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Competitiveness of the Kyrgyz economy in the wake of accession to the Eurasian Customs Union: Selected issues and opportunities

Jieun Choi



Acknowledgement

This report was prepared by a team led by Jieun Choi (Economist & Task Team Leader, World Bank Group). The main author of chapter I was Lorenzo Costantino (Consultant, World Bank Group) with contributions from Jieun Choi (Economist) and Nurlanbek Tynaev (Consultant, World Bank Group). The main author of chapter II was Kateryna Onul (Adviser on Food Legislation, GTCDR), with comments from Serhiy Osavolyuk (IFC). Chapter II represents a compilation of a report titled “Comparative Analysis of Certain Requirements of Food Legislation in the European Union and the Custom Union of Russia, Belarus, and Kazakhstan,” produced under the Ukraine IC for Agribusiness Project. The main authors of chapter III were Sebastian Saez (Senior Trade Economist, GTCDR), Martin Molinuevo (Consultant, GTCDR), and Erik van der Marel (Consultant, GTCDR). The main authors of chapter IV were Alberto Portugal (Senior Trade Economist, World Bank Group), Andrew Myburgh (Consultant, World Bank Group) and Jieun Choi (Economist). Nurlanbek Tynaev (Consultant, World Bank Group), and Vanya Pasheva (Consultant, World Bank Group) supported the production of the report.

The World Bank’s team acknowledges extensive feedback from peer reviews Kateryna Onul (Operations Officer, GTCDR), Irina Shemlenya (Operations Officer, GTCDR), Seok Hyun Yoon (Senior Economist, IMF), Marina Bakanova (Operations Officer, GTCDR). Last, but not least, the authors of the report appreciate the unwavering support and essential guidance provided by the management team, including Paloma Anos Casero (Practice Manager, GTCDR), Saroj Kumar Jha (Country Director for Central Asia Region), and Jean-Michel Happi (Country Manager for the Kyrgyz Republic).

The views presented in this document belong solely to the team. The document results from a broad consultation exercise implemented by the World Bank Group in the Kyrgyz Republic.

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Abbreviations And Acronyms Used In The Report

BAS	Biologically Active Supplements
CAC	Central Asian Cooperation on Metrology, Accreditation, Standardization and Quality
CAC -MAS-Q	Codex Alimentarius Commission
CET	Common External Tariff
CIPM	International Committee for Weights and Measures
CIS	Commonwealth of Independent States
CSM	Center for Standardization and Metrology
CU	Customs Union
EAEU	Eurasian Economic Union
ECU	Eurasian Customs Union
EFSA	European Food Safety Authority
FDI	Foreign Direct Investment
FVO	Food and Veterinary Office
GATP	Global Trade Analysis Project
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoK	Government of the Kyrgyz Republic
HACCP	Hazard Analysis and Critical Control Points
IAF	International Accreditation Forum
ICT	Information and Communications Technology
IEC	International Electrotechnical Commission
ILAC	The International Laboratory Accreditation Cooperation
ILCT	Laboratory Comparison Tests
IMF	International Monetary Fund
IOML	International Organization of Legal Metrology
ISO	The International Organization for Standardization
ITC	International Trade Centre
ITU	International Telecommunication Union
JICA	Japan International Cooperation Agency

KCA Kyrgyz Center for Accreditation
MRA Mutual Recognition Agreement
MSTQ Metrology, Standards, Testing and Quality
NAB National Accreditation Body
NMI National Metrology Institute
NQI The Kyrgyz National Quality Infrastructure
NSB National Standards Body
OCS Other Commercial Services
OECD Organization for Economic Co-operation and Development
PPP Purchasing power parity
PTB The Physikalisch Technische Bundesanstalt, the German Metrology Institute
RASFF Rapid Alert System on Food and Feed
RTBET The Reducing Technical Barriers for Entrepreneurship and Trade Project
SAM Social Accounting Matrix
SECO State Secretariat for Economic Affairs
SMEs Small & Medium Enterprises
SPS Sanitary and Phytosanitary measures
STRI Service Trade Restrictions Index
TBT Technical Barriers to Trade
UNDP United Nations Development Programme
USAID United States Agency for International Development
WBG World Bank Group
WTO World Trade Organization

Executive Summary

In May 2015, the Kyrgyz Republic became a member of the Eurasian Customs Union (CU), comprising Russia, Kazakhstan, Belarus, and Armenia; it also joined the Common Economic Space (CES), which introduced “free movement of goods, services, capital, and labor” between members in 2012. The CU gives the Kyrgyz Republic access to a potentially large consumer market with 170 million people, an estimated GDP of US\$2.3 trillion, and a goods turnover of about US\$900 billion (Gill et al. 2014). The two agreements form the basis of the Eurasian Economic Union (EEU)—an area of free flow of labor and goods between the five member countries, which is expected to come into full effect in January 2016.

The government of the Kyrgyz Republic (GoK) has been making substantial progress along the accession road map in terms of harmonizing technical and sanitary regulations, transport and infrastructure, financial policies, tariff and nontariff regulations, and customs administration, among other areas. Since 2012, 34 relevant laws have been enacted (IMF 2015). Accession to the EEU could trigger gradual formalization of the economy. Kyrgyz companies wanting to export to the EEU market will be required to meet EEU standards and comply with stricter technical regulations. This should force some companies currently operating informally to regularize their activities, which would increase tax collections and improve labor market outcomes (Dubashov 2015). At the same time, delays in reaching compliance with a number of standards, including harmonizing veterinary and phytosanitary control with standards of the EEU, has postponed the opening of borders with Kazakhstan. The Kyrgyz Republic still must upgrade equipment and implement EEU standards at customs check points, as well as comply with requirements about laboratory testing for veterinary, sanitary, and phytosanitary safety.¹

In September 2014, the Ministry of Economy (MoE) of the Kyrgyz Republic sent a letter requesting the support of development partners, including the World Bank Group (WBG), on a wide range of CU and CES accession activities (see appendix for a copy of the letter). After consultations with MoE and other development partners, the World Bank team prioritized deep-dive analyses on the four chapters of this report that we believe will help the Kyrgyz Republic capture the medium- and long-term benefits of the CU while mitigating the short-term adaptation challenges. Separately, over the course of supporting the GoK on activities related to CU accession, the World Bank Group has provided comments on the results generated by the Computable General Equilibrium (CGE) model developed by a local think tank and shared lessons from Kazakhstan’s membership in the Eurasian Customs Union. This information is not included in this report

This report aims to respond to selected areas of MoE’s request: it supports topics III (“Development Programmes”) and IV (“Development of Foreign Trade Infrastructure”). Within topic III, the team identified high-impact industries that are likely to see a decline in competitiveness as a result of CU accession—namely food, services, and garments. These industries represent nearly 60 percent of exports and over 80 percent of employment, and have been growing significantly in recent years. The first chapter—on the national quality infrastructure (NQI)—relates to topic IV and

¹ Tatyana Kudryavtseva, “Border.kg: Wait until Fall?” July 8, 2015.

analyzes the level of preparedness of the Kyrgyz Republic to proactively support the competitiveness of key sectors and benefit from renewed terms of trade with CU members.

Economic context of the CU accession

The economy has been resilient in spite of the economic slowdown in Russia and the region, although the risks to the outlook remain on the down side. According to the National Statistics Committee preliminary June data, non-gold growth reached 4.4 percent and 12-month inflation slowed to 4.5 percent, notwithstanding the exchange rate depreciation of 5.8 percent since the beginning of the year. However, worker remittances fell by 25 percent in the first 5 months of the year; trade continues to slow down, and nonperforming loans (NPLs) and deposit dollarization increased further (IMF 2015).

In the first quarter of 2015, exports have increased by about 10 percent and imports have contracted by about 20 percent, improving the trade balance. According to MoE and State Customs data, exports to regional partners have decreased by about 30 percent due to a collapse in exports to Uzbekistan and Kazakhstan. Trade with Russia has decreased about 10 percent both in terms of exports and imports. Imports from China dropped by 25 percent in the first quarter as external tariffs came into effect. At the same time, exports to Europe have increased three-fold in the first quarter of 2015, creating a large export surplus. Switzerland accounts for over 90 percent of European exports with a trade surplus of \$178 million.

Despite the benefits from access to larger markets, short-term effects accession to the Customs Union on growth and trade of are expected to be mixed. Both export and import growth is expected to decelerate as the transit trade declines due to higher external tariffs. At the same time, the country may not benefit much from trade creation with current CU members since it already enjoys a free trade regime with them (IMF 2015).

The experience of other CU member states is consistent with the anticipated negative short-term impact. A World Bank analysis on anticipated trade creation and trade diversion for Armenia in the wake of EEU accession estimated that adopting the common external tariffs would imply a welfare loss of 0.14 percent of GDP, and an expected decrease in imports of US\$215.4 million (2.3 percent of GDP) at current EEU tariffs (effect was expected to be abated by 2020 when external tariffs decrease). At the same time, the report estimates that little trade creation will take place in the case of Armenia as a result of joining the union as it already enjoys free trade agreements with EEU member states (World Bank 2015). In the case of Kazakhstan, the CU had important effects on nontariff measures as procedures and technical requirements were altered to mirror the Russian approach. The World Bank estimates that lower trade-facilitation costs would help Kazakhstan counterbalance some of the negative effects and increase the value of consumption by 1.4 percent (World Bank 2012).

In addition, spillovers from Russia's slowdown will decelerate growth and exports, slowing down growth by as much as 2 percent in 2015 and 2016, according to the IMF. The Kyrgyz currency, the som, has depreciated by 20 percent since the onset of the Ukraine crisis, leading to inflation and an increase in the exchange rate. Remittances, largely from Russia, have proved resilient

so far, with increased flows largely compensating for the drop in the value of the ruble. The IMF expects these flows to decrease by 15 percent in 2015. At an estimated 30 percent of GDP, remittances are a key driver of private consumption, and a 1 percent decrease in flows can slow growth by 0.15 percent (IMF 2015).

Trade also slowed down, contributing only 1.4 percent to GDP in 2014, down from an average of 2.2 percent over the last three years. Exports of services dropped by 20 percent in 2014 and are expected to drop further in 2015 before they begin recovering again starting in 2016. Re-exports are expected to remain at around 50 percent of their 2013 levels until 2018 due to higher and more complex external tariffs resulting from CU accession (IMF 2015). This slowdown can have wide-reaching repercussions for the economy as import-, processing-, and re-export-related activities employ 22 percent of the working population. Tighter customs control at the Kazakh-Kyrgyz border (in line with EEU requirements) contributed to the slowdown, adversely affecting trade and reducing the incomes of small and medium businesses (Dubashov 2015).

Kyrgyz authorities have been identifying measures to mitigate short-term risks. The creation of a US\$1 billion Russia-Kyrgyz development fund and a US\$200 million Russian grant to implement the road map to join the Customs Union could mitigate short-term effects. The priorities of the fund include accelerating the implementation of technical regulations (TRs) in the agribusiness, garments and textile, and services sectors, as well as the development of entrepreneurship and infrastructure (IMF 2015).

This report and its recommendations

This report explores the sectors that will be instrumental for positive CU impact and competitiveness in the medium term. The initial chapter analyzes the gaps and opportunities the Kyrgyz NQI presents for capturing benefits of access to the enlarged common market across sectors. The next three chapters take an in-depth look at three high-growth sectors and identify adaptation priorities and opportunities. Agriculture, services, and garments are a large and growing share of exports and are the sectors most likely to be transformed by accession to the CU and the increased tariffs to countries outside the EEU. Services added 56 percent to GDP in 2013, while agriculture contributed 18 percent, and manufacturing 16 percent. Exports in the garment sector were close to US\$200 million in 2013, employing over 150,000 workers. The main findings of each chapter are summarized below followed by a summary of recommendations.

The first chapter, titled “The Eurasian Customs Union and the Kyrgyz National Quality Infrastructure,” analyzes the challenges related to adapting to CU quality standards and TRs. It takes a cross-sectoral approach to identifying gaps and opportunities in the Kyrgyz NQI, and makes recommendations for prioritizing NQI investments and capturing longer-term opportunities in light of the potential CU enlargement.

Kazakhstan’s CU accession experience demonstrates that a strong and harmonized NQI is a prerequisite to reaping the benefits from CU accession. When Kazakhstan joined the Customs Union in 2009, it anticipated an increase in exports toward the large new market. In reality, it

observed a shift of imports toward CU members due to an increase in external tariffs, largely substituting for imports from the European Union. Exports to CU members, however, remained flat (Gill et al. 2014). Part of the reason was the burden of nontariff measures² (NTMs) that came with CU membership. Kazakhstan had previously lowered tariffs and taken measures to harmonize NTMs with the European Union. In some cases,³ the CU's NTMs are more complex and impose costly procedures that reduce Kazakhstan's ability to access the Russian market (Malouche 2013).

Learning from this experience, the Kyrgyz Republic has identified a strong NQI as a priority. The Kyrgyz Republic was eager to avoid the experience of Kazakhstan and to tackle NTM challenges up front by evaluating and investing in its national quality infrastructure. A robust and internationally accepted system for quality is essential to enable the country to take advantage of CU membership and to capture trade opportunities across sectors.

Today, the Kyrgyz Republic is well positioned to build upon its existing NQI, which has the essentials of (1) a metrology system, (2) a proven capacity to develop technical regulations, and (3) a solid accreditation capability. In 2013 the Kyrgyz Republic was granted International Laboratory Accreditation Cooperation (ILAC) recognition, which reinforces the credibility of the national accreditation system.

However, the main challenge lies in implementing the new TRs—both in terms of infrastructure and in terms of quality systems—within the accelerated timeframe of the accession road map. At an infrastructure level, the gap is most notable in the field of border control and testing laboratories where significant investments in equipment and training need to be made to comply with CU regulations. A US\$200 million grant from Russia will finance the modernization of border control infrastructure, such as equipping customs posts, testing laboratories, and certifying bodies, and will be essential for modernizing the NQI. Nevertheless, implementing the roadmap nationally and training staff will remain a longer-term priority (the CU Accession Road Map allows the Kyrgyz Republic until 2018 or 2020 to upgrade laboratories and implement TRs in the phytosanitary space).

While generally decreasing in contribution to GDP and employment, agriculture and food products remain significant drivers of the Kyrgyz economy. Agriculture accounted for approximately 18 percent of GDP in 2014 (down from 33 percent in 2006), 20 percent of exports (in 2013), and 34 percent of employment (in 2010). Food product exports were US\$120 million in 2013; approximately 20 percent were sold to CU member countries. While the Kyrgyz Republic is relatively better prepared to meet CU requirements with its internationally accredited laboratories, several institutional and legislative challenges remain to achieve compliance with new requirements for CU and EEU and to increase export-readiness, particularly in food industries.

2. NTMs are typically trade-related regulations, such as product standards or labeling requirements imposed for legitimate purposes, such as protecting public health or the environment, but they may also be used to restrict trade intentionally.

3. For example, Russia's Ministry of Health in 2012 prepared to issue a CU-wide regulation on emissions from volatile organic compounds used as solvents in glues in many furniture items. The regulation aimed to set the limit at half of what the EU's regulations tolerate, a level incompatible with local production capabilities in the three other member states, which could potentially leave firms in permanent violation of the rules (Malouche 2013).

In terms of quality management systems, the Kyrgyz Republic must harmonize its domestic regulatory system with CU requirements, particularly in agriculture and food exports. This implies implementing a HACCP (Hazard Analysis and Critical Control Points) system, which is not currently in place in the Kyrgyz Republic. The challenge is that such a system has the potential to impose the burden of compliance also on small agribusiness firms and as such will take longer to be adopted throughout the private sector.

Like Kazakhstan, the Kyrgyz Republic has been developing internationally compliant technical regulations, in some cases modeled after the European Union. In 2004, the Kyrgyz Republic began implementing an internationally and WTO-compliant system of voluntary standards and technical regulations. This process led to the adoption of 47 technical regulations that have been developed according to international practice and referencing international standards. CU accession requires a realignment of the technical regulatory environment with the Russian system, which is based on GOST and GOST-R standards. This realignment can present a challenge: currently 47 percent of Kyrgyz standards are harmonized internationally, while only 30 percent of GOST standards are consistent with ISO/IEC requirements. As a result, exports to markets outside the CU may suffer as well.

The second chapter takes an in-depth look into agriculture exports and food safety—one of the sectors where the difference in approach between Russian/CIS standards and international standards is particularly notable. The chapter summarizes certain requirements of food legislation relevant to accession into the CU.

This report is relevant to the Kyrgyz experience as it highlights important differences both in terms of regulations and technical requirements. The report highlights differences between the EU and CU regulatory systems in approaches to food safety and legislation, but it also analyzes the differences in infrastructure aspects of the NQI, such as testing laboratories and certification mechanisms between the EU and CU. The Customs Union approach is based on end-product compliance to a specific technical regulation or standard, whereas the European Union relies on preventive measures and minimizing risks associated with each process throughout the complete food chain. In the CU food control system, food control bodies verify that the end-product meets the required technical specifications established by the government; in the EU system, end-product attributes such as size, color, shape, smell, and taste are generally left to the marketplace to judge if they are acceptable. Importantly, the report pinpoints specific technical requirements for EU food safety that differ from the CU requirements (Microbiological Criteria for Foodstuff, Contaminants in Food; Maximum Residue Limits for Residues of Pesticides, and Pharmacologically Active Substances).

The Russian embargo on food imports from the European Union amplifies the opportunity for the Kyrgyz agriculture sector. The embargo on fruits and vegetables, dairy, and meats in particular presents an opportunity to increase exports of unprocessed products. The cultural and geographic proximity give the Kyrgyz Republic a competitive advantage in the Russian market over imports like onions from Peru or eggplants from Morocco. In addition, despite the focus on CU accession, the Kyrgyz Republic should remain open to trade opportunities with other markets, like China, Turkey, or the European Union.

The third chapter, titled “Services Trade in the Kyrgyz Republic: a Competitive Analysis,” provides a detailed benchmarking of the role and potential of services in the Kyrgyz economy. The report benchmarks the Kyrgyz Republic against a number of countries in the region and in Latin America of similar size and level of development. The authors conduct an extensive analysis of the forward and backward linkages⁴ among various services and other parts of the economy, and highlight sectors that have the potential to spur growth in the economy due to high degree of linkages. As data on the services sector are scarce and information on service-related regulation requirements imposed by CU accession is limited,⁵ this chapter does not provide an analysis of the direct effect of CU accession. Instead, it provides an overall analysis of the competitiveness of the service sector, and identifies opportunities for improving it.

Services are an important sector for the Kyrgyz economy, where employment is growing at the expense of agriculture. Services drive the competitiveness of an economy by diversifying its export base, and by pushing the country toward higher value-added activities. In the Kyrgyz Republic they have been an engine of growth: the value of services exports increased by 70 percent since 2010, and in 2013 accounted for about a third of exports. The increase in services exports is partially due to a growing tourism sector. The majority of services exports are within the CU member countries, which already enjoy a high level of market integration with respect to services with low restrictions. Services are a growing policy priority as well—the high-tech park established in 2013 to promote export-oriented software development by offering preferential legal and tax treatment is a case in point.

Even though currently CU regulations do not directly pertain to services (outside the realm of customs), the sector will be affected by the increased external tariff. In particular, re-exports, which accounted for about 20 percent of exports to CIS countries in 2013, are likely to be affected. The IMF estimates that re-exports already dropped by half in 2014 due to import restrictions and that they will remain at a low level (under 15 percent of exports) until 2020. As the re-export sector employs over 20 percent of the working population, the drop in re-exports is likely to have far-reaching repercussions throughout the economy (IMF 2015). Another possible impact of the CU on the services sector is through certain technical requirements related to customs. The CU code (article 13) mandates that customs representatives obtain insurance for the products they bring across borders (formerly a function performed by customs brokers). Unless they buy insurance costing US\$10,000 to US\$15,000 per year, or provide a €1 million guarantee, they risk losing their license.

Another way in which accession to the EEU is likely to affect the services sector is by facilitating free labor mobility within the region. Free labor mobility is likely to be hard to achieve in the short run, given substantial physical infrastructure and income gaps among member states. The evidence so far suggests that Russia has been pulling more workers from the former Soviet space into its own labor market rather creating a common labor market. For instance, since the CU was established, the number of Belarusian workers moving to Russia has risen, reflecting income gaps

4. Linkages are an indicator of the interdependence of sectors in the economy and can inform the development strategy of a country. A sector with strong backward linkages have a positive impact on its suppliers as demand for its output increases. A sector with strong forward linkages benefit from increased demand for the products for which it provides inputs.

5. Negotiations between CU and the Kyrgyz government were ongoing at the time this report was written.

between the two countries: Russia's per capita income is almost double that of Belarus. Given this situation, a common labor market as envisaged in the EEU has further accelerated Belarus's brain drain. This may also become a challenge in the case of the Kyrgyz Republic, which already relies heavily on remittances from workers in Russia.

This report identifies subsectors and opportunities that may help the Kyrgyz Republic improve the competitiveness of its services sector. While the level of services exports is generally consistent with the level of development of the Kyrgyz Republic, the authors find that the composition of exports is disproportionately skewed toward "traditional services" such as travel and transportation, and the country may be missing an opportunity to develop higher value-added services. Services could strengthen their link to key economic activities in manufacturing or agriculture to boost exports of goods and contribute to diversification. One opportunity, for example, is to serve and support the growing industry sector by outsourcing service activities such as logistics and transportation, which are often performed in-house. In terms of the regulatory environment, the Kyrgyz Republic compares favorably to benchmark countries, but restrictions can still be reduced, particularly in transportation and professional services (for example, audits). More broadly, the report highlights the need to incorporate services trade development in policy priorities, to build expertise and knowledge in services policy reform (general and sector-specific), and to improve regulators' understanding of the implications of international commitments.

The final chapter analyzes the garments sector—another high-growth sector that has powered the economy in the past two decades and stands to lose competitiveness within the CU. The garments sector increased output seven times between 2004 and 2012 and is thought to employ 150,000 people. Joining the CU is expected to increase external tariffs between 3.6 percent and 7.7 percent or perhaps even more, and to formalize procedures at the border. Due to the reliance on imported cloth and materials, the authors of the report argue that this will place pressure on the sector. In particular, importers of finer textiles are more likely to be hurt by the increase in tariffs. Under the current simplified regime, all textile imports are taxed on a per-kilogram basis. Replacing the simplified tariff regime with the CU's common external tariff will tend to increase production costs disproportionately for firms that use more expensive textiles to produce garments.

The authors further identify a number of constraints that must be overcome to ensure that firms remain competitive. In a sector where success has so far depended on focused strategies and superior market knowledge, firms need fresh skills and expertise to continually find and serve niche markets underserved by foreign competitors. To remain competitive, firms must invest in market intelligence and in employees with design and marketing skills. A lack of administrative and operational management skills, as well as technical skills, are inhibiting firms from increasing their size to take advantage of economies of scale. Limited access to finance and expertise on new equipment or processes, as well as corruption and poor access to electricity also reduce the ability of Kyrgyz garment firms to compete in the industry. The authors recommend specific interventions designed to address these constraints.

A few themes emerge from the analyses of the four topics presented in this document—trade and competitiveness in the services and garments sectors, implications for food safety and

agricultural exports, as well as the more general discussion of the national quality infrastructure. Joining the CU presents both challenges that will require adjustments in the short-term, as well as challenges that will call for ongoing commitment for building capacity and systems. Membership in the CU also presents opportunities to improve the competitiveness of the Kyrgyz Republic in the region and beyond. Table 1 summarizes the recommendations by topic.

In the short term, challenges stem mainly from the higher external tariffs that will come into effect for many products as a result of CU accession. For instance, production costs will increase in import-dependent sectors such as garments. Similarly, the cost of doing business will increase in other sectors affected by CU TRs such as for customs representatives who need insurance. Other sectors and jobs that depend on imports from China and Turkey may all but disappear with the collapse of the re-export market, threatening the employment prospects of tens of thousands of people. At the same time, the Russian ban on food imports from the European Union presents a unique opportunity for the Kyrgyz Republic to position itself as a supplier of key food items to the 145 million-strong Russian market.

Longer-term adaptations will be needed, particularly in bringing private sector firms up to CU requirements and building new systems and institutions. The HACCP system is a case in point. The system has to be built in terms of both regulatory and enforcement institutions, and capacity has to be developed within the private sector for compliance with HACCP system requirements. In other sectors, training and capacity building will be needed for firms to understand the new requirements and position themselves to succeed in the CU market (for example, educating firms about the NQI). Given that these changes require both broader adjustments to the structure of the economy and affect the economy deeply all the way to small and medium enterprises, these adjustments will be longer-term investments.

In the medium to long term, CU membership is also expected to create opportunities for the Kyrgyz economy. The cultural proximity to the Russian market and the lack of language barrier put Kyrgyz producers and exporters in a unique position of being able to identify and serve niche markets that are not served by more cost-competitive imports (for example, from China). This opportunity exists across sectors as discussed in the chapters on garments and services. The Kyrgyz Republic can capitalize on its strong traditions of trading with regional partners outside the CU (for example, China and Turkey), or leverage its strong human capital and lower cost base to export services within the region, including offering quality infrastructure services to Kazakhstan or to future CU accession members.

The chapters also discuss implementation of CU requirements and adaptations. Policy makers would need to work with the private sector to build capacity and facilitate identifying and developing niche markets where Kyrgyz firms have a competitive advantage. They would also have to adopt a long-term approach to building permanent institutions to support the export-oriented sectors and the national quality infrastructure. The World Bank Group stands ready to continue to support the GoK in further developing and implementing the recommendations of this report as well as in other areas related to CU accession and harmonization. As part of this effort, the WBG will also hold a training/workshop on issues of food regulation with the Ministry of Economy later this year.

Table 1.1 Summary of Recommendations

	Short-term challenges	Longer-term adaptation	Longer-term opportunities	Implementation implications
NQI	<p>Upgrade border infrastructure and other priority equipment</p> <p>Reinforce capacity (invest in calibration, metrology, and accreditation to retain ILAC recognition)</p>	<p>Equip and strengthen laboratories</p> <p>Mandate HACCP system and develop inspection capabilities; support implementation of HACCP by private sector</p> <p>Facilitate SME integration into the CU (e.g., training programs and guides, online information portal, help desk)</p>	<p>Identify and promote niche export opportunities</p> <p>Provide NQI services to other CIS countries, including future CU accession countries</p>	<p>Continue support to the domestic NQI, at both infrastructural and institutional levels</p> <p>Deploy concrete awareness campaigns on opportunities and implications of CU for local SMEs</p>
Food safety, agri-exports	<p>Capture the opportunity for export of unprocessed products to Russia following EU import ban</p> <p>Harmonize TRs for largest export categories</p>	<p>Implement HACCP system, including establishing the institutional environment and building capacity in the private sector</p>	<p>Transition toward higher value-added food products, especially niche products for the Russian market</p> <p>Capitalize on position within CU as well as relative alignment with international standards to participate not only in CU market but also in EU and other international markets</p>	<p>Assess competitiveness and prioritize TR harmonization for export categories likely to benefit from CU accession in the short term</p> <p>Establish public-private partnerships overseeing the HACCP system to ensure support from a regulatory perspective, as well continued capacity building and enforcement in the private sector</p>
Services	<p>Adapt to the decrease in employment in the transport sector, and other services sectors affected by the collapse in re-exports</p> <p>CU requirements for customs representatives</p>	<p>Reduce restrictions that affect connectivity to the world, especially in air transport and rail freight transport</p>	<p>Nurture a services environment that supports manufacturing: activities that serve manufacturing firms can be outsourced and professionalized (e.g., transportation, logistics)</p> <p>Move to higher value-added services (e.g., business services with linkages to other sectors) to capitalize on existing favorable factors (human capital, geographic advantage, internet penetration)</p>	<p>Incorporate services trade development among policy priorities</p> <p>Seek technical assistance to improve internationalization of services through negotiations, expertise in services policy reform, regulatory matters, and enforcement.</p> <p>Build expertise and knowledge in services policy reform (general and sector specific)</p>

Garments	Adapt to increase in production costs due to 3.6 to 7.7% increase in external tariffs	<p>Expand trade promotion programs</p> <p>Strengthen skills through education and training</p> <p>Increase new equipment adoption (requires education about new equipment but also financing)</p>	<p>Proximity to market, knowledge of niche market demand</p> <p>Sector has the potential to be a stepping stone to higher value-added activities (easy to diversify from garments—e.g., “apparel phase” of industrialization in the UK, US, and Japan)</p>	<p>Establish public-private partnerships to ensure continuity, retain institutional knowledge, and make it easier to scale up programs that improve the sector’s competitiveness</p> <p>Leverage industry associations and cooperation between firms—include industry representatives in governance</p> <p>Improve coordination of funding between public, private, and donor funders at the sector level</p>
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Source: authors

Chapter I : The Eurasian Customs Union and the Kyrgyz National Quality Infrastructure⁶

The Kyrgyz National Quality Infrastructure (NQI) is prepared to accompany the country into the Customs Union (CU): the basic quality infrastructure of metrology and calibration are appropriate to ensure accuracy in measurement and traceability; the national accreditation system is internationally recognized by the International Laboratory Accreditation Cooperation (ILAC) and the regulatory aspects of NQI are supported by public institutions that have sufficient capacity to develop internationally compliant Technical Regulations. The basic NQI agencies and institutions are empowered to carry out the necessary technical tasks stemming from accession to the CU.

Yet, major equipment gaps undermine the ability of the Kyrgyz Republic to properly enforce CU regulations and requirements. The accession to the CU highlights the considerable infrastructure investment needed to bring the overall implementation and enforcement structure in compliance with CU provisions. The Kyrgyz testing and certification infrastructure needs to be upgraded across the board: enforcement agencies and inspectorates lack the equipment necessary to enforce CU requirements; this is especially challenging in the case of customs and border control checkpoints. In addition, the testing market should be liberalized to allow the entry of private laboratories and reduce restrictions imposed by agencies (e.g., specific regulators accept results only from narrowly defined set of laboratories).

The infrastructure gap is being filled by in-kind support pledged by Kazakhstan and Russia, which committed a cumulative 300 million USD for the Kyrgyz equipment needs. With 100 million USD and 200 million USD respectively, Kazakhstan and Russia have supported the definition of equipment lists and their technical specifications. Equipment is expected to be procured in the near future. Nevertheless, the procurement, delivery and installation of testing equipment is a time-consuming endeavor, especially when training on the use of the new equipment is considered. As a result, in spite of CU countries' pledges, the significant infrastructure gap will undermine Kyrgyz Republic's ability to reap the benefits of CU accession in the immediate term.

In addition, the Kyrgyz private sector may not be ready to proactively participate in the CU market due to lower sophistication of production, business and quality management practices, especially in the high value added food and agricultural products segment. The Kyrgyz business sector has not fully internalized the benefits and implications of the CU in their daily operations. Moreover, apart from a handful of exceptions, the majority of Kyrgyz enterprises do not have a fully-fledged internal quality management system: in addition to exposing Kyrgyz companies to increased competitive pressures from more advanced CU companies, the lack of domestic system for the adoption of quality management at enterprise level may expose the Kyrgyz Republic to a more serious risk of not being able to comply with some CU Technical Regulations that refer to implementation of elements of the quality management system. At present, there is no system in

⁶ This chapter was prepared by a team led by Jieun Choi (Economist, World Bank Group) and comprised of Lorenzo Costantino (Consultant, World Bank Group) and Nurlanbek Tynaev (Consultant, World Bank Group). The views presented in this document belong solely to the team. The document results from a broad consultation exercise implemented by the World Bank Group in the Kyrgyz Republic

place in the Kyrgyz Republic for the adoption and enforcement of the quality management system for food safety, HACCP.

From a regulatory perspective, the Kyrgyz Technical Regulation (TR) system is relatively advanced, with adequate capacity to develop TRs: in the last few years 47 TRs were developed in the Kyrgyz Republic. Nonetheless, confusion at implementation and enforcement levels may stem from the simultaneous application during the transition period - up to four years depending on the sector - of both the Kyrgyz and CU TRs that may differ in some technical aspects.

Notwithstanding the challenges stemming from accession, greater regional integration and the establishment of a common market with the main trading partners generate realistic expectations of gradual harmonization and long-term economic gains. In the short term, the trends of global trade and regional integration, the emergence of new East-West trading routes and altered EU-Russia trade patterns may provide innovative venues of development for the Kyrgyz Republic.

What is more, thanks to recent achievements (notably the international recognition by ILAC), the Kyrgyz NQI is poised to becoming a point of reference for other countries and companies in the region for the provision of reliable quality related services. The upcoming international recognition of four calibration laboratories, the presence of a few food safety laboratories internationally accredited and an internationally accepted Accreditation Body may position the Kyrgyz NQI as a service provider for potential entrants to the CU (i.e. Tajikistan) as well as for companies operating in the region.

