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Export Structure and Performance in a Landlocked Transitional Economy: The Case of Kyrgyz Republic

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Abstract

Thanks to the market-oriented reforms undertaken since the early 1990s, the Kyrgyz Republic has emerged as one of the most globally integrated economies in the former Soviet space and the centre of entrepôt trade in Central Asia. However, the patterns of global economic integration of the Kyrgyz economy have so far been rather lopsided. While there have been some notable changes in the structure of exports in line with the country's comparative advantage, export expansion has not kept pace with rapid import penetration in the economy. This has led to increased dependence of the economy on migrant-worker remittances and external financing. The composition of external financing has begun to shift from grants and concessionary loans towards borrowing at commercial rates, thus potentially exposing the economy to additional external economic shocks. A major contemporary policy challenge faced by the country is broadening the export base. This requires speedy implementation of behind-the-border reforms to supplement the significant opening of the economy to foreign trade and investment.

Key world: Kyrgyz Republic, transition economy, landlocked countries, export performance

JEL Codes: F13, O53, P27, P33

Export Structure and Performance in a Landlocked Transitional Economy: The case of Kyrgyz Republic

1. Introduction

Among the fifteen independent states that emerged from the breakup of the Soviet Union, the Kyrgyz Republic has made stride, in relative terms, in the transition from a central planned- to a market-oriented economy. For much of the country's first decade of independence, it was the quintessential example of reforms in Central Asia. The reforms contributed to the creation of one of the most globally integrated economies in the former Soviet space and the centre of entrepôt trade in Central Asia. Following the grim decade of the 1990s, the economy has grown at an average rate of about 4.5% per annum, while virtually eliminating poverty at the World Bank's international poverty line of 'US \$1.90 a day'. However, growth was volatile and has not been up to the country's perceived potential. The economy depends increasingly migrant worker remittances and external debt to finance a widening trade deficit. A main contemporary policy challenge the country faces is broadening the export base through market-oriented diversification and adoption of a broad spectrum of economic, institutional, and political reforms.

The purpose of this paper is to examine export performance in the Kyrgyz Republic in the process of economic in the process of global economic integration of the economy under market-oriented policy reforms. The paper specifically focuses on the magnitude of change in the export structure under the market system, with emphasis of the country's resource endowment the 'natural' trade costs resulting from the country's 'landlockedness' and distance to markets. The analysis aims to inform the debate on reform priorities for further integration of the Kyrgyz economy into the world economy.

It is important to warn at the outset that precise magnitudes of the relevant variables are uncertain given that the country's data reporting system is still evolving. The coverage of data relating to foreign trade and investment is uneven over time because of adjustment made to trade and remittances taking place through informal channels. More importantly, it cannot be assumed for intertemporal analysis that the magnitude of reporting errors remains constant, for two reasons. First, the share of informal trade and the rate of actual implementation of approved investment projects varies over time. Second, the procedures followed by the data recording and compiling agencies to deal with informal trade and remittances seem to have changed from

time to time. For the latter reason, it takes in some cases several years (not just 1 or 2 years, as in countries with mature data reporting systems) for some data series to ‘get settled’.

The paper begins with a review of the reform process and market enhancing policies and the incentive structure, with emphasis on the incompleteness of the reform agenda. The next section provides an overview of the external payments situation of the country to provide the context for the ensuing analysis. The following section, which forms the core sections of the paper, dealing with reform outcomes and further reform imperatives relating to export performance. The paper concludes with a summary of key findings and policy inferences.

2. Reforms and the incentive structure

2.1 Trade policy

Among the Soviet republics that became independent with the dissolution of the Soviet Union on 25 December 1991, the Kyrgyz Republic stands out for embarking on a path of liberalisation and global economic integration at an early stage of the transition process (ADB 2014, Quinn-Judge and Srtonski 2010, Pomfret 2015 and 2018). In 1993, the country signed a bilateral co-operation agreement with the United States that paved the way for extensive international assistance. The reform process received strong support from international institutions such as the International Monetary Fund (IMF) and the World Bank, the Asian Development Bank, other international development organizations, and major bilateral donors in the Western world.

State monopolies on foreign trade were eliminated, licensing requirements for imports were lifted, and tariff reforms were initiated within the first five years. To complement trade opening, practically all price controls on domestic trade were removed, apart from public transport, electricity, and municipal services. In May 1993, the Kyrgyz Republic left the ruble zone and issued its own national currency, the som, and subsequently made it fully convertible for current account transactions. In July 1998, it became the first among the Soviet successor states to accede to the World Trade Organization (WTO).¹ Trade liberalisation and currency convertibility made the country eligible for achieving ‘Article IV’ status of the IMF in 1999.

¹ Russia became a WTO member in 2012. Among the Central Asian countries, Tajikistan and Kazakhstan acceded to WTO in 2013 and 2015, respectively. Turkmenistan and Uzbekistani are still not WTO members.

By that time there was also *de facto* convertibility of the currently for capital account transactions subject only to disclosure requirements.

The Kyrgyz Republic has bound most tariffs at the simple average level of 7.5% and eliminated quantitative import restrictions under its commitments for WTO accession. In 2016 applied simple average and trade-weighted average tariffs stood at 6.9% and 7.7%, respectively (Table 1). Most applied duty rates in 2016 at the two-digit product level of the Harmonised System (HS) were well below the maximum bound rates. There are generally no permanent duties on exports, other than some temporary duties imposed from time to time on some agricultural products primarily for stabilising domestic supply in times of temporary supply shortfalls.

In 2015, the Kyrgyz Republic became the fifth member of the Eurasian Economic Union (EAEU) led by the Russian Federation.² Currently the Kyrgyz Republic is in the process of aligning its tariffs on imports from non-EAEU countries with the *common tariffs* of the Customs Union, which are essentially the Russian tariffs given the dominant position of Russia in the EAEU. At the same time under its WTO commitment the Kyrgyz Republic is required to re-negotiate tariff bindings which are currently lower on average than the Russian's bound tariffs. According to calculations by the WTO, 30% of Kyrgyz duties are already aligned with the common Customs Union tariffs and 21% can be realigned without violating WTO commitments (because the common tariffs are below Kyrgyz WTO bound tariffs) but aligning the rest requires renegotiation with, and compensation to, WTO members (WTO 2014). The Kyrgyz authorities have already started these negotiations.

² For details on the EAEU see Tarr (2016) and Vinokurov (2017).

Table 1: Kyrgyz Republic: MFN applied import duties, 2017 (%)

Product group ¹	Final bound rates			Applied rates		
	Average	Duty free	Maximum	Average	Duty free	Maximum
Animal products	17.1	8.7	95	15.0	19.0	55
Dairy products	14.4	0	15	14.9	0	18
Fruit, vegetables, plants	8.1	0.2	13	8.2	4.8	20
Coffee, tea	5.4	4.2	20	5.4	20.8	3
Cereals & preparations	9.6	1.9	15	9.4	4.0	20
Oil seeds, fats & oil	5.6	32.0	60	6.6	19.1	15
Sugar and confectionary	10.2	0	233	11.1	0	54
Beverages & tobacco	20.5	2.1	0	21.7	4.4	233
Cotton	0.0	100.0	10	0.0	100.0	0
Other agricultural products	5.3	0.8	14	4.8	7.4	10
Fish & fish products	0.8	88.6	15	7.2	4.5	30
Minerals & metals	7.0	0.4	5	7.6	6.8	17
Petroleum	5.0	0	12	4.4	12.7	5
Chemicals	4.7	9.1	15	5.0	8.7	13
Wood, paper, etc	5.0	37.6	15	8.2	6.4	16
Textile	7.4	0.2	24	8.0	0.6	20
Clothing	8.9	0	15	9.1	0	24
Leather, footwear, etc	6.0	4.2	15	6.2	9.9	20
Non-electrical machinery	6.4	31.1	15	2.6	67.3	15
Electrical machinery	4.8	41.1	15	4.5	45.1	20
Transport equipment	7.5	11.6	15	8.1	16.8	23
Other Manufactures	7.0	22.5	15	8.0	21.0	20
Summary						
Total imports						
Simple average	7.5			6.9		
Trade weighted average				7.7		

Note: 1. Products identified at the 2-digit level of the Harmonized System.

Source: WTO (2018), *World Tariff Profile 2017*, Geneva: WTO. www.wto.org/statistics (accessed 08 May 2018)

2.3 Behind the border reforms

The first three years of nation building was a period of hyperinflation in the Kyrgyz Republic. The introduction of a national currency in 1993 was instrumental in establishing a functioning market economy needed for taming inflation. This coupled with a managed floating exchange rate regime backed by concessionary capital inflows, and the open trade regime that helped meeting pent-up domestic demand through imports, helped bring the annual inflation rate below 50% by the mid-1990s and down to between 4% to 6% during the ensuing years.

