             | 3.1          | 27.2               | 17.2         | 27.3               |
| European Union     | 2.2          | 19.0               | 11.1         | 17.5               |
| China              | 0.28         | 2.4                | 6.8          | 10.7               |
| USA                | 0.59         | 5.1                | 4.1          | 6.6                |
| Turkey             | 0.53         | 4.6                | 2.5          | 4.0                |
| Korea, Republic of | 0.44         | 3.8                | 2.2          | 3.5                |
| Pakistan           | 0.15         | 1.3                | 1.9          | 3.1                |
| Iran               | 0.23         | 2.0                | 1.8          | 2.8                |
| Japan              | 0.34         | 3.0                | 0.88         | 1.4                |
| India              | 0.99         | 0.9                | 0.84         | 1.3                |

Sources: COMTRADE, DOTS, national statistical agencies of CA countries

<sup>27</sup> According to COMTRADE and Russia's Federal State Statistical Service. However, Gazprom, the Russian natural gas monopoly, did report imports of gas from Turkmenistan and Uzbekistan.

Foreign trade is important for CA countries as a major source of government revenues. Taxation of the production and exports of primary commodities (by means of specific commodity taxes, export duties and royalties) and imports (VAT and excises on imports and custom duties) provides a substantial portion of total government revenues. This allows the governments to maintain the rather expensive social infrastructure in place, which includes universal secondary education, near universal access to primary and secondary health care and social benefit programs, and, in some CA countries, to implement ambitious infrastructure projects.

### **3.3. Trade in services**

Understanding of services in this paper follows the approach used by the countries of the region in compiling their balance of payment statistics. This means that incomes of migrant workers (sometimes called exports of labor services), which are very important for Kyrgyzstan, Tajikistan and Uzbekistan, are not considered part of foreign trade; these are accounted in other items of current account (“income” and “transfers”), and so these flows are not discussed in this paper. Exports/imports of trade services, which are important for some of these countries (especially those offered on the open markets in the region, which are important for informal trade),<sup>28</sup> are not accounted separately, but included into the value of exported/imported commodities.

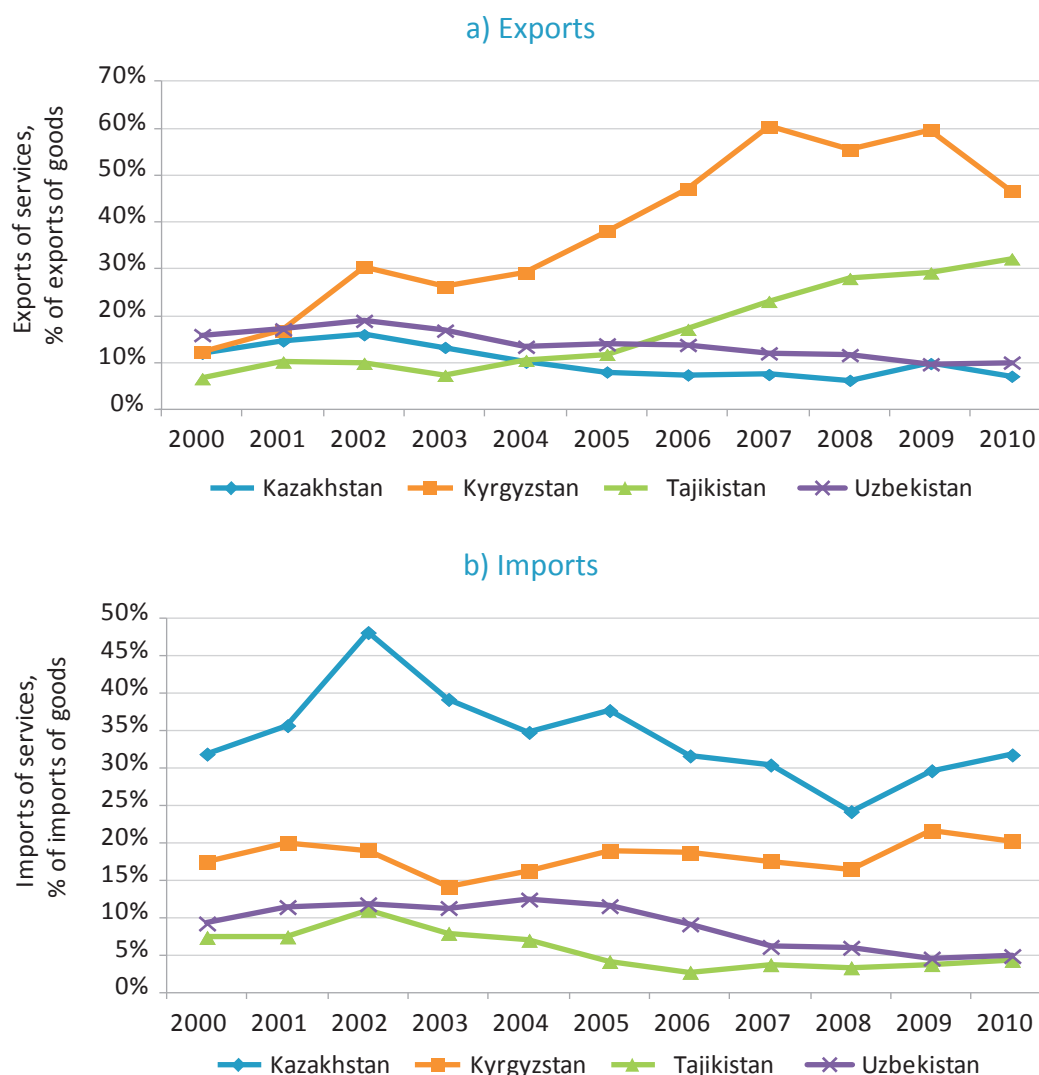
Data on CA countries’ trade in services are scant. Detailed information disaggregated by partner and type of service is available only for Kyrgyzstan and Tajikistan; Kazakhstan provides a breakdown of export and import values by type of services, but not by trade partner; Uzbekistan publishes only the total exports and imports of services. There are no accessible data on trade in services for Afghanistan and Turkmenistan.

Available data for CA countries show that exports of services are important only for Kyrgyzstan and Tajikistan (Figure 22a). In Kyrgyzstan, in recent years, exports of services were as high as 60% of exports of goods. Exports of services from this country are driven by travel/tourism<sup>29</sup> which provide 40-60% of total service export revenues depending on the success of a given tourism season on Issyk-Kul lake shore. The decline in these exports in 2010 is explained by that year’s political instability in the country which frightened off foreign tourists.

<sup>28</sup> Bartłomiej Kaminski, Matin Kholmatov and Saumya Mitra, “Bazaars and Trade Integration in CAREC Countries” (Washington DC: World Bank, 2009).

<sup>29</sup> This also includes services to business travelers/shuttle traders from neighboring countries (Kazakhstan, Tajikistan, Uzbekistan), who visit Kyrgyzstan to buy cheap predominantly Chinese goods on open markets (see more on this business in Section 4.2).