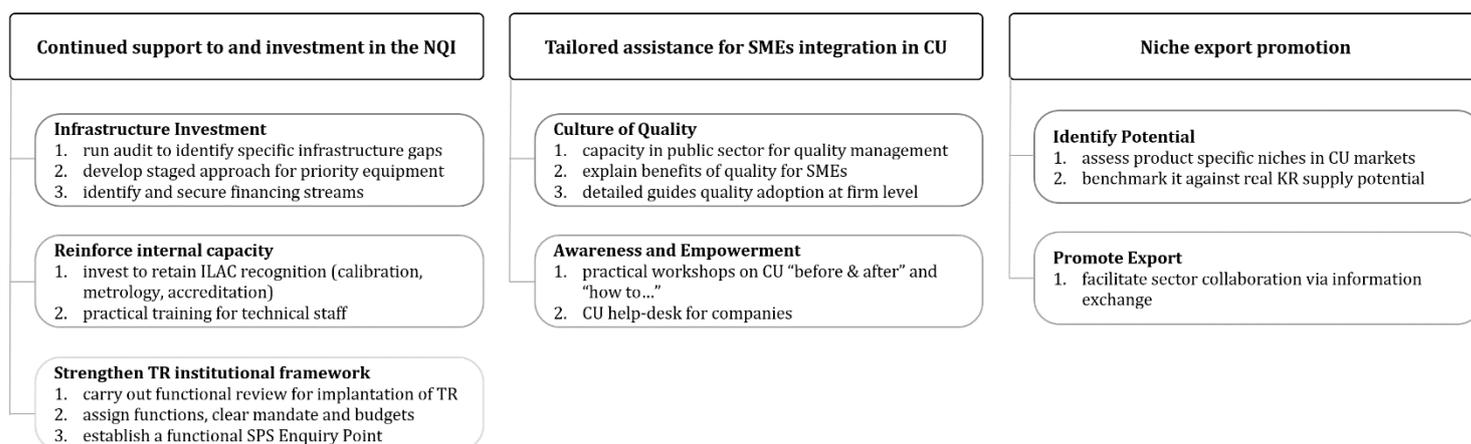
The Russian ban on food products from selected countries may represent an opportunity to open market niches for selected Kyrgyz goods. According to European official statistics, EU countries are the most affected by the ban, with an aggregate value of exports of 5.2 EUR Bn (2013 values); the products most impacted by the ban are fruits and vegetables, dairy and meat products. The combination of CU, physical and cultural proximity could represent an opportunity for the Kyrgyz agribusiness sector to tap into the Russian market. While the Kyrgyz agricultural sector is still affected by structural hindrances, opportunities may lie in specific niches and products for which alternative suppliers for the Russian market are still being identified.

Continued support to the NQI is a requirement for the Kyrgyz Republic to reap the benefits of accession to the CU and seize short-term opportunities. The government is faced with the dual challenge of investment in infrastructure and capacity or NQI agencies to maintain and improve technical capacity and credibility in the domain of quality. Above all, an imperative is to maintain the international ILAC recognition of the Kyrgyz Center for Accreditation: this entails investments in both infrastructure and capacity building across the NQI system, from accreditation, to metrology and testing laboratories.

In addition, for the country to capitalize on immediate opportunities stemming from global trends and increased regional integration, the Kyrgyz government should formulate a thorough short-term plan with a multi-pronged approach aiming to:

1. Continue support to the domestic NQI, at both infrastructural and institutional levels
2. Deploy concrete awareness campaigns on opportunities and implications of CU/EEU for local SMEs (including creating Internet portals and databases that facilitate access to information about technical regulations and trade conditions with the EEU)

3. Identify product specific niches for Kyrgyz suppliers towards the Russian market



The Building Blocks of a National Quality Infrastructure

A National Quality Infrastructure is generally referred to as the set of entities that carry out functions in support of economic and social activities that pertain to - or are affected by - measurement, quality and safety. Such entities can be public and private institutions, agencies and organizations tasked with the technical, regulatory and market functions to establish, maintain and control the overall system of standardization, metrology, testing and accreditation.

NQIs have gained increasing importance in the last decades thanks to the process of globalization and international integration of production and distribution of goods and services: integrated international value chains and global trade rely on comparable and compatible norms and measures. International trade hinges upon certainty, trust and safety that can be implemented and safeguarded only by reliable NQIs. International trade relations have been traditionally governed by tariffs for import and export; the current global trade patterns are as well concerned with non-tariff barriers to trade, that within the pertinent World Trade Organization (WTO) agreements are grouped under Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary measures (SPS). TBTs pertain to standards and technical regulations that may constitute a barrier to international trade because of packaging, labelling and marking requirements to exporters; SPS relate to food safety, animal and plant health standards and requirements that countries can impose to safeguard public health. Both types of non-tariff barriers can constitute a means for protective or restrictive trade measures.

International standards are becoming increasingly important in the current global economy as they minimize transaction costs, enhance international integration, and provide immediate opportunities for economies of scale and efficiency gains. In such a context, NQIs are pivotal in providing regulatory, measurement and technical credibility.

While no two NQI systems are alike and not one single model can be considered as a template for NQIs, there are key elements that constitute the building blocks of a typical NQI of Metrology, Standards, Testing and Quality (MSTQ):

Metrology and Calibration: metrology is the science of measurement that encompasses theoretical, scientific and practical aspects of measuring. Metrology is divided into three branches, with varying degrees of sophistication of measurement and level of accuracy: namely

1. scientific metrology concerns the creation of national measurement standards that in turn are used to provide certainty in national calibration services
2. industrial metrology relates to the accurate implementation of metrology at industry level
3. legal metrology pertains to the control of proper use of measurement – and measuring instruments, such as scales, meters, etc. – in trade

1. Scientific metrology deals with the organization and development of measurement standards and with their maintenance (highest level).

2. Industrial metrology has to ensure the adequate functioning of measurement instruments used in industry, in production and testing processes, for ensuring quality of life for citizens and for academic research.

3. Legal metrology is concerned with measurements where these influence the transparency of economic transactions, particularly where there is a requirement for legal verification of the measuring instrument.

Above those three categories, “fundamental metrology” has no international definition, but it generally signifies the highest level of accuracy within a given field. Fundamental metrology may therefore be described as the top level branch of scientific metrology.

Source: “Metrology - in short” 3rd edition, EURAMET e.V. 2008

When it comes to identifying the key aspect of metrology, certainty of measurement and traceability become crucial: to this effect, seven SI Units are internationally accepted – through conventions, treaties and agreements – as the basic units of measurement⁷.

The practical system of units of measurement is the International System of Units, also known as SI: SI consists of a set of base units and derived units (i.e. a combination of the seven SIs). The seven well-defined units which by convention are regarded as dimensionally independent are: the meter, the kilogram, the second, the ampere, the kelvin, the mole, and the candela.



Each country has a National Metrology Institute (NMI) that hosts the reference laboratory of measurement with the seven SI units to ensure consistency and coherence between the national measurement system and the international one. In this case, the individual NMIs constitute a network of measurement compatibility that is internationally accepted as all the national

⁷ The international treaty for standards in measurement is the Meter Convention of 1875: initially meant for international cooperation in length and mass (meter and kilogram), the international treaty then expanded its scope to cover other SIs and led to the establishment of three international bodies:

International Bureau of Weights and Measures (Bureau International des Poids et Mesures) – BIPM

General Conference on Weights and Measures (Conférence Générale des Poids et Mesures) – CGPM

International Committee for Weights and Measures (Comité International des Poids et Mesures) – CIPM

institutes ensure traceability to the highest reference for measurement, guaranteed through international cooperation on weights and measures.

Once established, this traceability between the NMI and the international reference measurement standards are then “replicated” in the country through the provision of calibration services that ensure downward traceability: through calibration measurements and measurement instruments across the country are compatible and comparable with the reference metrology laboratory established at national level to ensure consistency and coherence of measurement and traceability.

Technical Regulations and Standards: safety and quality of products and services are a key concern for policy makers, industry and consumers. In addition to self-evident consumer protection rationale, safety and quality are the main concern of clients and consumers in their spending decisions. Safety is commonly guaranteed by regulation: governments enact legislation that mandate products and services characteristics, such as shape, size, performance, labelling and packaging. In addition to those requirements mandated by law, industry develop quality standards that are voluntary in nature to provide a reference and indication of quality of their products and services. The difference between mandatory and voluntary standards for safety and quality of products and services is reflected in the difference between Technical Regulation (TR) that identify the minimum safety requirements for products and services in safeguard of consumer protection (human and animal health) and safety of the environment and Standards that outline the characteristics that determine the quality of a certain product and service and are of voluntary nature.

Each country has its own TRs and Standards, with standards developed at national level under the aegis of a National Standards Body (NSB) that is typically a public-sector body. The NSB drives the consultative process with industry for the development of “consensus based” standards that outline the characteristics of a service, process or product. It will then be the choice of industry and market players to abide by the Standard that is of voluntary nature. Once the Standard is referenced to in a Technical Regulation, the characteristics of the given service, process or product then become a mandatory requirement to which industry and market players will need to comply in order to produce, distribute and sell that specific product, process or service.

In the current global economy, standards are generally developed at international level⁸ to overcome the possible fragmentations deriving from a plethora of different national standards: international trade would become too cumbersome without a common international standard framework that facilitates the international integration of value chains and distribution. By the same token, Technical Regulations are increasingly being harmonized at international level to reduce those technical barriers to trade (i.e. non-tariff barriers) that may arise from specific requirements for the safety of consumer and the protection of health and environment defined by countries in their national legal framework.

⁸ Standardization at international level is supported by the crucial role of international cooperation frameworks established within the International Standardization Organization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU), all three fora devoted to the development of international standards in the various fields of industrial products.

The development of standards and harmonization of technical regulations at international levels are facilitated by international organizations like the International Organization for Standardization (ISO), **International Electrotechnical Commission (IEC)** and International Telecommunication Union (ITU) for standards and the WTO for Technical Regulations, under the Technical Barriers to Trade Agreement. The WTO encourages member countries to rely as much as possible on international standards when developing their technical regulations so as to minimize “adjustment costs” and transaction costs for international trade, or as put by the Agreement “not to create an unnecessary obstacle to international trade”.

In addition, the WTO created a notification mechanism to increase transparency and facilitate access to information on TR and standardization among its member countries: each WTO member establishes Enquiry Points for both TBT and SPS requirements to facilitate all interested parties to access detailed information about the specific technical requirements for international trade. In addition, the Enquiry Points serve the purpose of submitting notifications to the WTO Secretariat about developments in the area of TR. The establishment of Enquiry Points for TBT and SPS is a mandatory requirement of WTO membership.

Testing and certification: the confirmation that a product complies with the characteristics outlines in a standard (or Technical Regulation) is a two-step process of testing and certification supported by testing laboratories and certification bodies. The testing laboratories perform tests to discern the characteristics of the product; the certification body is a third party that provides written conformation (certificate) stating whether and how the product meets pertinent standard’s characteristics on the basis of the test results. Testing and certification are part of the process of “conformity assessment” that aims at determining the compliance of a product, process or service to the specific characteristics of standards. When compliance with such characteristics is a legal requirement, this product, process or service can be subject to inspection.

Testing laboratories and certification bodies can be either public or private entities. Irrespective of their nature, they need to ensure reliability and accuracy in the provision of technical service: such reliability is ensured through the accreditation process that certifies the technical competence and reliability of services of testing laboratories and certification bodies.

Accreditation: accreditation ensures confidence in the capabilities and competence of the entities – and people – involved in the conformity assessment process. Such confidence is based on the assessment and formal recognition (hence the credit) of the ability and capacity to perform specific technical tasks, such as calibration, testing and certification. Such impartial recognition is provided by a “super partes” entity: the National Accreditation Body (NAB) that is typically a public sector entity. The NAB recognizes that on the one hand calibration and testing laboratories are capable to deliver reliable measurements and services needed to ensure quality of goods; and on the other hand that certifying bodies are capable to formally demonstrate compliance of products with technical specifications usually required by regulators and by import-export partners. If the NAB is internationally recognized, the certificates and testing reports supplied domestically will be internationally recognized by the counterpart signatories of international agreements.

NAB in fact are themselves internationally recognized if operating under ISO/IEC 17011: in this case a NAB participates to the International Laboratory Accreditation Cooperation (ILAC) multi-recognition agreement (laboratories) or to the International Accreditation Forum (IAF) multilateral agreement.

Role of Public Policy for NQI

Typically, there is a clear role for governmental intervention in the establishment and maintenance of a functional NQI to serve the public good of societal needs (ranging from health to consumer protection) and economic growth (from international trade to competitiveness and innovation). As such, the public sector plays a vital role in any NQI: not only by designing and implementing relevant regulations, but also by carrying out crucial functions such as metrology and accreditation. Most importantly, governments – and public policy at large – should be concerned with defining suitable regulation, ensure transparency and efficiency in the institutional framework and prevent any possible conflict of interest among the various technical, scientific, regulatory and enforcement/control functions. Above all, governments have to carefully consider the funding aspects of building and maintaining a functional NQI: some of the NQI functions fall within the scope of public goods and public services, and public budget commitments to ensuring appropriate infrastructure and human resources become instrumental.

Regulation: the public sector is tasked with regulatory functions that govern the NQI system as a whole. A wide range of regulations pertain to the overall legal framework of NQI from the national metrology law to the sector specific Technical Regulations that relate to trade and competitiveness of the domestic industry.

Institutional framework: governments are also tasked with the definition of the national institutional setting and framework that relate to a NQI with the need to distinguish and balance between technical, regulatory and control/enforcement functions. Also within the domain of technical tasks, of crucial importance is the full independence of any National Accreditation Body that is by statute devoted to ensuring the performance of reliable technical tasks and provision of credible testing and certification services.

Financing / Funding: while NQI relevant agencies provide services on a fee basis, it is difficult for those organizations to reach financial sustainability in the long run; the National Standards Body sells standards to industry and enterprises; the Accreditation Body charges fees for its accreditation services; the Metrology institute can charge fees for its metrology and calibration services. Yet, such revenue streams seldom cover the considerable operational costs of establishing, running and managing systems to provide NQI-related services that require not only expensive infrastructure and equipment, but also – and foremost – considerably skilled staff and personnel. Hence the role of governments that need to consider the budgetary implications of supporting a reliable and functional NQI in support of the domestic economy.

Building and maintaining an NQI is a financial and policy commitment for governments that should see NQIs as the backbone of a competitive economy and safe society. Capturing the economic value and benefit of investment in NQI is a difficult – if not impossible – endeavor due to the number and type of elements and variables to take into consideration. Nevertheless, some attempts have been made to capture the economic value and importance of NQI or some of the NQI building blocks.

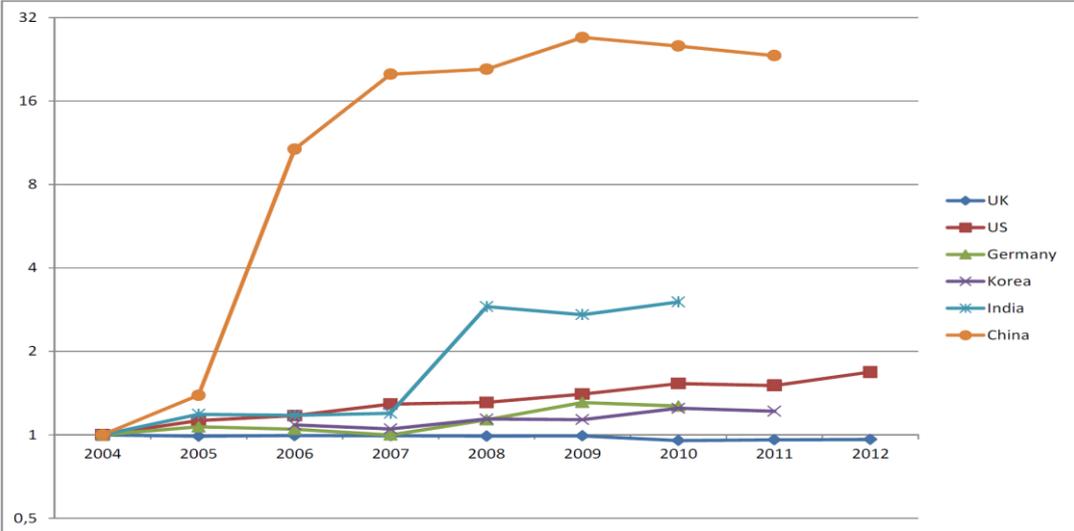
A 2007 report by the U.S.A. National Institute of Standards and Technology⁹ put a conservative estimate of a 1 to 3 cost-benefit ratio of investments in measurements and standards; similar reports from the US authorities estimate that between 1996 and 2006, the US semiconductor industry spent \$12 billion on measurement services, generating \$51 billion in economic benefits.

Improved certainty of measurement has the potential of producing significant efficiency gains: estimates put the annual value of trade measurement transactions at about 50% of GDP. A decrease in the average error of measurement of 0.1% could generate benefits of up to 0.05% of GDP¹⁰. At such direct positive impact, it is safe to argue that public investment generates tangible return for public expenditures devoted to establishing and maintaining a functional NQI.

In addition to the economic impact, there is a public good dimension of NQI investment that strengthens the case for NQI beyond the pure cost/benefit analysis perspective. The most obvious example is the need for reliable measurement (metrology, calibration and testing services) to support health systems. On average, OECD countries spend approximately 10% of their GDP in health¹¹ (with peaks of 16.9% in the USA). In aggregate, some 30% of those expenditures are related to measurement and testing services: a reliable NQI is necessary not only to ensure citizens' welfare and health but also to provide value for public money and fiscal efficiency for diagnostic and therapeutic services.

At present, global trends show an increase in the Research and Development (R&D) investment in metrology and measurement-related scientific domains, especially from emerging economies such as China, India and Korea.

Exhibit 1: R&D investment in metrology, comparison of yearly change



Source: EU Commission, Staff Working Document, SWD(2013) 249 final, p. 10, on the basis of National Physical Laboratory (NPL, UK) internal data.

⁹ NIST: An Assessment of the United States Measurement System: Addressing Measurement Barriers to Accelerate Innovation. NIST Special Publication 1048

¹⁰ EU Commission, Staff Working Document, SWD(2013) 249 final, Impact Assessment Accompanying the document "Proposal for a Decision of the European Parliament and of the Council on the participation of the Union in a European Metrology Programme for Innovation and Research jointly undertaken by several Member States"

¹¹ OECD Health Statistics 2014, available at <http://www.oecd.org/els/health-systems/health-data.htm>

The Kyrgyz NQI

The NQI of the Kyrgyz Republic is built upon the remainder of the quality infrastructure of the old Soviet system. In the Soviet Union all functions and activities of a typical NQI – definition of standards, metrology, calibration and certification – were consolidated under a single agency the GosStandard. GosStandard would represent the reference metrology laboratory for the entire Soviet Unions and the National Metrology Institutes of the Soviet Republics represented the secondary metrological system tracing back to the etalons kept at centralized level. The Soviet GosStandard system was characterized by its downstream and mandatory nature. The centralized metrology system provided reference measurement standards to industry and National Metrology Institutes (NMIs) of Soviet Republics without feedback and input mechanisms from the bottom. In addition, the GosStandard system was mandatory without distinction between voluntary standards and mandatory requirements for products and processes, nor distinction between voluntary calibration of measuring equipment and mandatory compliance for calibration.

In the domain of NQI, the disintegration of the Soviet Union left behind on the one hand a series of NMIs in each of the Soviet Republics disconnected from a reliable reference metrology system and on the other hand a legacy of mandatory apparatus. In the case of the Kyrgyz Republic, low investment in equipment, facilities and human resources due to the lack of financial resources led to a gradual deterioration of the NQI. A turning point in the Kyrgyz NQI was the country's accession to the WTO in 1998: by joining the international trade system under the aegis of the WTO, the Kyrgyz Republic had to embark on a significant reform process to align its regulations, institutions and quality infrastructure to international standards.

The Kyrgyz NQI was based on old and outdated Soviet system, while WTO requirements mandated an efficient regulatory system for Technical Regulations based on the international standardization system, a streamlined institutional framework that prevents technical conflict of interest among the various functions of metrology, conformity assessment, accreditation and control and a reliable metrology and testing infrastructure. The transition of the Kyrgyz NQI from the Soviet system to an international one was not easy and proved complex: political commitment coupled with constant donor support led over the years to considerable improvements. Many donors provided support to the NQI reform process after WTO accession: European Union (EU), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), [Japan International Cooperation Agency](#) (JICA), [State Secretariat for Economic Affairs](#) (SECO)/ International Trade Centre (ITC), [United Nations Development Programme](#) (UNDP) and [State Secretariat for Economic Affairs](#) (USAID). The World Bank implemented the RTBET Project a comprehensive Metrology, Standards, Testing and Quality (MSTQ) project.

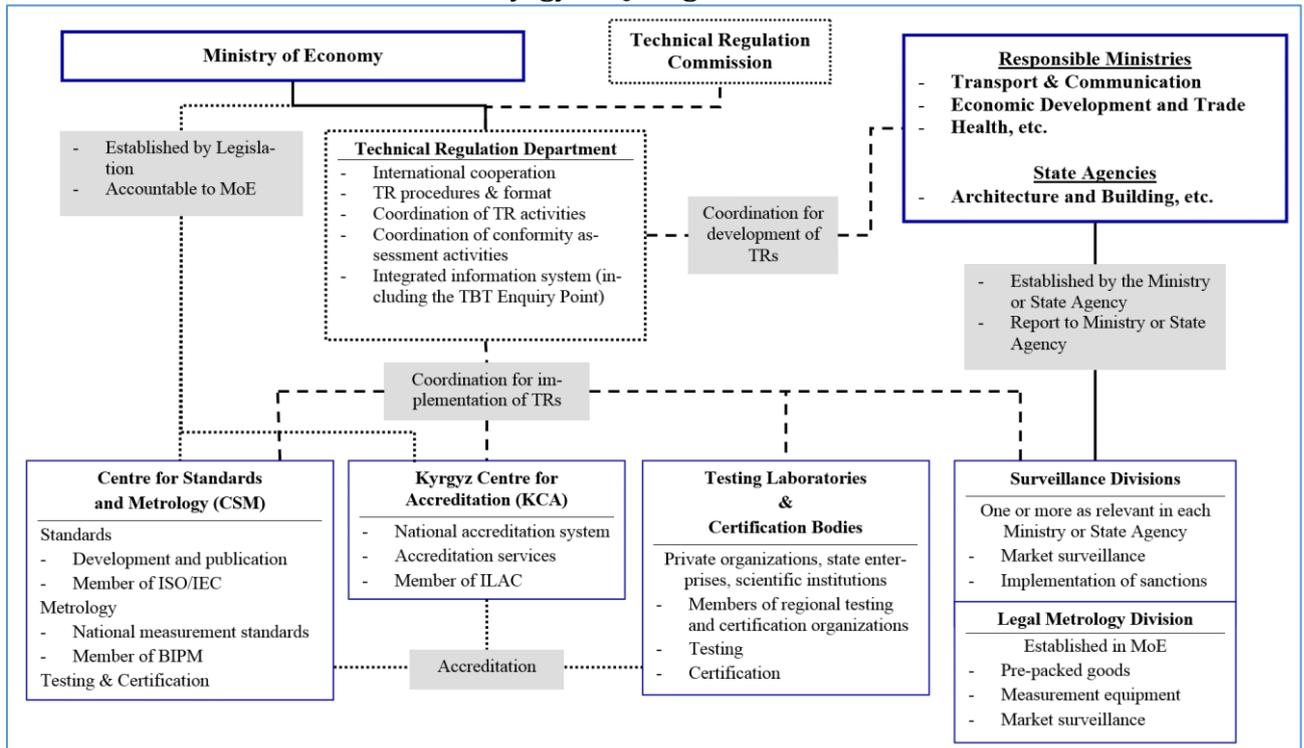
The World Bank RTBET Project

The Reducing Technical Barriers for Entrepreneurship and Trade (RTBET) Project was launched in 2007 by the Kyrgyz Ministry of Economy to support the Kyrgyz Republic's transition from a burdensome regulatory compliance system based on compulsory standards inherited from the Soviet era to a leaner WTO-based international standards system. The RTBET project was instrumental in supporting the Kyrgyz government reform at regulatory, institutional and infrastructure levels: at project closing in 2013, the Ministry of Economy had achieved the following:

- An internationally compliant NQI institutional framework with an independent accreditation body
- 38 sector-specific technical regulations adopted, streamlining the licensing and inspection regime for enterprises by eliminating outdated regulatory requirements that stemmed from old Soviet standards
- Harmonization of 46% of national standards with international standards
- 7 state-of-the-art metrology laboratories installed within Center for Standard and Metrology
- a state-of-the-art microbiology laboratory installed within the Ministry of Health to support the agribusiness industry
- A fully functional WTO TBT Enquiry Point established within the Ministry of Economy

The current Kyrgyz NQI demonstrates areas of competence – and in some instances, excellence – as well as areas where significant improvements are needed. Key positive features of the Kyrgyz NQI lie in a relatively reliable infrastructure (in the availability of basic infrastructure and presence of competent technical staff) and an institutional and regulatory framework with clearly defined institutional roles and functions.

Exhibit 2. The Kyrgyz NQI Organizational Structure



Source: readapted from M. Kellermann “Report on First Mission to the Kyrgyz Republic on the Implementation of the Law on Fundamentals of Technical Regulation”, WB RTBET Project, 2007

Metrology and Calibration: the metrology system in the Kyrgyz Republic remains uneven and fragmented, with a relatively adequate scientific and technical infrastructure undermined by shortcomings in the governance and administrative domains of metrology. The Kyrgyz national metrology institute, the Center for Standardization and Metrology (CSM), demonstrates a relatively reliable – both qualitatively and quantitatively – technical infrastructure with the 7 Base Units of measurement available and local technical staff properly trained. Nonetheless, the lack of

participation to CIPM measurement key-comparisons hinders the international and market recognition.

The Kyrgyz Center for Standardization and Metrology (CSM) is tasked with the functions of industrial metrology, though it does not have full membership to the International Organization of Legal Metrology (OIML) and reportedly does not enjoy market recognition. In addition, the metrology institute does not appear to be supported by an Industry Advisory Council, useful in the provision of inputs and feedback from the private sector on the economic importance of metrology for competitiveness. Nonetheless, the CSM is continuing to reinforce its technical capacity also thanks to technical assistance from GIZ and PTB (the Physikalisch-Technische Bundesanstalt, the German metrology institute). The CSM is currently restructuring its internal management system and is seeking international accreditation for four calibration laboratories in mass, temperature, pressure and volume.

Technical Regulations and Standards: the Kyrgyz system for Technical Regulations has full formal compliance with WTO / TBT requirements: as WTO member the Kyrgyz Republic shows compliance with Article 15.2 of the WTO TBT Agreement. A functioning notification system for TBT is in place and the Ministry of Economy is tasked with the overall responsibility of Technical Regulations. Moreover, the presence of a normative framework governing Technical Regulations ensures coherence and a common approach for the development of Technical Regulations in the country. Significant bottlenecks persist in the implementation and enforcement: the domestic private sector is still adjusting to the novelty introduced by Technical Regulations and voluntary standards as a whole. In addition, enforcement agencies are also still adjusting to a system of enforcement that should be more based on “compliance checking” rather than “control”. Another key shortcoming in the area of TRs is the lack of a fully-fledged and functional WTO Enquiry Point for SPS; in addition, the lack of clarity in roles and functions in the SPS domain generates overlaps or voids in both implementation and enforcement among the various public institutions and agencies involved, such as the Ministry of Health, Ministry of Agriculture and the joint Inspectorate. On the positive side, SMEs and business associations are actively invited to participate in the activities councils and standard setting bodies. Working groups formed the new TRs includes representatives of the private sector on a mandatory basis.

In the Kyrgyz Republic there is a fully established standards body with relevant legislative backing. Nonetheless, it is unclear whether the governance of such standard body is vested in a Council or Board, through which private sector participation to the standards development process can be guaranteed. Internationally, the Kyrgyz republic is an Associate Member of the ISO and a full member Codex Alimentarius Commission (CAC), which favorably provides international exposure to the country. Nonetheless, a few shortcomings undermine Kyrgyz’ administrative aspects for standardization: the Kyrgyz standards body is not a member of the International Electrotechnical Commission (IEC) and it is unclear whether the Kyrgyz standards body actively participates in Technical Committees. At present, approximately 47% of the national standards (23,000) are harmonized to international standards.

To continue the transition from mandatory product conformity assessment to voluntary product conformity assessment it is necessary to introduce principles of modern market surveillance and new advanced forms of safety and product quality control. To this end, it is necessary to implement the international system of ISO/IEC 17020 - accreditation of conformity assessment pertaining to bodies performing inspections in the field of market surveillance. Introducing this

system will help reduce the burden of customs and technical control at the border while enhancing control inland – a shift that will likely prove cost effective for both public and private sector stakeholders.

Testing and certification: Reportedly, at present the following operators provide services for conformity assessment in the Kyrgyz Republic: 14 accredited certification bodies, 79 test laboratories, 1 calibration laboratory and 4 providers of ILCT (inter-laboratory comparison tests) programs. Yet, in spite of recent developments like the international accreditation of one testing laboratory in the food and agribusiness sector, the overall testing infrastructure in the Kyrgyz Republic remains fragmented and weak. Liberalization in the testing market is needed to open it to private laboratories and reduce unnecessary restrictions (e.g., veterinary authorities currently only accept testing results from veterinary laboratories – this need not be the case). In fact, delays in harmonizing veterinary and phytosanitary control with standards of the Eurasian Economic Union, held back partially due to delays in the delivery of equipment, remain the main barriers to opening the borders with Kazakhstan.¹²

Accreditation: in the area of accreditation the Kyrgyz Republic accomplished significant achievements in a relatively short amount of time. Accreditation functions were spun-off from the old Kyrgyz Standard in 2007, and the newly established Kyrgyz Center for Accreditation (KCA) obtained international recognition in 2013. The incorporation of a national accreditation body as a separate legal entity is a prerequisite for its independence, and an indication of the autonomy necessary to establish trust both locally and internationally. In the Kyrgyz Republic, the KCA is a stand-alone legal entity with government mandate to carry out accreditation functions. While the KCA recently obtained international recognition and is a full member of ILAC, the Kyrgyz Republic is not a signatory of MRAs, the Mutual Recognition Agreement that allow the implementation of the “tested once, accepted everywhere” principle: not being an MRA signatory undermines the competitiveness of domestic firms that need to double test their products to access export markets, increasing business transaction costs and limiting integration with global markets.

Notwithstanding the encouraging achievements and continued efforts to modernize its NQI, certain challenges remain to the realization of a fully functional NQI system: the imminent accession to the Customs Union (CU) within the Eurasian Economic Union with Belarus, Kazakhstan and the Russian Federation will exacerbate such challenges and require the Kyrgyz government to more promptly align its NQI to CU requirements in order to maximize the benefit of joining the trading bloc.

Challenges for the Kyrgyz NQI upon Customs Union Accession

Accession to the CU is accelerating the pace with which the Kyrgyz Republic should consider investing and reinforcing its NQI: while this need stems from trade integration with CU countries, the NQI serves all spheres of society and economy. A NQI should not be considered only as instrumental for productivity and competitiveness of economic actors, but also as the basis for reliable and accurate measurement and quality on all aspects of life. The NQI is the building block of societal and economic development and encompasses all facets of life, from environment, health and education. NQIs have gained visibility and importance in the last few decades because of their instrumental role in supporting the competitiveness of economic and productive sectors,

¹² Kudryavtseva, Tatyana. Border.kg: wait until fall? July 8, 2015.

especially in industrialized economies. Such relevance has been increased by the pace of international value chain integration and globalization that highlight the need to establish safe and reliable ways to allow for cross-border exchange and interoperability. As such, NQI components such as metrology and accreditation should be perceived as public goods rather than mere technological aspects of economic development policy.

The degree of sophistication of NQIs depends on the specific social and economic challenges and opportunities faced by any given country. NQIs differ from country to country: any NQI should be designed according to the specific needs and characteristics of the country – i.e. society and economy – that is meant to serve. In general terms, once the minimum requirements of international compliance and interoperability are met across the NQI components (metrology, technical regulations, accreditation and testing) the degree of sophistication of the NQI, its scale and scope are a function of the specific societal and economic challenges and opportunities to be faced and nurtured.

In the case of the Kyrgyz Republic, the domestic NQI is meant to accommodate the needs of an economy still in transition and a society with specific needs in the field of human health and environmental protection. The Kyrgyz economy hinges on the exploitation of natural resources, agriculture and light manufacturing. Hence, in developing an internationally compliant NQI, the efforts of the Kyrgyz government focused on specific economic sectors such as mining, agro processing and food production, as well as light manufacturing in specific sectors like textile and garments. Such approach led to the development and adoption of sector specific Technical Regulations that relate to those economic sectors.

On May 08 2015 the Kyrgyz Republic officially signed and formalized its accession to the Eurasian Economic Union (EAEU) comprising Armenia, Belarus, Kazakhstan and Russian Federation. The Kyrgyz Government is currently at the final stage of finalizing its accession to the Customs Union (CU) with Belarus, Kazakhstan and the Russian Federation. Leaving aside the trade regime implications and the effect of joining the CU on Kyrgyz terms of trade (due to Common External Tariffs of the CU that are higher than the current WTO Kyrgyz tariffs: this may lead to renegotiations of tariffs with WTO trading partners and possible compensations), joining the CU has implications for the Kyrgyz NQI across the board at infrastructure and regulatory levels. By joining the CU, for instance, the Kyrgyz Republic will need to harmonize its regulatory framework, including Technical Regulations, to the common legal regime of the CU.

A first challenge is the large infrastructure needs for the Kyrgyz NQI to comply with CU requirements: in addition to the need to improve its testing laboratory infrastructure, the Kyrgyz Republic will need to equip with testing facilities its agencies tasked with implementation, enforcement and control functions for all the technical aspects of CU, notably the testing laboratories, certification bodies as well as customs and border control. Reportedly, the CU accession process for the Kyrgyz Republic included technical and financial assistance from Kazakhstan and the Russian Federation in the range of, respectively, 100 million USD and 200 million USD in support of infrastructure modernization.