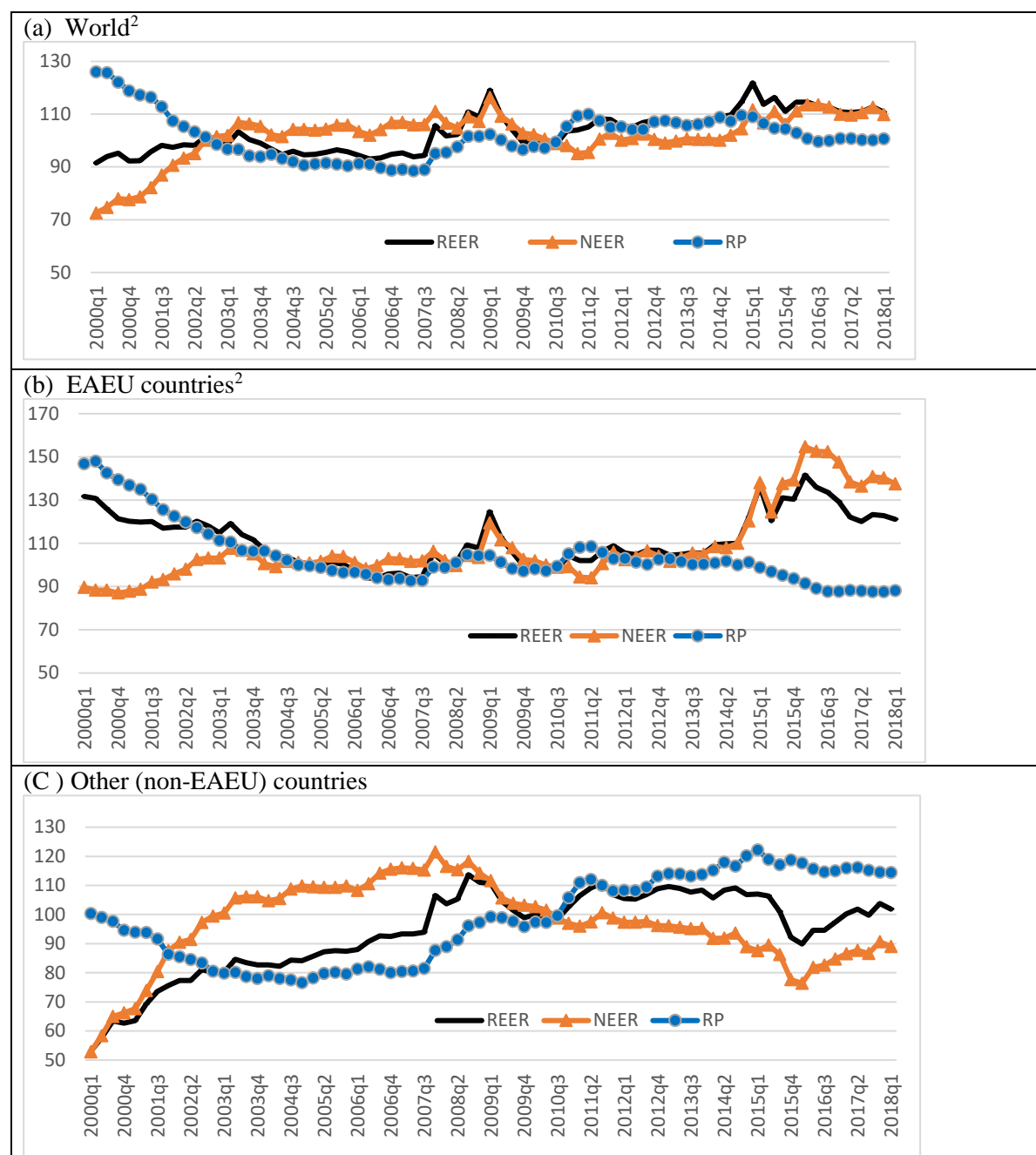
From about early 2000 to 2015, the real effective exchange rate (REER) rate moved basically in line with movement of the nominal effective exchange rate (NEER) as the rate of domestic inflation was much in line with that of the trading partner countries (Figure 1). However, since then the REER for trade with the EUEU countries and rest of the world have exhibited divergent patterns.

The NEER for EAEU countries appreciated during this period given the massive depreciation of the ruble against the US dollar following the ending of the resource boon. However, the REER has continuously depreciated driven largely by relatively low Kyrgyz inflation vis-a-vis the EAEU countries.

The REER appreciated continuously vis-à-vis the non-EAEU countries through this period, driven by the appreciation of the nominal exchange rate against their currencies. Disaggregated data (not shown here for brevity) show that from the beginning of 2016 the som strengthened against the euro, PRC yuan, Kazakh tinge, Turkish lira,, and United States dollar, while there was some devaluation against the Russian ruble. Given the contrasting patterns of NEER monuments vis-à-vis the EAEU and other countries, the aggregate REER has shown a moderate rate of appreciation (by about 10%) between 2015 and 2016 (Figure 1).

The time pattern of NEER has been basically driven by migrant workers' remittances and other capital inflows. A comparison of changes in foreign exchange reserves and the som-dollar exchange rate suggest that the Central Bank (the National Bank of the Kyrgyz Republic) intervened in the foreign exchange market only to avoid excessive volatility: there is no evidence of the National Bank "leaning against the wind."

Figure 1: Kyrgyz Republic: Nominal effective exchange rate (NEER), relative price (RP), and real effective exchange rate (REER), 2000Q1 – 2018Q1 (2010 = 100)



Notes

(1) NEER = Nominal effective exchange rate; RP = price level of Kyrgyz Rp. Relative to its trading partner countries; REER = $NEER \times RP$ = real effective exchange rate. An increase in the REER indicates real appreciation: (reduction in the international competitiveness) and vice versa..

(2) Covers the Kyrgyz Republic's total trade (imports and exports) with the 17 largest trading partner countries. (3) Strikingly similar to the three data series for the Commonwealth of Independent States (CIS) given the dominance of Russian Federation and Kazakhstan in both country groups..

Source: Compiled from NBKR, *Monthly Statistical Bulletin*

(<http://www.nbkr.kg/DOC/07122017/000000000048812.xls>, accessed 22 June 2018).

Notwithstanding significant border reforms and macroeconomic stabilization, there has been limited progress with the more complex institutional and legal reforms needed to create “an environment in which market forces could produce socially desirable outcomes” (Pomfret 2018: p. 180). The economic transition indicators constructed by the European Bank for Reconstruction and Development are summarized for the EAEU member countries in Table 2. The indicators evaluate policies on a scale of 1 (no reform) to 4 (meeting standards of high-income market economies).

The Kyrgyz Republic has achieved the standard of high-income market economies in terms of small-scale privatization, price stabilization, and liberalization of trade and forex systems. However, on the other indicators, its ranking is not very different from rankings of the other EAEU countries.

The Kyrgyz Republic also ranks poorly in the areas of governance, entrepreneurial restructuring, and competition policy according to various global surveys and rankings. For example, on the Heritage Foundation index of Economic Freedom, the Kyrgyz Republic has a low score in freedom from corruption and public freedom, which reflects the weakness of its judicial system and its inability to enforce contracts. This diagnosis is consistent with comparative assessments of the World Economic Forum’s Global Competitiveness Report and various indicators of quality of governance on the World Bank websites. The Kyrgyz business environment is not conducive to attracting foreign investment and, generally, for the diversification of the economy from its primary commodity dependence through private sector initiatives. Absence of behind-the-board market discipline inhibits the beneficial effects of the significant trade and investment policy reforms. Opening of the economy to foreign trade and investment combined with the absence of strong market-enhancing institutions and has provide a breeding ground for corruption (McMann (2014)

Table 2: EBDR Economic Transition Indicators for the EAEU Countries, 1995, 2005, 2010 and 2014

		Large scale privatisation	Small scale privatisation	Governance and enterprise restructuring	Price liberalisation	Trade & Forex system	Competition Policy
Kazakhstan	1995	2.0	3.0	1.0	4.0	3.0	2.0
	2010	3.0	4.0	2.0	4.0	3.7	2.0
	2014	3.0	4.0	2.0	3.7	3.7	2.0
Kyrgyz Republic	1995	3.0	4.0	2.0	4.3	4.0	2.0
	2010	3.7	4.0	2.0	4.3	4.3	2.0
	2014	3.7	4.0	2.0	4.3	4.3	2.0
Tajikistan	1995	2.0	2.0	1.0	3.3	2.0	2.0
	2010	2.3	4.0	2.0	4.0	3.3	1.7
	2014	2.3	4.0	2.0	4.0	3.7	1.7
Turkmenistan	1995	1.0	1.7	1.0	2.7	1.0	1.0
	2010	1.0	2.3	1.0	2.7	2.0	1.0
	2014	1.0	2.3	1.0	3.0	2.3	1.0
Uzbekistan	1995	2.7	3.0	2.0	3.7	2.0	2.0
	2010	2.7	3.3	1.7	2.7	2.0	1.7
	2014	2.7	3.3	1.7	2.7	1.7	1.7
Armenia	1995	2.0	2.7	2.0	3.7	3.0	1.0
	2010	3.7	4.0	2.3	4.3	4.3	2.3
	2014	3.7	4.0	2.3	4.0	4.3	2.3
Belarus	1995	1.7	2.0	1.7	3.7	2.0	2.0
	2010	1.7	2.3	1.7	3.3	2.3	2.0
	2014	1.7	2.3	1.7	3.0	2.3	2.0
Russian Federation	1995	3.0	4.0	2.0	3.7	3.0	2.0
	2010	3.0	4.0	2.3	4.0	3.3	2.3
	2014	3.0	4.0	2.3	4.0	3.7	2.7

Source: <http://www.ebrd.com/what-we-do/economic-research-and-data/data/forecasts-macro-data-transition-indicators.html> (accessed on 27 May 2018)

2.3 Geographical disadvantage and trade costs

Lack of connectivity with the outside world remains a major obstacle to global economic integration in the Kyrgyz Republic. It is a landlocked country with mountainous terrain bordered by Kazakhstan to the north, Uzbekistan to the west and southwest, Tajikistan to the southwest, and the PRC to the east. It is in fact doubly landlocked on three sides because Kazakhstan, Tajikistan, and Uzbekistan are also landlocked countries.