Figure 22. Trade in services



Sources: UN Service Trade Statistics Database, national statistical agencies and central banks of CA countries

In Tajikistan, the importance of exports of services increased since 2006, and in 2010 exceeded 30% of exports of goods. About half of the total exports of services are “the processing of scrap metal.” Taking into account existing industrial facilities of the country, the only possible interpretation of this service would be the production of aluminum based on a tolling scheme. In other words, this is still exports of aluminum produced from imported alumina based on an arrangement that both the raw material importer and the ready product exporter are non-Tajik entities, with Tajikistan’s contribution being the aluminum melting service.

In Kazakhstan and Uzbekistan, exports of services are not as important as the exports of goods. In Kazakhstan, from 2004 to 2010, exports of services stabilized at 6-10% of the exports of goods and grew roughly at the same rate as the exports of goods. The main services exported by Kazakhstan are transportation (about one-half of total exports) and travel (one-fourth of total exports). In Uzbekistan, exports of services measured as percentage of exports of goods fell from almost 20% in 2002 to 10% in 2010, demonstrating almost no growth in real terms.

Imports of services<sup>30</sup> are relatively high in Kazakhstan (Figure 22b), where they remain mostly above 30% of imports of goods. Key components of imported services are professional and technical services, including geophysical services related to oil and mineral exploration (20-50% of the total imports of services) and construction services (17-35% of the total imports of services). These imports accompany massive export-promoting investments in mineral deposits and infrastructure projects including pipelines. In Kyrgyzstan and Tajikistan,<sup>31</sup> key imported services include air transportation and travel (up to a half of total imports of services), which are related to labor migration and travel of shuttle traders carrying a substantial part of merchandise trade in these economies. Thus, in CA countries imports of services are closely linked to the exports and imports of goods.

#### 4. Intra-regional trade

Trade between countries of Central Asia has two major components. The first is formal trade between legal public or private entities implemented according to the regular trade regime, which means payment of all statutory import/export taxes, registration of trade transactions in official statistics, availability of required origin/quality certificates and other official requirements. The second is informal trade, which is typically implemented by physical persons. The regime applied to this trade in CA countries is much simpler than the formal one. For example, there are some tax-free allowances for shipments of small weights; for larger shipments, taxes are often levied based on weight and not on the custom value of imported goods; and production certification requirements are simpler or absent. Informal trade regimes vary by country. At times, trade transactions, which are legal in some countries of the region, are not permitted in others. This creates a rather non-transparent environment for trade with poor data and involves semi-legal<sup>32</sup> activities. It is worth reiterating that informal trade in this paper does not include transactions involving substances harmful for health, such as narcotics, the illegal turnover of weaponry and similar activities.

Data coverage is different for formal and informal trade, and therefore, these two trade modes are considered separately below.

##### 4.1. Formal trade

Intra-regional trade turnover could be defined as the sum of each region country's exports to other countries of the region or, alternatively, as the sum of imports of all countries of the region from other region countries. Due to the difference between FOB and

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<sup>30</sup> To keep data comparable for all CA countries, imports of services in this paper do not include that portion of transportation and insurance services, which is covered by CIF prices (cost, insurance and freight) of imported goods.

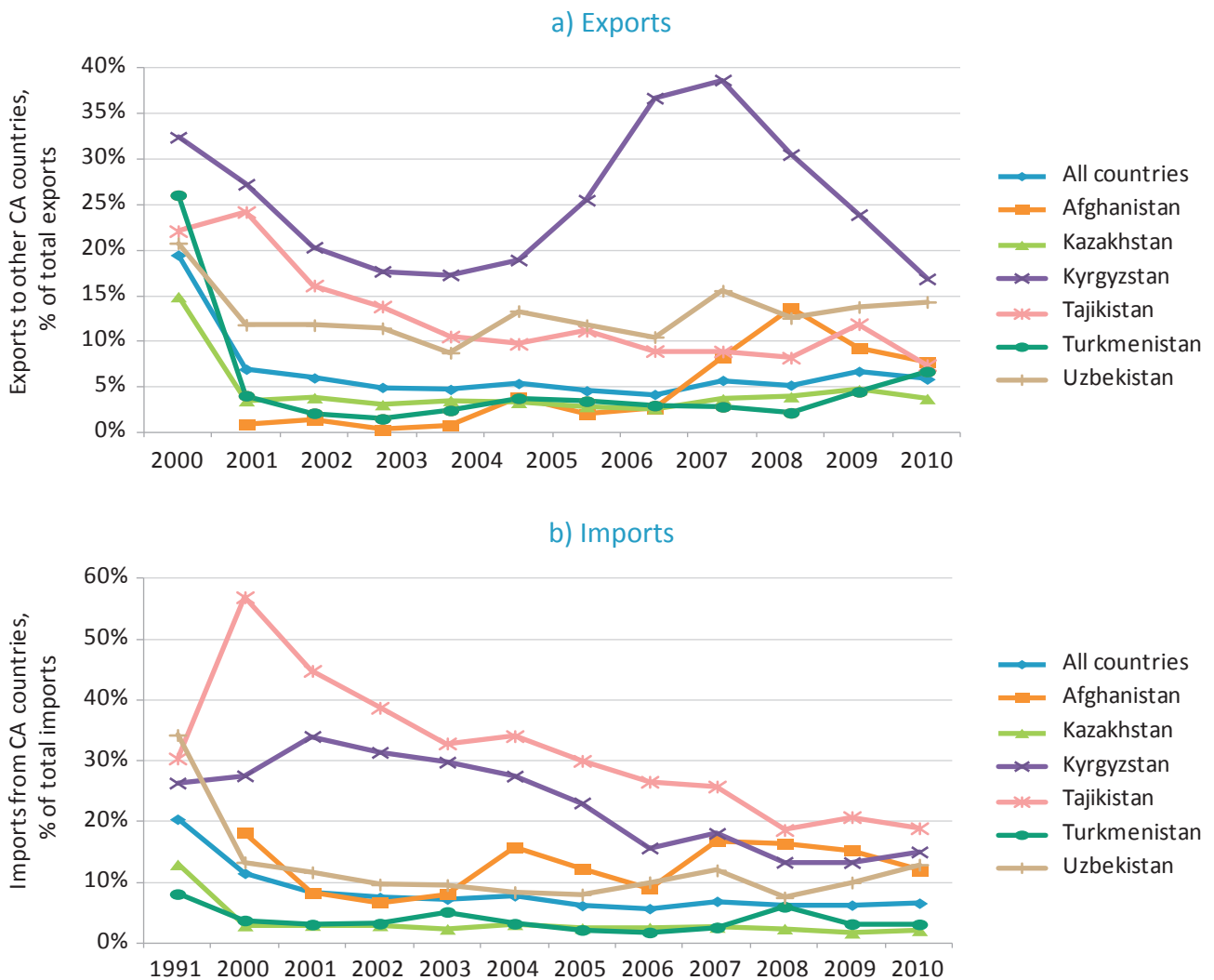
<sup>31</sup> This is also probably the case in Uzbekistan, for which no disaggregated data are available.

<sup>32</sup> The same activity may be legal on one side of the border and illegal on the other.