In late 2014 and early 2015 technical experts from Kyrgyz agencies (staff of testing laboratories from textile to construction materials) developed technical specifications for needed equipment. In addition, technical staff from border checkpoints as well as airport and railroad checkpoints provided technical specifications for needed equipment. The corresponding agencies in

Kazakhstan and Russia contributed to the development and fine-tuning of the technical specifications that are then being consolidated into bidding documents for the identification of single supplier.

While both Kazakhstan and Russia pledged funds, the process for the selection of the supplier does not seem to have been concluded and uncertainties remain concerning the timing and sequencing for delivery and installation of the equipment for the testing laboratories, certification bodies and border checkpoints to become fully operational in line with CU requirements. This leaves a considerable infrastructure gap and need for investment in testing equipment. Liberalizing the testing market may help attract private investment and alleviate some of the financing needs.

The second challenge is presented by the requirement for firms to adopt an internal quality management system as mandated by CU Technical Regulations. While CU's TRs do not make explicit reference to the requirement for the implementation of the quality management system for food safety, the HACCP system, the mentioning in the regulation that "elements of the quality management systems should be in place" may generate uncertainty. For instance, in the case of meat products the CU TR requires that the documentation submitted by the manufacturer as evidences of conformity includes a certificate for the quality and safety management system (HACCP based) issued by the agency for certification of management systems¹³.

At present, only a handful of Kyrgyz companies have a HACCP compliant system and even less would be ready to comply with HACCP requirements. In addition, there is no HACCP conformity assessment capacity in the country, making it difficult and expensive for local companies to certify their compliance; in addition, the lack of capacity within the Kyrgyz implementing agencies would generate a void in the enforcement of any HACCP requirement.

HACCP is the quality management system for food safety that includes the analysis and control of biological, chemical, and physical hazards that could stem from the production, handling, manufacturing of raw material and distribution and consumption of end products. HACCP is based on the ISO standard number ISO22000 that requires that organizations are able to:

- plan, implement, operate, maintain and update a food safety management system aimed at providing products that, according to their intended use, are safe for the consumer
- demonstrate compliance with applicable statutory and regulatory food safety requirements
- evaluate and assess customer requirements and demonstrate conformity with those mutually agreed customer requirements that relate to food safety, in order to enhance customer satisfaction
- effectively communicate food safety issues to their suppliers, customers and relevant interested parties in the food chain
- ensure that the organization conforms to its stated food safety policy
- demonstrate such conformity to relevant interested parties
- seek certification or registration of its food safety management system by an external organization, or make a self-assessment or self-declaration of conformity to ISO 22000:2005.

Source: ISO

¹³ Scheme 6 D as outlined in Customs Union technical regulation CU TR 034/2013 "On meat and meat products", as highlighted by Comparative Analysis of Certain Requirements of Food Legislation in the European Union and the Customs Union of Russia, Belarus, and Kazakhstan, The World Bank Group, IFC in collaboration with SECO, May 2015.

A third challenge is presented by the harmonization process of Technical Regulations: back in 2004 with the adoption of the law on Fundamentals of Technical Regulations, the Kyrgyz Republic embarked on the challenging endeavor of developing an internationally and WTO compliant system of voluntary standards and technical regulations. This process led to the adoption of 47 Technical Regulations that have been developed according to international practice and referencing to international standards. Yet, by joining the CU, the Kyrgyz Republic will adopt the CU specific Technical Regulations that are based on GOST R and GOST Standards that apply respectively to Russia and CIS countries. This may generate an issue of harmonization with international standards: 47% of the Kyrgyz national standards are harmonized internationally, while 30% of GOST standards are harmonized with ISO and IEC standards. In addition, the phasing in of CU TRs will imply a transition period in which both Kyrgyz and CU TRs can apply, to discretion of the companies.

While TRs apply to all sectors of the economy (from mining and construction to agro-processing and light manufacturing) the sector most interested by the challenges of harmonization with CU requirements appears to be the food sector due to the difficulties in adopting internal quality management systems at enterprise level in the sector as a whole.

The parallel enforcement of Kyrgyz and CU TRs may generate regulatory uncertainty in the transition period. While the parallel application of TRs is meant to facilitate firms in the transition period, uncertainties remain pertaining the possible increase of compliance costs for companies that may have already complied with Kyrgyz TRs and now face additional investments for the compliance with CU TRs. In addition, uncertainties may arise at both firm and implementing agency levels in the transition period on which provisions and requirements apply to which product or process: such uncertainties may lead to confusion, red-tape or enforcement voids.

A fourth challenge is presented by the need to strengthen the technical capacity of the NQI agencies in all building blocks: given the hefty infrastructure investment requirements, the recent achievements in NQI empower the Kyrgyz Republic to enter the CU with a relatively sound human capital and technical capacity in the areas of metrology, calibration and accreditation. Yet, the Kyrgyz Republic should see into reinforcing the technical capacity of its NQI agencies to fully participate into the CU and benefit from this regional trading bloc:

Technical Regulations: the Kyrgyz Republic should reinforce the technical capacity of its ministries and agencies for the purposeful participation in the definition of CU TRs and ensure that the Kyrgyz Republic is not merely adopting TRs from the CU but also contributing to their development. This was already the case for the development of two CIS Technical Regulations on Honey and Water whose drafts were primarily developed by the Kyrgyz representatives. This means that there is technical capacity to be supported and enhanced to allow for more proactive participation of Kyrgyz Republic in the definition of CU TRs.

Conformity assessment: the implementation and enforcement aspects are of paramount importance for the Kyrgyz Republic to fully reap the benefits of CU. In this instance it is crucially important that implementing agencies, inspectorates, testing laboratories and certification bodies are fully aware – and empowered – to oversee the implementation of

CU TRs. A key aspect in this domain is the implementation of quality management systems at enterprise levels as mandated by some CU TRs.

Metrology: the base of etalons in the reference metrology laboratory could be expanded so as to widen the scope and scale of measurement accuracy. At the same time, international laboratory intercomparison and re-calibration will become essential to guaranteeing traceability.

Accreditation: the ILAC recognition in 2013 is a great achievement for the Kyrgyz Republic. Nonetheless, the challenge remains to maintain such international recognition and widen the scope of international recognition of the KCA. The present scope of ILAC recognition of the KCA is for testing under the ISO 17025 standard; the KCA has the ambition of widening the scope of its ILAC recognition to other files, such as ISO 15189 for medical laboratories and ISO 17020 for inspection bodies.

Opportunities for the Kyrgyz Republic

Notwithstanding the challenges outlined above, and taking for granted the greater and long-term trade policy benefits of joining the CU, there are opportunities for the Kyrgyz Republic to capitalize on its relative advantage and position itself as potential supplier for NQI related services in the region as well as leveraging preferential access to the Russian market for its agricultural and food products now that the Russians are diversifying their suppliers by virtue of the embargo on European food products.

The pockets of excellence of the Kyrgyz NQI may become NQI-related service providers for the region and neighboring countries. The recent achievements of the Kyrgyz Republic in metrology and accreditation confirm that both the CSM and KCA have the technical capacity to provide reliable services in the domains of calibration and accreditation. Two specific trends of regional integration can legitimize the ambition of becoming a NQI service hub for the regions as a whole: on the one hand the enlargement prospect of the CU and on the other hand the expectations of increased transport and supply chain integration along the modern version of the Silk Road.



The first trend of an expansion of the CU is already materializing with talks about the potential accession of Tajikistan in the near future. In this case, the Kyrgyz NQI agencies could become a service hub for both the NQI agencies and the companies of perspective CU new members: firms will need to access calibration, testing and accreditation services that could be provided cross-border by the Kyrgyz NQI. In addition, the Kyrgyz NQI could position itself also in the provision of calibration and accreditation services to Kazakh companies: reportedly, selected calibration services are available for more convenient service fees in the Kyrgyz CSM facilities in Bishkek than

in calibration laboratories in Almaty. The CSM is currently seeking international accreditation for four of its calibration laboratories: once internationally accredited, those services will become a competitive alternative also for those Kazakh companies willing to calibrate instruments in Bishkek. This would reverse the trend that insofar saw Kyrgyz companies having to rely upon calibration services from Kazakhstan.

Table 1. Cost for Selected Calibration Services in Bishkek and Almaty

Service	CSM, Bishkek	KazInMetr, Almaty
Calibration of weights E ₂	43 \$	68 \$
Calibration of liquid-in-glass thermometers	29 \$	49 \$
Calibration of dead weights pressure gauges	38 \$	323 \$

Source: CSM, 2015. Prices reported in USD according to average exchange rates for April 2015

The second trend of potential regional supply-chain integration emerges from the strategic interest of the Chinese government to develop and promote overland trade through Central Asia. While overland trade will never replace maritime transport due to higher costs, it may still constitute a viable alternative to sea shipping in case of specific value-chains like automotive and computer manufacturing that could be more time sensitive. Further integration of Central Asian countries into a modern version of the Silk Road to function both as a facilitator for intra-regional trade and as a trade corridor linking China with Western Europe could represent an opportunity for the Kyrgyz Republic to position itself as a quality related service providers. Increased regional trade traffic may generate prospects for the Kyrgyz NQI system to become a service provider for the transit goods.

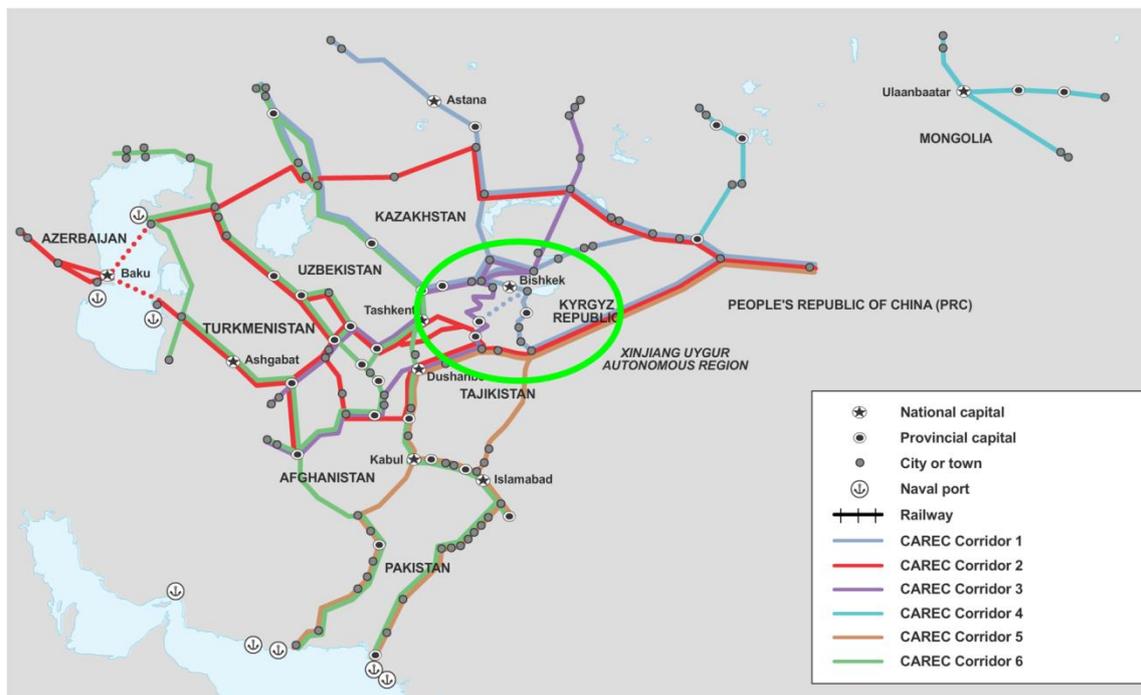
Central Asia and the Modern Silk Road

A wealth of studies investigate the possible rebirth of the Silk Road in its modern variations; a careful analysis of the potential of trade, logistics and supply integration in Central Asian countries is offered by two recent publications:
 World Bank, “The Eurasian Connection: Supply-Chain Efficiency along the Modern Silk Route through Central Asia”, 2014
 Retrack Project, funded by the EU Commission, “Potential for Eurasia Land Bridge Corridors and Logistics Developments along the Corridor”, 2012 www.retrack.eu

In addition, the regional transport and trade integration of Central Asia and neighboring regions is being supported by the CAREC Program, a joint initiative of 10 countries and six donor agencies¹⁴ to promote connectivity, development and cooperation in the region. The CAREC program operates under the “Strategic Framework for the Central Asia Regional Economic Cooperation Program 2011–2020” adopted in 2011 to promote cooperation and development projects in the countries involved.

¹⁴ CAREC countries are Afghanistan, Azerbaijan, China, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. The multilateral institutional partners are: Asian Development Bank, European Bank for Reconstruction and Development, International Monetary Fund, Islamic Development Bank, United Nations Development Programme, and World Bank.

Kyrgyz Regional Strategic Position



Source: CAREC Program

The issue of regional integration among and between Central Asian countries and global trade was recently discussed at a China-WTO Roundtable on Accessions and Membership held in Dushanbe on June 2, 2015. This roundtable was a unique opportunity to explore venues for regional collaboration among Central Asian countries and international organizations to promote integration in the international trading system of Turkmenistan and Uzbekistan while providing tailored assistance to current WTO members (Kazakhstan¹⁵, Kyrgyz Republic and Tajikistan). Such continued cooperation could focus on physical and regulatory aspects of trade and logistics integration, ranging from collaboration in transit corridors as well as trade policy and regulatory aspects, among which a key reform component could pertain to NQI (especially in the areas of metrology and accreditation).

Early attempts of establishing Central Asian collaboration at NQI level were undertaken by USAID regional projects such as the Trade Facilitation and Investment Project in 2003-2006 that included a component on Central Asian Cooperation on Metrology, Accreditation, Standardization and Quality (CAC-MAS-Q). Currently, the German cooperation GIZ is implementing NQI related activities within the framework of the regional project "Support of Regional Economic Cooperation in Central Asia". Such initiatives proved effective in establishing collaboration among NQI institutions of the Central Asian countries: such cross-border cooperation could be enhanced in relation to the gradual emergence of formalized trading blocs that are reshaping the regional economic dynamics.

Another key opportunity stemming from the CU for the Kyrgyz Republic would be to tap into the supply chain for food products destined to the Russian market. Facilitated access to the Russian

¹⁵ Kazakhstan's Accession Package was adopted by the WTO Working Party and WTO General Council in June 2015. It is pending formal adoption in the General Council by all 161 WTO members.

market thanks to the CU comes at a particularly interesting time when Russia is imposing a ban on European food products. The overall volume of EU food products to the Russian market is estimated at 5.2 billion EUR in 2013, with dairy products, fruits and vegetables, meat processed products representing the most affected categories of products. The Kyrgyz Republic could position itself as privileged trading partner for some of the products for which Russia is seeking to diversify suppliers' base, especially in the low value-added range of products of not-processed products (fresh fruits and vegetables) and dairy products in which the Kyrgyz Republic could have a competitive advantage.

Russia is proactively seeking to diversify its imports to mitigate inflationary and price effects of shortages in supplies: EU goods have been replaced so far by suppliers from Argentina, Ecuador, Brazil, Chile, Israel, Mexico, Morocco, Paraguay, Turkey, and several other countries¹⁶. The Kyrgyz Republic is positioned to take advantage of this opportunity thanks to a series of factors. First, access and physical proximity should facilitate Kyrgyz exports: the CU should facilitate access of Kyrgyz food products to the Russian market and logistics from Bishkek should reasonably be cheaper and easier than shipment from South America and other countries of origin. Second, Kyrgyz exporters should be better prepared to penetrate the Russian market considering the lack of cultural and linguistic barriers.

Realistically, Kyrgyz producers could tap into those market niches that would remain available due to quantity and climate supply dynamics, for instance in the case of apples¹⁷. Suppliers from Azerbaijan, Turkey and South America replaced Polish apples; still, Azeri and Turkish suppliers may not be able to quantitatively meet the entire demand while imports from South America are affected by seasonal production capacity of the Southern Hemisphere. In this case, Kyrgyz suppliers may provide a suitable alternative or complement in product specific niches.

The Russian Ban on EU Food Products

The EU-Russia relations have been recently undermined by geopolitical events in Ukraine culminating with upheavals in Ukraine, annexation of Crimea into the Russian Federation and hastened instability and violence in Eastern Ukraine. This led the EU to redefine its relations with Russia on a combination of increased technical and financial support to the new Ukrainian government coupled with diplomatic measures (asset freezing and Visa ban for selected Russian individuals) and financial and economic sanctions (denied access to EU capital markets, trade restrictions in dual-use technologies and exploration services). As a retaliation to those diplomatic and economic measures, Russia in August 2014 imposed a ban on agricultural products and foodstuffs from Australia, Canada, the EU, Norway and the USA. The EU Member States are the most affected, with EU production representing 73% of the banned goods.

Russia is the second most important export market of EU agricultural products with a total value of 11.8 Bn EUR in 2013 representing some 10 % of all EU agricultural food exports. The Russian ban on EU food products has the potential impact value for EU exporting

¹⁶ Alternative suppliers for food products have been identified immediately after the launch of the ban on EU products. Reportedly, as of August 18 of 2014, new exporters were already certified by the Russian authorities (13 from Peru, 12 from Chile, six from Brazil, one from Armenia, several Serbian suppliers). "Russia's Restrictions on Imports of Agricultural and Food Products: an Initial Assessment" FAO, 2014

¹⁷ "Russia's Restrictions on Imports of Agricultural and Food Products: an Initial Assessment" FAO, 2014

countries of 5.2 Bn EUR, with selected product categories and EU Member States hit the most. The sectors potentially worst affected in terms of absolute value are:

- a) dairy products 1,35 Bn EUR value in 2013: 33 % of European cheese is exported to Russia and 28 % of EU butter is exported to Russia (2013 values)
- b) fruits for a 2013 value of 1,26 Bn EUR: 29 % of EU fruits and vegetables were exported to Russia in 2013
- c) meat and sausages for an approximate value of 1.26 Bn EUR in 2013

Data source: European Parliament, Policy Department A: Economy and Scientific Policy, Briefing PE 536.291 "The Russian Embargo: Impact on the Economic and Employment Situation in the EU", Oct. 2014

Recommendations

A series of actions should be considered for the Kyrgyz Republic to capitalize on its relatively solid NQI and reap the benefits of accession to the CU that can be grouped into the following

1. **Continued support to and investment in the NQI:** the Kyrgyz NQI is relatively ready to accompany the country into the CU. Yet, the major equipment gaps in the testing and certification infrastructure will require hefty investments to ensure appropriate implementation and enforcement of CU regulations. In addition, the ambition of becoming a regional provider of quality related services requires that the NQI achievements reached so far are maintained and built upon:

1.A Continue investment in infrastructure to maintain and enhance the Kyrgyz NQI: the accession to CU highlighted the considerable infrastructure gap that will be required for the implementation and enforcement of CU Technical Regulations and import control, especially when it comes to checkpoints at borders and other enforcement agencies tasked with checking compliance with sanitary and phytosanitary requirements. The Kyrgyz Government should develop a comprehensive NQI strategy detailing medium-term objectives, with clear distribution of tasks and functions among the various NQI participants and most importantly with financial commitment to match investment requirements for the NQI. Such strategy would entail:

- run a comprehensive audit of the NQI to identify specific infrastructure gaps in view of CU accession, specifically in the area of implementation and enforcement of CU technical regulations
- develop a staged approach to accommodate the priority areas for equipment
- identify financing streams and coordinate with donors
- accelerate the liberalization of the testing market

1.B Reinforce the capacity of technical agencies: the technical agencies tasked with metrology, accreditation and standards/technical regulations are a crucial element of the NQI and require upskilling to guarantee Kyrgyz participation in the CU, also at regulatory level. In this instance, the government will need to commit financial resources to retain technically prepared personnel and maintain their competences. Just as an example, the Kyrgyz Republic cannot afford to lose its ILAC international recognition in the domain of accreditation. Maintaining ILAC recognition implies investments in accreditation as well as in the fields of metrology and calibration (to maintain accuracy of measurement and traceability) as well as standards and Technical

Regulations (to ensure harmonization at industry level and regulatory compliance). The elements of an NQI are so intertwined that require a holistic vision and specific actions, such as:

- invest in the maintenance of the quality infrastructure necessary to retain ILAC international recognition, specifically in the domains of calibration and metrology, i.e. international recalibration
- sustain the internal capacity of the Kyrgyz Center for Accreditation also through the provision of practical training for technical staff

1.C Strengthen the institutional framework for TR implementation and enforcement: the implementation and enforcement of Technical Regulations remain fragmented, especially in the domain of food safety, with control functions scattered across various agencies (Ministry of Health, Ministry of Agriculture and the related inspectorates), with dual impact of overlaps and vacuum. The following activities would streamline and reinforce the institutional setting for TR implementation:

- Carry out a functional review for the enforcement and implantation of food safety
- Assign functions and distribute responsibilities with clear mandate and budgetary appropriations, also with the purpose of consolidating functions whenever possible to prevent fragmentation
- Establish a functional SPS Enquiry Point

2. Accompany SMEs into the CU with tailored programmatic assistance: not all Kyrgyz companies are ready to reap the benefits of CU accession. Participation to a single market will force Kyrgyz companies to face direct competition with Belarussian, Kazakh and Russian companies that may reveal lower degree of sophistication of production and business attitude. The situation is exacerbated by the uneven playing field between Kyrgyz and other CU SMEs when it comes to quality at enterprise level and Quality Management Systems: a handful of local companies in the Kyrgyz Republic sought and obtained ISO certification. Moreover, domestic firms still are not fully aware of the functioning of the new custom procedures and possibilities offered by the CU. In this instance, the government should consider the following:

2.A Develop and deploy training programs for Quality Management System, especially in the domain of food safety: at present, the Kyrgyz Republic does not have a fully-fledged supply of quality management system related services. Accession to the CU will generate demand for quality services at enterprise level; at the same time, the public sector should also equip enforcement agencies in the implementation and enforcement of quality management systems that may be required by CU Technical Regulations, especially in the area of food safety. This will require both the public and private sectors to become acquainted with the elements of HACCP: a clear role for the government in this instance is to foster the “culture and mindset of quality” across the board and:

- build the internal capacity within governmental agencies for the adoption, control and implementation of quality management systems, including and especially HACCP
- explain the benefits of quality management systems for small businesses to encourage adoption
- produce detailed guides for quality management system adoption at enterprise level
- involve the educational system (secondary and tertiary) for the definition of vocational and educational curricula that include quality management system

2.B Carry out comprehensive awareness and empowerment campaigns for SMEs on CU: apart from few exceptions, Kyrgyz business representatives from all sectors are not fully aware of the implications and opportunities stemming from accession to the CU. In spite of the many visibility events organized by the Ministry of Economy, most businesses still are not familiar with the importing and exporting procedures, transit trade and customs formalities for export to CU countries. To facilitate integration of Kyrgyz firms into the CU markets, the government could take specific actions, such as:

- carry out practical awareness campaigns including sector dedicated events for businesses with concrete guidance on the CU , i.e. “before & after” or “how to...” workshops
- establish a CU help-desk for companies. Such CU Help Desk could be housed within the One-Stop-Shop already operating under the Ministry of Economy
- create Internet portals and databases to ensure that businesses have access to up to date information about technical regulations and trade conditions with the EEU

3. Develop sector and/or product specific export promotion approaches: in addition to generalized awareness programs for Kyrgyz companies, there is a role for the government to accompany selected sectors (or products) into the single market created by the CU. In the area of agribusiness, it will not be realistic for the Kyrgyz Republic to overcome in relatively short time the many structural rigidities affecting the agricultural sector¹⁸; nonetheless, the most immediate potential for Kyrgyz companies is to tap into the segment of food products in the Russian market by exploiting niches provided by the combination of factors such as the embargo on EU goods, quantitative limitations of alternative suppliers and proximity. In order to achieve this potential, a thorough assessment of specific products’ potential could be developed by the government in conjunction with the private sector.

The many donors currently operating in the Kyrgyz Republic may prove a useful resource and source of technical and financial support in accompanying the Kyrgyz Republic in the process of CU integration to minimize potential adverse risks while maximizing opportunities in traditional and innovative streams.

¹⁸ The following are the key structural shortcomings affecting the Kyrgyz agricultural sector identified by the WB Agricultural Productivity Assistance Project:

- lack of access to / poor management of irrigation and pastures
- low quality of agro-inputs (fertilizers, chemicals, seeds, etc.)
- limited use of sound agro-technical practices (weeding, irrigation, application of fertilizer)
- inadequate marketing infrastructure and services (storage, marketing skills and market information)

Chapter II - Certain Requirements of Food Legislation in the Customs Union of Russia, Belarus, and Kazakhstan¹⁹

The Kyrgyz Context

Agriculture and food product, while generally decreasing in contribution and employment, remain significant drivers of the Kyrgyz economy. Agriculture accounted approximately for 18% to GDP in 2014 (down from 33% in 2006), 20% of exports (in 2013) and 34% of employment (in 2010). Food product exports were US\$120 million in 2013, and around 20% were sold to CU member countries. Within the CU, the Kyrgyz Republic has been particularly competitive in exporting fruits and edible roots with prepared foods accounting for only about 5% of exports. The vast majority of exports were to Kazakhstan, with some potentially re-exported to Russia. Exports to Russia were less than 10% of total agriculture exports. (Comtrade data, 2015).

Agriculture exports within the CU have been decreasing in the past two years. Exports were lower in 2013 vs. the previous two years, and further decreased in 2014 as adverse weather reduced agricultural yields (by 0.6% y-o-y) and the slowdown in Russia reduced demand. In the future, Russia's accession into the WTO may also cause pressure on exports by reducing Kyrgyz competitiveness as Russia opens its market for imports beyond the CIS region currently favored under the CIS Free Trade Agreement (World Bank 2014).

While CU accession requires adjustments to tariffs and TRs across trade categories, agriculture and food imports present a tougher regulatory challenge as they are subject to costlier NTM barriers. Countries in the CU tend to have in excess of 20,000 standards with a capacity to review and revise much lower numbers annually (in the Kyrgyz Republic around 80 a year). A number of these standards are outdated and obsolete given that around 75 percent of standards were introduced during the Soviet period (on the other hand the average age of ISO standards was approximately 2.5 years) (World Bank 2014).

Table 1 compares the Kyrgyz Republic and its main trading partners within the CU in terms of the burden imposed on imports and in the agriculture and manufacturing sectors. In all three cases, trade partners impose costly NTMs on exports, significantly higher than the tariffs alone. Moreover, the barriers faced within the agriculture sector are higher than those for manufactured imports.

Table 1 Total and NTM burden as percent of imports

Country	Total (tariffs and NTM)			Ad valorem equivalent to NTM barriers		
	All	AG	MG	All	AG	MF
KGZ	14.6%	35.5%	6.1%	12.0%	30.7%	4.5%
KAZ	6.7%	10.0%	6.3%	5.5%	3.9%	5.7%
RUS	4.5%	18.1%	3.9%	3.5%	10.9%	3.1%

(Kee, Nicita, & Olerreaga, 2009; NTM estimation based on World Bank 2012)

¹⁹ This chapter, except the section “the Kyrgyz Context,” presents the summary of a forthcoming IFC / World Bank Group report by the same name, with leading author Kateryna Onul (Adviser on Food Legislation, GTCDR) and produced under the Ukraine IC for Agribusiness Project.

The Kyrgyz Republic has made significant strides to reduce the burden of technical barriers on trade. The legal framework establishes mandatory (technical regulations) and voluntary (standards) requirements of products. As of mid-2013, 43 technical regulations were adopted and since 2006, the number of products subject to compulsory certification has been reduced from 7,000 to 234. At the same time, national standards are being harmonized with international standards such as ISO, IEC, and the Codex Alimentarius, although GOST standards still prevail (as of January 2012, 20,372 out of the 22,542 standards used were GOST) (World Bank 2014). In 2004, the Kyrgyz Republic began implementing an internationally and WTO compliant system of voluntary standards and technical regulations. This process led to the adoption of 47 Technical Regulations that have been developed according to international practice and referencing to international standards. The CU accession requires a realignment of the technical regulatory environment with the Russian system, which is based on GOST R and GOST Standards. This realignment can present a challenge: currently 47% of Kyrgyz standards are harmonized internationally, while only 30% of GOST Standards are consistent with ISO / IEC requirements.

In the absence of a market to control quality, GOST standards would control the quality of products, even if there are no health or safety issues. Such an overly mandatory regulatory system virtually impacts all producers, regardless of the destination of the product. As opposed to a system of voluntary standards, such regulatory system makes innovation and adaptation to the market needs very costly because producers would need to negotiate with regulators if they are to make changes to a product or a production process (World Bank 2015). These constraints, coupled with the fact that decisions are now made centrally at the EEU level, may impede the ability of Kyrgyz firms to innovate and negotiate in terms of their products and production methodologies. Exports to markets outside the CU may suffer as well as the Kyrgyz system is aligned with the Russian standards.

The Russian embargo on food imports

In the summer of 2014, Russia imposed an embargo on food imports from the EU and US, including fruit, vegetables, meat, fish, milk and dairy imports. The embargo presented an opportunity to shift imports from Western countries to the region and boost Kyrgyz food exports to Russia.

However, there has not been an increase in food exports to Russia; in fact exports to Russia have declined across the board in the past year. Table 2 summarizes food and agriculture exports to the CU in 2014. Out of about \$100 million in total food exports, less than 20% had any share exported to Russia directly. Within nearly all categories with exports to Russia, the Kyrgyz Republic saw a decline in trade (with the exception of fruits and processed tomatoes). In fact, trade has declined across categories over the past year: exports to Russia declined by 25% in the first quarter of 2015 (relative to Q1 2014), and exports to Kazakhstan were a third lower. On the other hand, certain exports to Kazakhstan thrived in 2014 - dairy exports (1.6x increase), cabbage (where the quantity increase was offset by a price drop), and the smaller categories of tomatoes, grapes, baked goods also enjoyed more than 1.5x growth.

Table 2. Kyrgyz food / agriculture exports in 2014			Change from 2013	
Category	value (\$'000)	% to Russia	Quantity (%)	Value (%)
Unmanufactured tobacco/ tobacco refuse	10,088	99.6	102.2	99.2
Dried leguminous vegetables, shelled	4,021	80.7	90.4	90
Fruit, dried, nes	1,007	79.9	104.4	99
Food preparations, nes	780	96.6	70.3	69
Other nuts, fresh or dried, nes	578	76.8	n/a	n/a
Jams, fruit jellies, marmalades, fruit or nut pure	499	22.4	92.4	78.1
Natural honey	365	58.1	76.5	73.5
Other live plants, cuttings and slips, mushroom spawn	284	37.9	92	92.9
Gelatin and derivatives/ isinglass/ glues of animal origin (excl. 35.01)	262	100	65.8	62.1
Fruit, nuts and other edible parts of plants, otherwise prepared or preserved	169	35.4	144.2	159
Tomatoes prepared or preserved otherwise than by vinegar or acetic acid	120	34.5	120.4	116.4
Sunflower seeds	80	80.9	17.4	17.1
Dried vegetables, whole, cut, sliced, broken or in powder	65	100	56.2	75.4
Other fixed vegetable fats and oils (incl. jojoba oil) and fractions	58	100	-	-
Ginger, saffron, turmeric, other spices	21	100	n/a	n/a
Waters, including natural or artificial mineral waters and aerated waters (not flavored)	11	58	83.2	91.3
Vegetables, fruit, nuts, fruit-peel and other parts of plants, preserved by sugar	1	100	-	-

Source: Kyrgyz Statistical Office

The quality control infrastructure has not been in place to enable Kyrgyz exporters to make the most out of the embargo opportunity. Borders with Kazakhstan are not fully open due to concerns about compliance with veterinary and phytosanitary standards. Testing laboratories which would allow implementation of CU standards have been delayed due to delays in the delivery of equipment.

This chapter summarizes certain requirements of food legislation in the CU to help guide the authorities in accelerating the harmonization process. The report highlights characteristics of the CU regulatory system in food safety approach and Food Law (and compares it to western counterparts) but it also analyzes infrastructure aspects of the NQI, such as testing laboratories and certification mechanisms. The report pinpoints specific technical requirements for CU food safety that differ from western requirements (Microbiological Criteria for Foodstuff; Contaminants in Food; Maximum Residue Limits for Residues of Pesticides and Pharmacologically Active Substances). As such, it is intended to guide the work of the Kyrgyz authorities as they continue to align the food and agriculture product regulatory environment and standards to the CU requirements while ensuring that Kyrgyz exports remain competitive outside the CU as well. The World Bank Group will work closely with the Kyrgyz authorities to help adapt the findings and recommendations of the report to the Kyrgyz context, including conducting a training / workshop with representatives from the relevant institutions later this year.

Certain Requirements of Food Legislation in the Customs Union of Russia, Belarus, and Kazakhstan

Ensuring food safety is a key shared responsibility of both governments and industry. Failure to deliver on this commitment has led to illness and death. It impacts a country's ability to trade and therefore the economic well-being of the country. For these reasons globally governments and industry expend significant efforts and resources to ensure that food is safe and governments have established systems for food control. These food control systems have 5 common elements: food laws and regulations that provide the legal basis and regulatory requirements of the system; food control management systems that establish the roles and responsibilities of government and industry; inspection services that monitor and enforce the regulations and ensure that the proper activities are taking place; laboratory services for monitoring through testing compliance with the regulations; and information, education and training for industry, government and consumers.