The old trade routes to Asia through Tajikistan and Afghanistan have remained virtually closed for many years because of the civil war in Afghanistan. Currently, the main land transport route that links the Kyrgyz Republic to global markets is through Kazakhstan, the

Russian Federation, and Georgia to Turkey and from there to other European destinations. The standard cargo truck (22 tons) takes 7 to 8 days to reach Turkey and 10 days to reach other EU countries, and the shipping cost per truck varies from \$4,000 to \$5,000. Transport to the Russian Federation takes 3 to 4 days and delivery by a standard truck cost \$2,000 to \$2,400 (Tilekegeev *et al.* 2018).

The eastern border with the PRC, which remained closed for over 30 years during the Soviet era, was reopened after the collapse of the former Soviet Union. The country's road networks to the PRC border have also been improved with help from international financial institutions and bilateral donors. The new road from Bishkek to Naryn and on to Torugart at the PRC's border (mostly a four-lane all-year highway) facilitates transport from Bishkek to the PRC border without transiting through Kazakhstan. Authorities in the PRC are also striving to increase the economic development of Xinjiang Province by expanding trade with the Kyrgyz Republic and other Central Asian countries. However, the PRC also fears that the development of relations between the Uyghur people from Xingiang and their diaspora could exacerbate ethnic and political tension (Raballand and Andrésey 2007).

The regional markets are much more important for the Kyrgyz Republic given the massive trade cost involved in accessing extra-regional markets. However, the transformation of formerly intra-Soviet administrative borders into borders between independent Central Asian states, with custom controls and visa requirements, has created an enormous challenge to intra-regional trade and movement of people. Intra-regional trade relations are impaired by the incompatibility of individual economic regimes, continued political tensions, incompatibility of food safety standards, prolonged conflicts in the neighbourhood, and partly closed borders (ADB 2014). Hopefully, entry into the EAEU and policy dialogue of the newly formed Shanghai Cooperation Council (consisting of the PRC and the five EAEU countries) could facilitate cross-border trade

3. External payments position

The degree of the Kyrgyz economy's trade orientation, as measured by the standard trade-to-GDP ratio, increased continuously following the years of economic adjustment in the early 1990s until about 2013. Since then, there has been a notable reversal in the trend (Figure 2). Both the increase in trade orientation and the subsequent decline have been largely determined

by the behaviour of the import–GDP ratio (the economy’s import orientation). The export–GDP ratio varied in the range of 30%–40% during 2000–2013 and then declined to about 25% in 2016–2017.³

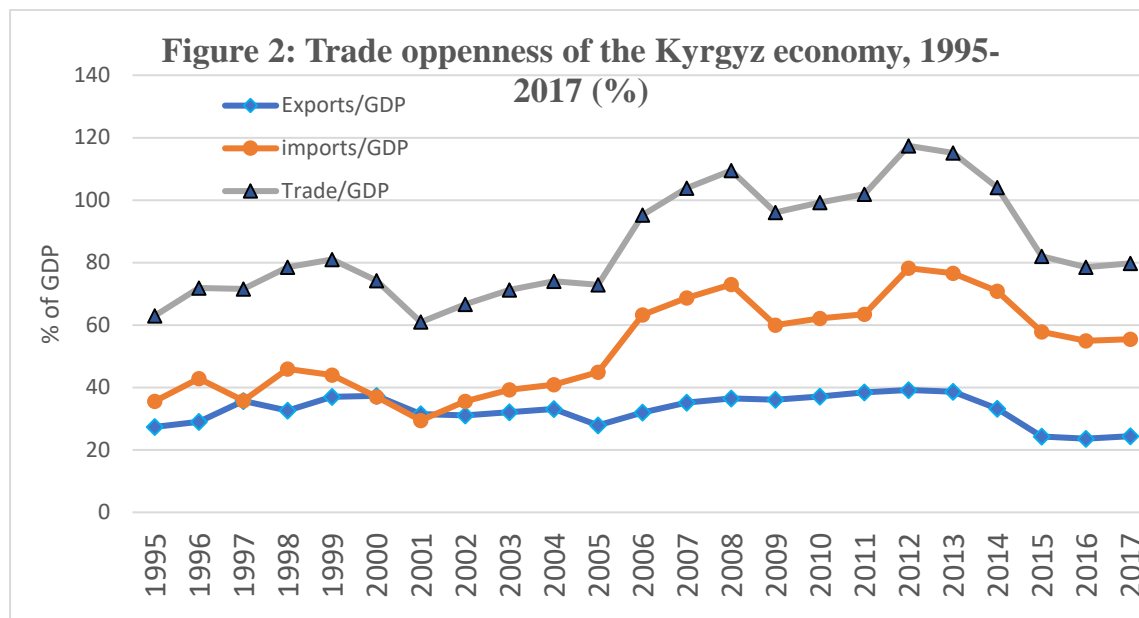
The widening gap between the import–GDP and export–GDP ratios, which shows the trade deficit relative to GDP, increased from about 5% in 2003 to over 27% in 2017. As can be seen in Figure 3, over two-thirds of the widening trade deficit has been filled from migrant remittances during this period. Consequently, the current account deficit remained at manageable levels, about 3.5% of GDP. But this aggregate figure is not a good indicator of sustainability of the external payment position. What is more important is the way the deficit has been financed.

In the 1990s and well in to the first decade of the of this century, grants and concessionary institutional lending (soft loans) helped the Kyrgyz Republic to smooth out consumption shocks from the transition and the dissolution of the Soviet Union and reduced the pressure to bring current revenues in line with expenditure. However, in the last decade or so, the composition of capital inflows has shifted from concessionary flows to loans at commercial rates. Foreign capital inflows in the form of commercial credit to the private sector has increased significantly given the virtually open capital account regime, coupled with the high cost of domestic bank credit (over 10% per annum). FDI, the most desirable form of capital inflows, which has the potential for strengthening the external position by expanding tradable production in the economy, has not emerged as a significant form of capital inflows.

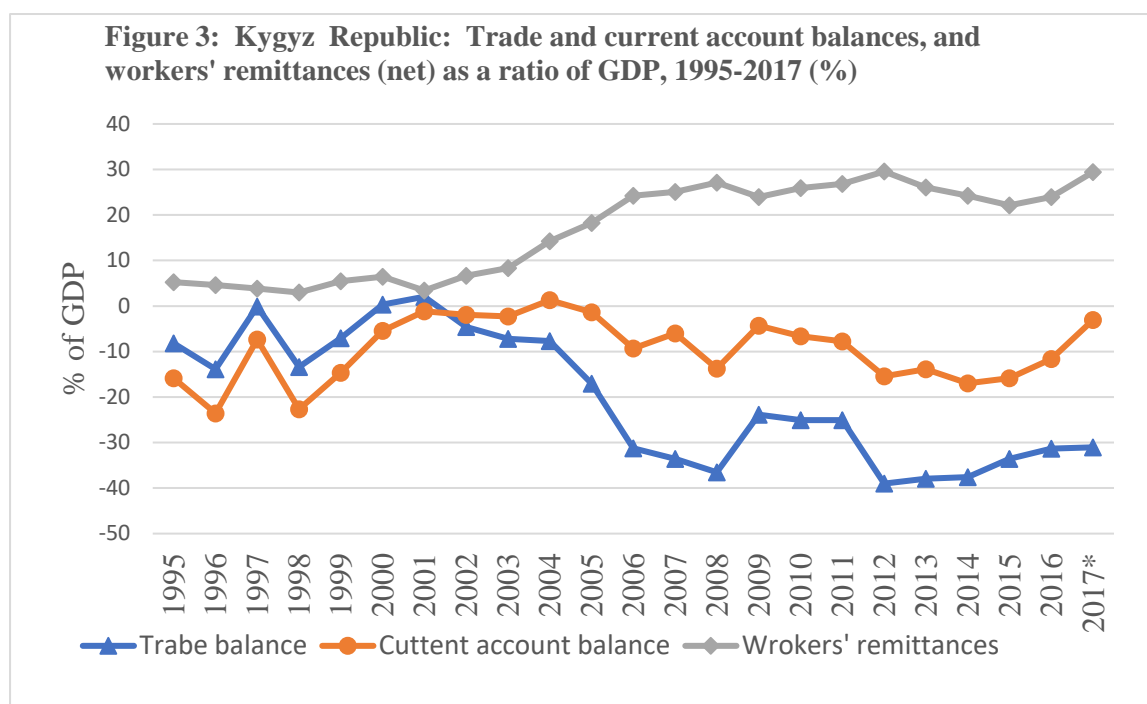
Between 2008 and 2016, the stock of government debt increased by 80% (from \$2,084 million to \$3,740 million), and that of the private sector doubled (from \$3,423 million to \$6,830 million). Consequently, the debt-to-GDP ratio stood at 103% in 2016 (the highest in Central Asia), up from 67% 10 years earlier. The debt service ratio (debt repayment and interest payment as a percentage of goods and services exports), which is about 30%, does not yet ring an alarm bell. But, this is because the public debt service ratio is still small as the debt composition is dominated by long-term debt. However, the debt service ratio is bound to increase as the accumulated debt reaches maturity, and, more importantly, because most of the

³ To minimize possible random shocks and measurement errors, 2-year averages are used in intertemporal comparisons throughout this chapter.

borrowed money has so far been spent on long-term projects, which have little capacity to generate foreign exchange earnings in the short to medium terms.