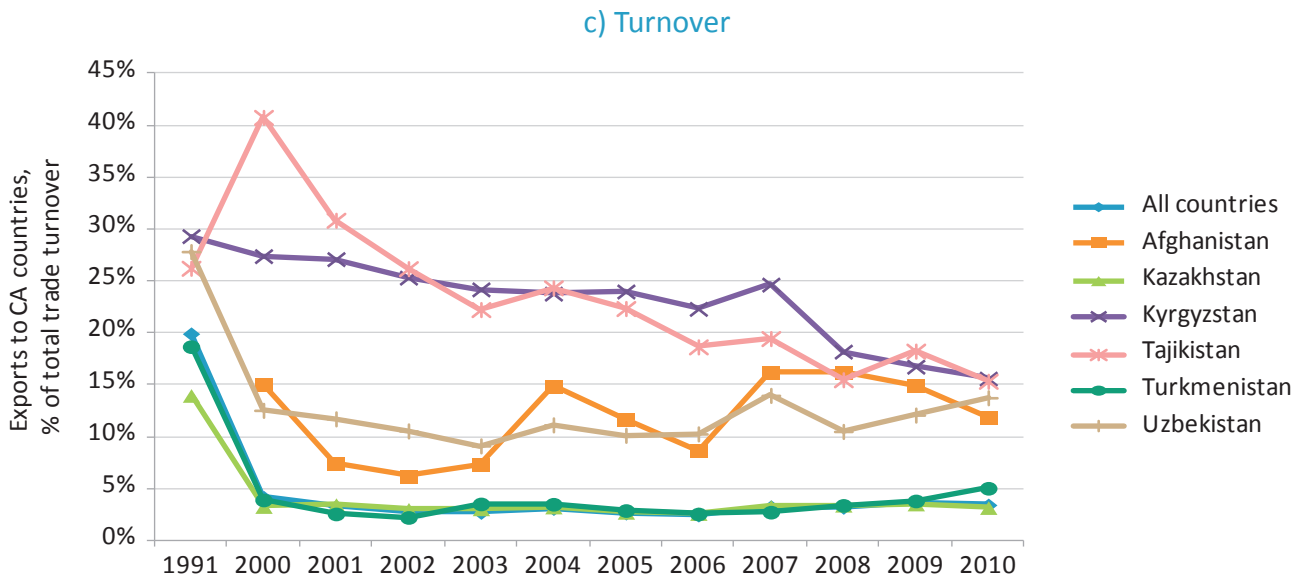
CIF prices<sup>33</sup> used in the valuation of exports and imports, time differences in the registration of exports and imports, but, more importantly because of incompleteness and insufficient quality of data (see Section 3.1), these two measures of the intra-regional turnover differ somewhat. For example, in 2000, export-based turnover was US\$1.1 billion and import-based turnover was US\$1.3 billion; in 2010 the values of these two indicators were US\$5.0 billion and US\$4.2 billion respectively.

Whether measured by exports or by imports, intra-regional trade turnover is rather small in comparison to the total trade of CA countries (Figure 23a, b, c). In 2010, all CA exports to other CA countries made up just 5.9% of the total exports of the countries of the region; this share for imports was 6.6%. In the same year, intra-regional turnover was a mere 3.5% of the total trade turnover of these countries.

Figure 23. Dynamics of intra-regional trade



<sup>33</sup> FOB (free on board) is a price of commodity at the port of departure from the origin country; CIF is a price of commodity at the customs border of the destination country. The difference between CIF and FOB prices are international transportation and insurance costs.



Sources: COMTRADE, DOTS, national statistical agencies of CA countries, World Bank<sup>34</sup>

Historically, the republics of the former USSR were much more integrated. In 1991 (the last year of the Soviet Union) intra-regional trade turnover was at 20% of their total trade turnover. In 1990s, abruptly, with the transition process, recession and the economic disintegration of previously unified production systems, trade between CA countries shrank. The reduction of intra-regional trade was a result of trade extinction<sup>35</sup> due to disappearance of some enterprises and sectors, especially manufacturing, and of trade diversion from CA markets to the markets outside the region, especially in the case of exports of primary commodities. By 2000 the transition period was mostly over, and intra-regional trade remained at the same very low level throughout 2000s.

While generally low, the reality of intra-regional trade is not the same for all countries of the region. The low level of aggregate trade integration indicators is due to Kazakhstan and Turkmenistan, which account for more than two-thirds of total trade turnover of the CA countries and depend very little on trade with other countries of the region. Kyrgyzstan and Tajikistan used to be heavily reliant on trade with other CA countries, but by 2010 this dependence fell to 10-20% of their total exports/imports. An important reason for the decline of intra-regional trade was the dramatic contraction of trade with Uzbekistan, a major trade partner in 2000, but not in 2010. In particular, trade in electricity between Kyrgyzstan and Tajikistan, on one side, and Uzbekistan, on the other side, virtually disappeared for a decade. However, regional trade remains important for Uzbekistan. The decline in trade with Kyrgyzstan and Tajikistan was compensated by considerable expansion of trade in energy products and foods with Kazakhstan and, increasingly, with Afghanistan.

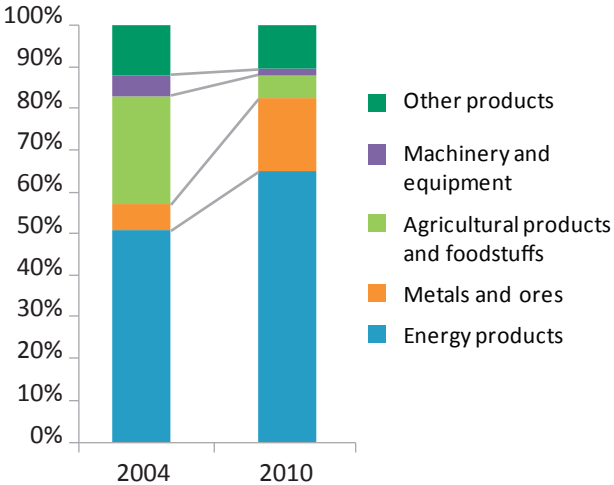
Additionally, while intra-regional trade is not very large for each CA country, it is quite important for certain segments of their trade. Trade in energy products occupies half of in-

<sup>34</sup> World Bank, "Statistical Handbook 1993: States of the Former USSR." Studies of Economies in Transformation, Paper no. 8, (Washington DC: World Bank, 1993).

<sup>35</sup> Opposite of trade creation.

tra-regional trade and is important for many countries in the region. A comparison of the commodity structure of exports directed to the countries of the region and to the countries outside the region (Figure 24) indicates that trade in agricultural products (other than cotton fiber), foodstuffs and manufactured products (“Machinery and equipment”, and construction materials, fertilizers and other chemicals included into “Other products” category) occupies much a larger share in intra-regional trade than that in trade with the rest of the world.

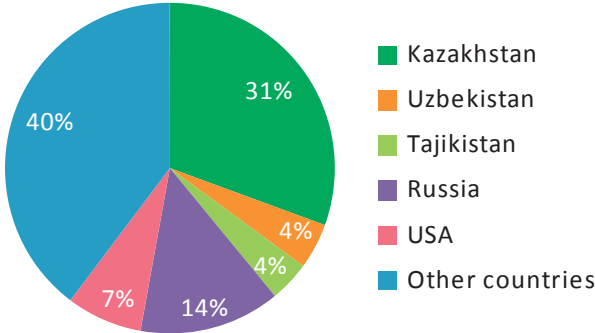
**Figure 24. Commodity structure of exports of countries of the region to Central Asia vs. the rest of the world**



Sources: COMTRADE, national statistical agencies of Central Asian countries

Regional markets are even more important for exports of services. For example, service export destinations for Kyrgyzstan, the country the most dependent on these exports, are Kazakhstan, Uzbekistan and Tajikistan, as well as Russia (Figure 25). The role of regional markets is even more important for exports of tourism services, the main type of service exports in Kyrgyzstan.