While each food control system has these elements, the approach and specifics differ. In each country and union of countries, the food control system reflects their specific needs, historical context, and culture. The Customs Union food control system is based on ensuring the safety of food through compliance with final product specifications. In this system, responsibility for food safety mainly resides with food control bodies, and they accomplish this task by verifying that the end-product meets the required technical specification established by the government. Even when a producer is required to declare safety and conformity of the product, it is still the government who authorizes the declaration. The government sets the specifications which typically include many attributes related to food quality as well as safety and then verifies compliance through inspection and testing. Industry is only required to provide a final product that complies with the technical specification. In comparison, in western countries food control system is based on risk control and mitigation. Within the risk- based approach, food business operators are responsible for identifying food safety hazards and related risks from farm-to-fork and developing and implementing practices that prevent, minimize or eliminate those hazards (HACCP)²⁰ while the government is responsible for monitoring and verifying the effectiveness of the risk control measures. In this risk-based system, food quality attributes such as size, color, shape, smell and taste are not generally a part of the food control system. Instead, they are left to the market place to judge if they are acceptable. These two approaches to food control are

²⁰ HACCP – Hazard Analysis and Critical Control Points – A science-based system that identifies, evaluates and controls hazards that are significant for food safety. HACCP is a tool to assess hazards and establish control systems that focus on prevention rather than relying mainly on end-product testing. HACCP is based on seven principles: (1) identifying any hazards that must be prevented, eliminated or reduced to acceptable levels (hazard analysis); (2) identifying the critical control points at the step or steps at which control is essential to prevent or eliminate a hazard or to reduce it to acceptable levels; (3) establishing critical limits at critical control points which separate acceptability from unacceptability for the prevention, elimination or reduction of identified hazards; (4) establishing and implementing effective monitoring procedures at critical control points; (5) establishing corrective actions when monitoring indicates that a critical control point is not under control; (6) establishing procedures, which shall be carried out regularly, to verify that the measures outlined in paragraphs 1 to 5 are working effectively; (7) establishing documents and records commensurate with the nature and size of the food business to demonstrate the effective application of the measures outlined in *paragraphs 1 to 6*. See Codex Alimentarius document. *Hazard Analysis and Critical Control Point (HACCP) system and guidelines for its application, Annex to CAC/RCP 1-1969. Recommended international code of practice general principles of food hygiene*, and *EU Guidance document on the implementation of procedures based on the HACCP principles, and on the facilitation of the implementation of the HACCP principles in certain food businesses*, European Commission Health & Consumer Protection Directorate-General Brussels, 16 November 2005;

fundamentally different. The Customs Union is based on end-product compliance to a specific technical regulation or standard, whereas in most of western countries it is based on preventive measures and minimizing risks associated with each process throughout the complete food chain. These differences have significant implications for content and organization of the laws and regulations, monitoring and control, inspection, testing, labeling, approaches to food quality, and the responsibilities of government, industry and consumers in ensuring that the food is safe. Food business operators must understand the specific requirements including those for each specific product, testing, and documentation, as compliance with one system does not mean compliance with the other.

The differences can be better elucidated through the following. In general, the Customs Union has adopted an approach to technical regulation that is very similar to the one used, for example, in the European Union (the so called “new EU approach to technical harmonization and standards”)²¹ for a wide range of consumer goods and industrial items (toys, cosmetics, electric equipment, elevators, high-pressure vessels, and many others) with one significant exception, in the European Union this “new approach” does not cover foodstuffs. The main features of technical regulation and harmonization common to both Unions for non-food items include:

- legislative harmonization is limited to essential safety requirements; essential safety requirements are outlined in mandatory sectorial directives (EU), or in technical regulations (CU);
- products for which essential safety requirements are developed may be placed on the market only if they do not endanger the safety of persons, goods, etc.;
- drawing up technical production specifications (standards) is acceptable and is entrusted to organizations competent in industrial standardization;
- technical specifications (standards) are not mandatory;
- the public authorities must ensure the protection of safety (or other requirements envisaged) on their territory;
- the public authorities are obliged to recognize that products manufactured in conformity with harmonized standards are presumed to conform to the essential requirements; in the absence of harmonized standards, public authorities accept conformity with national standards;
- member states presume conformity for products which are accompanied by a means of attestation, and these products are allowed to freely circulate on the market;
- means of attestation are:
 - certificates and marks of conformity,
 - test results,
 - a declaration of conformity issued by the manufacturer, which may be coupled with a surveillance system;
- member states designate bodies authorized to issue marks or certificates of conformity;
- as a visual sign of conformity, a mark is placed on the label (“EAC” mark in the Customs Union, and “CE” mark in the European Union”.

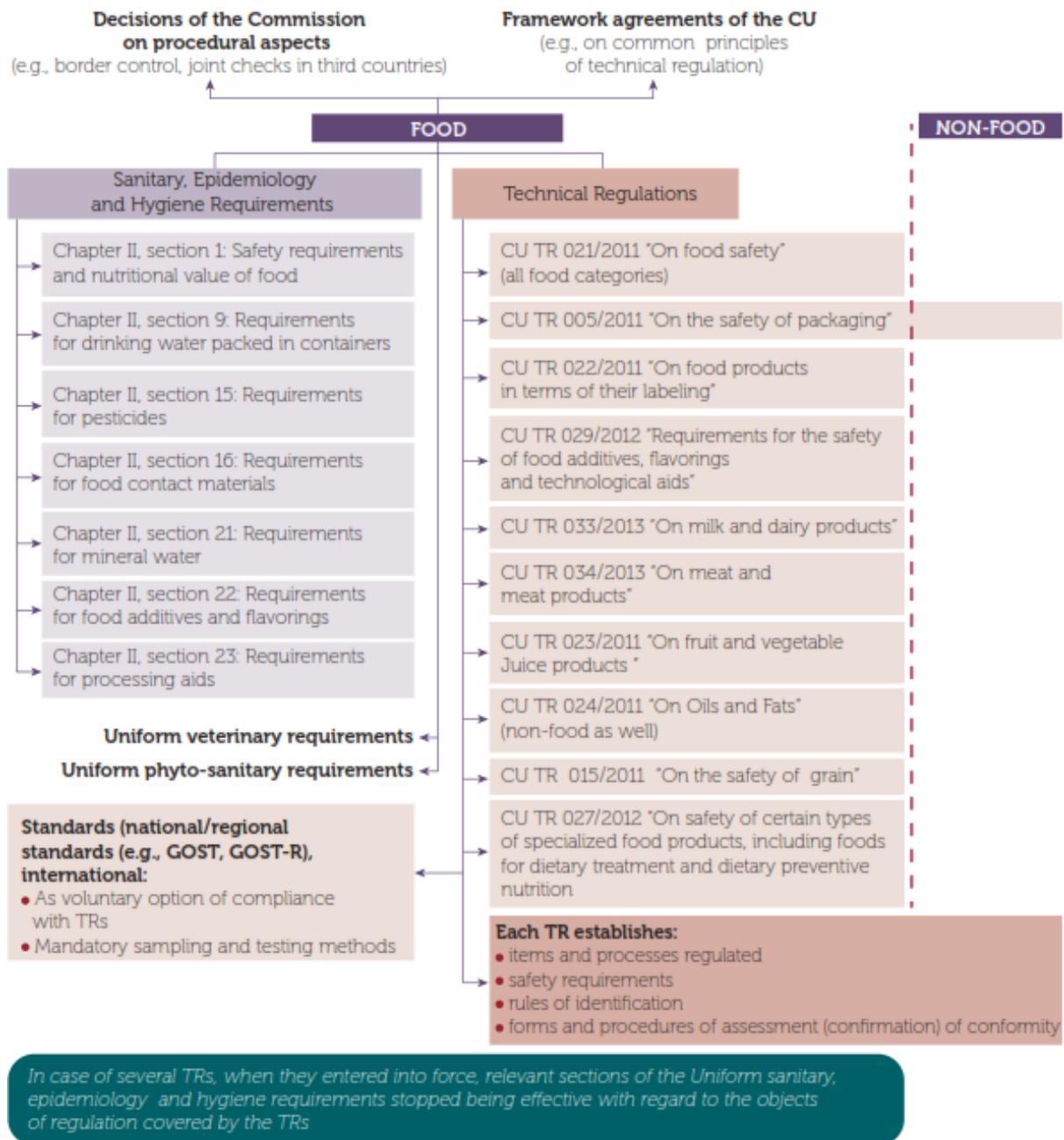
The significant difference between the Customs Union and the European Union is that in the European Union, *food is NOT* covered by technical harmonization within the “New Approach”, and all of the above features are not applicable to foodstuffs. In the European Union this “New Approach” has not been extended to food control as there has been significant reluctance to allow food safety to be determined by standards bodies (usually representing a third party) that operate outside the governmental framework and who have little tradition or experience in defining, controlling, or

²¹ Council Resolution 85/C 136/01 of 7 May 1985 on a new approach to technical harmonization and standards.

managing food safety. Food Safety is deemed too important for governments, industry and consumers to relinquish control. In the Customs Union, the use of technical regulations as an approach to control safety has been extended to foodstuffs. The extension of the technical regulations to food by the Customs Union is the fundamental reason for the significant divergence of the Customs Union and European Union food control systems.

It is important to mention that the Customs Union focuses primarily on internal trade between member states and therefore issues customs policy and rules for allowing commodities into circulation. In this system there are a number of general and product-specific technical regulations that provide a framework for food control within the Customs Union. The common framework is then supported by member states national laws, regulations, and standards. Also, within the Customs Union, for food categories where product-specific technical regulations have not been developed yet, the national law of member states applies. Figure 1 provides a graphical representation of the Customs Union food-related legal instruments.

Figure 1 Organization of Customs Union Technical Regulations



In order to be compliant with the Customs Union, one has to take into consideration compliance with the Union’s technical regulations as well as the laws and standards of the member states. Further, for business operators it is important to note that the Customs Union system does not address such aspects as enforcement, fines, penalties, incident management, recalls and withdrawals, and authorization/ approval of new substance (pesticides or veterinary medicines), leaving those to be under the mandate of the national law of the member states. This increases the complexity of the regulatory environment and compliance for industry wishing to export to the Union and for governments wishing to model or harmonize with the Customs Union.

Because the Customs Union focuses on the compliance of the final food product to a specific technical regulation or standard, the definition of food is limited to “products that are of animal, plant, microbiological, mineral, artificial, or biotechnological origin and includes natural, processed or reprocessed products intended for human consumption including drinks, chewing gum, specialized food products, packaged potable water, potable mineral water, alcoholic products (including beer and beer-based drinks), non-alcoholic beverages, biologically active supplements (BAS), chewing gum, enzymes and starter cultures of microorganisms, yeast, food additives and flavorings as well as food raw material”²².

The Customs Union established basic requirements relative to food. Food shall be safe, meet food safety criteria, be hygienically produced and handled, registered as needed, properly packaged, labeled, and be traceable²³. This is further elaborated on by the European Union that unsafe food takes into account the intended use of food and recognizes that food is unsafe when it presents danger to health and is unfit for human consumption. The Customs Union technical regulations include a number of requirements that relate to its circulation on the market²⁴ that are not found, for example, in the European Union, the most important of which is that food must pass conformity assessment procedures and bear a special Customs Union mark as a proof of conformity. Further, since the Customs Union is based on conformity assessments, many food products have to meet compositional standards, as well as requirements for chemical and physical properties, nutritional properties, organoleptic (appearance, taste, odor) and, in some cases, size.

In the Customs Union the food control system incorporates two levels: food control through all-Union conformity assessment and individual member state controls (supervision) of sanitary, veterinary, phytosanitary aspects²⁵. Implementation of routine food control on a daily basis to a significant extent relies on the laws, regulations and standards of its member states. While the technical regulations set specifics of conformity and requirements (for manufacturers and importers) to the processes of production, processing, transportation, storage, sale, disposal for foodstuffs in general as well as for several categories (meat and meat products, milk and dairy, juices, oils and fats, grains), the implementation and enforcement procedures are mostly those of the individual member states. Therefore for companies wishing to export to the Customs Union this means that they have to comply with and understand both the Customs Union technical regulations as well as those of the member states to which they will export product. In addition, the role of industry is generally limited within the Customs Union to ensuring that the products which are produced and/or imported meet the specific technical requirements as set by the Customs Union or the Member States. In the Customs Union industry does not bear responsibility to define other additional self-control measures to ensure food safety. Even hazards within HACCP systems are limited to those specified in the technical regulations as criteria for finished products. The Customs Union institutional framework and the scope of the official food control system are represented in Figure 2.

²² Customs Union TR 021/2011 “On Food Safety”.

²³ Article 5, CU TR 021/2011 “On Food Safety”.

²⁴ The term “circulation on the market” is common within the Customs Union and one that means to sell into the market place. We have chosen to use the common term so that the readers become familiar with the terms used in translation of Customs Union documents into English.

²⁵ Other than the Council and the Commission of the Customs Union (currently Eurasian Economic Union Commission), there are no supranational bodies that are part of the control system.

Figure 2 Food Control System of the Customs Union



Enforcement is carried out by national bodies designated as competent authorities for specific areas of state control (supervision), and also competent authorities in the area of technical regulation. Conformity assessment is carried out by authorized certification (conformity assessment) bodies that are listed in a single Customs Union List; testing needed for the purposes of enforcement is carried out by authorized testing laboratories as well, and there is a separate Customs Union list of such laboratories. Because for several groups of products (e.g., specialized products, GMOs) state registration is required (as one of the forms of assessment (confirmation) of conformity), for registration of such products specially designated bodies are responsible.

As mentioned, within the Customs Union foodstuffs are subject to conformity assessment. The process of conformity assessment is carried out in the form of issuing and registering declarations of conformity by manufacturers or importers. Schemes of declaring conformity vary depending on the product, type of production (serial production of a single lot), the establishment that produces the product and if the product is imported. While each of the schemes for conformity assessment is different they all contain several similar elements: creation and analysis of technical documentation; in some cases carrying out of production control, testing of samples of food products, issuance and registration of a declaration of conformity, and application of the unified mark of circulation on the market of the Customs Union. For some products, such as meat, one of the schemes also requires that the documentation submitted by the manufacturer as evidences of conformity includes a certificate for the quality and safety management system (HACCP- based)

issued by the agency for certification of management systems²⁶.

In addition to conformity assessment, food products are subject to state control (supervision)²⁷ which combines border controls (people, vehicles, goods) and internal controls in the member states. Food products are divided into three groups that subject to respectively sanitary (epidemiological, hygiene), veterinary, and phytosanitary control (supervision). The purpose of, for instance, state sanitary (epidemiological, hygiene) control (supervision) is to prevent the introduction and spread of, and to ensure the elimination of infectious and massive poisonings that are hazardous to human health, to prevent occurrence of emergencies, as well as to prevent acts of terrorism with the use of biological agents, chemical and radioactive substances²⁸.

Certain specific products when first imported or produced in the Customs Union are subject to state registration including: mineral, therapeutic, and bottled water; beverages such as tonics and beer; food for special purposes, including food for babies and older children, food for pregnant and nursing women; food additives, food-stuffs derived from genetically engineered or modified (transgenic) organisms, and some food contact materials²⁹. The fact whether such products have been registered is verified during state control (supervision).

Certain production/processing facilities have to be registered as well³⁰. This requirement extends to the facilities engaged in production and processing of meat and meat products, milk and dairy products, poultry and poultry products, and fish and fishery products. State registration of production/processing facilities is conducted by the agencies authorized for this purpose by the Customs Union member-states. This procedure begins with the application by the processor and is followed by an inspection of the facility to determine its conformity to the requirements on processes (production, processing, storage, transportation, sale, disposal) established by relevant technical regulations. Details of the procedure are established by the legislation of the Customs Union member-states. Upon satisfactory completion of the inspection and review of the findings, the designated agency assigns an identification (record) number to the facility and adds the production facility in the Register of Food Facilities Subject to State Registration. The state registration of a production/processing facility has no expiration date; however it can be suspended or cancelled in case of serious breach of the requirements of technical regulations.

Table 1 summarizes the state control (supervision) framework within the Customs Union.

26 This is specifically scheme 6 D as outlined in Customs Union technical regulation CU TR 034/2013 "On meat and meat products".

27 State sanitary control (supervision) is carried out against requirements to products and processes outlined in the Uniform Sanitary, Epidemiological and Hygiene Requirements over Products Subject to State Control (Supervision); State veterinary control is carried out according to Uniform Veterinary (Veterinary and Sanitary) Requirements for Goods Subject to Veterinary Inspection (Supervision).

28 Based on item 2-1 of Decision of the Customs Union Commission No. 299 of May 28, 2010 (with amendments to item 2-1 introduced by Decision No. 101 of the Eurasian Economic Council of July 7, 2014, the food products and items that are covered by the scope of certain technical regulations are exempt from the scope of Uniform Sanitary, Epidemiological and Hygiene Requirements. These include for example materials and articles produced of polymer and other materials intended for contact with food and food media, labeling requirements, food additives and flavorings, and technological aids, as well as meat and meat products, and milk and dairy products.

29 The goods from the list, manufactured for the first time on the Customs Union customs territory, as well as imported for the first time to the Customs Union customs territory, are subject to state registration (Part II, Single List of Goods Subject to Sanitary-and-Epidemiologic Supervision (control) at the Customs Border and on the Customs Territory of the Customs Union, as amended by Decision of the Customs Union Commission No 341 of 17.08.2010).

30 CU TR 021/2011 "On Safety of Food Products", Article 31.

Table 1 General Framework of the State Control (Supervision) in the Customs Union

State Control (Supervision)			
	Sanitary	Veterinary	Phytosanitary
Key legal act	Customs Union Agreement on Sanitary Measures	Agreement of the Customs Union on Veterinary and Sanitary Measures	Customs Union Agreement on Plant Quarantine
Competent authority	Competent Authorities in the area of state sanitary control (supervision) in member states		
Scope	Common list of goods subject to sanitary and epidemiological control (supervision)	Common list of goods subject to veterinary control	List of goods subject to quarantine and phytosanitary control (supervision)
	<ul style="list-style-type: none"> ● Foodstuffs (products in natural or processed form used for human food) including those derived from genetically engineered or modified (transgenic) organisms; ● Materials, products and equipment contacting with foodstuffs; ● Pesticides and agrochemicals 	<ul style="list-style-type: none"> ● Live animals; ● All food of animal origin, fresh and processed; ● Food that has ingredients of animal origin; ● Yeasts, enzymes, starter cultures; ● Grains and other plant origin items when they are intended for manufacture of feed 	<ul style="list-style-type: none"> ● Vegetables, fresh or chilled; ● Dried leguminous vegetables; ● Fruits, fresh, dried; ● Nuts, fresh or dried, whether or not shelled or peeled; ● Coffee, not roasted, whether or not decaffeinated; ● Cocoa beans; ● Grains; ● Cereal flours; ● Seeds, whether or not broken;
Point of control	At the border and within the customs territory of the Customs Union		
Documents that establish compliance criteria	Uniform sanitary, epidemiology and hygiene requirements for goods subject to veterinary control (supervision)	Uniform veterinary requirements for goods subject to veterinary control (supervision)	—
Procedural documents	<p>Procedure of state sanitary and epidemiological control (supervision) over persons crossing the CU customs border, goods subject to control that are being moved through the customs border and customs territory of the CU</p> <p>Common templates of product (goods) safety documentation</p>	<p>Procedure of carrying out veterinary control at the customs border and on the customs territory of the CU</p> <p>Procedure of carrying out joint inspections and sampling of goods (products) subject to veterinary control (supervision) on the territory of the CU member states and third countries</p> <p>Consolidated list of highly dangerous and quarantine diseases of animals</p> <p>Common templates of veterinary certificates (movement, import)</p>	<p>List of Quarantine Products subject to quarantine and phytosanitary control (supervision) while being imported to the common customs territory of the CU</p> <p>Procedure of carrying out the quarantine and phytosanitary control (supervision) at the external border of the CU</p> <p>Procedure of carrying out the quarantine and phytosanitary control in respect of quarantine products that are moved within the common customs territory of the CU</p>
Registers	Common register of state registration certificates for certain products	Register of food production objects (facilities) that are subject to state registration	—

It is important for governments and industry wishing to export to the Customs Union to understand the systems of border control. The Union has rigorous system for border control where a prior notice of the shipment must be submitted to the customs authorities³¹, border

31 Commission Regulation (EC) No. 136/2004 of 22 January 2004 laying down procedures for veterinary checks at Community border inspection posts on products imported from third countries (establishes a form of a Common Veterinary Entry Document (CVED)); Commission Regulation (EC) No. 669/2009 of 24 July 2009 implementing Regulation (EC) No. 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin and amending Decision 2006/504/EC. (establishes the form of Common Entry Document)/CED Decision of the Customs Union Commission No. 899 of December 9, 2011

control of foodstuffs consists of documentary checks, identity checks and physical checks. The Union is guided by the requirements and rules established by the OIE³² and IPPC³³ when it comes to veterinary and phytosanitary issues at the border.

The Customs Union has requirements related to pre-export approvals of the establishments, in the exporting country for animal products. According to the Customs Union procedures, food business operators in third countries who produce, process and/or store food products under veterinary control (supervision) are subject to joint checks (inspections) by competent veterinary authorities of the Customs Union member states³⁴. Establishments that passed the joint checks are added to the List of Establishments in Third Countries. In some cases, such checks (inspections) can be carried out by a competent veterinary authority of only one member state; in other cases no checks are carried out, and an establishment can be added to the list without inspection.

The purpose of border control is to ensure that imported products meet regulatory requirements of the target market. Thus, border control procedures in the Customs Union reflect the specifics of its general food control systems.

As mentioned, in the Customs Union, all foodstuffs are divided into 3 groups: products that are subject to sanitary control (supervision), veterinary control (supervision) and phytosanitary control (supervision). In none of the Customs Union member states is the food control system a single agency or has a clearly defined body that would perform a coordination function; therefore, each member state designates competent authorities in each of the three areas, and they have shared responsibilities and roles in border control. Obviously, they cooperate with the Customs bodies in their respective countries as well. For a potential exporter it means that they need to clearly define to which of the three categories the product belongs to (whether it is an object of veterinary, sanitary or phytosanitary control), and become familiar with details of each particular border control procedure. There are no specific requirements to composite products or detailed rules of attributing foodstuffs to composite products; all foodstuffs with ingredients of animal origin are subject to veterinary checks³⁵.

The Customs Unions requires that all consignments of food products be accompanied by a number of documents including a health certificate or its analogue. Because foodstuffs that are to be put into circulation at the customs territory of the Customs Union have to pass conformity assessment (confirmation) procedures, in particular, by means of issuance and registration of declaration of conformity with technical regulations, a copy of such declaration or information about it³⁶ shall be presented at the border as well. It should be noted that there is a certain disconnect in the terminology used: technical regulations establish that conformity declaration is required for products that are to be “put into circulation”, while all customs regulations and procedures say

“On introduction of compulsory prior notice on goods that enter the customs territory of the Customs Union by automobile vehicles” (establishes requirements to prior notice).

32 World Organization of Animal Health (Office International des Epizooties).

33 International Plant Protection Convention.

34 Procedure on Carrying-out Joint Checks of Objects and Sampling of Products that Subject to Veterinary Control (Supervision). Approved by Decision of the Customs Union Commission No. 317 of June 18, 2010.

35 Common List of Goods Subject to Veterinary Control (Supervision). Approved by the Decision of the Customs Union Commission No. 317 on June 18, 2010.

36 Information about declarations of conformity means that it is sufficient to present identification data (e.g., registration number), and then the fact it has been issued can be confirmed by checking the Customs Union list (e-based data-base) of registered declarations of conformity.

that presenting a copy of declaration of conformity or information about it is required when product are “released for internal consumption”. There is no definition for “putting into circulation,” and whether it is equivalent to “releasing for internal consumption” is unclear from the legal standpoint. At the same time, in practice the two terms are interpreted as the same by the Customs Union, customs officials, and importers must present their duly registered declarations of conformity at the border. Declaration of conformity can be issued and registered only if a product meets the requirements of all applicable technical regulations. It means that, for example, in case of the fruit juice, it shall meet requirements of CU TR 005/2011 (safety of packaging), CU TR 021/2011 (general food safety), CU TR 022/2011 (labeling, entered into force in February 2015), CU TR 023/2011 (fruit and vegetable juice products); and none can be omitted.

In the Customs Union while the customs procedures are risk-based, the frequency of physical checks is not defined at the all-union level (or is not made public), and in fact falls under the national law of the member states.

In the Customs Union conformity assessment and therefore food control is limited to a narrower group of entities and persons: manufacturers, sellers and persons (entities) who represent foreign food manufacturers³⁷. Their main responsibility is to ensure that their products meet the requirements of the technical regulations, and only food manufacturers are required to implement procedures based on HACCP principles. Therefore, it is assumed that conformity to technical regulations means that the food is safe. This places a much higher responsibility in ensuring food safety on the developers of the technical regulations and on food control bodies who must, by establishing specifications, providing laboratory services, registering declarations of conformity and carrying out control (supervision) confirm that during the period of validity of the declarations the product is safe and complies with specifications.

In the Customs Union the technical regulations and rules are applied equally to all operators regardless of size or the volumes of products produced, and irrespective to production using traditional methods (e.g., traditional cheeses).³⁸

The Customs Union technical regulations include a significant number of specific provisions and requirements with respect to processes of production, processing, transportation and so on. In many cases, they are quite detailed and prescriptive. As a reflection of the overall legal framework, they are a combination of general requirements (applicable to all foodstuffs) and product-specific requirements (where those exist, including food of both plant origin (oils, juice products) and animal origin (fats, meat, milk and dairy), plus specialized foodstuffs that can be both plant and animal origin. In addition, in the near future when relevant new technical regulations will be adopted, there will be product-specific requirements to processes related to poultry products, fishery products and mineral waters. These requirements do not always relate to safety or hygiene; for example, some are on sizes.

Important Notes for Governments, Policy Makers and Businesses

Fundamental approaches: The Customs Union food control system is based on establishing food safety through conformity assessment of the final product. In this system the final food product is

³⁷ CU TR 021/2011 “On safety of food products”, Article 10.

³⁸ EU Guidelines on implementation of certain provisions of Regulation (EC) No 852/2004.

deemed safe when it conforms to specific Customs Union technical regulations, or recognized voluntary standards, and/or member state laws and regulations.

Types and power of legal instruments: In the Customs Union, the main legal instrument used is technical regulations; there also are standards (voluntary, but de-facto mandatory when they establish methods of sampling and testing), procedures (established by decisions), and requirements. They all are directly applicable in the member states (activities in the area of technical regulation and conformity assessment), but with some exceptions they do not incorporate implementation mechanisms – those can only be found in the Customs Union member-states national laws and regulations. Technical regulations while directly applicable are focused mostly on technical aspects of products and establish specifications, not policies. It is important to understand the differences between the legal acts as they help to identify the areas where possible differences may exist between the member states of each Union.

Organizational arrangements: The legal framework of the Customs Union combines horizontal legal acts and vertical legal acts. There are several technical regulations (on general food safety, labeling, packaging, food additives and flavorings) that cover cross-cutting aspects for all food products (it should be noted though that the technical regulation on packaging also covers packaging for non-food items). There are plans to develop a technical regulation on food contact materials that would have a horizontal nature as well. There are also a growing number of vertical technical regulations that are specific to certain product groups, in particular grain, oils and fats, fruit and vegetable juices, meat and meat products, milk and dairy products; several more are being drafted (on alcoholic products, poultry and poultry products, fish and fishery products, and mineral water). For governments and businesses in third countries it means that there is always a need to identify a range of applicable national laws and regulations of member states, as procedural details are covered by those and may vary from member state to a member state.

The institutional perspective: While the Commission of the Customs Union sets policies, there are no bodies that would execute implementation or provide supervisory roles. The institutional framework is based on a system of national bodies each designated as responsible for a particular role (e.g., responsible for sanitary control, veterinary control, phytosanitary control, technical regulation, certification and conformity assessment, registration of specialized food, registration of novel food, and so on). This supports a “specialization” within the Customs Union of the existing food control bodies in the member states, and does not burden the member states with the need of institutional reform, even though one body can be designed for more than one role. Therefore governments and businesses need to remember that in the Customs Union member states there is no “single window” on food control issues. The best approach would be to first check on the official Customs Union website (<http://www.eurasiancommission.org/>) to determine which body in the target country of export is designated responsible for a specific activity.

Specifics concerning the scope of legal acts, specific provisions and implementation: Businesses should keep in mind that it does not necessarily mean that when there is no requirement in the Customs Union technical regulations, the area or specific issue is not regulated at all. In most cases it is likely that there are applicable national norms of the Customs Union member states, and it is important to identify these and comply.

Requirements to Food Quality in the Customs Union

Quality is a term that is used frequently by governments, policy makers, industry, and consumers to describe products and services. It is a descriptor whose definition is influenced by culture, attitudes, expectations, and stated and unstated needs. Historically, quality has been primarily understood as the absence of defect, fraud and adulteration. More recently with the global acceptance of the private standard ISO 9000, quality is defined within the business community and by governments as the totality of characteristics of an entity (product, service, process, activity, system, organization, and person) that bear on its ability to satisfy stated and implied needs³⁹. Within the definition of quality as it relates to goods including food there are two key points that need to be emphasized: quality is a combination of product characteristics, and these characteristics must meet consumer needs, both stated and implied.

Product characteristics include physical attributes such as shape, size, and weight. For food additional attributes of appearance, color, smell, taste, packaging, and even freshness further define quality. Quality attributes are designed to satisfy the needs of consumers. Yet consumers have stated and implied needs that make defining quality challenging. Consumer needs and preferences are influenced by culture, media, personal taste and habits, and economic background and therefore are not homogeneous nor are they static. Consumer needs change overtime and therefore in order to meet consumer stated and implied needs product characteristics or attributes change as well.

In order to satisfy the consumers' ever changing needs and therefore changing definition of quality, two common paths are followed by governments and industry. One path is where industry and governments study consumers and create new products to meet consumer needs. Alternatively, the other path is where industry and government set consumer preferences and therefore product quality attributes are static, constant and almost never changing. These options are not mutually exclusive and are found intertwined between government policy, laws and regulations and industry standards globally across many industries including food and agricultural products.

In order to try to satisfy the implied and evolving consumer needs governments and industry expend enormous efforts into studying consumer preferences and change their products accordingly. This increases competition and the number of product variations offered to consumers, and the market grows quickly. For example in the food industry thousands of new products are offered annually ranging from new varieties of tomatoes, different production methods, organic/bio, to new products designed to meet the growing variation in buyers. As the number and variety of food products grow, it becomes unrealistic for governments and policy makers to regulate all their quality attributes through laws, specific standards, and enforcement actions. Therefore, governments attempt only to regulate the key characteristics – those that relate to health (safety), leaving the remainder of the attributes to be defined and set by the market place.

An alternative is where the industry and governments dictate consumer needs through regulation and technical standards. In this situation governments and industry influence the consumer in such a way that the products become static and therefore predictable. The outcome of this is a relatively small number of products offered to the consumer. The products that are offered are

³⁹ ISO 9000:2000. Quality Management Systems. Fundamentals and Vocabulary. Since we look at the term "quality" in a historical context, we use an old version of ISO 9000 (of 2002); currently the version ISO 9000:2005 is in force.

independent of manufacturer as they have same uniform characteristics and are always the same everywhere. This strategy does not promote competition but instead facilitates a high level of standardization and allows for long-term planning by governments and industry. The products do not evolve and over time their uniformity becomes an attribute that consumers expect and therefore define the products attributes. Further, since there is no market influence and all product characteristics are firmly established, it becomes possible for the government to set laws and technical specifications that define the uniform quality of a product.

While quite different in outcomes both models and hybrids of such models exist today across the world and incorporate many consumer products, as well as agricultural products and foodstuffs.

At the foundational level, differentiation of products is determined by consumer needs and purchasing power. Trade-offs are made by consumers based on income, and these trade-offs define product size, quantity and attributes including quality. What may be acceptable to one economic group may not be affordable, acceptable or desired by another.

A key food attribute is food safety. Food safety is a primary attribute of all food as unsafe food is unacceptable at all levels of food needs and economic purchasing power. Globally two different approaches to food safety have been taken. Where food safety is determined to be the most important food attribute, governments have developed specific regulatory frameworks establishing food safety as a primary regulatory regime. This regulatory regime establishes a finite set of horizontal laws and regulations that cover all products. Alternatively, where food safety is included as just one of the product specific attributes and is regulated as such, a significant number of product specific technical regulations are developed where a limited set of attributes regulate food safety. Across the world it is common to find a mixture of both regulatory approaches that combine horizontal and product specific (vertical) regulatory environments related to food safety and food quality. This hybridization arises from historical context, cultural differences, as well as governments and industry needs to provide consumer protection especially in high risk areas such as baby food, and food for special medical purposes.

The Customs Union member states predominantly control food safety and quality attributes through a significant set of Union and National product specific technical regulations. The focus of these regulations is to ensure food safety and to clearly define, regulate and enforce a harmonized set of technical specifications for food product introduced to the Customs Union.

Requirements to Food Labeling in the Customs Union

The globalization of the food industry combined with ever changing consumer preferences and demands has led to explosion in the number and types of food products available to consumers. Traditional food retail stores carry between 10,000 and 60,000 different food items and each year thousands of new food items are introduced. Consumers choose products based on a complex set of criteria such as brand, cost, healthiness, freshness, taste, visual appearance, culture, and lifestyle. These drivers compel retailers and manufacturers to develop communication tools to differentiate their products in the market place to retain clients and maximize profits. A critical component in attracting consumers is the labeling. Labeling provides a range of information to consumers such as the product name, manufacturer, price, contents of the product, and directions for use and storage. Some of the product details in the labels are essential (use-by dates, safety warnings, etc.), other information is considered useful (nutrition labeling, recycling details, etc.).