Source: Based on compiled from the National Bank of the Kyrgyz Republic, *Monthly Statistical Bulletin* (<http://www.nbkr.kg/DOC/07122017/000000000048812.xls>, (accessed 28 May 2018)).



Source: Based on data compiled from NBKR, *Monthly Statistical Bulletin* (<http://www.nbkr.kg/DOC/07122017/000000000048812.xls>, accessed on 28 May 2018).

4. Export performance

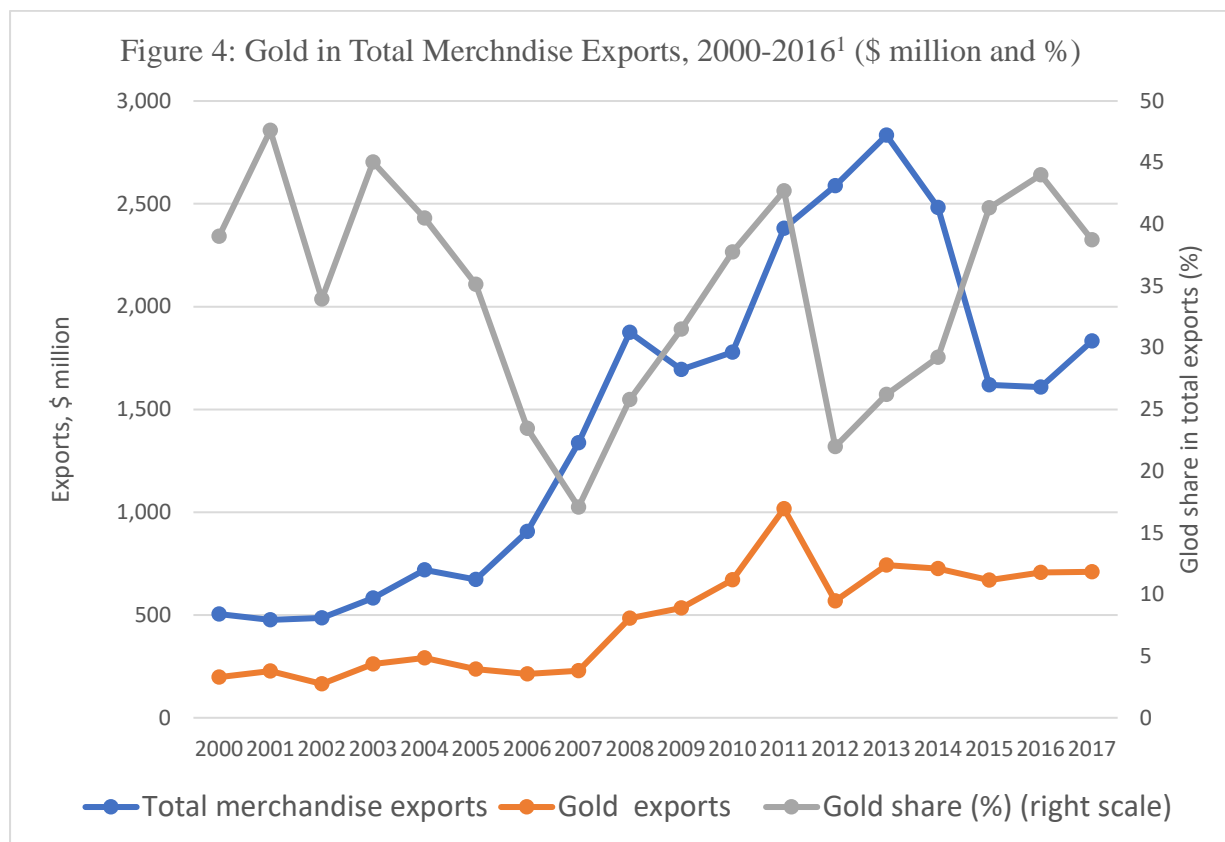
4.1 Initial conditions

Under central planning, the Kyrgyz Republic (then known as Kirgizia) had a highly specialized economy that was closely integrated within the Soviet Union. As in other newly established economic regions within the Soviet Union, Kirgizia was merely an administrative territory in the “Soviet periphery” whose production patterns were determined according to the priorities of central planning. Domestic production was centrally planned to cater for the demand from other Soviet republics, while most of domestic demand for industrial products, consumer goods, and food was met through imports from the more advanced republics of the Soviet Union. Kirgizia was primarily a supplier of primary products, mainly cotton, and some strategic minerals (uranium and mercury). Its heavy industry was primarily limited to production of agricultural machinery, designed for Kirgizia’s and neighbouring republics’ rugged terrain, and some military-related machinery and its parts and components. For this, Kirgizia’s location far from the Soviet Union’s more vulnerable frontiers was an advantage. The food industry had several large sugar factories and meat and vegetable canneries. Emphasis was also given to the primary processing of cotton and other fibres. Other manufacturing included textiles and garments, and leather goods (mostly to meet the requirements of the Soviet military). Trade took place at artificially set prices that severely undervalued energy and other raw material vis-à-vis manufactured goods. There were no direct links to the global economy as all international trade went through the central trading offices in Moscow (Kauffman and Hardt 1993, Rumer 1989, Myant and Drahokoupil 2008).

4.2 Evolving export patterns

A striking feature of the Kyrgyz Republic’s export structure during the last 2 decades is the role of nonmonetary gold as the single most important export earner (Figure 4). The share of gold in total merchandise exports averaged about 30% during 2000–2017, with sharp fluctuations reflecting world price volatility and domestic output disruptions. Kumtor gold mine accounted for almost 98% of total gold exports and is by far the single most important

enterprise in the country, contributing about 10% of GDP and 20% of government revenues (See Appendix).



Note: (1) Data for 2016 are provisional.

Source: Based on data compiled from NBKR, *Monthly Statistical Bulletin* (<http://www.nbkr.kg/DOC/07122017/000000000048812.xls>, (accessed on 28 May 2018))

Gold has a very high value per unit weight. Only such products can easily overcome the high transport cost facing a landlocked country such as the Kyrgyz Republic. Almost all of the country's gold output is shipped by air. The mining industry in the Kyrgyz Republic also produces some nonferrous metals (antimony, mercury, and rare earth minerals) in small quantities. The country has unexploited deposits of gold, tin, tungsten, coal, and possibly oil. In moving to exploit these resources, policy focus should be on how easily the products could be transported to international markets at competitive world prices (Faye et al. 2004).

Given the well-known peculiarities of gold as an internationally traded product (high price volatility and the locational specificity determined by the country's resource endowment), it is necessary to separate other products ("nongold" products) for a meaningful analysis of

export performance. This separation is particularly important for understanding the extent to which the production stature inherited from the Soviet era has changed since independence.

In analysing trends and patterns of non-gold exports it is important to pay attention to the country's role as the centre of *entrepôt* trade in Central Asia (Kaminski and Raballad 2009, Kamiski and Mitra 2012, Pomfret 2018). In the 2000s decades, *entrepôt* trade that moves Chinese goods through bazaars in Bishkek and Osh to markets in the other countries in the region has been a significant source of trade expansion and economic dynamism in the country. In official (reported) trade data lump together both domestic trade and *entrepôt* trade. For this analysis we roughly separated domestic exports from the reported data by drawing on the available circumstantial evidence on the commodity composition of bazaar trade.⁴ Table 3 summarizes data for both total exports and domestic exports (total exports net *entrepôt* exports) for comparison. The following discussion specifically focuses on the latter.

The notable changes in the export structure in the last two decades include a decline in the export shares of electricity and cotton and an increase in the shares of food products and manufactured goods. Within food products, the share of sugar, which was a key export during the Soviet era has declined sharply with a notable shift in product composition toward dairy products, fruits vegetables. Within the fruits and vegetables category, kidney beans have emerged as the most dynamic export product. The increase in manufactured goods has been driven mainly by a notable expansion in garments exports. The share of resource-based manufactured goods, which dominated the export composition during the Soviet era, has declined.

⁴ The commodity disaggregation used here treat Bazar trade as predominantly (if not totally) concentrated in the following two-digit categories of the Standard International Trade Classification (SITC): office machines and automatic data-processing machines (SITC 75), Telecommunications and sound-recording equipment (SITC 76), electrical machinery and appliances (SITC 77), road vehicle (SITC 78), other transport equipment (SITC 79), professional, scientific and controlling equipment (SITC 87), and photographic and optical products (SITC 88).