**Figure 25. Key destinations of Kyrgyz exports of services**



Source: NBKR

The development strategies of virtually all CA countries stress the gradual transition to higher value-added products and services (manufactured products, processed food, tourism), and regional markets can play an important role in efforts to diversify CA economies.



## 4.2. Informal trade and re-exports

Informal trade plays an important role in Central Asia.<sup>36</sup> At the centre of this trade are Chinese commodities (consumer goods including textiles and footwear) which are massively imported to Kazakhstan, Kyrgyzstan and Tajikistan<sup>37</sup> by physical persons, for which these countries have special import regimes with very low taxes. In Kyrgyzstan, the tax base for this special regime for physical persons is the weight of imported commodities, while under the regular regime, which is applied to legal persons, the tax base is the custom value (CIF price of imports). Ad valorem equivalents of import tax rates (inclusive of VAT) under the special regime are a mere 1-5% of custom value; compared with 32-35% of combined import duty and VAT under the regular regime in Kyrgyzstan and 25-80% of combined import duty and VAT in Kazakhstan and Russia.<sup>38</sup> Similar simplified arrangements exist in Kazakhstan and Tajikistan. The significant savings on taxes under this special regime create incentives for traders to bring Chinese commodities for domestic markets and to re-export them to other countries. Borders between all former Soviet republics were and continue to be rather permeable (even when formal border crossing regimes are restrictive as between Uzbekistan and Kyrgyzstan, and Uzbekistan and Tajikistan), so shipments from one CA country to another can be done at relatively low cost, much lower than traders' potential savings on import taxes.<sup>39</sup> Recently (starting 1 July 2011), the border regime between Kazakhstan and Kyrgyzstan was strengthened making these shipments more difficult and expensive, although the activity has far from stopped.

Re-exports are especially important for Kyrgyzstan and Tajikistan. Kyrgyzstan is known to be the main re-export hub in the region with two major open markets—Dordoi and Karasuu—serving as logistical centers of this trade for the whole region. Primary re-export destinations for Kyrgyzstan are Russia, Kazakhstan and Uzbekistan; for Tajikistan they are Afghanistan and, possibly, Uzbekistan.

While informal import/re-export activities mostly involve Chinese consumer goods, other traded commodities include fruits and vegetables from Tajikistan and Uzbekistan going to Kazakhstan and Russia via Kyrgyzstan; Russian gasoline and diesel fuel re-exported from Russia to Tajikistan via Kyrgyzstan; and other commodities circulating between these countries. Although these flows are important for some segments of the population in each of the countries involved, the volumes are much smaller than those of trade in textiles and footwear originating from China.

<sup>36</sup> Bartłomiej Kaminski, "How the Kyrgyz Republic Has Seized Opportunities Offered by Central Asia's Economic Recovery" (Washington DC: World Bank, 2008).

Bartłomiej Kaminski and Saumya Mitra, "Skeins of Silk: Borderless Bazaars and Border Trade in Central Asia" (Washington DC: World Bank, 2011).

<sup>37</sup> The CA countries which have common borders with, and can import goods from, China with relatively low transportation costs.

<sup>38</sup> Roman Mogilevskii, "Re-Export Activities in Kyrgyzstan: Problems and Prospects" (Bishkek: National Institute for Strategic Studies of the Kyrgyz Republic, 2011).

<sup>39</sup> Importantly, the source of these savings is not direct smuggling; rather the source is availability of different "grey" schemes of custom administration on borders between CA countries, including less than full implementation of rules of origin of commodities and special allowances for physical persons.



One relatively recent development to this trade in Kyrgyzstan is the gradual conversion of pure trading activity via re-exports of Chinese goods into the production of garments using Chinese inputs (fabrics, accessories and machinery) and the Kyrgyz labor force. Available indirect evidence (enterprises in this sector are mostly informal and only fragmented data on their operations exist) suggests that this component of light industry has become one of the largest sectors of the Kyrgyz economy serving both domestic and regional markets. Even official statistics, which cover this sector in a limited way, record that in 2010, the garment industry provided 8% of total employment in the country and garments were Kyrgyzstan's third largest export item after gold and radioactive elements (see Section 3.2.3).

By its very nature, informal trade is neither easy nor straightforward to measure. One approach to measuring informal trade volumes has been proposed by Kaminski.<sup>40</sup> Since CA countries' official statistics do not provide adequate coverage of these trade flows, Chinese mirror statistics (data on exports of China to CA countries) and its difference from CA data could serve as an alternative source of information. Using this approach, World Bank studies<sup>41</sup> shed some light on the scale of informal trade (in 2006, informal imports to Central Asia were estimated at over US\$7 billion); its commodity composition (about 90% of the total gap between CA and Chinese statistics are due to textiles and footwear); and dynamics (great changeability in 2005-2010, see below).

But how reliable are Chinese data? Some experts argue that while CA sources underestimate these flows, Chinese sources may overestimate them considerably. A better understanding of CA and Chinese data can be had by looking not only on export/import values, but also on the weight of the traded commodities. Taking into account the fact that informal trade is mostly about light industry products (textiles and footwear) and in order to make weight data comparable (all commodities should be of similar physical density), the analysis below is limited only to this group of commodities.<sup>42</sup>

The major discrepancies between CA and Chinese reporting data on the value of exported/imported goods could be due to two reasons: (i) differences in the weight data: China reports much larger weight of exports than weight of imports reported by importing countries; and (ii) differences in the valuation of one kilogram (kg) of goods. There is an important difference in import regime between Kyrgyzstan, and Kazakhstan and Tajikistan: Kyrgyzstan is the only country that has official custom clearance rule for large multi-ton shipments based on the weight of imported commodities. Thus, weight data are important for the Kyrgyz custom service, and one would expect a somewhat better match of weight data between Kyrgyzstan and China than customs value data. In Kyrgyzstan, unit costs are irrelevant for taxation purposes, so these values could be rather arbitrary. In Kazakhstan and Tajikistan weight data are not important, so it is possible to expect that the discrepancies between official and mirror (Chinese) statistics are to be both in weight and unit cost data.

<sup>40</sup> Kaminski, 2008.

<sup>41</sup> Kaminski and Mitra, 2011.

<sup>42</sup> In this paper, light industry production covers the following HS1996 codes: 4104-4206, 4302-4304, 5004-5007, 5104-5113, and 5203-6507.

To check these hypotheses, it is possible to use data for 2005, 2006, and 2010, for which a full set of cost and weight data disaggregated by 4-digit Harmonized System (HS) code is available from COMTRADE for China, Kazakhstan and Kyrgyzstan. For Tajikistan disaggregated data for 2010 are available from its statistical agency. Comparative data are provided in Table 7. There are huge discrepancies in the valuation of light industry product imports: the difference between Kyrgyz and Chinese data is 16 times, and 115 times in the case of Tajikistan (2010). However, the discrepancy in weight data is much smaller in Kyrgyzstan: for example, in 2010 the difference was just 1.8 times (and only 10% in 2005). At the same time, discrepancies in unit costs in Kyrgyzstan were substantial: from 9 to 25 times. One could also observe that, according to expectations, there is no systematic difference between discrepancies in weight and unit costs in Kazakhstan and Tajikistan.