The Customs Union has extensive labeling requirements for food products which are designed to inform and protect consumers. For food business operators, including producers, manufacturers, importers, and food catering compliance with labeling requirements can be a difficult and complex task.

The Customs Union is in the process of developing its requirements based on those that exist in the member states and those that have become the best labeling practice internationally; technical regulation CU TR 022/2011 on food products labeling became compulsory after February 15, 2015 when the transition period ended. Also, the Customs Union continues to develop vertical technical regulations for specific product groups that contain additional labeling requirements as well.

Food and Food-related Articles and Materials that Require Special Authorization

The Customs Union has established that there are types of food, classes of substances and/or materials that when either added to food or come in contact with food require special authorization to be placed on the market and shall meet special requirements to ensure food safety. These include novel food, food supplements, food additives and packaging and articles and materials in contact with food. Novel food basically is food produced with completely new untraditional technologies or being absolutely unfamiliar to consumers. Dietary supplements also require special authorization as they are consumed to improve the health and well-being of consumers. Food additives which are chemicals specially added to food to improve its taste, flavor or color, or to enable technological processes shall also go through authorization procedure to establish their safety. Food packaging and food contact materials as they have the potential to leach chemicals into the food shall be tested first to establish they are food-grade.

This area is highly technical and complex. The body of regulations is significant and detailed. Therefore it is especially important for business operators prior to exporting a product or material to the Union that they undertake a specific review of the relevant laws, guidance documents, and technical regulations. Further, it must be noted that compliance with the Customs Union regulations does not necessarily confer compliance with relevant regulation of other countries as the specifics might differ significantly. For example, in the area of food additives, of the 500 or so food additives that are included into the EU and CU lists, there are 43 which are approved for use in the Customs Union but not in the European Union. Similarly, there are 19 food additives which are approved for use in the European Union which are not approved for use in the Customs Union.

These topic areas are not static and undergo changes as new information, new materials, new substances and technologies are made available. Due to the ever changing environment of the regulatory systems, lists of approved and not approved substances change overtime which requires that companies continue to monitor these areas and review the specifics prior to developing a product and exporting to either of the trade Unions.

Laboratory Control and Food Safety Criteria in the Customs Union

The ability to provide safe and nutritious food domestically and for export is a shared responsibility of industry and governments. In order to deliver on this commitment, governments and industry must have the ability to identify and control food safety hazards. Food safety hazards are biological, chemical or physical agents that can be found in food or in contact with food that have the potential to cause an adverse health effect. These hazards are found

throughout the food supply chain and are a significant public health concern. To ensure that food is safe, governments have established specific rules and acceptable levels of presence of hazards in food and in this way differentiate safe food from unsafe food. All food that is placed on the market must comply with the safety levels of hazards presence in food, and in some cases, for especially dangerous substances, zero acceptable levels are established. The safety levels are not arbitrary: they are based on substantial scientific research, and as new scientific information becomes available, safety levels for food hazards are revised. To effectively assess presence of hazards in food, it is important to have adequate laboratory capacity, to use statistically sound sampling techniques, and reliable, accurate and repeatable analytical test methods.

The Customs Union food safety control system to a significant extent is based on conformity assessment in which food products are deemed safe based on a comparison with product specifications as outlined in legal acts; the comparison is done through testing of the final products attributes including food safety parameters. Therefore, in the Customs Union, the key to ensuring safe food is to conform/verify that the final product conforms in all aspects with the technical regulations and/ or specific standards.

In view of the complexity of the topic areas we must point out that for businesses wishing to export to CU it is key to conduct an in-depth specific analysis of legal provisions relevant to products they wish to export as each foodstuff and class of foodstuffs has specific requirements that must be met.

Chapter III - Services Trade in the Kyrgyz Republic

- A competitive Analysis⁴⁰

The global economy is changing rapidly. In an ever more globalizing and competitive world, it is important for countries to understand how they fare relative to competitors. The empirical literature on trade performance demonstrates that services are an important component of countries competitiveness in two respects. First, these activities contribute to diversification and to expanding the opportunity frontier of a country's exports. The second important role of services is that they are a strategic driver of competitiveness for the whole economy.

Increasingly, countries are seizing service opportunities. Although many services are still less tradable than most goods, because they typically require face-to-face presence of buyer and seller, technology changes and countries reforms are enabling new opportunities in trade in services. As a result, exports of services have picked up for all income groups and the participation of developing countries in world services exports increased from 18 percent in 1990 to more than 30 percent in 2013. Services are not only a source of export diversification, but they also enter in the production of many downstream competitive products: the competitiveness of most goods exported on the global markets depends not only on access to raw material inputs but also to critical services inputs.

For this reason, the criticality of services to a country's competitiveness, trade and investment barriers to services matter. Absence of flexibility in domestic laws or deficiencies in domestic services may determine lower productivity and reduce the attractiveness of a country to foreign investors. Good regulatory policies stand to gain from other measures a government can implement. These policies are related to the domestic economic and institutional situation inside the country (the fundamentals) rather than the explicit policies in place. They are horizontal measures which complement the specific trade and domestic policies. Domestic enabling factors are broad in scope. They include institutions, governance, business environment, labor skills, management and entrepreneurial skills, and trade related infrastructure. Table 1 summarizes the main policy areas and policy objectives that would support the competitiveness in the services sector.

Against this background, this report examines the competitiveness of services sector in the Kyrgyz Republic. The objective of the report is to identify main trends in the development of the service sectors, both domestically and in terms of export performance, assess potential to increase services exports to neighboring markets, to examine linkages between services and other sectors of the economy and to provide a high level analysis of the regulatory environment of main service industries. Based on the analysis, the report offers some options to inform policies to strengthen the competitiveness and export performance of the services sector and the economy more broadly. Box 1 provides information on methodology and data sources.

The report is organized as follows. The competitiveness assessment of the services sector begins with evaluating its role in the domestic economy. Cross-country comparisons of basic

⁴⁰ This chapter was prepared by Sebastian Saez (Senior Trade Economist, GTCDR), Erik van der Marel (Consultant, GTCDR) and Martin Molinuevo (Consultant, GTCDR) with the overall guidance of Jieun Choi (TTL, GTCDR). The views presented in this document belong solely to the team.

indicators, such as the share of a country’s value added from services exports and its importance in relation to the domestic economy constitute an important preliminary assessment. The second section has the objective of assessing the ability of a country to be competitive in the two functions of services outlined above, i.e. as source of export diversification and as source of greater competitiveness to the wider economy. This section also assesses export potential for expansion and growth. The third section examines the importance of services in exports and in other export activities on the basis of value-added measured. A diagnostic of the determinants of services performance is conducted in section fourth. The section identifies factors that facilitate or constrain competitiveness in the services sector; aiming at linking performance and determining factors; and identifying policy options to address specific constraints. The final section concludes and provides general policy recommendations.

Table 1: Domestic Enabling Factors

Policy area	Objective
Institutions	Arrangements of optimal governance of relationships between private economic parties, rather than those between private parties and the government
Governance	Increasing the ability of governments to formulate and implement sound policies and regulations that allow and promote private sector development
Business environment	Compete and attract FDI in order to profit from export expansion and increased domestic competitiveness through MNC establishment.
Labor skills	Factor capacity increase to allow for sophisticated services exports; climbing up the ladder of comparative advantage in services or from goods to services; notably professional services, computer and related services and business services
Management & Entrepreneur skills	Enhance the adoption and use of modern technologies which are essential for producing a service or good.
Trade-related Infrastructure	Reducing cost related to the delivery of goods and services, i.e. transportation costs, export costs, transaction costs or searching costs

Source: Sáez et al (2014).

The report finds that services trade role in Kyrgyz competitiveness can be enhanced. This is illustrated by the low contribution of services inputs linkages, as inputs, into other economic activities. Services policies are open to Foreign Service suppliers, which suggest that the policies enhancing domestic and export linkages must be found among the policies that affect other areas such as service enablers such as human capital, the strength of domestic institutions (competition enhancing institutions). The main findings of the report are as follows:

- a) While the share of services to GDP is in line to what would be expected for the Kyrgyz Republic according to its level of development, the share of total employment in the services sector is below peer countries. This means that there is scope for expansion of the role services in employment in the future. The challenge for Kyrgyz policy makers is to develop those services that enhance the linkages to upstream productive activities and to those service activities with the highest impact in productivity growth;
- b) In terms of services export performance, the data suggest that Kyrgyz exports have been growing very fast which in great part due to tourism. And yet, although the value of

business services have been growing over the last seven years, their share in total services have declined. This altogether means that the Kyrgyz Republic is performing well but should pay attention to business services growth due to their linkages to other economic and export activities. This is because the importance of business services linkages as inputs into other economic activities. This is lack of linkages is also reflected in the loss of some export sophistication;

Box 1. Methodology and data sources

The report uses the analytical model proposed in Sáez et al. (2014), which provides for integrated analysis and diagnostics of the trade competitiveness of the services sector using a wide range of indicators. Cross-country comparisons are based on World Development Indicators (WDI) and other publicly available World Bank data, and on two new databases:

(1) The Export in Value-Added database measures trade on a value-added basis based on national input-output tables from the Global Trade Analysis Project (GATP) project for 1992, 1995, 1997, 2001, 2004, 2007, and 2011. It also measures not only the direct contribution of services to total exports in terms of value-added but also their indirect contribution through linkages. In other words, the dataset provides information on how services value-added is distributed among economic activities and how services linkages relate to trade over time.

The GTAP database represents the most comprehensive, convenient, and internationally-comparable source of sector-specific data across countries. Of the 129 regions in GTAP v.8, 112 represent individual countries and 17 represent composite regions. In the case of individual countries, the social accounting matrix (SAM) for each country relies on the most recent input-output data available from national sources for each country.¹ These are harmonized to a standard 57-sector format for ease of comparison. Limitations of the GTAP data include infrequency of updates (the most recent GTAP 9 pre-release takes the data only to 2011) and the fact that some input-output data may be adjusted to provide consistency with merchandise trade and macroeconomic data also used in the SAM. Therefore, results should be interpreted cautiously and should be seen as a first attempt to understand trade performance in developing countries.

(2) For the Trade in Services database, the World Bank merged and reconciled all available sources of data from the OECD, Eurostat, the United Nations, and the International Monetary Fund (IMF) to create a database on bilateral services trade. By mirroring flows, it provides a best available estimate of bilateral flows and their evolution in recent years for 200 countries. Data are reported in million US \$ for 1981–2009. This database makes it possible to carry out a wide range of sophisticated assessments, such as estimating gravity models, measuring of the trade potential of country, trade diversification, and other analytical techniques.

- c) Other indicators also show that the overall export performance of the Kyrgyz Republic in terms of direct export of services is fine, which indicates that the main future challenges are focused on their linkages;
- d) Going deeper into the domestic and export linkages of services in value-added, we see that these are particularly low in transport, distribution, and communication (to some extent) which are critical for the Kyrgyz Republic's connectivity to the world economy and for tourism services which are among the priority sectors identified by government authorities;
- e) Moreover, regarding policies, transport services have the highest level of restrictiveness for international standards. This sectors, together with business services (i.e. professional services among others), are the most important in terms of enhancing linkages which are often seen as essential factors of development for emerging countries;

- f) While the overall of services trade policies is low, additional factors that can explain trade performance are lagging. These additional factors are, regulatory quality (i.e. as proxy of the strength of the regulator), the strength of contracting and enforcement mechanisms. The quality of these two enablers are important because the quality of regulators determines the level of competition and market structured which are important once a country has lowered the market access restriction. Regarding the rule of law, this is an essential element for development of sophisticated services like business services which could therefore enhanced the linkages in the Kyrgyz Republic;
- g) Regarding human capital endowment, the Kyrgyz Republic has a reasonable share of services trade given the level of quality of the human capital skills supply. Yet, the Kyrgyz Republic seems to be unable to translate this into using these skills in sectors which are mostly in need of this (i.e. business services);
- h) The Kyrgyz Republic's future services trade expansion particularly on services traded on cross-border basis or which require access to low cost high quality electronic infrastructure will depend critically on the policies affecting telecom and internet services. While the overall Kyrgyz performance is adequate considering the level of development of the electronic infrastructure, in the future, which can increase the attraction of foreign investors such as the establishment of an independent regulator, to ensure the continuous development of the sector should be implemented.

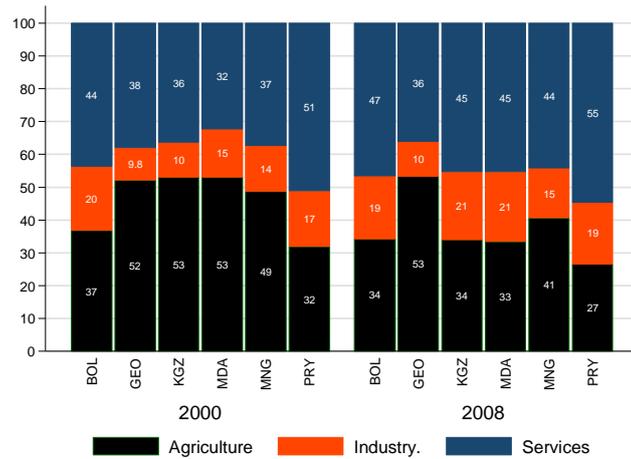
The Kyrgyz Republic authorities need to incorporate services trade development among their policy priorities. Services expertise and policy formulation needs to be enhanced. Lack of expertise and knowledge of the complexities of services policy reforms, regulatory matters, and enforcement are generally weak and require urgent attention. Finally, internationalization of services through negotiations, need as well attention, today there is no clear understanding of the implications of international commitments and technical assistance is required.

Services in the Kyrgyz Republic's Domestic Economy

The service sector accounts for a large share in employment in the Kyrgyz Republic.⁴¹ Figure 1 shows that the employment share in services in the Kyrgyz Republic is around 45 percent in 2008 (earlier data on this variable for the Kyrgyz Republic is not available) up from a 36 percent in 2000. Figure 1 shows that this services employment share is much lower than some of the comparators in South America, namely Paraguay and Bolivia but is in line with some of the peer countries in the region. However, this share for the Kyrgyz Republic has been increasing substantially over the nine years to the drawback of agriculture which has been significantly decreasing over the years, and not to industry which actually more than doubled over the years in terms of employment. Now, the services sector remains the largest source for employment in the Kyrgyz Republic.

⁴¹ Comparator countries are chosen on the basis of two criteria. One is their income basket as defined by the World Bank on January 2015. Since Kyrgyzstan is a lower middle income group is will compared with other countries within and outside its region who fall in the same income category. Second, since Kyrgyzstan is a landlocked country, it will also be compared with some countries who are also landlocked and who fall as well in the same income group.

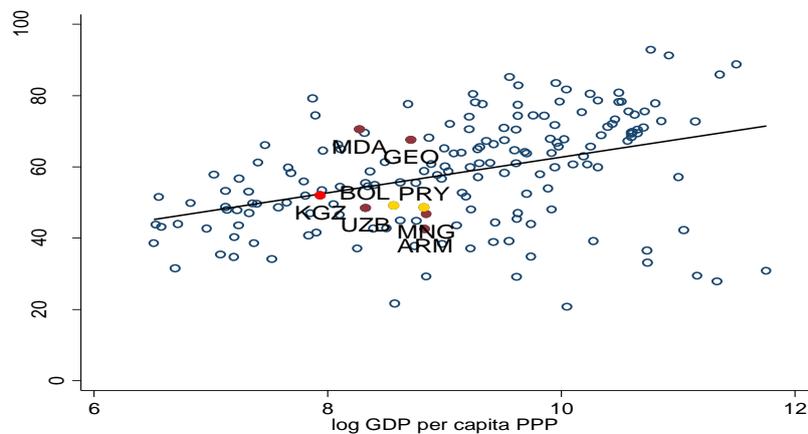
Figure 1: Employment Share by Sector (2000 & 2008)



Source: WDI

Services share in GDP for the Kyrgyz Republic is according to what one could expect based on its level of development. Figure 2 helps to see whether countries have a value added share of services which is higher or lower than one could expect given their level of development (i.e. GDP per capita in PPP). The Kyrgyz Republic together with several of its peer countries such as Moldova, Uzbekistan, Armenia and Georgia (marked in maroon) and some Latin American peer countries (marked in yellow) are given in the graph. It shows that the Kyrgyz Republic's services sector is exactly on this relationship's prediction since it is placed on the fitted values line. However, the Kyrgyz Republic is also one of the least developed countries of all comparators. At the same time one can see that Moldova (another land-locked country) is tapping more services value added as part of its economy, and also Georgia is doing this successfully as they are placed above the line. For the Kyrgyz Republic this would mean that there is still some untapped potential to develop its services sector.

Figure 2: Services Value Added and Level of Development (2007-13)



Source: WDI

The Kyrgyz Republic's share of services value added in 2007 was 49 percent and therefore gained somewhat more importance over the years up to 55 percent in 2013. In the intermediate years, the Kyrgyz Republic has also seen negative growth of services value added, namely in 2009 and 2010, but has since recovered.

The Kyrgyz Republic value added creation compared to other sectors inside its economy compares favourably with respect to its peer countries. The increased potential for a greater services sector development is visible in Figure 3 and 4. Compared to these countries, the Kyrgyz Republic actually has a relatively average agricultural as well as industrial base with shares of 18 and 27 percent of GDP respectively. The Kyrgyz Republic has after Moldova and Georgia the third largest services sector in terms of value added within it group of peer countries. It shows a bigger services share than for instance Mongolia, Armenia as well as Paraguay and Bolivia.

Together this suggests two potential developments. First, while the Kyrgyz Republic's industrial base will most probably increase in the future its services sector could further grow if these manufacturing companies outsource services activities such as logistics and transportation which are often still performed in-house following a global trend. Indeed, the Kyrgyz Republic industry sector in terms of employment has been rapidly increasing over the last several years (Figure 1) which could lead to more effective employment opportunities in services once these industry firms concentrate on their core activities. Moreover, the growth in services value added in industry has been quite robust over the last 13 years when looking at Figure 4, as with most of the Kyrgyz Republic's peer countries. Second, there is additional scope for services development through supporting these manufacturing activities. The Kyrgyz Republic's average growth rate of services value added since 2000 is high together with those of Mongolia and Uzbekistan. As with these and most other countries which are placed in the same income basket, the Kyrgyz Republic's growth in services value added has been quite impressive. Note, however, that the Kyrgyz Republic's industry growth rate has been somewhat less steep compared to some of its peer countries such as Georgia and (again) Mongolia.

Figure 3: Sectoral services value added and peers (2007)

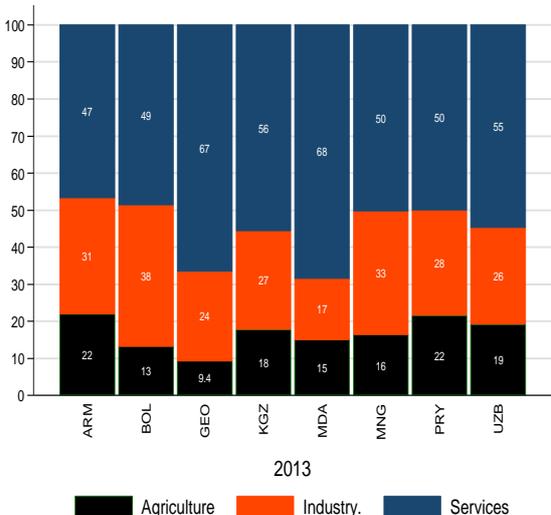
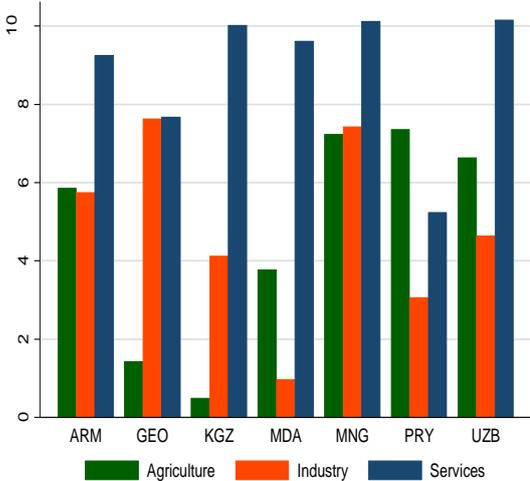


Figure 4: Sectoral services value added growth (2000-2013)



Source: WDI

The Kyrgyz Republic's Services Exports Performance⁴²

At an aggregate level of data, the Kyrgyz Republic's exports performance is relatively high in transport and travel services although the share of transport services has been declining in recent years. The share of transport services, which is considered together with travel services a so-called "traditional" service, has been steadily increasing. On the other hand some "modern" services have been increasing in share as well, most notably financial services whereas the category of other business services has remained stable. Modern services are those services that can increasingly be traded across borders without the necessity of proximity between buyer and supplier. These services have also shown the most dynamic growths rate in recent years across the global economy.⁴³

Box 2: Many different ways to trade in services

Clarifying certain aspects of trade in services is helpful. Because many service transactions require face-to-face contact between the consumer and the provider (despite the increased scope for electronic delivery), defining "trade" in services more broadly than trade in goods to encompass the following four modes of supply is now standard:

- Cross-border trade in services, which is analogous to goods trade, involves shipping services such as software from one country to another (mode 1)
- Consumption abroad is when consumers (for example, tourists or students) travel across borders (mode 2)
- Commercial presence establishes the producer of a commercial presence (for example, a subsidiary or branch of a bank) in the country of the consumer (mode 3)
- Movement of natural persons is when the producer (for example, a mining engineer) travels across borders (mode 4)

The modes of supply can either substitute or complement one another in specific services. For example, in simple bookkeeping services, modes 1 and 4 may be substitutes, but in the design of software suited to a foreign firm's needs, the two modes may be complements. The relationship between modes has implications for the analysis of the impact of regulations on the costs and quality of the services. If modes are perfect substitutes, the liberalization of one of them is enough to fully reap the gains from liberalization. But when modes are imperfect substitutes or complements, effective access to service markets requires the freedom to use a combination of modes.

One important implication of this broad definition of trade in services is that it incorporates the international movement of factors—through foreign direct investment (FDI) and temporary labor mobility.

Source: Goswami, Mattoo, and Saez (2012)

The Kyrgyz Republic still shows a relatively high importance in travel and transport services given its level of development. This is a feature that is more often observed in emerging countries (Saez *et al*, 2014), but compared to other peer countries the Kyrgyz Republic has one of the highest

⁴² This section analysis is based on the balance of payments statistics. These statistics provide a limited picture of trade in services transactions. More specifically, these statistics do not cover commercial presence transactions.

⁴³ The classification between traditional and modern services is to a large extent arbitrary due to technology development which increasingly is affecting services tradability and reducing the proximity burden. The purpose of this classification is to illustrate international trends which do not have any negative connotation.

shares in travel services together with Georgia and Armenia in 2013. This is also true for travel services in which the Kyrgyz Republic shows high shares although this share is higher for Mongolia and, as said, declining. Together transport and travel account for more than 64 percent of cross-border exports in the Kyrgyz Republic which is highest among its peers. For instance, in Mongolia traditional services export account for 62 percent, and in Georgia this is 59 percent. In the Kyrgyz Republic, Insurance services takes a share of 34.5 percent which is also higher than in most other peer countries, apart from Armenia, as shown in Table 2.

Table 2: Export Share of Disaggregated Services in OCS (2005-06 % 2012-13)

	KGZ		ARM		GEO		MDA		MNG	
	05-06	12-13	05-06	12-13	05-06	12-13	05-06	12-13	05-06	12-13
Travel	37.6	48.0	53.5	42.7	33.5	56.4	22.4	19.5	44.6	37.7
Transport	22.2	16.3	2.4	4.4	1.2	2.5	7.6	8.8	2.8	25
Other business services	18.4	18.2	21.2	16.2	45.1	32.8	38.5	36.8	45.9	29.2
Government	8.3	1.5	1.9	2.5	9.2	3.5	3.4	3.7	0.9	0.5
Insurance	6.1	4.5	2.2	19.7	0	0.3	1.7	0.4	0.1	3.5
Telecom, computer	3	1.7	11.1	9.7	2.1	1.9	13.3	16.7	3.7	2.1
Financial	2.6	8.9	1.1	1.8	0.5	0.6	0.1	0.1	0	0
Intellectual property n.i.e.	0.9	0.5	0.7	0.6	2.4	0.5	0.7	0.4	1.6	1.5
Maintenance and repair	0.6	0.3	0	0	1.3	0.1	0.3	0.5	0	0.2
Personal, cult, and recr	0.2	0.1	2.1	1.8	1.5	0.7	0.1	0.1	0.3	0.2
Construction	0	0	3.6	0.5	2.4	0.5	11.6	12.9	0	0.2
Manufacturing services	0	0	0.1	0.2	0.7	0.1	0.1	0.1	0	0

Source: IMF Balance of Payment Data

In the Kyrgyz Republic, the sub-sector other business services, which are part of modern services, together with financial services and telecom have been growing in absolute value in recent years but this have not substantially led to a strengthening of their revealed comparative advantages. Table 3 looks at the most disaggregated sub-sector level of other commercial services (OCS).⁴⁴ Other business services which include, among others, professional services have remained stable in the Kyrgyz Republic. Similarly, although the level of financial services in value has been increasing, the Kyrgyz Republic's share and revealed comparative advantage have been declining, together with construction and telecoms. In fact, the Kyrgyz Republic seem to have comparative advantages in only the so-called traditional services. These sectors also show high figures in terms of market value growth. Other modern services sectors in which these rates were high are finance and other business services.

⁴⁴ The IMF Balance of Payments Statistics contemplates three broad categories: Transport, Travel and Other Commercial Services. Under this last category, the BoPs includes financial services, communication services, construction services, ICT related services, other business services, Royalties and licenses fees, and personal, cultural and recreational services. This classification is different from the classification used below in the section on trade in value added.

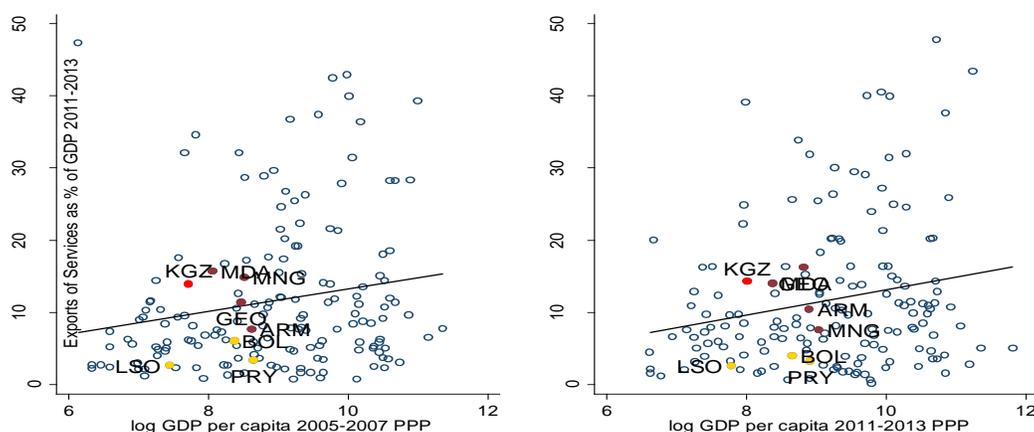
Table 3: Revealed Comparative Advantage, Value (mln USD) and Shares (2005-06 % 2012-13)

	05-06			12-13			0506-1213
	Value	Share	RCA	Value	Share	RCA	CAGR
Travel	120	37.6	1.4	482	48	1.9	16.7
Other business services	70.9	22.2	1.1	163.5	16.3	0.7	9.7
Transport	58.6	18.4	0.9	182.8	18.2	1	13.5
Government goods and services n.i.e.	26.6	8.3	3.6	15.5	1.5	0.9	-5.8
Construction	19.3	6.1	3.3	45.3	4.5	2.1	9.9
Telecom, computer	9.5	3	0.4	17.6	1.7	0.2	7
Personal, cultural, and recreation	8.4	2.6	3.1	89.3	8.9	10.3	30
Financial	2.9	0.9	0.1	5.1	0.5	0.1	6.5
Intellectual property n.i.e.	2.1	0.6	0.1	3	0.3	0.1	4.2
Insurance	0.8	0.2	0.1	0.7	0.1	0	-2
Manufacturing services	0	0	0	0	0	0	-
Maintenance and repair	0	0	0	0	0	0	-

Source: IMF Balance of Payment Data

The Kyrgyz Republic's services exports are higher than expected given its level of development. Figure 5 plots this relationship by displaying on the horizontal axis GDP per capita in PPP, i.e. level of development, for both periods 2005-07 (left) and 2011-13 (right) whereas the Kyrgyz Republic and other countries' relative services exports (in GDP) is shown on the vertical axis for both respective periods. The Kyrgyz Republic is placed above the solid black predicted values line which means that it is doing relatively better compared to some of the other countries marked in the graph, notably Moldova, Georgia and Armenia which has more or less a similar level of development. Hence, the relationship between the Kyrgyz Republic's services trade and level of development is actually stronger (overall) than its relationship between domestic value added and development (Figure 2).

Figure 5: Services Exports and Level of Development (2005-07 & 2011-13)



Source: WDI

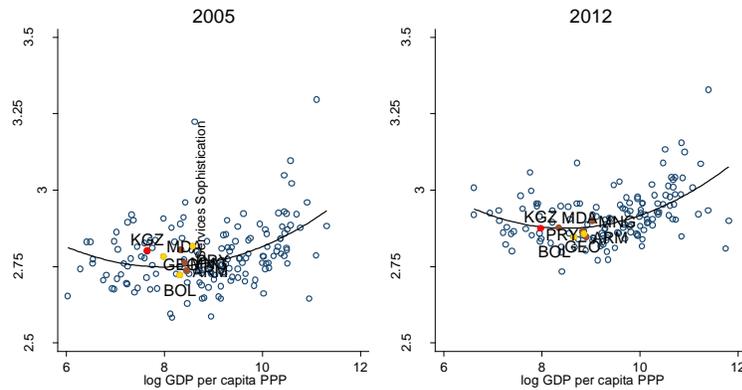
The Kyrgyz Republic's exports are doing also well in the area of so-called modern services such as telecoms and computer services in addition to performing also well in traditional services such as transports and travel. Yet, the outperformance of modern services most likely comes from the business services sector. Modern services are those services that can increasingly be traded across borders without the necessity of proximity between buyer and supplier. Worldwide these services have also shown the most dynamic growth rates in recent years. Examples of such services include communication, banking, insurance, business-related services, remote access services, transcribing medical records, call-centers, some educational services, etc. These services differ significantly from traditional services or "personal" services which requires face-to-face interaction.

The Kyrgyz Republic exploits the potential for modern services already pretty well. Figure 6 shows the relationship between the exports of both types of services and again the level of development for the period 2011-13. In this graph modern services are proxied using the services category Other Commercial Services (OCS) which covers Communications, Construction, Insurance, Financial, Other Business Services (OBS), Computer and Information, Personal Recreation and Cultural Services, and finally Royalties. The Kyrgyz Republic's export structure appears to be more successful in traditional services than in modern services and outperformed countries such as Colombia and China. In addition, the right-hand panel also shows that modern services in the Kyrgyz Republic have overall over-performed compared to other countries. However, modern services are proxied by the OCS category which also include personal services such as education and construction. These sectors could thus be responsible for the somewhat higher than expected outcome in Figure 6 and could therefore be somewhat upward biased. On the other hand, when taking ICT services only a similar better-than-expected picture emerges.

Box 3: the Kyrgyz Republic's Services Sophistication and Factor Content of Trade

The Kyrgyz Republic's services sophistication seems to have declined over the years whereas other peer countries seemed to have remained stable or perhaps moved downwards as well in terms of export sophistication. The Kyrgyz Republic still enjoyed a relatively sophisticated export basket compared to other comparators such as Georgia and Armenia as displayed in Figure 1. Intuitively, measures of export sophistication capture whether any given country's exports basket consists primarily of services typically exported by high-income economies, viewed as relatively sophisticated, or by low-income countries, seen as relatively less sophisticated. Therefore Figure 1 illustrated the relationship between export sophistication and level of development (GDP per capita in PPP) for the Kyrgyz Republic with several of its peer countries. It can be seen that between 2005 and 2013 some of the peer countries have increased their level of sophistication, other have declined, such as Paraguay, and again others have remained stable such as Georgia.