Table 3: Kyrgyz Republic: Commodity composition of merchandise exports, 1995-96 and 2015-16¹ (%)

SITC codes		Total (reported) exports		Domestic exports	
		1995-96	2015-16	1995-96	2015-16
(a)	Food, beverages and tobacco	25.3	30.6	30.5	31.6
0	Food and live animals	18.8	15.5	22.6	26.1
01	Meat and meat products	0.6	0.2	0.7	0.3
02	Diary products	0.5	3.0	0.6	5.0
04	Cereals and cereal preparations	1.7	0.3	2.1	0.5
05	Vegetables and fruit	5.7	10.3	6.8	17.3
05423	Kidney beans	0	6.6	0	11.1
06	Sugar and sugar preparations	8.5	0.3	10.3	0.4
1	Beverages and tobacco	6.5	3.3	7.8	5.5
111	Mineral water	0.0	0.2	0.1	0.3
12	Tobacco	4.6	2.9	5.5	5.0
(b)	Primary material	29.0	12.8	35.0	21.5
2	Crude material except fuels	15.6	11.6	18.8	19.6
263	Cotton	6.5	2.4	7.8	4.0
3	Mineral fuel, lubricants and related material	13.3	1.1	16.0	1.9
35	Electric current	12.5	0.0	15.0	0.0
4	Animal and vegetable oil, fats and wax	0.1	0.0	0.1	0.0
(c)	Manufactured goods	40.1	47.2	34.5	46.8
5	Chemicals and related products	13.0	3.5	15.7	5.9
68	Non-ferrous metals	5.4	0.9	6.5	1.5
6	Manufactured goods classified by material ²	13.2	8.9	9.6	13.4
65	Textile yarns, fabric and related products	5.2	1.0	6.3	1.6
7	Machinery and transport equipment	9.6	22.7	4.2	9.3
71	Power generating machines	0.5	2.7	0.7	4.5
72	Agricultural machinery	1.1	1.3	1.3	2.2
73	Specialised industrial machines	0.4	0.0	0.5	0.0
74	General industrial machines	1.5	1.5	1.8	2.6
75	Office machines and data processing machines	0.0	0.3		
76	Telecom and sound recording equipment	0.4	0.1		
77	Electrical machinery	4.0	2.8		
78	Road vehicle	1.5	7.8		
79	Other transport equipment	0.1	6.2		
8	Miscellaneous manufactured articles	4.3	12.1	5.0	18.2
84	Apparel and clothing accessories	1.8	7.3	2.1	12.4
87	Professional and scientific instruments	0.1	1.3		
88	Photographic apparatus watches and clocks	0.1	0.1		
	Total ³	100.0	100.0	100.0	100.0
	\$ million	459.5	748.8	405.4	451.5

Table 3 (continued)

Notes:

- (1) Two-year averages
- (2) Excluding non-ferrous metal (SITC 68)
- (3) Excluding non-monetary gold and other 'special' export items (SITC 9)

Source: Compiled from UN *Comtrade* database (SITC Revision 3)

4.2.1 Electricity

With glacial rivers flowing from high mountains, the Kyrgyz Republic has significant potential to expand hydroelectric production: its production capacity is estimated at 150,000 gigawatt-hours (GWh). However, the country's electricity export has declined dramatically. While over 90% of domestic electricity demand is met by hydropower, the country is currently using less than 10% of its hydropower potential. Exports have declined from about 8,000 GWh during 1990 to less than 2,000 GWh by 2012 (ADB 2014, Figure 45). The expansion of the country's electricity production is constrained by annual intergovernmental agreements with neighbouring downstream countries concerning the control of Naryn River water resources, especially water releases from the Toktogul Reservoir. And production varies significantly from season to season and year to year depending on weather conditions.

The industry is also burdened with aging infrastructure that is at the end of its life span. The average productive age of electricity infrastructure is estimated at 34 years. Only three of the hydropower plants, which account for 11% of generation capacity, have been in service for less than 20 years, more than half of the transmission substations are older than 30 years, and about one-fifth of transmission lines have been in service for more than 45 years (ADB 2013). The dilapidated infrastructure and years of insufficient maintenance result in frequent outages and transmission losses. The World Bank (2014) estimates transmission losses at almost a third of the supply in the early 2000s, among the highest in the world.

4.2.2 Cotton

Among the commercial crops promoted during the Soviet era, cotton is perhaps the main agricultural product in which the Kyrgyz Republic has a comparative advantage in international markets. Baled cotton (after ginning) has a far lower transport cost than is the case for most agro-based products. Cotton is also a regionally important commercial crop for the southern parts of the country, where soil and climatic conditions are similar to those in Uzbekistan, the major cotton producing country in the region.

The share of cotton in Kyrgyz exports declined from 7.8% in 2005–2006 to 4.2% in 2015–2016, when the world price for cotton was buoyant and cotton exports from the neighbouring Uzbekistan continued to increase. The main factors behind poor export performance are presumably (1) competition for cultivable land from other commercial crops (mostly fruits and vegetables); and (2) failure to modernize dilapidated cotton processing factories that lead to considerable waste, thus lowering quality in the ginning process, are presumably the main factors behind poor export performance (Mogilevskii et al. 2017).

4.2.3 Food products

Exports of dairy products, vegetables, and fruits have shown impressive growth in the last 2 decades. The share of dairy products in total exports increased from a mere 0.6% in 1995–2006 to 5.2% in 2015–2016. The increase in the share of vegetables and fruits was even more impressive, from 6.3% to 18.1%. Within this product group, the most dynamic export item has been dried beans (kidney beans).

The share of kidney beans in total exports increased from 2.6% in 2005–2006 to 11.7% in 2015–2016. Kidney bean production is concentrated in the Talas region. Talas region's soil and climatic conditions are suitable for the cultivation of kidney beans and other varieties of legumes. In 1995, a representative of a Turkish food trading company (Robin Millar) started kidney bean production there, with Turkey as the target market. Subsequently further investment from Turkey stimulated by trade policy reforms in Kyrgyz Republic and the policy certainty resulting from its accession to WTO membership helped the expansion of the industry. Kyrgyz beans are sold at the commodity exchange in the Turkish city of Mersin, and also exported to a number of other countries including Russian Federation, Bulgaria, Macedonia and Serbia. The main mode of delivery is road cargo transport. As a relatively 'high value per unit weight' product with a very dense protective top layer, kidney bean is

highly suitable for long-distance road transport. The cost of delivery is also relatively low as transport companies delivering cargo to the Kyrgyz Republic and Kazakhstan from Turkey carry kidney beans on the return journey (Tilekeyev et al. 2018).

It is important to note that the emerging trends in food exports from the Kyrgyz Republic are in line with emerging global trade patterns. The last 3 decades have witnessed a notable compositional shift in world food trade. The relative importance of “classical” food products (coffee, tea, sugar, cocoa, and so on) has been sharply eroded by the rapid expansion of trade in products such as fresh fruits and vegetables, poultry, fish, and dairy products, which are exported as processed foods after technologically sophisticated processing⁵ (Athukorala and Jayasuriya 2013, Jongwanich and Magtibay-Ramos 2009).

Powerful forces on both the demand and the supply sides have underpinned this structural shift. On the demand side, the internationalization of food habits—the increased importance of imported processed items in consumption patterns in developed countries as well as among large sections of the populace in many developing countries—appears to play a key role. Factors such as international migration, the communications revolution, and international tourism have contributed to this phenomenon. The Kyrgyz Republic is well placed to benefit from this structural shift in world food trade given its rich agricultural resource base and ample availability of labour in the rural economy.

4.2.4 Garments

During the Soviet era, textile and garment production was a key focus of industrial production in Kirgizia. At the time the Soviet Union dissolved, textiles and garments accounted for 65% of Kirgizia’s light manufacturing, with over 100,000 workers employed in 14 major state-owned factories (Botoeva and Spector 2013).

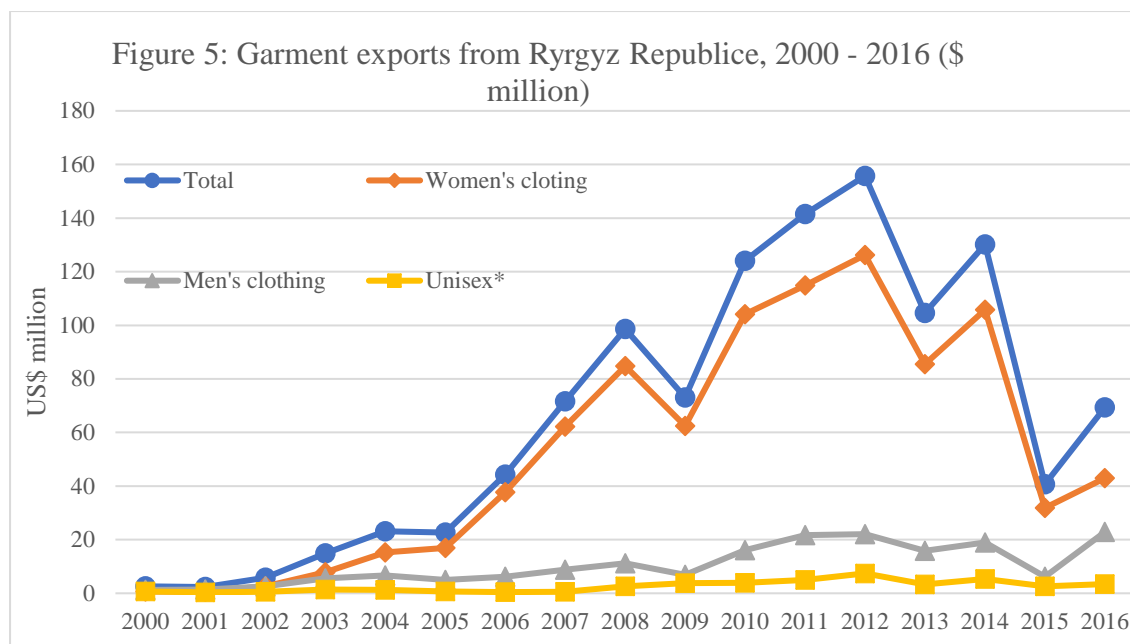
In the aftermath of the disintegration of the Soviet Union, textile and garment production collapsed owing to the breakdown of the centrally planned supply chains. The textile industry never recovered because it is a capital-intensive industry not suited to the

⁵ The term “processed food” refers to food items that undergo substantial processing in the country of origin before being exported and that are typically high value and subject to increasingly stringent food safety standards. Widely used alternative terms are “ready-to-eat food” and “high-value foods.”