**Table 7. Discrepancies between official and mirror statistics in reporting of imports of Chinese light industry products**

|   | Reporter                  | Measurement unit | 2005    | 2006    | 2010    |
|---|---------------------------|------------------|---------|---------|---------|
| <b>Kazakhstan</b>                         |                           |                  |         |         |         |
| Value of exports/imports from China       | Kazakhstan                | Mil. US\$        | 92.4    | 94.5    | 145.4   |
|   | China                     |                  | 1 957.7 | 2 134.7 | 4 730.9 |
|   | Discrepancy <sup>43</sup> | Times            | 21.2    | 22.6    | 32.5    |
| Weight of exports/imports from China      | Kazakhstan                | Thousand tons    | 61.9    | 53.9    | 49.8    |
|   | China                     |                  | 121.7   | 129.4   | 391.3   |
|   | Discrepancy               | Times            | 2.0     | 2.4     | 7.9     |
| Unit values of exports/imports from China | Kazakhstan                | US\$/kg          | 1.5     | 1.8     | 2.9     |
|   | China                     |                  | 16.1    | 16.5    | 12.1    |
|   | Discrepancy               | Times            | 10.8    | 9.4     | 4.1     |
| <b>Kyrgyzstan</b>                         |                           |                  |         |         |         |
| Value of exports/imports from China       | Kyrgyzstan                | Mil. US\$        | 21.4    | 35.7    | 195.2   |
|   | China                     |                  | 562.7   | 1 520.8 | 3 129.5 |
|   | Discrepancy               | Times            | 26.3    | 42.7    | 16.0    |
| Weight of exports/imports from China      | Kyrgyzstan                | Thousand tons    | 53.3    | 55.2    | 205.1   |
|   | China                     |                  | 57.1    | 126.9   | 378.0   |
|   | Discrepancy               | Times            | 1.1     | 2.3     | 1.8     |
| Unit values of exports/imports from China | Kyrgyzstan                | US\$/kg          | 0.4     | 0.6     | 1.0     |
|   | China                     |                  | 9.8     | 12.0    | 8.3     |
|   | Discrepancy               | Times            | 24.5    | 18.6    | 8.7     |
| <b>Tajikistan</b>                         |                           |                  |         |         |         |
| Value of exports/imports from China       | Tajikistan                | Mil. US\$        | n/a     | n/a     | 7.3     |
|   | China                     |                  | 29.4    | 76.3    | 836.9   |
|   | Discrepancy               | Times            |         |         | 114.7   |
| Weight of exports/imports from China      | Tajikistan                | Thousand tons    | n/a     | n/a     | 10.6    |
|   | China                     |                  | 2.2     | 4.8     | 85.3    |
|   | Discrepancy               | Times            |         |         | 8.0     |
| Unit values of exports/imports from China | Tajikistan                | US\$/kg          | n/a     | n/a     | 0.7     |
|   | China                     |                  | 13.6    | 15.9    | 9.8     |
|   | Discrepancy               | Times            |         |         | 14.3    |

Sources: COMTRADE, Agency on Statistics of the RT, and author's estimates

<sup>43</sup> In this table, discrepancy is the ratio of the value reported by China to the value reported by the CA country.

It is also worth looking at the unit cost values. China consistently reports these values in the range of 8.3 to 16.5 US\$/kg. This is comparable with its data on 2010 exports of these commodities to countries such as Germany (10.0 US\$/kg), Japan (12.7 US\$/kg), and Russia (10.9 US\$/kg). Interestingly, these countries report similar values for their imports of Chinese goods: 14.3 US\$/kg for Germany, 16.1 US\$/kg for Japan, and 8.8 US\$/kg for Russia.<sup>44</sup> There is also a strong concurrence between Chinese and these countries' data on weight of exports/imports. This is evidence on the reliability of Chinese weight and unit cost data. Chinese data on exports to CA countries could be used safely to estimate informal flows.

Analyzing informal trade flows one should distinguish between *direct* flows from a commodity's country of origin to its final destination country, (e.g. from China to Kazakhstan) and *indirect/re-export* flows from an intermediary country to final destination country (e.g. Kyrgyzstan's re-exports of Chinese goods to Kazakhstan, Uzbekistan and Russia). Direct flows can be estimated by comparing a country's official import data and Chinese export data. To assess the volume of re-export flows of light industry products in Central Asia it is possible to use the supply and demand balance approach.<sup>45</sup> The total supply of these products in an economy has to be equal to the demand for these goods. Sources of supply are imports and domestic production while demand includes domestic consumption and exports. The difference between total supply and total demand can be interpreted as informal indirect imports if negative, or re-exports if positive. The approach is based on a quantitative assessment of four main components of the market for light industry products: domestic consumption, domestic production, imports, and exports, and all values are expressed in current US\$ at market prices.

Domestic consumption is estimated on the basis of household survey data on the share of these types of commodities in total household consumption. These share values were found in official statistical yearbooks for three of the four countries for which data were available; for Uzbekistan, the share from Kazakhstan is applied. Total household consumption is estimated based on the share of household final consumption in GDP and GDP itself available from WDI. Details of domestic consumption calculations are presented in Table 8.

**Table 8. Domestic consumption of light industry products in Central Asian countries**

|  | Kazakhstan | Kyrgyzstan | Tajikistan | Uzbekistan |
|--|------------|------------|------------|------------|
| 1. GDP, million US\$ at current exchange rate  | 148 047    | 4 615      | 5 642      | 38 986     |
| 2. Household final consumption, % GDP  | 49.3       | 84.0       | 93.6       | 55.4       |
| 3. Household consumption of light industry products, % of household final consumption    | 10.2       | 9.6        | 7.3        | 10.2       |
| Domestic consumption of light industry products, million US\$ (line 1 * line 2 * line 3) | 7 465      | 373        | 384        | 2 208      |

Sources: WDI, national statistical agencies, and author's estimates

<sup>44</sup> All values were estimated based on COMTRADE data.

<sup>45</sup> Estimates of demand and supply balances were made in the case of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. There was insufficient data for Afghanistan and Turkmenistan.

Domestic production has been estimated on the basis of light industry output data published by national statistical agencies. For exports of light industry products national statistics' data are used; for Uzbekistan, where data with the required level of disaggregation are unavailable, mirror data reported by importers are utilized. Imports are measured by the exporting country's data (at FOB prices) allowing an account of direct informal flows of goods from China and other countries, including Korea, Turkey and the United Arab Emirates. Discrepancies between CA and the other countries' data are significant, although the absolute size of these imports is much smaller than imports from China. Prices of the imported goods on domestic markets of CA countries should also include transportation costs from the exporting to the importing country, as well as wholesale and retail traders' margins. Following Kaminski and Mitra,<sup>46</sup> the value added to imports is estimated as percentage of the value of imports. This value is assumed to be 20% for Kazakhstan, Tajikistan and Uzbekistan, with 5% accounting for transportation and insurance costs (the difference between CIF and FOB prices) and the remainder left for trade margin. For Kyrgyzstan, where value added also includes manufacturing costs for a significant part of imports (see above), total value added on imports is set at 30%. This is the most sensitive assumption in the methodology. However, based on typical trade/manufacturing margin values in these economies (available from input-output tables) and anecdotal evidence, the assumption of 20%/30% seems to be conservative and many traders informally refer to higher trade margin rates.