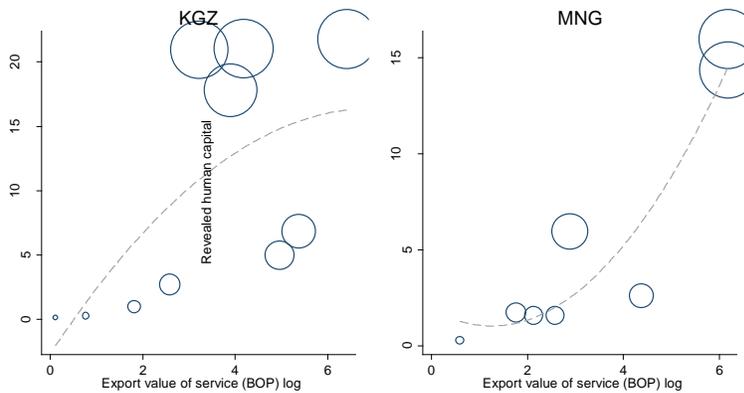
Figure 1: Export Sophistication and Development (2005 & 2012)



Source: IMF Balance of Payments, WDI

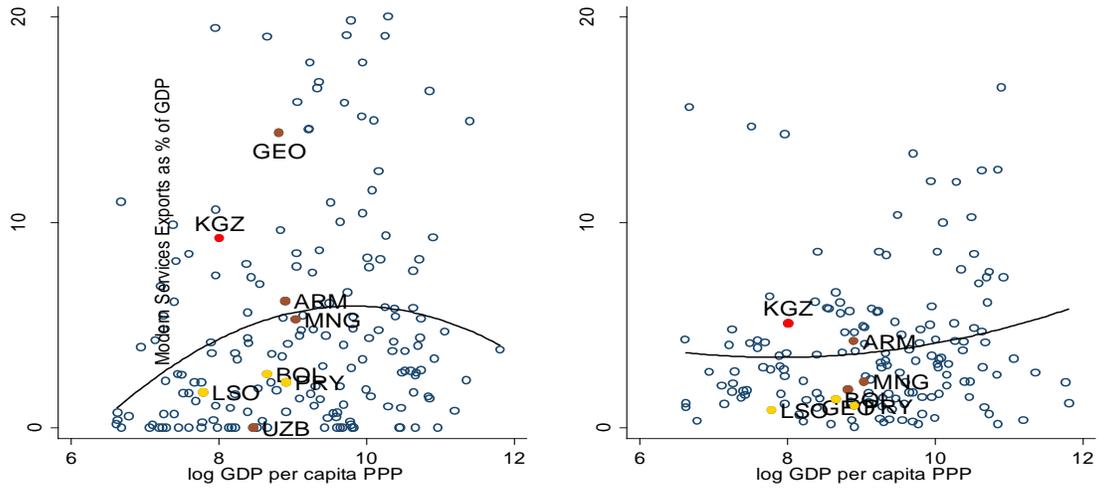
Some of the Kyrgyz Republic's services that it exports are relatively high-skill intensive. This is illustrated in Figure 2 where on the horizontal axis the level of services exports (in logs) is represented whilst on the vertical axis a proxy for human capital intensity of a service is given. As in Figure 2, this proxy measures export sophistication in terms of human capital: the higher its value the more the export basket consists of skilled services typically exported by developed countries. Compared to Mongolia (one of the Kyrgyz Republic's peer countries), the Kyrgyz Republic compares well in terms of human capital services exports in Travel, Cultural and Recreational, plus Construction services and also Telecoms as the values on the vertical axis are much higher. The dashed line (in the left-hand panel) shows this revealed skill index in connection with what the Kyrgyz Republic is exporting in these services in terms of sheer values. It seems that the Kyrgyz Republic could actually increase some of its exports in all these sectors apart from travel services which shows highest export values and is place in the upper-right corner of the pane.

Figure 2: Factor content of trade for the Kyrgyz Republic and Mongolia (2010)



Source: IMF Balance of Payments, WDI

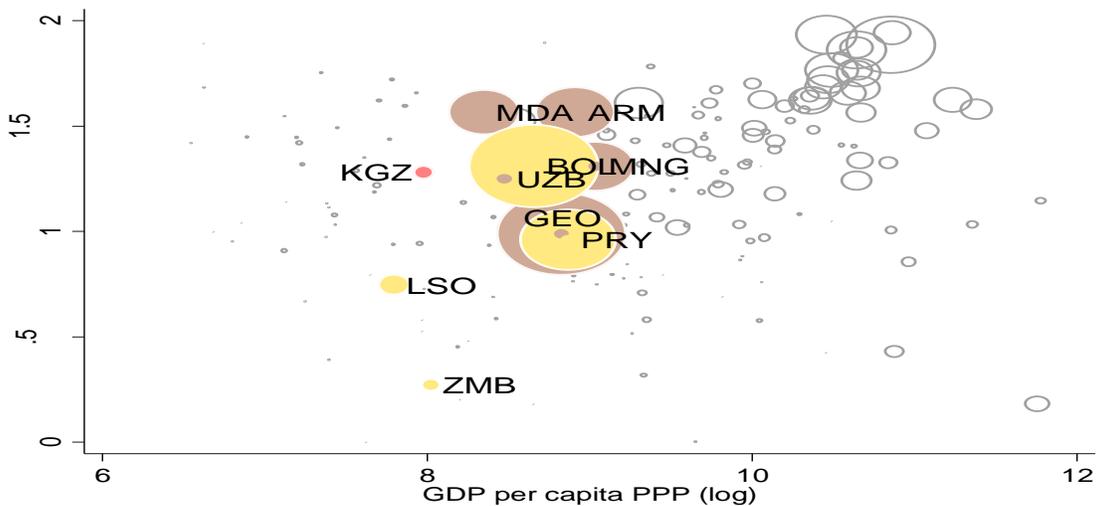
Figure 6: Modern vs. Traditional Exports and Development (2011-13)



Source: WDI

The Kyrgyz Republic's services sectors structure is relatively dispersed given its level of development. Some of the richer countries do export a more equally distributed share of each services sector such as Moldova and Armenia. Figure 7 shows the relationship between the level of development and diversification for all countries worldwide. The Kyrgyz Republic's peer countries are highlighted, which are the comparators in the same regional income basked in sienna and the comparators in the same land-locked category in yellow. One should also note, however, that although developed countries have a more equally distributed export basket, they also export more which is shown by the size of the circles.

Figure 7: Diversification and Development and the Kyrgyz Republic (2009)



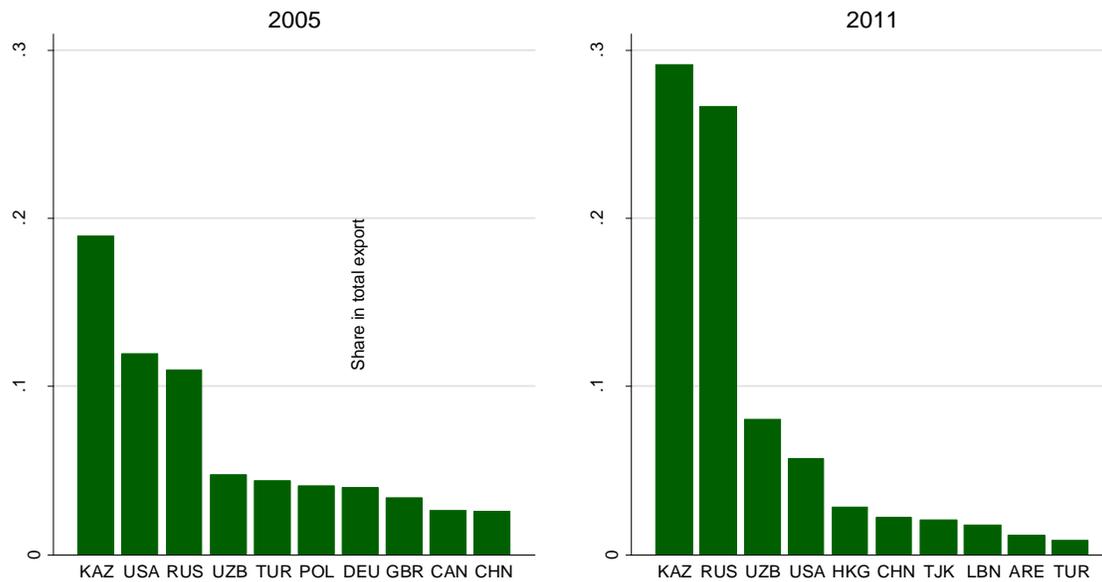
Source: World Bank Trade in Services Database; WDI

Poorer countries do seem to have somewhat lower entropy indexes overall, but this graph shows that this varies significantly. For example, although Lesotho is only a little bit less developed than the Kyrgyz Republic, the Kyrgyz Republic still shows a more diversified services export basket, although one should bear in mind that export shares for modern services are across these sectors still fairly low. On the whole however, the Kyrgyz Republic, is doing rather well given its level of development, but from this picture one could see that there is more potential to increase the sheer volume of trade relative to its level of diversification as for the Kyrgyz Republic its circle remains fairly small. Even though it is doing much better in fact than Georgia, Paraguay or even Mongolia in terms of diversification, these latter countries are more successful in exporting more services as such. Hence, one can also infer from the graph that the Kyrgyz Republic's amount of services trade is rather small with respect these countries which are on a lower diversification (vertical axis) level.

The Kyrgyz Republic's main trading partners in services are Kazakhstan and Russia. Other important trading partner are also situated in the region such as Uzbekistan and Tajikistan.⁴⁵ Figure 8 graphically presents some of the most important existing markets for the Kyrgyz Republic across the world, i.e. the intensive margin for the year 2002 and 2011 (later years were not available in terms of bilateral services flows). One can see that actually both Kazakhstan and Russia have gained huge importance for the Kyrgyz Republic's services flows as well as Uzbekistan. At the same time, the importance of the USA as a services export partner has declined over time. Also, whereas some European countries were ranked as important trading partners for the Kyrgyz Republic in 2007, these countries have entirely disappeared in 2011. Instead, countries such as China, Turkey, Hong-Kong and Lebanon have gained importance over the years. Note that when Kazakhstan and Russia are taken together more than half of the services exports are going to these two destinations.

Figure 8: the Kyrgyz Republic's Intensive Margin of Trade (2005 & 2011)

⁴⁵ The following analysis uses the *Trade in Services Database* developed by Francois and Pindyuk (2012). While the *Trade in Services Database* should be seen as the best currently available approximation to a comprehensive picture of global trade flows in services, we acknowledge that this is still only a partial picture of the world.

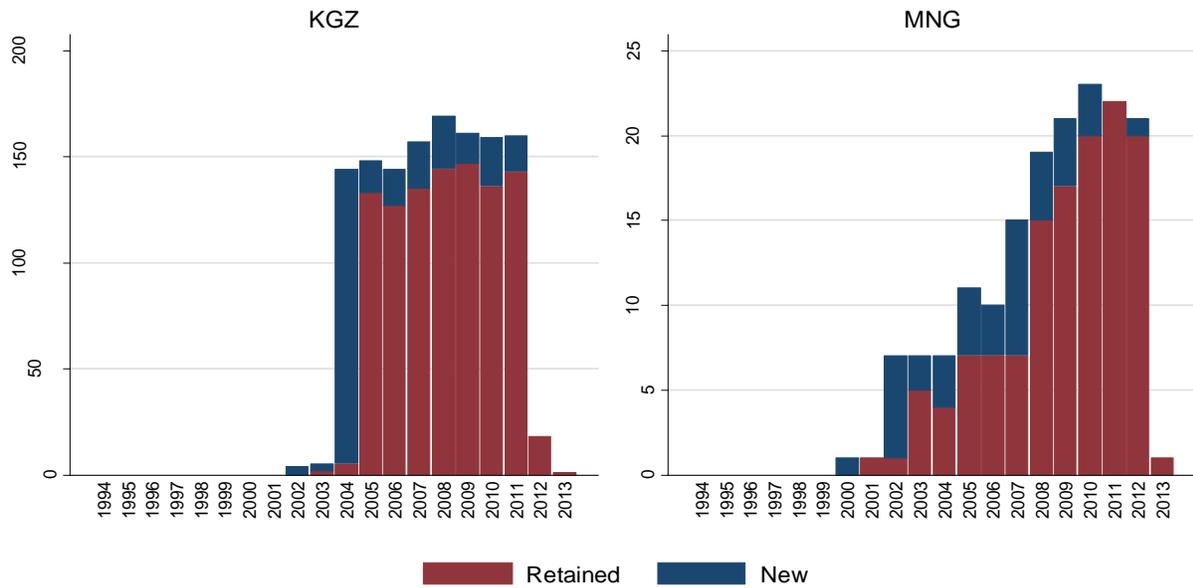


Source: World Bank Trade in Services Database

The Kyrgyz Republic seems to have added new and existing trading partner since 2005 up to 2011 in a gradual manner.⁴⁶ When looking at one of the Kyrgyz Republic's most important peer countries, namely Mongolia, one sees that it has steadily gained and lost new existing trading partner over time and has sometimes had some difficulties adding new services importers. Although bilateral records flows for Mongolia are much scarcer one can see that jumps for adding new markets were somewhat more pronounced. However, a lot less number of counted trading markets are detectible for Mongolia. Note that these jumps for both countries may also be due to data issues as explained in this footnote. Nonetheless, various reasons may lay ground to this difference in development between the two countries. For instance, regulatory barriers or domestic enabling factors such as domestic institutions or ICT infrastructure may contribute to the fact there is a difference in performance between the Kyrgyz Republic and Mongolia. Lowering artificial trade barriers helps adding new trade partners.

Figure 9. The Kyrgyz Republic's Extensive Margin of Trade (1994-2010)

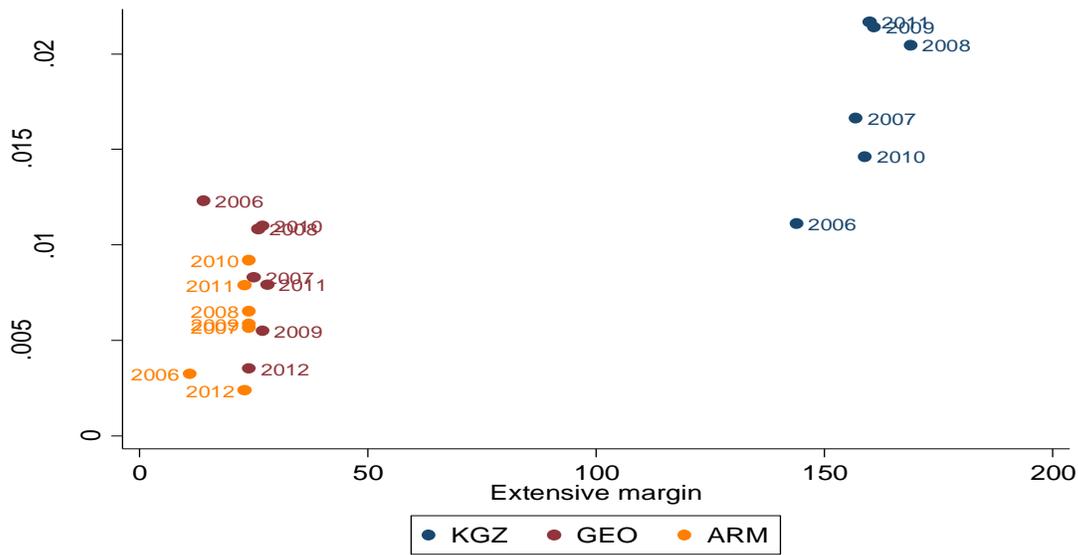
⁴⁶ One must bear in mind, however, that much caution needs to be taken since the quality of bilateral trade relations are not as detailed as for goods.



Source: World Bank Trade in Services Database

Compared to some of the Kyrgyz Republic’s comparator countries, it has relatively many markets to which it exports, but also has a high intensive margin of trade. Both types of information of Figure 8 (i.e. intensive margin of trade) and 9 (i.e. extensive margin of trade) are combined in Figure 10 and compared to Georgia and Armenia. Compared to these countries one can see that the Kyrgyz Republic has a much higher amount of markets to which it exports, but also has a higher volume of trade to which services are flowing. However, the ratio is rather catered towards the vertical axis meaning that the intensive is rather more important for the Kyrgyz Republic than the extensive margin, as with the other two comparator countries. Various reasons may be responsible for this patterns. For one, it could be that the Kyrgyz Republic geographical situation, encapsulated between other countries such as China and Kazakhstan and close by some other bigger markets such as India and Russia, makes it that it exports to many other markets. Second, and perhaps most importantly, the Kyrgyz Republic has a thriving tourist sector which attracts many visitors around the world, which is likely to show up as export markets in the data. Note as well that the road of reaching more markets and more exports is rather bumpy: whereas in one year these margins may increase, a next year this can be set back for various reasons only to be followed by an increase the year after. Over time, however, there is an upward relationship.

Figure 9b: Intensive Margin and Extensive Margin (2005-2011)



Source: World Bank Trade in Services Database

Box 2: The Kyrgyz Republic's Potential with some of its Trading Partners

What markets can services providers target for future development? Is there still potential left to increase trade with some partner countries? If yes, who are these partner countries with which exports are underperforming? To help answer this question a gravity analysis has been performed using bilateral trade data in services to examine the Kyrgyz Republic's trade potential in services relative to its actual bilateral (observed) trade flows.⁴⁷ This procedure has been done in two steps. In a first step we run two separate regressions: one with country-specific fixed effects to capture all factors that influence trade for all countries which should also take care of the STRI measures (i.e. regulations in services trade) that would otherwise be thrown in if we would have done the analysis without fixed effects so as to also control for the trade inhibiting effects as a consequence of regulation in services; and one without country effects (and without STRI).

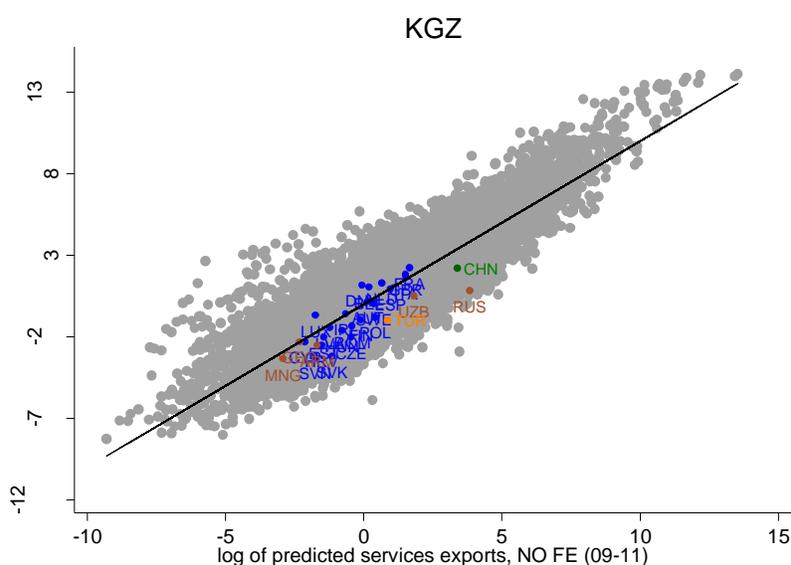
Figure 1 plots for all partner countries around the world, including those of the Kyrgyz Republic, the predicted bilateral trade relations for these two specifications. Predicted trade as obtained with the specification with country-specific effects are depicted on the vertical axis; those without on the horizontal axis. Observations lying below the 45-degree line show that the predicted levels from the specification with country-specific fixed effects are *lower* than the specification with no country-specific fixed effects.⁴⁸ This means that because the specification with fixed effects properly controls for country-specific barriers to trade (including regulations) such a result would suggest that there exist barriers to trade at the national level that are lowering a country's trade potential. As many observations for the Kyrgyz Republic lie below the 45-degree line, this shows that for many countries with whom the Kyrgyz Republic has bilateral trade relations trade potential exists but that these are currently low.

Thus, lower potential trade after properly controlling for any country-specific obstacles to trade suggests that these barriers are limiting services trade for the Kyrgyz Republic as well as for other countries in the world. This could suggest that high regulatory restrictions, regulatory heterogeneity or even low regulatory governance are dampening this trade potential. Yet, since country-specific fixed effect also controls for all other factors besides regulatory barriers additional "barriers" that otherwise have an effect on the level of services trade could also play a role. Example in this latter category of factors are lower domestic institutions or a small high-skilled labour force. This will be discussed in the last section.

⁴⁷ The gravity model has been extensively used in the international trade literature due to its intuitive empirical and theoretical appeal. Anderson and van Wincoop (2003), Feenstra (2004), and Baldwin and Taglioni (2006), amongst others, present exhaustive literature reviews on the gravity equation as applied in the empirical trade literature.

⁴⁸ In the graph, Kyrgyzstan's bilateral exports with other EU countries are in navy and are labelled according to their 3-digit ISO-country code. Partner countries situated in the region are given in sienna whereas partners lying East and South East Asian region are given in green. Last, some other countries selected are given in yellow.

Figure 1: Predicted Trade Estimates with FE and without FE (2009-11)



Source: Authors' calculations using WDI; World Bank's Trade in Services Database; World Bank's STRI and CEPII

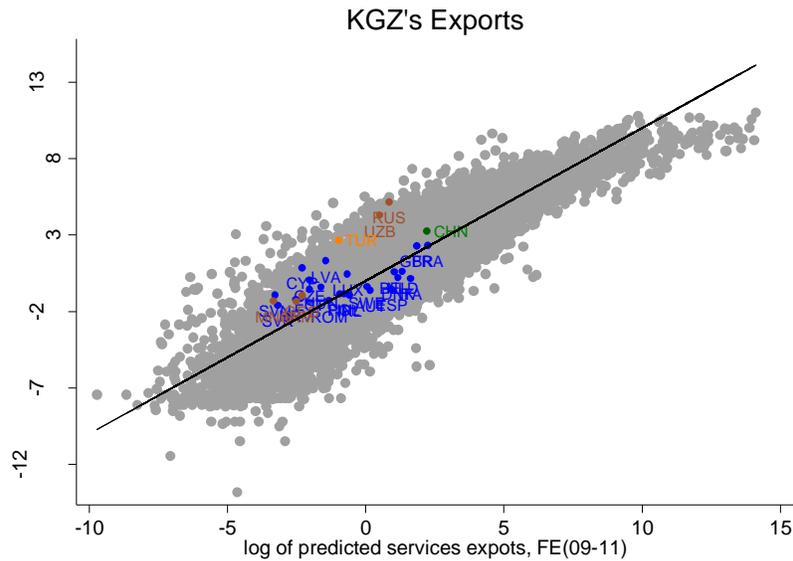
Hence, the gravity model suggests potential markets for growth on the whole as most likely some horizontal measures plus most probably in addition various sector-specific regulatory costs barriers are inhibiting the Kyrgyz Republic from reaping greater benefits so that the colored country dots are placed in Figure 1 above the 45 degree line. In a second step we can now analyze whether the predictions by the model is truly the case for specific partner countries of the Kyrgyz Republic. Although not all partner countries are included in our Trade in Services Database, the results of the gravity model nonetheless indicates that the Kyrgyz Republic is over-trading with a number of countries such as (logically) China and Russia, but also Turkey Mongolia and Armenia. On the other hand, however, the Kyrgyz Republic is under-performing with several more advanced European countries such as Spain, Sweden and Denmark. Note that most of the European countries with which the Kyrgyz Republic is over-trading are situated in Eastern Europe.

These outcomes are shown in Figure 2. It shows for the Kyrgyz Republic the actual and predicted bilateral export relationship of which the latter relationship is given by the country-specific fixed effects gravity equation as used in the previous diagram.⁴⁹ The actual trade flows are given on the vertical axis whereas the predicted trade flows from the fixed effect gravity equation are shown on the horizontal axis. This time, however, we must see the diagram as follows: if an observation is lying above (below) the 45-degree line, the average observed export relationship in the period 2009-11 is more (less) than what the gravity model predicts – on the basis of countries' structural determinants and regulatory barriers – and the Kyrgyz Republic is said to be over-trading (under-trading) with its these trading partners, including those specifically marked in Figure 2 for countries close by, countries in Asia and South East Asia, and other developed countries.

Therefore, Figure 2 shows there is scope to increase the role of services exports in total trade for the Kyrgyz Republic with some of the emerging countries in Europe, but actually it is already over-trading with quite a number of its important trading partners which are rather lying closer to home and having larger market sizes such as China and Russia. Yet, most probably the take away of this analysis is that the Kyrgyz Republic although overtrading with many countries (likely in its traditional trading sector) is still having difficulties entering markets which are more advanced. It has the potential to increase its trade in services with these existing partner with whom its shares low export levels. Trading with advanced countries can be beneficial for the Kyrgyz Republic as it provides opportunities to learning-by-doing, i.e. exporting. Advanced countries often have know-how and technological or human capital knowledge that can (in the case of reaching their markets) provide the supplier with spill-over effects, in this case for the Kyrgyz Republic.

⁴⁹ Bilateral trade between Russia and EU countries are given in blue whereas a selection of other countries with whom Russia trades are given in red. Various East and South-East Asian countries such as Japan, China, Korea and Indonesia are marked in yellow.

Figure 2: Gravity Model of Trade in Services and Actual Exports (2009-11)



Source: Authors' calculations using WDI; World Bank's Trade in Services Database; World Bank's STRI and CEPII

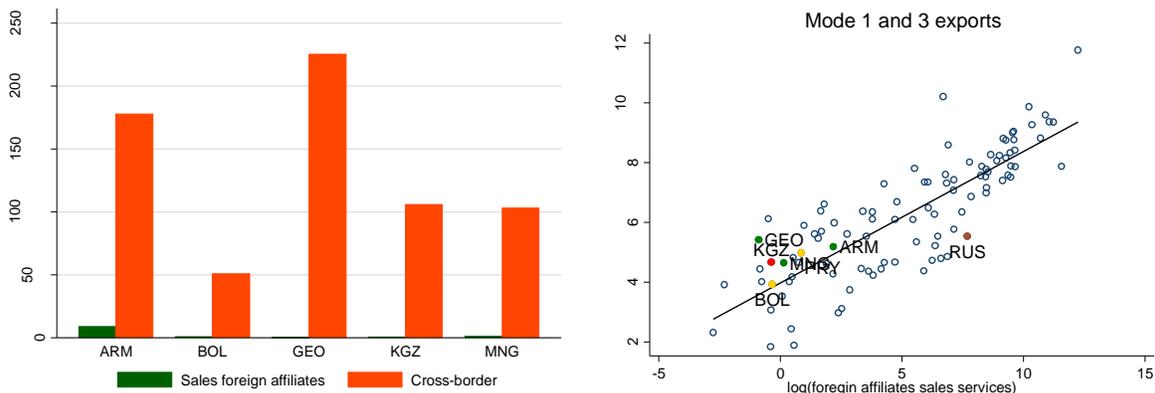
The Kyrgyz Republic is next to cross-border trade in Mode 1 also somewhat active in sales of foreign affiliates in services in Mode 3. Yet, export flows through these channels remains extremely modest. In services trade there are four modes of supply, namely (1) cross-border trade, (2) consumption abroad, (3) sales of foreign affiliates, and finally (4) movement of supplier of which its shares of trade on the whole are respectively, 25-30 percent, 10-15 percent, 55-60 percent, and less than 5 percent. Although this is true on the whole when taking all services together, large variances are observable for individual countries, i.e. not countries have a services trade pattern in which Mode 3 is most important, and so Mode 1 will play a relatively more important role. This feature is shown the Figure 10 which shows both exports for the Kyrgyz Republic and its peer countries through Mode 1 (cross-border) and Mode 3 (foreign affiliate sales – FAS) for the most recent year for which foreign affiliate sales is available in a cross-country setting.⁵⁰ One can observe that exports through Mode 3 of supply in the Kyrgyz Republic is extremely small compared to the world figures described above. Other countries in the bar chart show a similar pattern to that of the Kyrgyz Republic.

In addition, Figure 11 illustrates the relationship between the two channels of trade for all countries worldwide in logs for which data is available. Note that for most other peer countries of the Kyrgyz Republic placed in South America are also showing a services export pattern that is more concentrated toward cross-border trade (i.e. Mode 1). Russia, on the other hand, seems to have more exports which

⁵⁰ The data for foreign affiliate sales are obtained using data from Fukui and Lakatos (2012). Although the authors are using a collection of data sources of foreign affiliate sales in goods and services, their actual data set covering more than 100 countries in the world is based on an econometric exercise. Therefore, the data cannot be used for any causal effect inferences since this would result in obtaining similar coefficient estimates. Nonetheless, the data can be used for descriptive and illustrative purposes as done in this section. Note that as with any data in services, numbers in this dataset should be taken with care.

is supplied through their foreign affiliates. The fact that for the Kyrgyz Republic Mode 1 is so important has most likely to do (again) with its comparative advantage in travel services and transport services (which are contingent on each other).

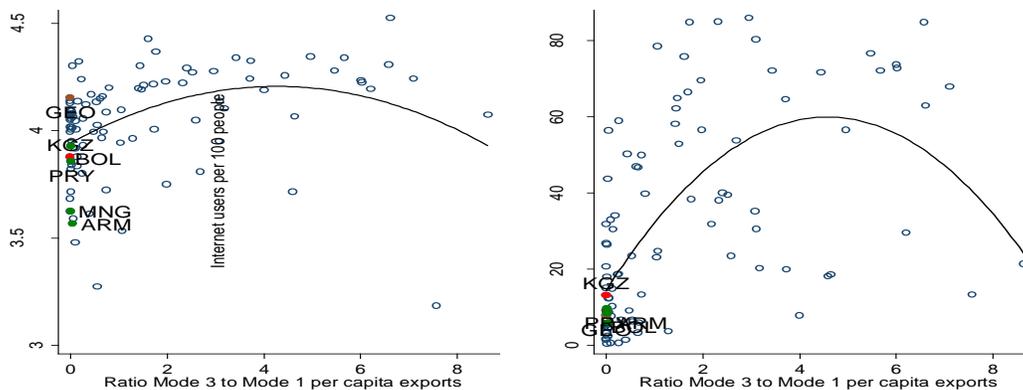
Figure 10: Per capita of foreign affiliates services and cross-border exports (2007) Figure 11: Relationship between services exports through Mode 1 and 3



Source: WDI and Faku and Lakatos (2012)

In the Kyrgyz Republic, generating value added in services through services exports are likely to be concentrated in Mode 1 for the near future in order to reap value added. This is visible in Figure 12 which shows in the left-hand panel the relationship between the ratio of foreign affiliate sales to cross-border supply of services (i.e. Mode 3 to 1) and whether the relative exports through either mode has any significance to the extent that an economy generates value added from its services sector. One can see that there is a quadratic relationship which means that first when countries export more through their foreign affiliates they are more likely to generate a higher extents of services value added. Yet, this relationship weakens when we look at countries' export pattern which are more and more dominated by Mode 3, i.e. shifting to the right on the horizontal axis. It means that for some countries Mode 3 takes over the dominant vehicle for exports whilst the marginal benefit in terms of value added becomes less over time. One potential explanation is that these countries are not exporting enough modern services which is associated with reaping higher value added gains. Many modern services are delivered through Mode 1, as outlined in Figure 6, which can be supplied over the net, i.e. at cross-border level. It also shows that the Kyrgyz Republic with most of its peer countries are situated at the left-side meaning that its exports are concentrated though Mode 1. In the case of the Kyrgyz Republic is associated with lower than predicted value added terms.

Figure 12: Relationship between modes of supply and value added / ICT endowments in services.



Source: WDI and Faku and Lakatos (2012)

The Kyrgyz Republic appears to have overall better per capita foreign affiliate sales performance in Finance and Insurance although this remains yet extremely small. Some of the Kyrgyz Republic’s peer countries have better performance in both distribution services through Mode 3. As such the Kyrgyz Republic is laying behind as some other emerging countries such as Russia are highly successful in supplying this services through Mode 3. Yet, from the previous section it became clear that trade through Mode 1 can be an additional way of generating value added, notably if modern services are modern services are exported through this mode. Looking at Table 1 one can see that compared to its peer countries the relative importance of Mode 1 for exports in financial services and insurance services are somewhat higher as they show relatively higher value ratios. However, the Kyrgyz Republic’s share in both finance and insurance services remain extremely low and it does not have any comparative advantage in either two.

Table 3: Relationship per capita exports through Mode 3 and Mode 1 by sector (Mode 3 / Mode 1)

sector	KGZ	ARM	BOL	GEO	MNG	RUS
Financial	0.08	0.01	0.06	0.01	0.02	18.11
Insurance	0.03		0.01	0.00	0.09	1.75
Trade	0.02		2.36	2.96		116.54
Construction	0.02	0.00	1.05	0.04	0.54	13.23
Public adm	0.01	0.00	0.07	0.00	0.18	188.20
Communication	0.01	0.00	0.01	0.01	0.01	14.33
als	0.01	0.05	0.01	0.00	0.01	8.63
Business nec	0.01	0.00	0.05	0.00	0.03	0.10

Source: Trade in Services Database and Faku and Lakatos (2012)

Valuing Services in Trade

Tables 5 and 6 provide a clearer picture of the services linkages in the Kyrgyz Republic’s domestic economy and its exports structure. In other words, the tables allow comparing the sectoral composition in the domestic economy and the contribution of its economy to exports

measured in terms of value-added.⁵¹ In both tables, the last column provides the structure of the Kyrgyz Republic's total domestic value added and exported value added, respectively in Table 5 and 6, including forward linkages; while the last row in each table provides information on the Kyrgyz Republic's total domestic value added and exported value added, respectively, including backward linkages. For example, services share in the Kyrgyz Republic's GDP, which include utilities, transport, distribution, financial, and other business services, is 37.5 percent (last column fourth row). In this measure both services direct value added are taken into account as well as the forward linkages that services in the Kyrgyz Republic account for, i.e. bring into other sectors. This figure for the Kyrgyz Republic is fairly low compared to some other countries such as Mongolia (although a bit lower), Georgia and Armenia. In Mongolia the direct and forward linkages share in its economy represents 51.8 percent, that one in Georgia 66.9 percent, and in Armenia this figure is 60.4 percent. Trade and tourism are the sectors which are the most important contributors to the Kyrgyz Republic's total value added supply.

⁵¹ The linkages represent the interdependence of sectors of the economy. Industries with strong backward and forward linkages play an important role in the development strategy of a country. A sector with strong backward linkages means that an increase in the final demand of these industries' output will have a large impact on industries that supply inputs in the production of these industries' output. On the other hand, a sector with strong forward linkages means that an increase in the final demand of other industries' output will have a large impact on that industry. Naturally, strong linkages to value added exports suggest an important role in the export strategy as well. For example, when assessing the impact of specific policies, the likely impact on other economic activities may vary depending on the importance of these linkages.