Kyrgyz Republic's resource endowment. But the garment industry, the quintessential starter of export-oriented industrialization in a low-wage country, reemerged in the 2000s as the country's major manufacturing export, benefiting from the availability of imported fabrics (from China and Turkey) in the liberalized economy (Spector 2018). The share of garments in total merchandise exports increased from 2.0% in 1995-1996 to 11.7 in 2015–2016.

Almost all garment exports from the Kyrgyz Republics are destined for Kazakhstan and the Russian Federation. The key determinants of the successful penetration of Kyrgyz apparel in these markets are relatively low labour cost, ability to produce better quality items to meet customer preference in middle-level markets versus products from the PRC and Turkey, and easy access to imported fabric (mostly from the PRC, but also from Turkey) through the bazaar-cantered trade networks. Kyrgyz garments are aimed at middle-class customers in these markets. Garments from Bangladesh, the PRC, and Viet Nam are cheaper and of lower quality, and are marketed to less affluent consumers. PRC garments sold in these markets come from the less-developed western parts of the PRC. The most sophisticated PRC factories producing high-quality garments are in the eastern part of the PRC and higher quality products are sold primarily to developed markets of Europe and the United States. Turkish garments are much more expensive than Kyrgyz garments and do not compete for the same market (Jenish 2014).

A striking feature of the composition of Kyrgyz garment exports is the heavy concentration in women's garments (Figure 5). During 2000-2016 women's garments accounted for over 90% of total garment exports, whereas this share in total garment exports from developing countries during the same period (calculated from the UN Comtrade database) was only 68%. Women's garments generally have a greater fashion content compared to men's garments. This comparison seems to suggest that Kyrgyz garment industry's competitive edge in export markets (currently mostly in regional markets) seems to come from Kyrgyz garment workers' dexterity (the source of which is an interesting subject for further research), in addition to the economic factors mentioned above.



Note: * Baby cloths, t-shirts, underwear, and headgear etc.

Source: Data compiled from UN Comtrade database

Garment production has been the fastest growing segment of the manufacturing industry in the Kyrgyz Republic for the last 2 decades. The industry is concentrated in Bishkek (with over 95% of the total production) and Osh. As of 2013, the country had 740 officially registered enterprises, but unofficial sources indicate that there are over 3,000 small and medium unregistered factories. The largest factory operated with about 300 sewing machines, and the average firm uses about 15 machines. According to official records, total employment was 120,000, but other estimates placed the figure about 300,000, or 12% of the country's total labor force (Birkman et al. 2014). The monthly wage of an average sewer was \$240–\$300 and a fast sewer could earn \$340–\$500. Most business owners are women (about 70%–85%).

Most factories do simple stitching based on designs provided by their buyers. The buyers generally pick popular styles from the PRC and Turkey. Some large firms undertake all stages of the garment production chain, from design through production to sale, and some have switched to computer-based designing (Jenish 2014).

Belarus is the Kyrgyz Republic's main competitor in middle-class garment markets in Kazakhstan and the Russian Federation. The biggest advantage that Belarusian clothing producers have over their Kyrgyz counterparts is access to a strong domestic fabric production base inherited from the Soviet era. Belarus is the fourth largest linen producer in the world

(Jenish 2015). So far Kyrgyz producers have been able to compete mainly because of the easy access to fabric from the PRC at low cost thanks to the liberal trade regime, the weight-based tariff system for imports through the bazaar trade, and Kyrgyz firms' capability to produce clothing to suit customer taste and preference. The large Kyrgyz diaspora in Kazakhstan and the Russian Federation also helped expand the market for Kyrgyz-produced garments. Labor cost in the Kyrgyz Republic is also significantly lower (about \$0.50 per hour) than in Belarus (\$1.20), the PRC (\$1.50), and Turkey (\$ 2.10).

Bazaars constitute a crucial node of the apparel production networks. Most producers buy textile, and other inputs, and machinery from a bazaar that specializes in inputs from the PRC. Over 90% of production is exported via logistic agents engaged in intra-regional trade based in bazaars in Bishkek and Osh, and the balance is sold to "shuttle" traders associated with these bazaars (Kaminski and Mitra 2012, Spector 2018). There are concerns in the business community that the Kyrgyz Republic's accession to the EAEU could substantially increase the cost of apparel production. The common EAEU tariff, which is a value-based (*ad valorem*) tax, is bound to be larger than the current weight-based tax applied to imports of bazaars. The major advantage of a weight-based tax to an importer is that the actual tax incidence is negatively related with the quality of the product. Moreover, the common *ad valorem* duty is likely to be more systematically implemented under the border control procedure of the Customs Union.

Following the emergence of export-oriented garment production as a spontaneous response to liberalization reforms, the government introduced a multi-tier tax system. The country has a simplified tax system for sole proprietors employing less than 30 workers. Above this, a company faces higher taxes, more cumbersome regulatory procedures, and the cost of pay offs associated with regular visits by tax agents (Birkman 2014, Jenish 2014). The high cost of complying with administrative procedures and regulations drives informality and persuades firms to remain small.

4.3 Revealed comparative advantage

To gain further insights of the emerging commodity profile of Kyrgyz merchandise exports, we computed reveal comparative advantage (RCA) indices for non-gold exports at the SITC 5-digit level of commodity disaggregation:

$$RCA_{j,i,t} = \frac{X_{j,i,t}/\sum_i X_{j,i,t}}{\sum_j X_{j,i,t}/\sum_j \sum_i X_{j,i,t}}$$

where $X_{j,i,t}$ is the value of exports by country j of product i in year t . The numerator is the share of product i in total exports of country j in year t and the denominator is the share of product i in world (sum of all countries) exports in year t .

The RCA index measures a country's relative export performance in individual product (in this case a product at the five-digit level of SITC) compared to that category's overall performance in world trade (Balassa 1965). If the value of the *RCA* exceeds unity for a given product, the country is said to have 'revealed' comparative advantage in the production of that product. In contrast, an *RCA* index of below one implies that country is at a comparative disadvantage in the production of the related product.

The *RCA* indices are reported at three time points (1995-96, 2005-06 and 2015-16) in Table 4. All products for which with $RCA > 1$ in 2015-16 (which we label the 'RCA products') are included in the table so that change in revealed comparative over time can be interpreted by comparing the estimates across the three time points. To help understand the importance of each product in the overall commodity composition exports shares of products are also reported.

The products listed in the table accounted for 47.4% of total non-gold merchandise exports in 2015-16. These products accounted for only 14.7% of total non-gold merchandise exports in 1995-96 and 35.9% in 2000-01. The increase in export shares of these products is suggestive of gradual convergence of the export stature towards a specialisation pattern that is consistent with the country's comparative advantage in world trade. However, the list of *RCA* products is still large, and more than half of exports consists of non-*RCA* products (products with $RCA < 1$), that is products whose shares in Kyrgyz exports is smaller than their shares in world trade. The upshot is that the export structure is still in the process of evolving towards the country's comparative advantage in world trade.

At the individual product level, food products, agricultural material dominate the *RCA* list accounting for over 334% of total exports or 85% of *RCA* products. Process food products stands out for increase in revealed comparative advantage over time. Resource based manufactured goods and garments dominate the *RCA* list of manufacturing exports.