All these estimates are consolidated in Table 9, and the difference between total supply and total demand is positive for Kyrgyzstan and Tajikistan and negative for Kazakhstan and Uzbekistan. It is common knowledge that re-export flows are very large in Kyrgyzstan –over twice the official exports value. Re-exports appear to be significant for Tajikistan, as well, where in 2010, the value of re-exports exceeded all non-aluminum exports. In Kazakhstan, informal imports directly coming from China are complemented by those supplied via (and partially processed in) Kyrgyzstan. Finally, Uzbekistan appears to be a major recipient of informal imports (17.4% of official imports in 2010). This is consistent with the fact that the country has the largest population in the region, its direct imports of light industry products are unusually low, and the second largest open market serving re-export flows is located in Karasuu, Kyrgyzstan, on the border with Uzbekistan.

**Table 9. Informal exports and imports of light industry products in Central Asia, 2010, million US\$**

|   | Kazakhstan | Kyrgyzstan | Tajikistan | Uzbekistan |
|---|------------|------------|------------|------------|
| Supply  |            |            |            |            |
| Imports   | 5 580      | 3 293      | 938        | 278        |
| of which from China                                     | 4 731      | 3 129      | 859        | 136        |
| For reference: imports according to domestic statistics | 474        | 254        | 39         | n/a        |
| Value added on imports                                  | 1 116      | 988        | 188        | 56         |
| Domestic production                                     | 232        | 146        | 16         | 1 115      |
| Total supply  | 6 928      | 4 426      | 1 142      | 1 449      |

<sup>46</sup> Kaminski and Mitra, 2011.

|  | Kazakhstan | Kyrgyzstan | Tajikistan | Uzbekistan |
|--|------------|------------|------------|------------|
| Demand   |            |            |            |            |
| Domestic consumption                           | 7 465      | 373        | 384        | 2 208      |
| Reported exports                               | 86         | 140        | 47         | 633        |
| Total demand                                   | 7 550      | 513        | 431        | 2 841      |
| Informal exports/re-exports (+) or imports (-) |            |            |            |            |
| Million US\$                                   | -622       | 3 913      | 711        | -1 392     |
| % of total official exports/imports            | 2.0        | 262.9      | 59.5       | 17.4       |

Sources: COMTRADE, national statistical agencies, and author's estimates

In general, informal intra-regional trade turnover<sup>47</sup> in 2010 was approximately US\$2.7 billion, which is comparable in value to formal trade. It also follows from the above table that informal imports from China are larger than formal ones (compare with Table 6).

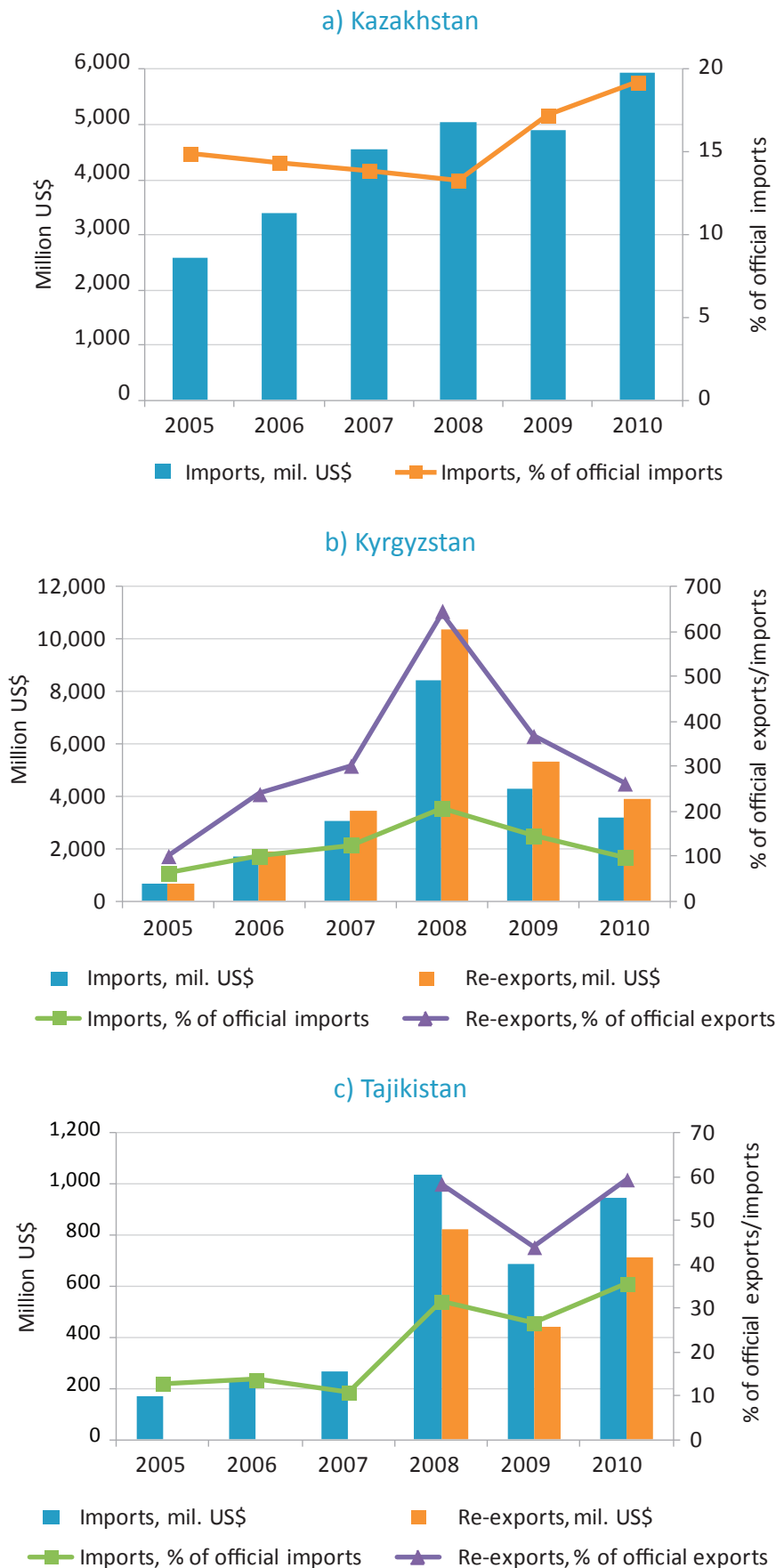
This methodology also allows an estimate of the dynamics of informal trade flows in recent years (Figure 26).<sup>48</sup> According to these estimates, informal imports and re-exports fluctuated widely from 2005 to 2010. In Kazakhstan, informal imports grew steadily (with some crisis-associated decline in 2009) and in 2010, achieved a level of almost US\$6 billion or almost 20% of total official imports. In Kyrgyzstan, informal imports grew explosively from 2005 to 2008, exceeding US\$8 billion or 200% of total official imports, and re-exports exceeding US\$10 billion or 640% of total official exports in 2008. Informal trade flows were thus much more important than formal ones. However, in 2009, informal trade flows in Kyrgyzstan declined due to general crisis-related reduction of demand in all final destination countries and because of the partial diversion of informal trade flows from Kyrgyzstan to direct informal or formal imports from China to Kazakhstan and Russia.<sup>49</sup> In 2010, this re-orientation of informal trade intensified because of the political instability in Kyrgyzstan. Tajikistan was a net importer of Chinese products from 2005 to 2007, and beginning in 2008, became the second largest re-exporter in the Central Asia.