Table 5: Services in the Domestic Economy for the Kyrgyz Republic (2011)

	Primary	Energy	Manufacturing	Services	Electricity, Gas, & Water	Construction	Trade, Distribution, and hotels	Transport	Communication	Finance	Insurance	Other Business Services	Other Consumer Services	Other Services	Forward/Supply
Primary	19.9	0.0	2.3	1.8	0.0	0.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	24.0
Energy	5.0	7.7	5.2	7.5	0.5	0.9	1.6	0.9	0.1	0.0	0.0	0.1	0.3	3.2	25.5
Manufacturing	0.3	0.2	10.9	1.5	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	13.0
Services	1.3	0.4	1.6	34.3	0.4	3.9	##	2.0	1.0	0.3	0.1	0.8	0.9	13.6	37.5
Electricity, Gas, & Water	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Construction	0.1	0.1	0.1	3.8	0.0	3.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.2
Trade, Distribution, and hotels	0.8	0.1	0.9	11.3	0.0	0.2	##	0.1	0.0	0.0	0.0	0.0	0.0	0.4	13.1
Transport	0.1	0.0	0.1	1.9	0.0	0.1	0.1	1.7	0.0	0.0	0.0	0.0	0.0	0.1	2.2
Communication	0.1	0.0	0.2	1.5	0.0	0.0	0.2	0.1	0.9	0.0	0.0	0.0	0.1	0.2	1.7
Finance	0.2	0.0	0.1	0.4	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.7
Insurance	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Other Business Services	0.1	0.0	0.1	1.3	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.8	0.0	0.1	1.5
Other Consumer Services	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
Other Services	0.0	0.0	0.0	12.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	12.6	12.8
Backward/ Demand	26.6	8.4	19.9	45.1	0.9	5.7	##	3.0	1.1	0.3	0.1	0.9	1.2	17.7	100.0

Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

Box 2. Measuring Trade in Value-Added

Exports (of both goods and services) can be measured as:

Gross exports: The transaction value of a sector's exports. This captures both the value-added embodied in the production of the export and all domestic and imported intermediate inputs. Gross measures of trade statistics are registered in customs or balance of payments, usually at the transaction value, that is, the price actually paid or payable for the goods and services.

Direct value-added of exports: A sector's domestic value-added embodied in its own exports, measured as gross exports less domestic and foreign inputs. This measure captures the true sector-specific, or the direct, value-added contribution of exports.

Total value-added of exports: This measure adds to the direct value-added of exports the value-added of inputs produced domestically. It captures the indirect contribution through value chain linkages with other export activities, expressed in terms of forward or backward linkages. This is increasingly important in an environment where global production is fragmented across production sharing networks.

Based on these definitions, the following terminology is used when speaking about contribution to exports:

Forward linkages: The value-added when considering the contribution of that particular sector as an input to other sectors' exports. This treats the particular sector as an upstream activity. In other words, forward linkages show how important particular service is as inputs to other export activities.

Backward linkages: The value-added when considering the contribution of all other sectors to that particular sector's exports. This treats the particular sector as a downstream activity. In other words, backward linkages show how important a service sector is for the demand of other sector's value-added.

Source: Saez et al. (2014).

Total backward services linkages contribute to 45.1 percent of GDP and is comparable with most of its peer countries. But these linkages are mainly with other services activities and represents around 34.3 percent, and is much less so with the primary and energy sector. (Table 4, intersection between fourth column and fourth row). Among services activities, the biggest backward linkages are in Trade and tourism services which is 11.3 percent and then Construction services with 3.8 percent (apart from other services which are government or personal services).

In addition, Table 6 provides information regarding services in terms of value added performance in the Kyrgyz Republic's total exports. First, the contribution of services export to total exports is 16.9 percent. This means that services exports for final consumption remains fairly low compared to most countries in the world. Other peer countries of the Kyrgyz Republic show a higher rate such as 16 (Mongolia), 35.5 (Georgia) and 28.9 (Armenia).

The real value added contribution of services to total exports does increase significantly when the forward linkages to other export activities are considered. Overall, the share of services value added exports in total exports 21.6 percent. This is mostly explained by the role of services value added in exports manufacturing which represent the lion's share of the total contribution of service to the Kyrgyz Republic's total value added exports, namely 3.3 percent. This figure is quite low as most

peer countries have services value added exported through the Manufacturing sector (such as 16.3 in Georgia and 5.8 in Armenia). Mongolia has most services exported through the Primary sector.

Table 6: Services in Total Exports for the Kyrgyz Republic (2011)

	Primary	Energy	Manufacturing	Services	Electricity, Gas, & Water	Construction	Trade, Distribution, and hotels	Transport	Communication	Finance	Insurance	Other Business Services	Other Consumer Services	Other Services	Forward/Supply
Primary	10.4	0.0	2.2	0.7	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.1	13.3
Energy	3.1	11.8	12.4	4.6	0.1	0.1	0.8	2.6	0.1	0.0	0.0	0.2	0.5	0.4	31.8
Manufacturing	0.2	0.4	32.4	0.4	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	33.4
Services	0.7	0.6	3.3	17.0	0.0	0.3	5.4	5.4	0.8	0.2	0.2	1.3	1.5	1.8	21.6
Electricity, Gas, & Water	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Construction	0.1	0.2	0.3	0.5	0.0	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Trade, Distribution, and hotels	0.4	0.2	1.7	5.3	0.0	0.0	5.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	7.7
Transport	0.1	0.0	0.3	4.7	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	5.1
Communication	0.0	0.1	0.4	1.2	0.0	0.0	0.1	0.2	0.8	0.0	0.0	0.0	0.1	0.0	1.7
Finance	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.6
Insurance	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Other Business Services	0.0	0.0	0.3	1.6	0.0	0.0	0.1	0.2	0.0	0.0	0.0	1.2	0.0	0.0	2.0
Other Consumer Services	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3
Other Services	0.0	0.0	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.9
Backward/ Demand	14.4	12.8	50.2	22.6	0.1	0.4	6.7	8.2	0.9	0.2	0.2	1.5	2.0	2.3	100.0

Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

The disaggregation of this share across the Kyrgyz Republic's sectors confirms this patterns. On the whole most of the services value added exported through manufacturing sectors goes through the Food processing sector and Metal sector together with the Chemical sector. More specifically, Transports, Finance and Other Business services are the main sectors linked to manufacturing exports representing a share of respectively 44.1 percent, 12.4 percent and 27.9 percent respectively of all services value added into manufacturing. Within the manufacturing sector it's mostly Chemical and Metal sector that carry forward services' value added. In the both industries it's mainly Transport and Other Business services that are used as inputs and carried forward in terms of value added. Finance is also an important services inputs which are carried forward in the exports of the Metal industry.

In the Kyrgyz Republic, value added creation is overall much more important for the domestic market than for exports. This is a feature which is most present among its peer countries, but the

Kyrgyz Republic is lagging behind most other comparators. Table 7 summarizes both Tables 5 and 6 by taking the direct and forward linkages together in the columns by sector for the domestic as well as external markets (i.e. exports) and compares it to peer countries.⁵² The Kyrgyz Republic shows that, after considering forward linkages, its services share of total domestic value-added is higher than its services share of export value-added. Indeed, the exported value added is extremely low compared to other countries apart from Bolivia: total exported value added of services is only 19.6 percent. This low share is also reflected in the low domestic forward linkages. One can see that actually in the Kyrgyz Republic the agricultural sector provides much more value added compared to most other countries, and also its manufacturing sector shows high exported value added shares.

In the Kyrgyz Republic, the relatively outward oriented services sectors in terms of value added are Transport, Distribution (together with Tourism), and some Other Business services.

A common observation among developing / emerging countries is that sectors such as Transport and Distribution (and Travel) contribute most to export value added. However, Table 6 shows that these sectoral shares in some instance remain extremely low compared to other countries, namely 5.1 for Transport and 7.7 for Distribution (including Travel). On the other hand, the Business services sector shows increasing shares of value added exports. Some other countries however export more value added either directly or through forward linkages through other sectors when it comes to Business services, such as in the case of Georgia (3.1), Russia (6.4) and Bolivia (3.4). Note the high domestic value added production in Construction compared to other countries, which is not translated in any exports.

⁵² Note that the sector “other services” is dropped and therefore total figures adds up to a lower share as in the previous table matrixes of Table 4 and 5.

Table 7: Total Value-added in all Sector of the Economy, percentages (2011)

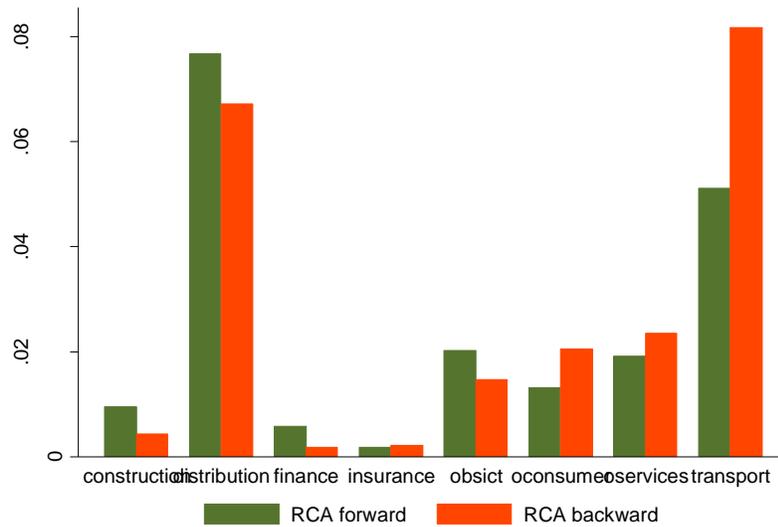
sector	KGZ		ARM		GEO		MNG		RUS		BOL	
	Dom	Exp										
Transport	2.2	5.1	3.5	12.8	8.8	23.7	10.6	12.4	6.7	7.3	10	8
Finance	0.7	0.6	0.9	0.7	1.8	0.7	3.9	3.3	1.8	2.9	2.3	0.8
Communications	1.7	1.7	2.3	3.4	2.3	1.5	3.3	1.8	1	0.6	1.8	1.1
Water	0.4	0.1	3.1	2.1	0.3	0.2	0.4	0.2	1	0.3	0.5	0.2
Construction	4.2	0.9	28.3	4.3	4.4	0.3	4.4	0.6	9.7	2.2	3.8	0
Distribution	13.1	7.7	9.4	5.6	15.7	17.1	8.8	4.4	21.6	13.8	10.4	9
Insurance	0.1	0.2	0.5	1.1	0.4	0.5	0.6	0.4	0.4	0.3	1.3	0.8
Other business services	1.5	2	0.4	1.5	2.9	3.1	2.8	1.5	8	6.4	3.3	3.4
Other Cons services	0.8	1.3	0	0.1	3.4	2.2	1.1	0.3	0.5	0.1	0.6	0.1
Total services	24.7	19.6	48.6	31.6	40	49.3	35.9	24.8	50.8	33.9	34	23.4
Agriculture	49.5	45.1	21.2	34.6	23.7	23.5	44.2	69.2	19.9	51.1	33.1	66
Manufacturing	13	33.4	18.3	29.7	9.4	19.2	4	5.1	13.3	14.7	10.7	9
Other	12.8	1.9	11.9	4.1	26.9	8.1	15.9	0.9	16	0.3	22.2	1.7

Source: Authors' calculations using World Bank Exports in Value Added Database; Francois *et al.* (2013)

Hence, overall service exports forward linkages are relatively low in the Kyrgyz Republic. This means that services are mainly a direct export activity to end consumer rather than an input into other export activities. Table 5 shows that services forward linkages are about 19.6 percent of total exports. This has important policy implications. First, this may mean that services are still relatively expensive in for the Kyrgyz Republic's manufacturing firms. Competitive services inputs are essential for any economy as it means that low cost high quality services should be a priority for any diversification and competitiveness strategy. Second, it also means that assessing and understanding the Kyrgyz Republic's constraints in services development is key to their contribution to economic diversification and competitiveness in goods industries. This is something that will be picked up in the sections below.

The Kyrgyz Republic indeed reveals to no strong specialization pattern of forward linkages in any of its services sectors, although Transportation is close to 1. This picture largely confirms the analysis as before. On the other hand, Transport services overall do have some strong forward linkages but its backward linkages are even stronger. Note that Distribution (and hotels) have higher backward linkages which is in line with the fact this sectors is exporting mainly directly for external demand.

Figure 13: Revealed Comparative Advantage in forward and backward linkages

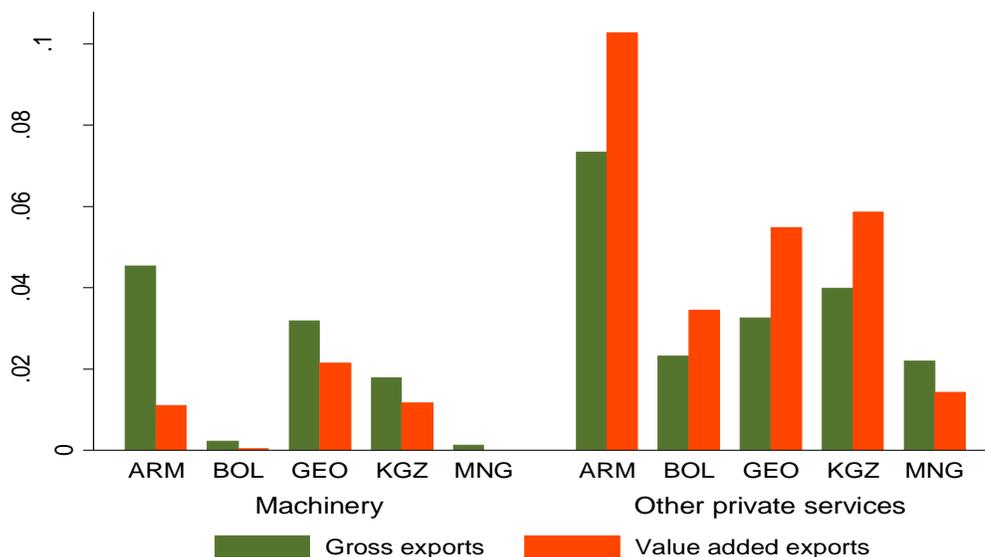


Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

On the whole, services generate greater levels of value added. Figure 14 shows how the Kyrgyz Republic compares with peer countries when breaking down gross and net measures of exports for both Machinery and Business services.⁵³ A sharp difference is visible across most countries in the sense that the share of value added becomes more important for services than for goods. Whereas gross value shares still add up a significant amount for goods industries, they become much less important when looking at services for most of the other countries in the graph. The biggest difference between the two measures are greatest for Armenia, which is also a smaller countries that hand therefore a natural tendency to specialize in services. Next to the fact that for Business services the value added creation based on direct and forward linkages for the Kyrgyz Republic is as sizable as in Georgia, Armenia is able to capture greater value added in business services.

⁵³ We select Business services (i.e. "Other Private Services") here since this sector makes up the most dynamic services category in recent years. The first bar in each of the two graphs represents the shares of exports in gross terms for both sectors as trade is measured most of the time. The second bar in each graph shows the shares of value added the two sectors contribute in total value added exported.

Figure 14: Gross and Direct Value-added Shares of Exports in Goods and Services (2011)

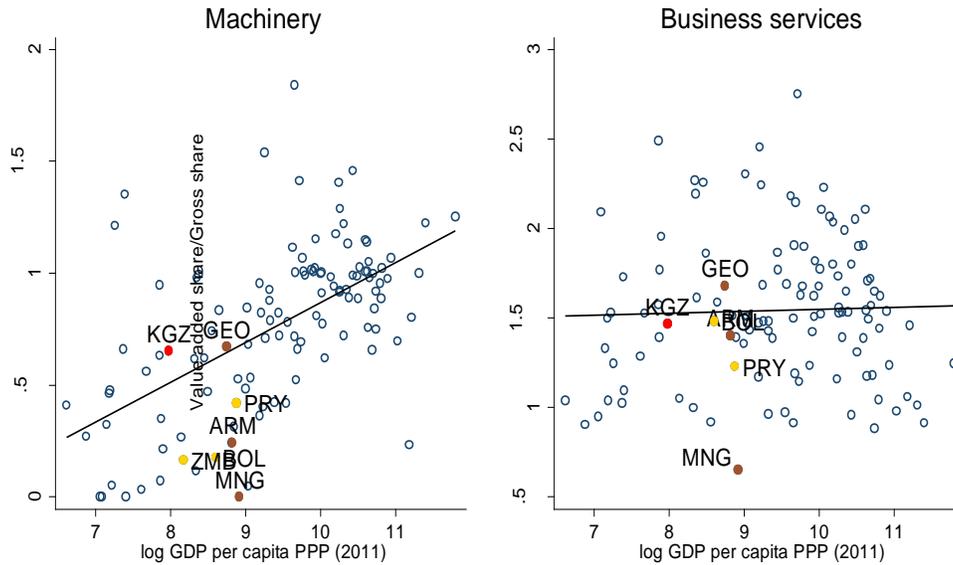


Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

On average, the Kyrgyz Republic produces and captures directly as much value added in services exports as some developed countries (excluding forward linkages). Figure 15 shows the positive relationship between the significance of the share value added that is exported in goods directly and the level of development, i.e. GDP per capita in PPP. This implies that most of the value added in goods exported by developing countries comes from other sectors in the form of intermediate inputs (such as assembling activities) and is not brought forward by these countries themselves as most developing countries are situated below a ratio of 1. In contrast, richer countries seem to export more direct value added produced within their own goods sector. The ratio for the Kyrgyz Republic is around 0.7 for exports of machinery which is quite somewhat in line compared to all other countries taken up in the sample.

In contrast, Figure 15 also shows that the positive relationship between value added and development disappears completely if we look at the services sector, in particular to the Business services sector, which means that the positive relationship is completely gone. The fitted values line flattens pointing out that the significance of the exported value added in services is as important for poor and richer countries. This significance of the value added share compared to the gross value share is on average but higher than Paraguay or Mongolia for example. The Kyrgyz Republic does appear to capture some direct value added through exports directly. It suggests that there is potential in the Kyrgyz Republic for exports in terms of value-added both in the form of forward linkages (see previous graph) and in direct exports. Yet, one should be careful that another reason why this ratio is so high for the Kyrgyz Republic is that the gross exports of business services for both countries is just very low. Nonetheless, it looks somewhat promising to look at the importance of the value added exports of services in the Kyrgyz Republic.

Figure 15: Export Value-added / Gross Exports share and Development (2011)



Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013); and WDI

The role of services as inputs is overall relatively important for the lower middle income group of countries in Central Asia to which the Kyrgyz Republic belongs.⁵⁴ Figure 16 provides the share of services in total exports (goods and services) for different income groups.⁵⁵ The general direct value-added of services in total trade varies across different lower middle income groups from different geographical areas and the countries belonging to the high income group. The total category, which sums up together the direct value added of services plus their indirect value added when they are exported as inputs through other sectors, is more or less similar across lower middle income groups, but the Central Asian region has the lowest blue bar. There are differences in terms of linkages between various regional income groups. Latin American countries in the lower income country basket is capturing relatively more value added through indirect exported forward linkages, whereas in European lower middle income countries the direct share is more important. For the Central Asian region, forward linkages are relatively important as measured by the difference between the blue and orange bar.

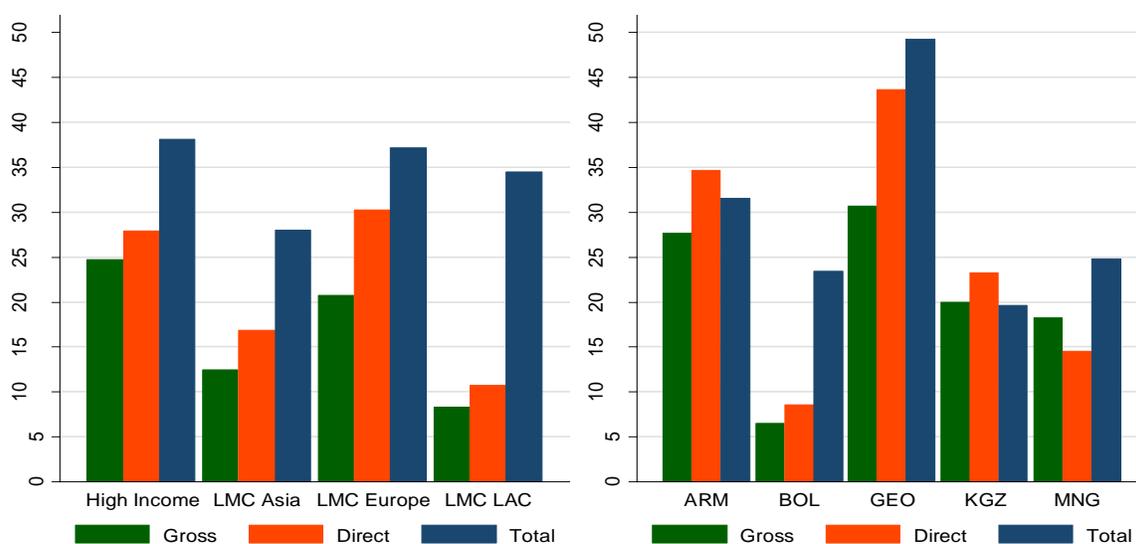
Amongst the Kyrgyz Republic's peer country group there are some countries for which the direct exports still count more importantly for overall value added rather than forward

⁵⁴ The data refers to 2011.

⁵⁵ There are three measures of this share. First, the gross value (or as reported in the balance of payment statistics) which is indicated as "Gross", second, the direct measure of services measured in terms of value added represented as "Direct", and finally the total contribution of services measured in terms of value added. This last measure includes the direct contribution of service sectors to total exports measured in terms of their value added content, as well as their indirect contribution as measured by sectoral forward linkages to other export activities. This considers that services are inputs to other exports of goods and services and shows which sectors contribute to the value added to final exports.

linkage, as with the Kyrgyz Republic itself. When forward linkages are included together with the direct measure of value-added exports the share percentages for each income group does not differ much as previously said. However, when looking at individual countries the gap between this direct measure and the total direct measure when forward linkages are included is greatest for Bolivia and Mongolia. Hence, forward linkages play a relatively important role on average in these countries. However, this is not true for some other countries in the region, including the Kyrgyz Republic. The gap between the direct and total percentage of total trade is opposite: direct value-added exported for abroad is more important. Moreover total exported value added for the Kyrgyz Republic is also fairly low compared to all other peer countries (except in the case of Bolivia).

Figure 16: Share of Services Exports in Total Exports; Gross, Direct and Total (2011)

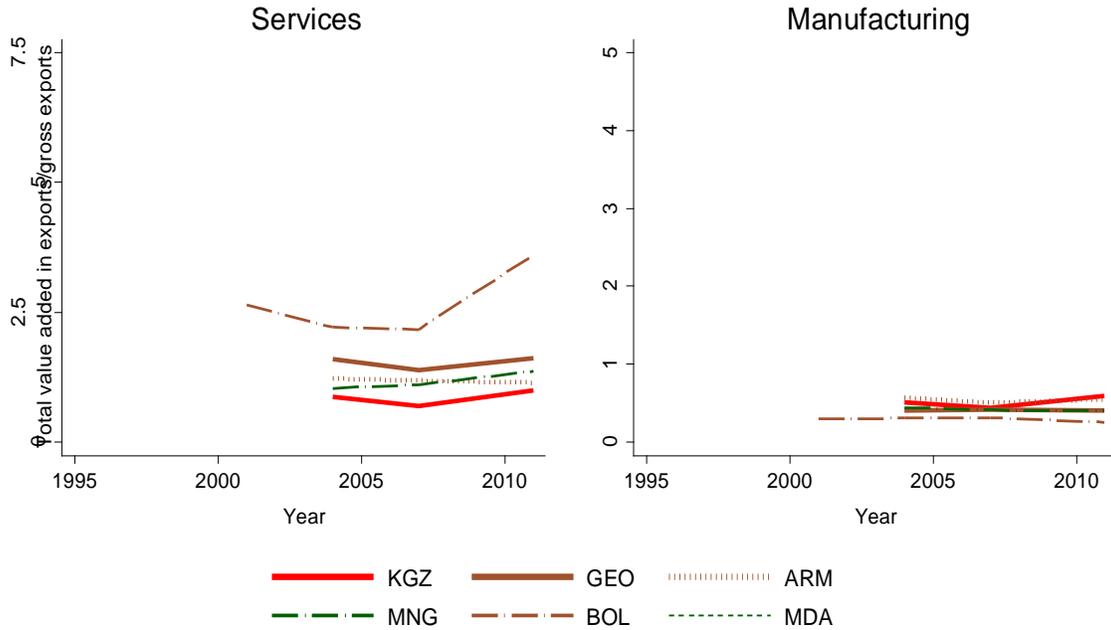


Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

The total exported value added are barely becoming more important over time for the Kyrgyz Republic. Figure 17 shows the ratio of the direct value-added exports share including forward linkages against the share of gross exports where a value greater than 1 indicates that total value-added exports are larger than gross exports. The fact that services exports in value added terms tend to be greater than gross exports is something that was shown in Figure 15 (in the case of Business services), but this may differ as well within income groups and across points in time. In Figure 17, the Kyrgyz Republic is a country where forward linkages for all services together played a relatively minor role compared to other countries and this patterns has not been changing much in recent years. The Kyrgyz Republic's position is not increasing indicating a lack of dynamism. It shows that backward linkages take up a relatively more important position in services. The same value for the manufacturing sectors is below one signifying that this sector uses inputs from other sectors of the economy or imports them from other countries. Thus, generally it would be expected to have stronger backward linkages than forward linkages in Manufacturing for these countries. In the

Kyrgyz Republic, it seems that forward linkages play a relatively more important role in manufacturing.

Figure 17: Ratio of Total Value-added Exports, including Forward Linkages, to Gross Exports (2011)



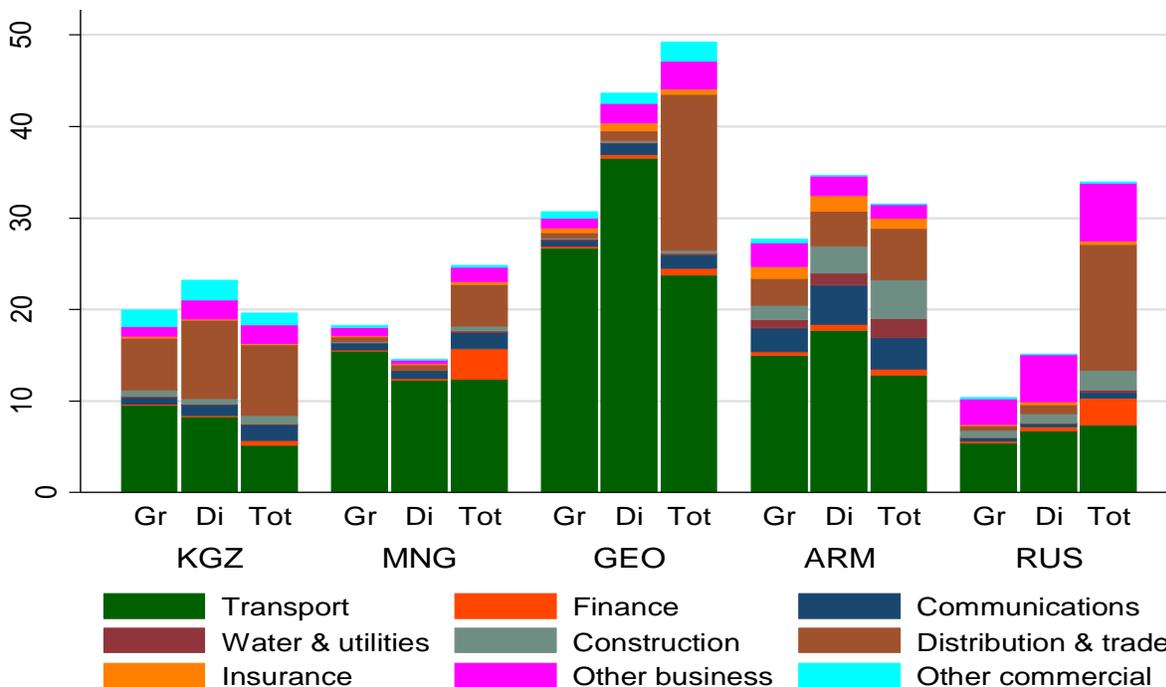
Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

When teasing out forward linkages, it becomes clear that in the Kyrgyz Republic does not have many sectors in which forward linkages play an important role. Indeed, this pattern is somewhat surprising in the sense the Kyrgyz Republic's peer countries show at least some forward linkages in a particular services sector. Figure 17 shows the compositional nature of the value-added of services by taking the share of services exports in total exports for nine sub-sectors and compares that with the selection of comparators for the Kyrgyz Republic. For some selected peer countries such as Mongolia and Georgia the Distribution and tourism sector show that have an important component in terms of exported forward linkages. But in the case of the Kyrgyz Republic this figure, together with the figure for Transportation, remain stable when looking at the bar of total exported value added in services. In part, this is probably mainly due to the low development of the Kyrgyz Republic's industrial sector (see Figure 1), which therefore does not allow for a specialization pattern in these input services. On the other hand, as said, Business services together with Finance are channelling as forward linkages but this remains extremely small.⁵⁶ Also, although some industrial sectors are in dynamic development over the last years (see Figure 1), the services sectors has not caught up with this process

⁵⁶ Note that Table 6 shows figures for total value-added where direct value-added and forward linkages are added up whilst in Figure 18 these total value-added is split up into direct and forward linkages, i.e. the difference between total value-added and direct value-added illustrates forward linkages.

which hence may reflect that the Kyrgyz Republic’s market is still not matured in the sense of a fully competitive markets. The last section will find out more about this.

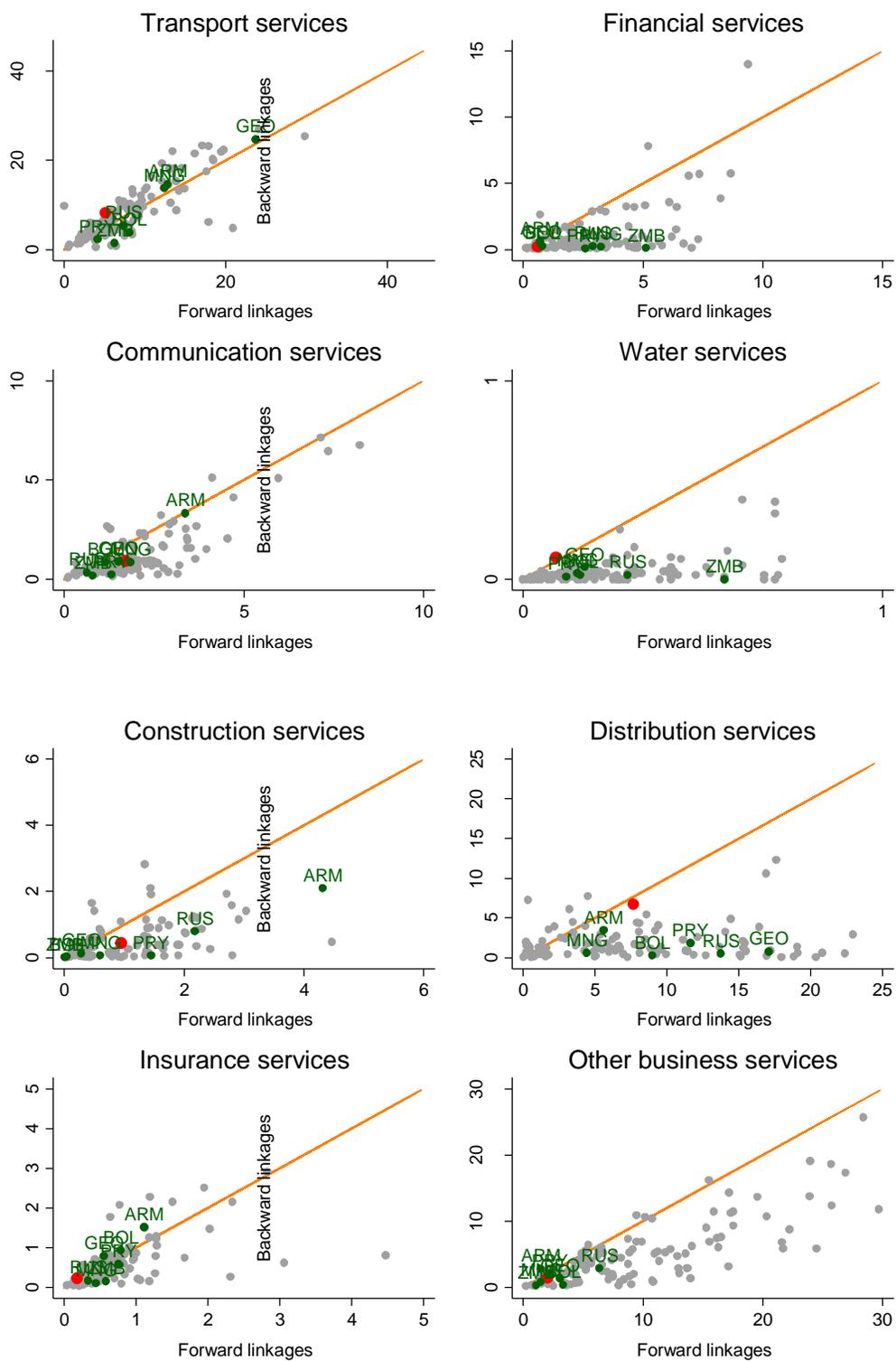
Figure 18: Share of Gross, Direct and Forward Linkages Sector (2011)



Source: Authors’ calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

In the Kyrgyz Republic forward linkages play a comparatively larger role in Construction, Communication and somewhat in financial services compared to other services as shown in Figure 19. Countries which are shown below the 45 degree line means that forward linkages are more important in this sector, if a country is placed above the line it means that backward linkages are more important. For the Kyrgyz Republic, particularly not many services have a clear forward linkage patterns but Construction, Communication and somewhat Finance show somewhat more forward linkages. Other peer countries show as well that in some instance they are clustered around the 45 degree line. In other instance one can see several countries clearly catered toward the horizontal axis such as for Distribution services which means that in these countries forward linkages are important.