Table 4: Kyrgyz Republic: Reveal comparative advantage in merchandise exports, 1995-96, 2005-06 and 2015-16¹

SITC Code	Product Description	1995-96 ²		2005-06 ²		2015-16 ²	
		Export share	RCA	Export share	RCA	Export share	RCA
	Food, beverages & tobacco	5.5	###	10.4	###	22.0	###
00119	Bovine animals, other	---	---	0.3	5.6	0.2	3.6
02212	Milk	---	0.2	1.5	9.4	0.9	3.8
02221	Milk powder	---	---	0.1	47.2	0.6	23.6
02232	Buttermilk etc.	---	---	0.6	1.0	0.4	3.6
02233	Ice cream, edible ice	0.1	---	0.6	40.8	0.3	29.7
02300	Butter, milk fats	0.2	2.0	0.2	25.4	0.8	13.9
02499	Cheese and curd	0.1	2.3	0.5	19.7	0.4	1.7
05410	Potatoes	0.2	0.9	---	0.9	0.2	1.4
05423	Kidney beans	---	4.4	2.9	0.4	11.1	7.3
05453	Cabbages	---	---	---	0.5	0.2	5.0
05455	Root vegetables	---	---	0.3	1.0	0.3	13.1
05740	Apples fresh	1.7	---	0.3	2.5	0.2	3.4
05793	Stone fruit	---	---	0.3	7.1	0.4	1.4
05799	Dried fruit other	0.4	0.4	---	1.0	1.4	1.8
06160	Natural honey	0.1	---	0.1	82.1	0.2	13.8
09891	Pasta(cooked)/couscous	---	---	0.1	---	0.2	9.2
09893	Baby foods (cereal)	---	---	---	4.3	0.5	6.0
12110	Tobacco, not stripped	2.5	---	2.4	---	1.2	2.4
12220	Cigarettes (tobacco)	0.2	73.4	0.2	101.9	2.5	76.7
	Crude material	8.7	###	10.3	###	12.3	###
21191	Leather waste/dust etc.	---	---	0.1	10.5	0.2	8.8
26310	Raw cotton, excluding linters	5.8	---	8.9	3.4	2.9	2.9
27313	Granite/sandstone	---	0.4	0.1	0.5	0.2	3.0
28821	Copper and scrap	2.3	---	0.1	8.6	1.6	3.7
28823	Aluminium	0.6	798.3	0.8	9.8	0.2	396.4
28919	Precious metal ore	---	10.4	0.3	9.2	7.2	2.6
	Resource-based Manufacturing	0.9	###	6.0	###	4.2	###
61141	Tanned leather	---	40.4	0.5	1.0	0.7	70.8
61142	Equine leather	---	---	---	12.5	0.3	22.4
64194	Wallpaper, etc.	---	---	---	24.1	0.2	16.6
64211	Corrugated paper cartons	---	0.1	0.4	0.1	0.2	15.1
64212	Folding cartons	---	0.3	---	8.2	0.2	2.9
66122	Portland cement	0.8	9.2	3.9	150.8	0.5	16.9
66136	Marble	---	11.9	---	60.5	0.2	8.9
66139	Building stone worked	---	---	---	---	0.7	6.0
66511	Glass bottles/jars	---	62.4	0.1	277.9	0.3	2.2
68113	Silver unwrought	---	---	0.5	1.1	0.6	3.8
68412	Aluminium alloys	0.1	---	0.6	316.6	0.2	343.1

	Other manufacturing	0.1	###	9.2	###	8.9	###
84122	M/b suits fibre woven	---	---	0.1	0.2	0.4	2.1
84140	Men/boy trouser woven	---	---	1.1	7.9	0.5	44.1
84219	Women/girl over coats other	---	---	---	0.1	0.3	1.7
84240	Women/girl dresses woven	---	---	0.4	0.5	0.7	5.4
84250	Women/girl skirts woven	---	---	0.9	8.2	1.4	6.8
84260	Women/g trousers woven	---	---	0.6	13.4	0.7	11.3
84270	Women/girls blouse woven	---	---	2.0	2.2	2.8	2.2
84530	Jerseys/pullovers/etc	---	---	---	27.7	0.2	6.8
85159	Footwear textile upper	---	---	---	0.8	0.3	1.7
89319	Packing containers	0.1	2.8	3.5	---	1.4	10.3
89731	jewellery/clad	---	--	0.7	14.6	0.2	5.3
	Total RCA products¹	14.7	###	35.9	###	47.4	###

Notes:

(1) Table covers only the products for which RCA index in 2015-16 was greater than 1 ('RCA products' in 2015-16).

(2) Two year averages.

--- Zero of less 0.05 per cent.

Not applicable,

Source: Compiled from UN *Comtrade* database (SITC Revision 3)

4.4 Direction of trade

Over the past one-and-a-half decades, Switzerland has been by far the largest destination country for total Kyrgyz merchandise exports. Switzerland's share in total merchandise exports varied in the range 30% to 33% during this period. The only product exported from Kyrgyz Republic to Switzerland is gold, and Switzerland accounts for 97% of total gold exported from the country. Data excluding exports to Switzerland is, therefore, representative of the geographic profile of non-gold exports from Kyrgyz Republic. This is the focus of the ensuing discussion in this section.

Kazakhstan and the Russian Federation, in that order, are the two largest export markets. In 2016-2017 the two countries accounted for over 45% of the Kyrgyz Republic's exports.⁶ There are no notable trade links between the Kyrgyz Republic and the other two EAEU member countries (Armenia and Belarus). The share of exports to the Commonwealth

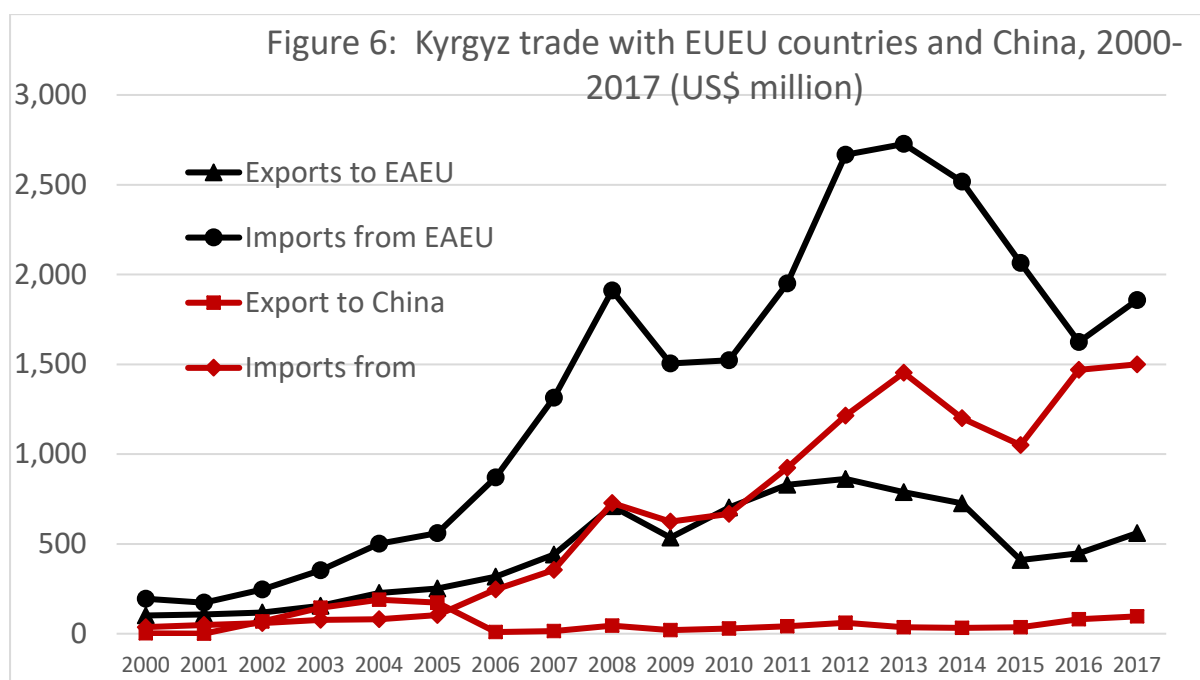
⁶ It could well be that some of the exports to Kazakhstan are transshipments to the larger Russian market.

of Independent States (CIS) countries declined from nearly 90% in the early 1990s to about 60% at the beginning of the 2000s and remained around that level throughout the ensuing years (Table 2.6). This shift in export composition away from the CIS countries is consistent with the patterns of REER behaviour depicted in Figure 1. During the past 5 years, the Kyrgyz REER compared with that of CIS countries remained significantly appreciated from the previous 10 years or so.

The share of imports coming from the CIS countries has declined at a faster rate, from 93% in 1993/94 to 45.1% in 2016–2017 (Table 2.7). By 2017, China had become the largest source country of imports (35%), surpassing the erstwhile trading partner, the Russian Federation (26.3%). China now accounts for almost two-thirds of extra-regional Kyrgyz imports. Exports to the PRC too has increased in recent years, but still account for only 10% of total exports. Turkey is the only other non-CIS country with which Kyrgyz trade links have increased during the mid-1990s. In 2016/2017, Turkey accounted for 10.0% and 4.9% of Kyrgyz exports and imports, respectively.

An important development in Kyrgyz trade patterns from about 2005 is the widening of the trade deficit with the PRC, surpassing the deficit with the EAEU countries. In 2005–2005 Kyrgyz–EAEU deficit was about five times of that of the deficit with the PRC (\$431 million and \$84 million, respectively). By 2016–2017 the pattern had reversed, with a deficit of 2.8 billion with the PRC compared a \$2.5 billion deficit with the EAEU countries.

What would be the impact of the entry into the EAEU for Kyrgyz–Sino trade? This is an issue for further study, but, the authors think that a modest increase in the border tariff resulting from a transition to the common *ad valorem* tariffs from the weight-based tariffs coupled with presumably more stringent border control is unlikely to have a major impact. This is because the country's trade complementarity as predominantly a primary producer is much stronger with the PRC, which is now the world's manufacturing powerhouse, than with Kazakhstan and the Russian Federation. Moreover, the Kyrgyz Republic has the potential to expand exports of processed food and various primary material inputs for which there is a strong demand in the PRC. This crucially depends on supply-side reforms to exploit the country's latent comparative advantage in these product lines and improved trade relations with the PRC.



EAEU = Eurasian Economic Union, PRC = People's Republic of China.

Source: Compiled from National Bank of the Kyrgyz Republic, Monthly Statistical Bulletin (<http://www.nbkr.kg/DOC/07122017/000000000048812.xls> (accessed 28 May 2018)).