<sup>47</sup> Informal re-exports from Kyrgyzstan to Kazakhstan and Uzbekistan, and re-exports from Tajikistan to Afghanistan and Uzbekistan; the remainder consists of Kyrgyz re-exports to Russia.

<sup>48</sup> Here estimates of informal imports include both direct and indirect flows measured at CIF prices. Some of the required data are not available for Uzbekistan prior to 2010.

<sup>49</sup> In anticipation of the opening of the Russian market for informal re-exports from Kazakhstan due to latter's membership in the CU, transport flows via the Chinese/Kazakh Khorgos border crossing are reported to have increased significantly.

Figure 26. Dynamics of informal trade in light industry products in selected Central Asian countries



Sources: COMTRADE, national statistical agencies, and author's estimates



Informal trade is very sensitive to price signals and changes in the trade regime. The strong real appreciation of the Kazakh *tenge* and the Russian *ruble* from 2005 to 2008 resulted in a massive surge of informal imports and re-exports, and the devaluation of these currencies in 2009 was accompanied by a significant drop in this trade. In 2010, when Kazakhstan and Uzbekistan closed their borders with Kyrgyzstan for motor vehicle transport during the period of political instability, this resulted in reduced re-exports through Kyrgyzstan and a further reorientation of informal trade flows to Kazakhstan.

These estimates also suggest that informal trade makes a substantial contribution to GDP of these countries. In 2010 in Kyrgyzstan, the value added of informal trade and garments production was the largest in the region, estimated at 16.5% of GDP. In Kazakhstan, Tajikistan and Uzbekistan, the estimated impact of informal trade on GDP is smaller but significant, at 0.6%, 2.4% and 0.4% GDP respectively.

Apart from major economic impact, informal trade in the region also plays an important social role. The most direct social effect is that it allows poorer population segments access to cheaper consumer goods, somewhat improving the welfare of the poor. Conversely, there is the reality of lost tax revenues, which potentially could be spent on the provision of public goods in these countries. One could argue, however, that, taking into account governance problems (see Section 2), the efficiency of this public spending may not be very high in the region. There is also a gender dimension of this trade. According to a World Bank study, 70 to 80% of vendors in bazaars are women, and half of shuttle traders are also women.<sup>50</sup> This trading activity provides significant direct and indirect employment, and in many communities it is the main source of employment. Women also form the majority of the labor force employed in the informal garment industry in Kyrgyzstan.<sup>51</sup> Participation in these informal activities often makes women the principle breadwinner in their households, strengthening their social role. On the other hand, women involved into informal trade become exposed to increased risks at border crossing points, open markets and in other places. Women in the informal garment industry typically face occupational hazards and do not enjoy any legal protections. Thus, informal trade is a source of both opportunities and threats for women.<sup>52</sup>

The CU of Belarus, Kazakhstan and Russia has already led to some adverse effects for informal trade, including a newly built fence at the Kazakh-Kyrgyz border which has reduced the number of transportation options for traders. Kyrgyzstan and Tajikistan are now discussing joining the CU. If this happens, informal trade and especially re-exports will suffer since border control procedures on all Central Asia-Chinese borders will be tightened significantly and the simplified importation regimes for physical persons will have to be abandoned. Taking into account the economic and social importance of informal trade, the decision on mem-

<sup>50</sup> Kaminski, et al, 2009.

Emil Nasritdinov, Roza Rayapova, Nodira Kholmatova, Eliza Damirbek kyzy and Natalia Igoshina, "Informal Economy and Social Vulnerability in Kyrgyzstan and Tajikistan" (Bishkek: American University of Central Asia, 2010).

<sup>51</sup> SIAR Research and Consulting. "Status and Prospects of the Kyrgyz Garment Sewing Industry" (Bishkek: SIAR Research and Consulting, 2011).

<sup>52</sup> Ibid.



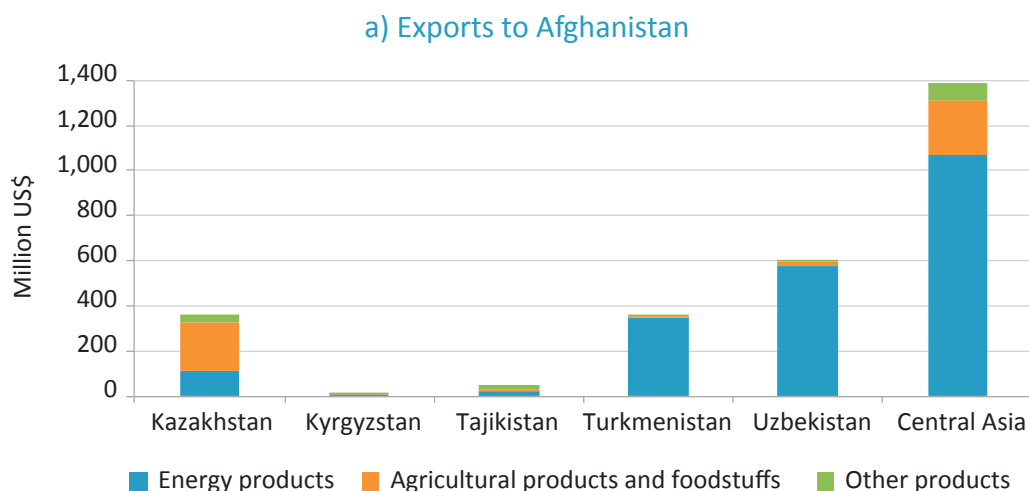
bership in the CU will have to be made only after a careful weighing of potential gains in the formal sector compared to potential losses in the informal one.

### 4.3. Trade with Afghanistan

Trade linkages between Afghanistan and other CA countries have improved significantly, when the anti-terrorist coalition launched operations in Afghanistan in 2001. CA countries provide considerable logistical support to the coalition operations. Gradually, bilateral trade relationships between Afghanistan and other countries of the region have strengthened. In 2010, these countries provided about 12% of Afghanistan's total imports and absorbed some 8% of this country's exports (Figure 27a, b). Exports to Afghanistan consist primarily of energy products (oil products, electricity); for Kazakhstan the most important export item is wheat flour. Exports from Afghanistan to other CA countries are much smaller in absolute terms, and the main recipient of Afghanistan's goods (cement, agricultural products and machinery)<sup>53</sup> is Tajikistan. Thus, trade of Afghanistan with other CA countries is concentrated on a few commodities.

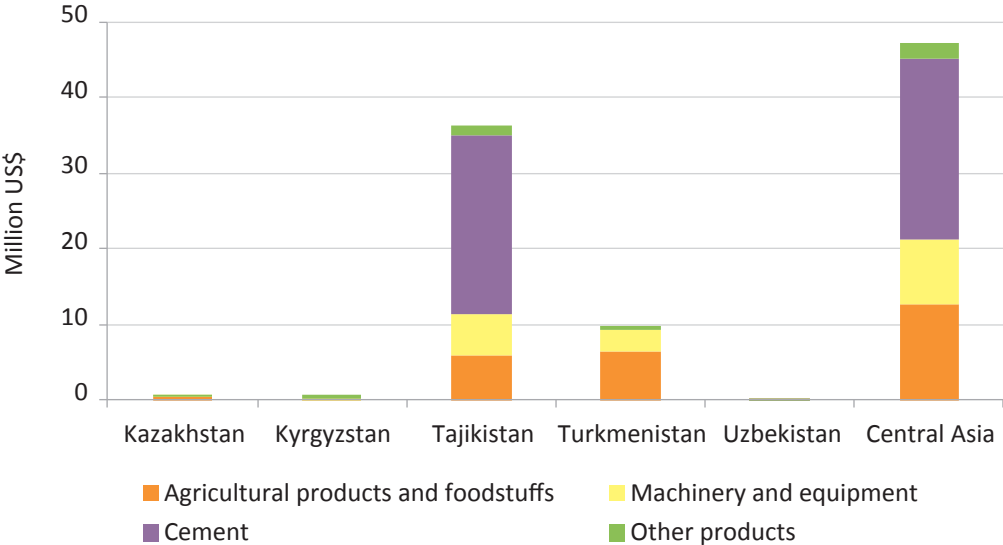
A comparison of data for different years indicates that in 2010 Afghanistan's imports from its northern neighbors (CA republics, Russia and other countries of the former USSR) recovered from a near zero level in 2000 to almost the level of 1977 (Figure 27c). In terms of exports, however, the recovery has been less successful, and exports to these countries are now much smaller now than they were 35 years ago, indicating significant opportunities for formal trade expansion.

**Figure 27. Trade between Central Asian countries and Afghanistan, 2010**

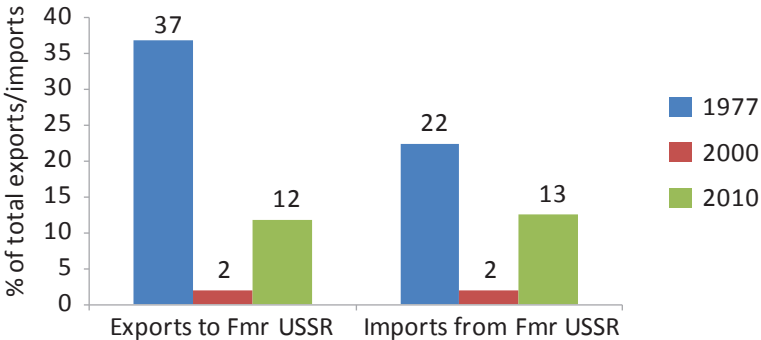


<sup>53</sup> It is likely that re-export flows go not only from Tajikistan to Afghanistan, but in the opposite direction as well.

b) Imports from Afghanistan



c) Comparison between 1977 and 2010



Sources: COMTRADE, national statistical agencies, and author’s estimates

As follows from the above discussion, informal trade between Afghanistan and Tajikistan is probably worth several hundred million US\$ and is as important as formal trade.

## 5. Conclusions and Policy Implications

The main trends in trade of Central Asian countries from 2000 to 2010 can be summarized as follows:

- Merchandise exports of all countries except Tajikistan increased dramatically primarily due to a major improvement in international prices for primary commodities in the 2000s.
- Merchandise imports have grown in all countries of the region as a result of expanding domestic demand and the real appreciation of local currencies.
- The openness of all the economies has mostly increased; in 2010 the share of trade turnover in GDP was ranged from 20+% (Uzbekistan) to 50% (Turkmenistan and Kazakhstan).
- Hydrocarbon-exporting countries (Kazakhstan, Turkmenistan, and Uzbekistan) had large or very large positive trade balances, and accumulated resources were partially spent on imports of services or labor (in Kazakhstan) and partially stored in sovereign wealth funds.
- Three other countries of the region saw a substantial increase in their trade deficits in 2010, compared to the beginning of the decade. These deficits were financed by income from informal re-exports (Kyrgyzstan and Tajikistan), remittances from labor migrants (in Kyrgyzstan and Tajikistan), and foreign aid (Afghanistan and, to a much lesser extent, Kyrgyzstan and Tajikistan).
- Exports of services are important only for Kyrgyzstan and Tajikistan; imports of services, mostly associated with extracting industries, are relatively large in Kazakhstan.
- Trade flows in the region are sensitive to external shocks, such as the recent global crisis, which had a strong and adverse effect on trade in all CA countries in 2009.
- Trade performance is sensitive to energy-related infrastructure development. The construction of new gas and oil pipelines and electricity transmission lines resulted in an expansion of energy exports and their reorientation towards China and Afghanistan. The impact of investments in road infrastructure facilitated a growth of imports and informal re-exports.
- Exports of all CA countries increasingly concentrate on very few primary commodities (oil and gas, ferrous and non-ferrous metals, cotton, wheat).
- EU and Russia have always been the main partners of Central Asian countries for exports and imports. China has recently emerged as one of the most important partners for all countries of the region.
- Formal intra-regional trade is not very important for the majority of these countries; it represents less than 5% of their total trade turnover. Exports to countries of the region are more important for Kyrgyzstan and Uzbekistan; imports from the region are relatively significant for Tajikistan and Kyrgyzstan.
- The region is important for individual CA countries as a destination of their manufactured products, including machinery and processed foods, and as a primary destination of their exports of services.
- Informal imports and re-exports of Chinese consumer goods, mostly light industry products, are economically and socially important for CA countries, especially Kyrgyzstan and Tajikistan. This component of trade is sensitive to policy changes and external shocks.

- Afghanistan's trade with other CA countries increases, but it is still concentrated on a very narrow set of commodities, mostly energy products, and so far only a fraction of this trade's potential is being realized.

These trends and patterns of trade in Central Asia suggest a number of important policy implications:

1. Almost all CA countries have ambitions to make a transition from the export of primary products to products/services with higher value added. The most natural markets for these products/services are their neighbors. Regional trade policy should, therefore, be an important item on CA countries' policy agendas.
2. Development of transport and energy infrastructure in the region has demonstrated its capacity to increase trade volumes and change trade structure significantly. It should be noted, however, that given the current production structure, with its concentration on primary commodities, improvements in transport infrastructure will be more beneficial for imports than for exports.
3. Protective trade policies in the region do not seem effective either for export promotion (almost no manufactured exports), or for import substitution (as the large scale of informal trade suggests). This should be considered seriously, when major trade policy changes in the region are on the horizon, including the formation of the Single Economic Space uniting Belarus, Kazakhstan and Russia and, possibly, in the future, Kyrgyzstan and Tajikistan, and Kazakhstan's accession to the World Trade Organization.
4. Formal and informal foreign trade is important for both economic and social development of CA countries. Trade lowers consumer prices, provides the government budget revenues needed for social infrastructure maintenance, and increases employment opportunities for key social groups such as women, overall contributing to poverty reduction and social equality in Central Asia.

In conclusion, any pragmatic and viable long-term development strategy for CA countries should place trade, including regional trade, high on the agenda.

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Produced by UCA Communications Department  
Copy Edited by Sia Nowrojee  
Printed by VRS, Bishkek, Kyrgyz Republic