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Table 6: Kyrgyz Republic: Geographic structure of merchandise exports, 1993-2017 (selected year) (%)¹

	1993-94	2000-01	2010-11	2016-17
CIS countries	88.6	59.6	65.9	60.6
Russia	25.4	13.7	22.9	20.1
Kazakhstan	25.9	27.6	32.5	24.8
Uzbekistan	10.1	14.5	6.3	12.2
Ukraine	3.5	0.4	0.4	0.3
Belarus	1.3	0.7	0.5	0.5
Turkmenistan	2.4	0.5	0.5	0.5
Tajikistan	1.3	1.5	1.9	2.1
Other	18.6	0.8	0.9	0.1
Other (NON-CIS) countries	11.4	40.4	34.1	39.4
UAE	0.1	16.7	16.5	3.1
China	0.0	0.2	2.6	8.0
Iran	7.2	6.7	0.6	0.9
Turkey	0.0	1.6	3.4	10.0
Canada	0.5	2.2	0.6	0.1
USA	0.6	0.1	3.3	0.1
Afghanistan	0.1	1.1	1.2	0.5
Germany	0.2	0.6	0.6	0.5
Other	2.7	10.1	9.3	15.1
Total	100	100	100	100
\$ million)	315	474	1,368	1,110

Source: NBKR, *Balance of Payments* (various years).

<http://www.nbkr.kg/index1.jsp?item=138&lang=ENG> accessed 18 May 2018.

4. Concluding remarks

During the last quarter century, the Kyrgyz Republic has made significant progress in economic transition to global economic integration. However, the patterns of global economic integration have been rather lopsided: rapid import penetration of the economy has not been matched by structural changes on the export front. There have been some notable changes in the export composition in line with the country's comparative advantage. But in recent years, the export earnings have been enough to meet only about half of the total value of merchandise imports. This has led to the economy's increased dependence on remittances and external financing. Remittances have filled over two-thirds of the trade deficit during the last 15 years.

The composition of external financing has begun to shift from grants and concessionary loans toward borrowing at commercial rates, thus potentially exposing the economy to

additional external economic shocks. The country's debt servicing commitments remain within manageable limits but are bound to increase with the compositional shift in external financing. FDI, which is expected to play a pivotal role in export-oriented production and structural adjustment in the liberalized economy, in addition to its direct contribution to strengthening the external payments position, has so far accounted for only a small share of capital inflows.

Given the country's rich mineral resource endowment and the distance-related trade cost as a landlocked country, the Kyrgyz Republic has a comparative advantage in the production of gold and other high value per unit weight minerals. As was evident from the long-running profit sharing dispute pertaining to the Kumtor gold mine, designing an effective mechanism for mineral leasing and taxing resource rent remains a major policy challenge. This is vital for maximizing national gains from resource extraction while improving the country's attractiveness for global high-quality investors. The idea of mineral rent taxation is to collect a high proportion of value over and above the level necessary to attract investment, without deterring marginal investments. Addressing investors' concerns may require surrendering some local control. This compromise would be politically palatable only if the government systematically embodies policy for the mining sector within a well-conceived national development strategy (Garnaut and Clunies-Ross 1975 and 1983).

An important development relating to nongold exports, which deserve policy focus, is the emergence of foods products (dairy, fruits, and vegetables) and garments as dynamic export lines. The expansion of food product exports is in line with the ongoing compositional shift in global food trade from conventional primary food products to high-value processed food. With the improvement in trade relations with the PRC and transport networks, food exports have the potential to play an important role in narrowing the widening trade gap with the PRC. Processed food has become one of the most dynamic items in PRC imports as domestic demand patterns change in line with increased household income levels. A prerequisite for promoting processed food exports is to set up an institutional mechanism to help producers and exporters meet international food safety standards (such as sanitary and phytosanitary standards). International development agencies can play an important role in such areas as part of the new emphasis on "aid-for-trade" initiatives.

In the last two decades, the Kyrgyz garment industry has carved out a niche in middle-income markets in Kazakhstan and the Russian Federation. It is important to look for ways to help the industry to "go global" based on this impressive record. Removing administrative

restrictions that hinder the emergence of large firms, promoting FDI in the industry, and introducing an import duty scheme are the policy options that deserve high priority consideration.

The Kyrgyz Republics' large extra-regional trading partner, Turkey, has emerged as the second largest garments exporter (next to the PRC) in the world after the Multifibre Arrangement was abolished with effect from 2015. The Kyrgyz Republic may be an attractive location for Turkish garment producers, which have already started relocating their production in low-wage countries in the face of increasing domestic wages.

The trade policy impact on the Kyrgyz economy of joining the EAEU is unlikely to be as significant as commonly thought. Differences between the current Kyrgyz MFN applied tariffs and the Russian Federation's MFN applied tariffs (the Customs Union's common tariffs) are not large, averaging only about 2 percentage points. However, the cost of production of the garment industry is bound to increase following the introduction of value-based import tariffs under the EAEU customs administration. Before accession to the EAEU, a key determinant of profitability/competitiveness of Kyrgyz garment production was the availability of imported fabrics under specific (weight-based) duties through the bazaar-cantered trading networks. In this context, it is important to introduce an import duty rebate scheme for export-oriented apparel exporters to cushion their profit margins against the increased cost of procuring imported input. The role of a well-functioning duty rebate scheme is to provide producers with access to imported input at the world market price. This is vital for maintaining competitiveness in the export market, particularly for producers in a country like the Kyrgyz Republic that lacks a strong domestic textile base.

Appendix

Kumtor gold mine

The Kumtor gold mine, in the Tien Shan Mountains in Issyk-Kul Oblast, about 350 kilometres southeast of Bishkek and about 60 kilometres north of the international border with the PRC, is one of the world's largest gold mines. In 1978, a geological expedition of the state Kyrgyz Geology Department discovered gold deposits in Kumtor, but mining the deposit was not considered economically feasible because of the low recovery rate from the hard rock deposits. The newly independent Kyrgyz government sought involvement of foreign developers, and in December 1992 the Canadian uranium mining company, Cameco, submitted a feasibility study based on cyanide heap leaching technology, which can profitably process ores containing as little as 0.01 troy ounces per ton; the estimated production costs at Kumtor were around \$200 per ounce.

In the past two years, Centerra and the Kyrgyz government have been involved in endless negotiations on Kumtor's profit sharing agreement (PSA). The long-dragged disputed ended in September 2017 with a \$60 million settlement agreement to be honored by Cameco by the end of May 2018. Under the agreement Cameco was permitted to transfer frozen funds from the country.

On 1 May 2018, London-based Chaarat Gold Holdings bought Kumtor. The deal involved paying \$400 million in cash and exchanging \$400 million worth of Centerra shares held by Kyrgyzaltyn for a 50% direct preferred economic interest in the mine. Chaarat would own all the common equity of Kumtor and take control of managing and operating the mine. The government, in turn, would hold all the preferred equity of Kumtor and be entitled to 50% of profits. Additionally, Chaarat agreed to invest up to \$600 million in the country's mining industry during the next 5–7 years. Chaarat has been involved since 2017 in gold exploration in in the Sandalash River Valley in the northwest of the Kyrgyz Republic. The area is part of the Tien Shan Gold Belt, which contains several major world-class gold deposits including the Muruntau deposit and the Kumtor deposit.⁷

⁷ : Chaarat Gold Holdings <https://www.chaarat.com/project/> (accessed on 8 June 2018).

From 1996, when Kumtor began commercial operation, to 2014, the mine had produced 308 tons of gold. As of 31 December 2014, the remaining gold reserves were estimated at 68.5 million tons of ore containing 6.1 million ounces of gold. Based on these mineral reserves, mining is projected to continue to 2023 with milling operations concluding in 2026. The total net earnings of Centerra from Kumtor during 2009–2013 was \$767 million. Of this \$480 million went to the Kyrgyz government as revenue-based tax. A substantial share of total cost takes the form of wages, payments to local contractors, and other domestic costs.

Kumtor is by far the largest enterprise in the country. During 2009–2016, Kumtor's estimated annual contribution to the Kyrgyz GDP varied from 6.5% to 11.4%. It generates about half of the industrial output of the country and one-third to one-half of the country's exports, and accounted for 20% of government revenue. As of January 2014, Kumtor employed 2,617 local workers and 103 expatriates. In addition, 470 local contractors were working on the site. The average wage of local workers was 11 times of the average wage in the country. A recent combatible general equilibrium modeling exercise put the mine's contribution to the economy at 23% of GDP (Mogilevski et al. 2015). Other intangible benefits, such as skill transfer, access to capital markets, and building the country's international image, help attract investors. Of course, there are also negative externalities such as hazardous material spills and pollution of rivers, and even adverse impacts on institutional quality through nurturing cronyism and misuse of funds (Tiainen et al. 2014; Kronenberg 2014).

The Kyrgyz government has been repeatedly criticized for giving too favorable terms to the foreign partner under the Kumtor agreement. However, as Pomfret (2018) argues in a comparative analysis of the experiences of the Kyrgyz Republic and Mongolia in dealing with foreign mining companies, a tougher line could have discouraged foreign participation in the project, and Cameco was the only investor willing to take the risk of investment when other major gold producers shied away. The agreement was instrumental in ensuring rapid expansion of gold production while the economy was in a painful process of adjustment following the demise of the Soviet Union and the government was looking for an alternative source of economic dynamism.

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