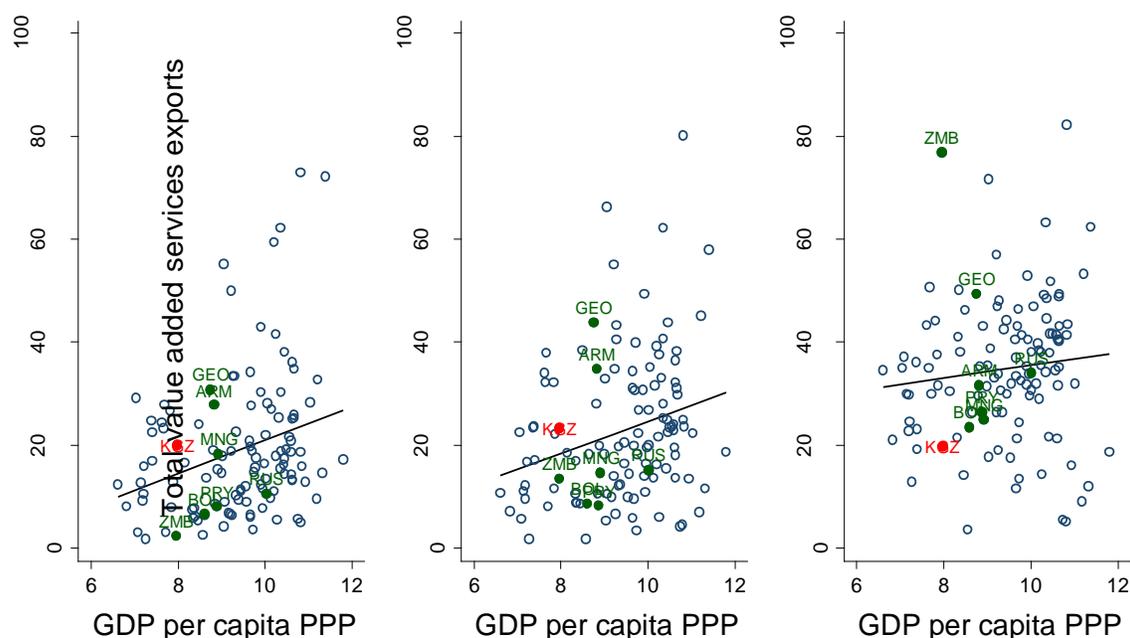
Figure 19: Backward versus Forward Linkages in Exports of Services (2011)



Source: Authors' calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

The fact that the Kyrgyz Republic shows very low forward linkages in services value added exports is even more surprising in lights of its level of development. Based on the Kyrgyz Republic’s GDP per capita PPP level one would expect a higher involvement in value added trade, although it’s doing relatively fine regarding the gross and direct value of exports in services. As for lack of forward linkages, it is a pattern that we see with some of the other peer countries of the Kyrgyz Republic as indicated in green in Figure 20, but the Kyrgyz Republic is lagging behind. As previously stated, this discrepancy between the direct added value added and forward linkages are become more pronounced in the extreme right-hand panel where most of the comparators move up significantly in the graph whilst the Kyrgyz Republic is laying behind far below the fitted values line.

Figure 20: Share of Services Exports in Total Exports and Development (2011)



Source: Authors’ calculations using World Bank Trade in Value Added Database; Francois *et al.* (2013)

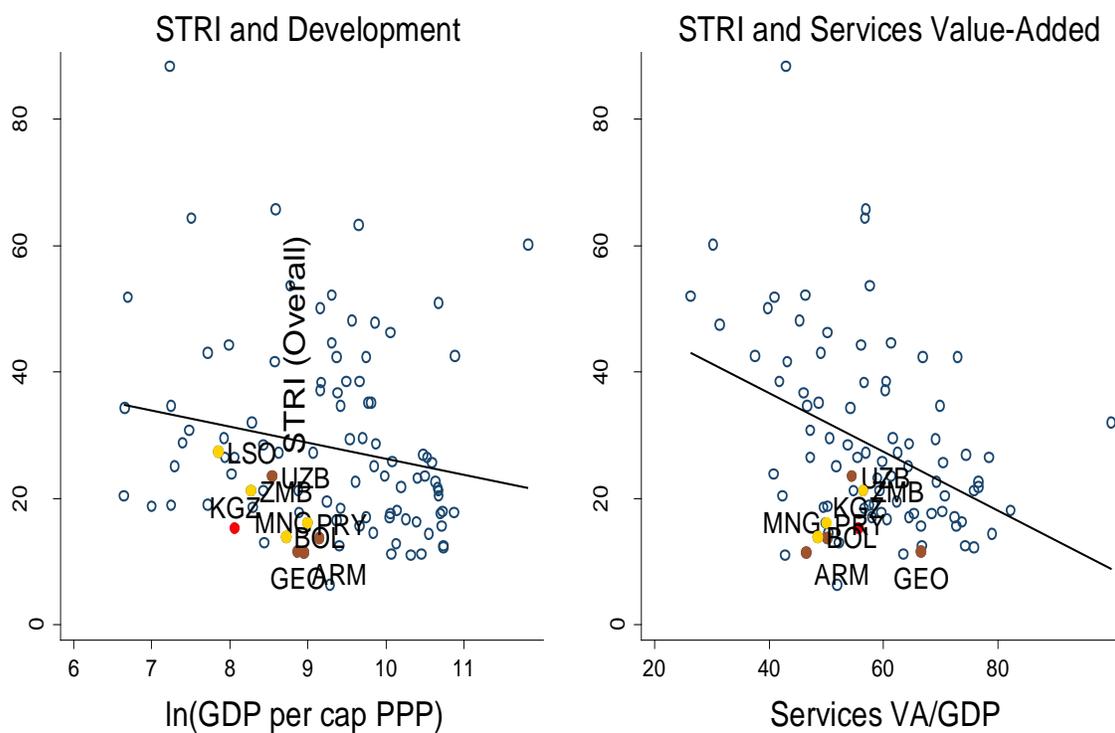
Services Diagnostics

Overall, the regulatory restrictions in the services sector in the Kyrgyz Republic compares relatively favorably when looking at other countries of similar income level or value added in services. The empirical services trade literature finds that next to domestic regulatory barriers that have an impact on the extent a country imports services, these domestic regulatory barriers (discriminatory or non-discriminatory) also have an effect on the level of a country exports (Saez *et al.*, 2015; Nordas and Rouzet, 2015). This is most likely due to the fact that the regulatory measures are also reflecting the general state of competitive forces domestically affecting therefore in addition

exporting firms in services. Some of the regulatory barriers are even in effect non-discriminatory applying across the board. In addition, trade liberalization may also induce domestic firms to become more efficient because of supplementary competitive forces. Last, services firms themselves use many services from other sectors as inputs in their own production process.

As can be seen in the left-hand panel of Figure 22, where the STRI index is illustrated on the vertical axis and GDP per capita (in PPP) is depicted on the horizontal axis, the Kyrgyz Republic appears to have STRI restrictions that are lower with what one could expect based on its level of development. This is similar to all other peer countries such as Armenia and Georgia, which are marked in sienna. Other direct comparators such as Uzbekistan, Lesotho and Zambia have somewhat higher restrictions in place but are still situated below the fitted values line in this figure. Overall there is also a negative correlation to be found with respect to the level of development and (even much steeper) with value-added addition of services themselves (right-hand panel) and the STRI index. In other words, richer countries such as the OECD countries do tend to have lower STRI restrictions.

Figure 22: STRI and Development & Value added in Services as part of GDP (2013)



Source: World Bank STRI; WDI

The Kyrgyz Republic has still relatively high restrictions in Transportation services across all modes of supply, specifically in Air Transport and Rail Freight transport. Also, most Professional services such as Auditing in particular are to some extent still regulated

although to a much lesser extent.⁵⁷ The high restrictions of Transportation services follows a pattern which is more common amongst most countries in the world. The Kyrgyz Republic has relatively few restrictions left in financial services, but more restrictions are to be found in Insurance services. In addition, Telecommunications are completely liberalized. When looking across Modes, one can see in Table 7 that both Mode 1 and Mode 4 (in particular the latter) are the channels through which services are still quite restricted. Mode 3 is rather liberal for most services, apart from Transportation and some measures are still left in Mode 3 for Auditing services. Mode 4 trade is very much protected in Professional services.

Table 7: STRI restrictions by sector across modes for the Kyrgyz Republic

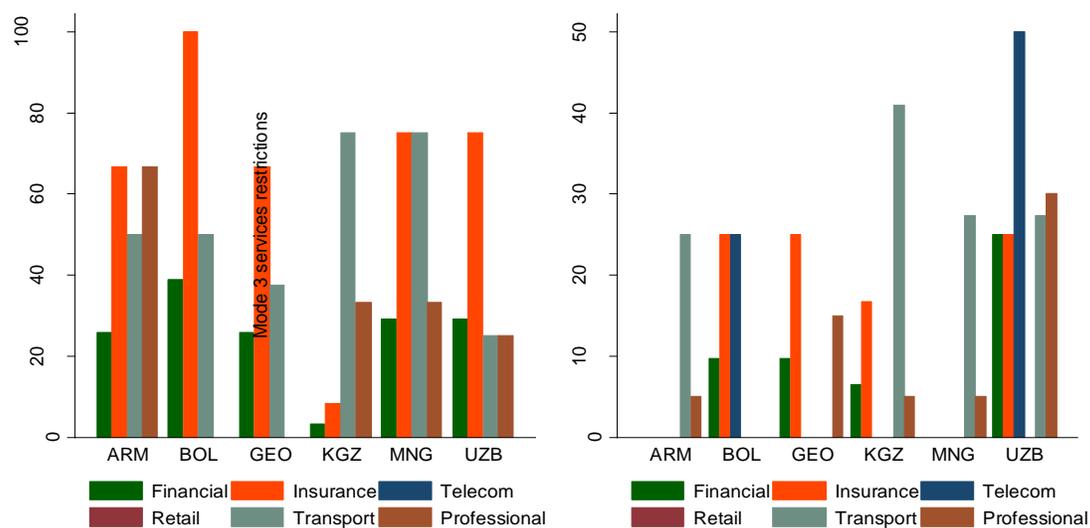
the Kyrgyz Republic	Overall	Mode 1	Mode 3	Mode 4
Overall	15.2	21.29	8.95	50
Financial	8.4	3.23	6.46	
<i>Banking</i>	0	0	0	
Lending by banks	0	0	0	
Acceptance of deposits by banks	0	0	0	
<i>Insurance</i>	21.7	8.33	16.67	
Automobile Insurance	22.5	0	25	
Life Insurance	22.5	0	25	
Reinsurance	20	25	0	
Telecommunications	0		0	
<i>Fixed-line telecommunications</i>	0		0	
<i>Mobile telecommunications</i>	0		0	
Retail	0		0	
Transportation	45.7	75	40.91	
<i>Air Passenger Domestic</i>			50	
<i>Air Passenger International</i>	67.5	75	50	
<i>Road Freight Domestic</i>	0		0	
<i>Rail Freight Domestic</i>	100		100	
Professional	28	33.33	5	50
<i>Accounting and Auditing</i>	35	50	12.5	50
Accounting	20	0	0	50
Auditing	50	100	25	50
<i>Legal</i>	23.3	0	0	50
Legal Advice Foreign Law	20	0	0	50
Legal Advice Domestic Law	25		0	50
Legal Representation in Court	25		0	50

Source: World Bank STRI

⁵⁷ The professional services indicator refers exclusively to legal and accountancy and auditing services.

The high restrictions of Transportation services follows a pattern which is more common amongst worldwide and the Kyrgyz Republic's peer countries such as Kazakhstan and Mongolia, particularly in the case of Mode 1. Going deeper by looking at the various modes of supply, this can be seen in Figure 23. In the case of Insurance services cross-border transactions are most of the time very much restricted for most of the Kyrgyz Republic's partner countries when measuring with the World Bank's STRI index. It which signifies that these markets are still relatively closed for this type of trade. Most of the other peer countries also still have some restrictions in place for Transportation. For Finance and Insurance the Kyrgyz Republic does not hold major restrictions for Mode 1 trade. As for Mode 3, the Kyrgyz Republic is most protected in Transportation services compared to its peer countries. On the other hand, Professional services through Mode 3 holds only some more restricted regulatory barriers in place which means that it is relatively easy for foreign providers to establish foreign affiliates in the Kyrgyz Republic for selling their services. Note that the Kyrgyz Republic has no restrictions in place in both Modes for Telecoms, unlike Uzbekistan.

Figure 23: STRI and Development & Value added in Services as part of GDP (2013)



Source: World Bank STRI

Empirical studies have shown that there are strong links between FDI (which stands as a proxy for trade in Mode 3) and cross-border trade in services. In addition, one other conclusion in the trade literature is that outward FDI and services exports are complementary as well as the fact that there is complementarity between cross-border trade and direct investment services trade. These findings are policy relevant since a large proportion of services trade is facilitated through foreign affiliates. The importance of this complementarity between cross-border trade and direct investment for the Kyrgyz Republic is illustrated in Figure 24. Both figures show that there is a negative relationship restrictiveness and the share of services exports to GDP.⁵⁸ For the overall regulatory structure the

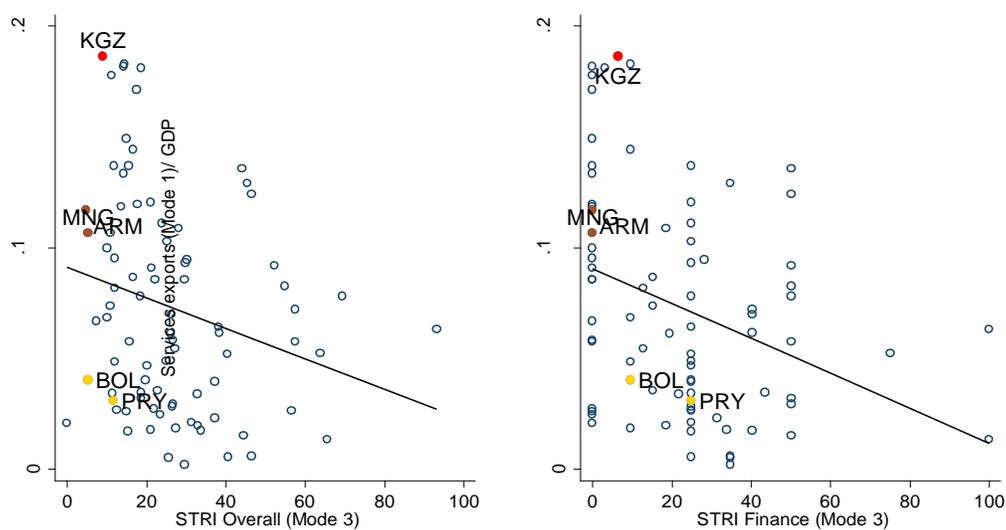
⁵⁸ The horizontal axis shows the World Bank's STRI index for direct investment in Telecommunications (left-hand panel) and in Financial services (right-hand panel) as Russia still shows higher levels of restrictions in direct investment for these sectors. On both panels the vertical axis depicts services trade (in logs) for cross-border trade and consumption abroad.

panel shows that the Kyrgyz Republic is placed well above the fitted value line having therefore a very favorable position, which means that there is still not much room left for improvement through policy regarding finance or and services policy overall.

In services the governance structures are of major importance in order to keep services markets competitive once liberalization of services trade are implemented. This is because of market failures from which many services are suffering from. In other words, although markets in countries can be opened up so that foreign entry is possible, this may not be enough and so additional regulatory measures correcting for market imperfections are still necessary in order to increase competition in the services market. Figure 24 depicts a negative relationship between restrictiveness and regulatory quality across countries. This means that the lower the overall level of restrictiveness of services trade policies (i.e. lifting discriminatory barriers for foreign services providers) or restrictions specifically for direct investment in services (right-hand panel) the higher the regulatory quality of governments. In other words, governments with good regulatory policies in place are the facilitators of well-functioning and competitive services markets. In terms of policy recommendations this means that addressing trade restrictiveness is necessary but not a sufficient condition for increasing competitiveness: there is a complementary role for domestic institutions that assist in creating competitive markets.

While the Kyrgyz Republic has overall relatively low services trade barriers, its regulatory governance structures are still laying behind compared many other countries which share an equal level of STRI with the Kyrgyz Republic. Hence, there is still much room for improvement to steer the overall deregulation of services policies.⁵⁹

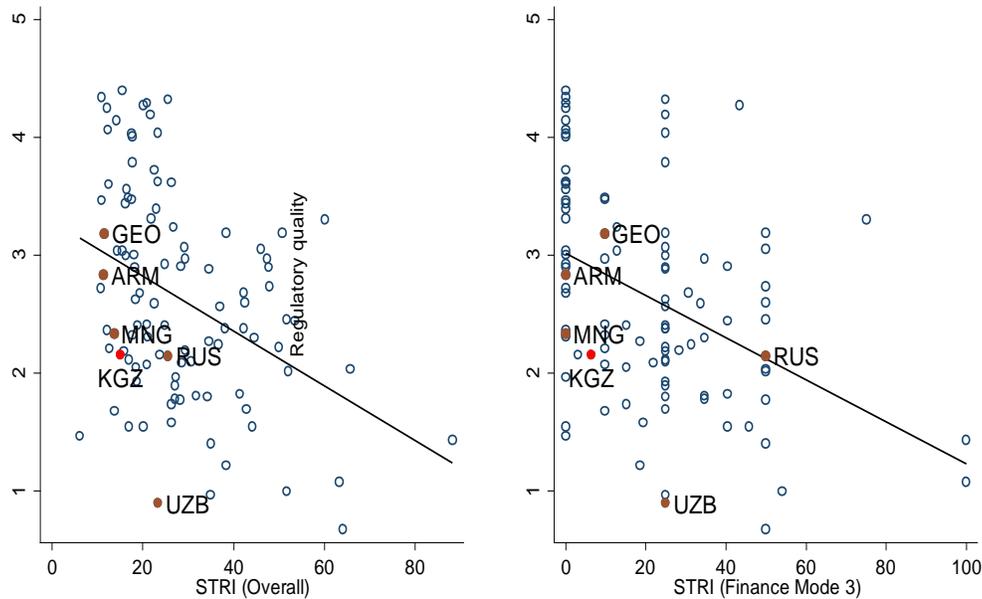
Figure 24: Relationship between Mode 3 Restrictions and Mode 1 Trade (2012)



Source: World Bank STRI; Trade in Services Database; WDI

⁵⁹ This is also consistent with the findings of UNCTAD (2013, p.12) which among the findings highlights the lack of legal consistency and certainty and inadequacies in the quality of legal reforms as important constraints.

Figure 25: STRI and Regulatory Quality (2013)



Source: World Bank STRI; World Bank Governance Indicators

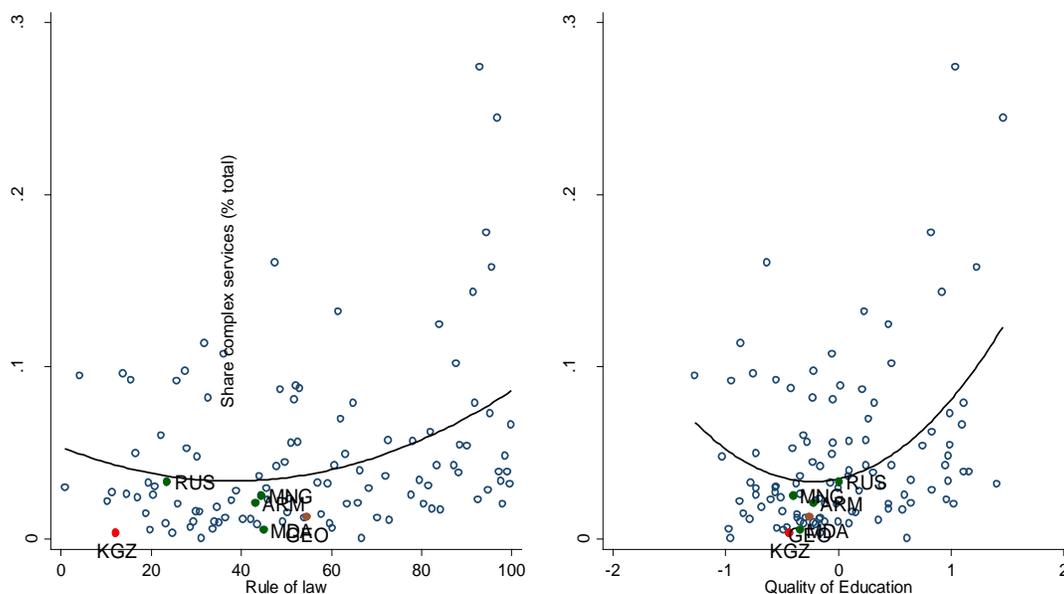
The importance of the rule of law and the quality of the human capital is related to the type of services an economy like the Kyrgyz Republic is capable to export. Generally, there are complex and less complex services to be exported, which are to some degree correlated to the extent that these services require strong and a good quality of human capital skills in their production. But these complex services also require another type of factors, namely strong domestic institutions, or rule of law. Services which are more complex generally are also more sophisticated and retain a higher value-added. The reason for their complexity is the many different undefined (i.e. intangible) features are included in their production process that depends on contracts. To exploit production and consequently trade of these services to an optimal level, one needs to have a strong rule of law to enforce contracts, next to a good quality of human capital.

Figure 26 shows that there is a positive relationship at the high-end of a country's quality of human capital and domestic institutions (in the form of rule of law), which appears to increase in a disproportionate manner the more we move up along the horizontal axis.⁶⁰ On the horizontal axis in the left-hand panel there is the quality of education measured by the World Economic forum, which explicitly takes into account the quality level of the labour skilled supply. The Kyrgyz Republic is situated below the average fitted values line meaning that it performs in the competitiveness of complex services relatively lower than expected when looking at its level of quality of its human

⁶⁰ The horizontal axis shows the index of Rule of Law taken from the World Bank's governance indicators. The vertical axis shows the share of trade in those services sectors which are considered as complex, namely Professional services such as accounting and legal services, plus Finance and Insurance services. This measure is based on Costinot's (2007) calculations.

capital and the rule of law. Note that the relationship between complex services in connection with the quality of the human capital is stronger than that one of the rule of law. Nonetheless, empirical research have found out that both matter in economic transactions in services.

Figure 26: Complexity of Services and Rule of Law (2010)



Source: WEF; Trade in Services Database; World Bank Governance Indicators

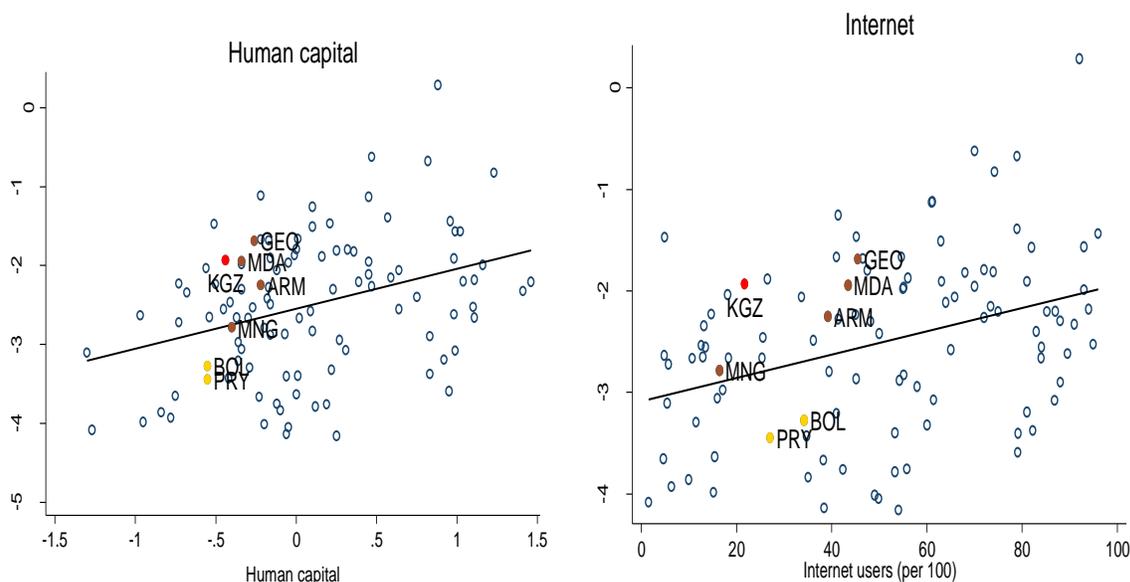
The Kyrgyz Republic’s services trade performance as part of its economy is much too low given what one could expect based on its level of human capital endowments and ICT performance.

In the services literature there is evidence that a number of services sectors are significantly more skill intensive than some goods industries (Nusbaumer, 1987; Gibbs, 1986; Jensen, 2008; van der Marel, 2012) which is reflected in trade patterns. Examples include so-called modern services such as Computer and Related services or Other Business services. These services are mostly ICT intensive and can be unbundled, disembodied, or splintered in the value chain just like goods (Ghani *et al.*, 2011). Endowments of human capital can therefore be a critical determinant of export of (modern) services and consequently economic output.

Figure 27 documents the positive association between the two variables showing that countries which are better endowed with high skilled labour and qualitatively better education export more services relative to their respective economies. The horizontal axis of the left-hand panel showing human capital is a measure that also capture the quality of education of each countries taken from the World Economic Forum. In addition, this measure takes into account once again the qualitative aspects of education across all levels and includes also information on both the present workforce as well as the future workforce. The Kyrgyz Republic is placed in the left-hand panel above the fitted values line meaning on the whole for the Kyrgyz Republic it has a reasonable share of services trade given the

level of quality of the human capital skills supply. Yet, as we know from the previous analysis, the Kyrgyz Republic seems to be unable to translate this into using these skills in sectors which are mostly in need of this. Instead, it most likely uses these skills in the transportation sector. Other countries such as Georgia, Armenia and Moldova are also placed above the fitted values line; the other comparator countries below.

Figure 27: Relationship between Services Trade and Factor Endowments (2013)



Source: World Bank WDI; WEF

The growth of telecom infrastructure is the most powerful symbol of vitality of the services sector, and the Kyrgyz Republic is performing relatively well on this point. At the same time the growth of internet and telecom structure is an important source for further development of other services, in particular a wide range of business services such as information and communication technologies services. The Kyrgyz Republic's future services trade expansion particularly in Telecom and Computer services will depend critically on the policies affecting telecom and internet infrastructure as the right-hand panel of Figure 27 suggests. Together with policies which can increase the attraction of foreign investors such a strategy to ensure the development of the sector should be implemented, including the creation of strong and independent regulatory body.

Conclusions

The service sector accounts for a large share in employment in the Kyrgyz Republic. This share for the Kyrgyz Republic has been increasing substantially to the drawback of agriculture which has been significantly decreasing over the years, and not to industry which actually more than doubled over the

years in terms of employment. Now, the services sector remains the largest source for employment in the Kyrgyz Republic.

Services share in GDP for the Kyrgyz Republic is according to what one could expect based on its level of development. The Kyrgyz Republic value added creation compared to other sectors inside its economy compares favourably with respect to its peer countries. Together this suggests two potential developments. In the future its services sector could further grow if manufacturing companies outsource services activities such as logistics and transportation which are often still performed in-house. Indeed, the Kyrgyz Republic industry sector in terms of employment has been rapidly increasing over the last several years which could lead to more effective employment opportunities in services once these industry firms concentrate on their core activities. Second, there is additional scope for services development through supporting these manufacturing activities.

The Kyrgyz Republic's direct services exports are higher than expected given its level of development. Exports performance is relatively high in transport and travel services although the share of transport services has been declining in recent years. Moreover, the Kyrgyz Republic still shows a relatively high importance in travel and transport services given its level of development. In the Kyrgyz Republic, the sub-sector other business services, together with financial services and telecom have been growing in recent years but this have not substantially led to a strengthening of their revealed comparative advantages. The Kyrgyz Republic exploits the potential for modern services already well. However, modern services are proxied by the OCS category which also include personal services such as education and construction. These sectors could thus be responsible for the somewhat higher than expected outcome in Figure 6 and could therefore be somewhat upward biased. On the other hand, when taking ICT services only a similar better-than-expected picture emerges.

The Kyrgyz Republic's main trading partners in services are Kazakhstan and Russia. Other important trading partner are also situated in the region such as Uzbekistan and Tajikistan. The Kyrgyz Republic seems to have added new and existing trading partner since 2005 up to 2011 in a gradual manner.

Based on the Kyrgyz Republic's GDP per capita PPP level one would expect a higher involvement in value added trade, although it's doing relatively fine regarding the gross and direct value of exports in services. As for lack of forward linkages, it is a similar pattern for some of the other peer countries of the Kyrgyz Republic. This means that services should strengthen their link to other economic activities to boost exports of goods and contributing to diversification.

Overall, the regulatory restrictions in the services sector in the Kyrgyz Republic compares relatively favorably when looking at other countries of similar income level or value added in services. But, the Kyrgyz Republic has still relatively high restrictions in Transportation services across all modes of supply, specifically in Air Transport and Rail Freight transport. Also, most Professional services such as Auditing in particular are to some extent still regulated although to a much lesser extent. For a landlocked country wishing to promote the tourism sector, restrictions on services which directly affect its connectivity to the world economy could be revised.

In services the governance structures are of major importance in order to keep services markets competitive once liberalization of services trade are implemented. The importance of the rule of law and the quality of the human capital is related to the type of services an economy like the Kyrgyz Republic is capable to export. The Kyrgyz Republic performs in the competitiveness of complex services relatively lower than expected when looking at its level of quality of its human capital and the rule of law. The Kyrgyz Republic's services trade performance as part of its economy is much too low given what one could expect based on its level of human capital endowments and information and communications technology (ICT) performance. The Kyrgyz Republic seems to be unable to translate skills endowment in sectors which depend more intensively on skills such as Telecom and Computer services which also depend critically on the policies affecting telecom and internet infrastructure. Together with policies which can increase the attraction of foreign investors such as the reduction of policy restrictiveness, a strategy to ensure the development of the sector should be implemented, including the adoption of additional regulatory reforms in particular regarding independence of regulatory authority as provided by international best practices.

The Kyrgyz Republic authorities need to incorporate services trade development among their policy priorities. Services expertise and policy formulation needs to be enhanced. Lack of expertise and knowledge of the complexities of services policy reforms, regulatory matters, and enforcement are generally weak and require urgent attention. Finally, internationalization of services through negotiations, need as well attention, today there is no clear understanding of the implications of international commitments and technical assistance is required.

Chapter IV: The Garment Sector: Impact of Joining the Customs Union and Options to Increase Competitiveness⁶¹

Executive Summary

Over the last twenty years the garment sector has been a remarkable success story for the Kyrgyz economy. The country had a successful garment industry when it belonged to the Soviet bloc but the sector basically collapsed when the Soviet Union broke up. This decline reversed when local entrepreneurs set up a number of companies in the 1990s. The industry grew rapidly in the early 2000s and production increased seven times from 2004 to 2012. The sector is now thought to employ as many as 150,000 people.

The sector now faces challenging times. Over the last few years exports to the Russian Federation have fallen. This is attributable to Russia's decision to join the WTO, which reduced market protection mechanisms and affected the competitiveness of Kyrgyz's products. The sector now faces the prospect of joining the Eurasian Customs Union. Joining the Customs Union will lead to increased tariffs on imports and more formalization at the border, both of which can be expected to increase the cost of textiles. This will reduce the industry's competitiveness. Simulations described in this paper suggest that production costs may increase between 3.6 percent and 7.7 percent or perhaps even more. This would place further pressure on the sector.

To continue to succeed in international markets, the sector will need to overcome a number of constraints that are harming firms' ability to compete. To date, firms' success in the market has been based on focused strategies that are dependent on better market knowledge. This has enabled them to find and serve niche market segments that are underserved by foreign competitors. To continue to succeed, firms need to adapt to increasing competition. To do this they need better market intelligence and more employees with design and marketing skills. A lack of administrative and operational management skills, as well as technical skills, are inhibiting firms from increasing their size to take advantage of economies of scale. This lack of capacities and technical expertise and new equipment and production processes has made it difficult for firms to implement modern equipment and production processes. Other factors that are inhibiting firms from taking on new technology include limited access to finance and advice on which equipment and processes are needed. The sector is also hampered by poor access to electricity, and by corruption.

To overcome the main constraints holding back the sector, this paper recommends three interventions. The first involves instituting trade promotion services to improve firms' knowledge of consumers in export markets. This will help companies find and effectively serve niche markets. The second intervention aims to strengthen education and training. This requires an increase in funding,

⁶¹ This chapter was prepared by Jieun Choi (Economist), Alberto Portugal (Senior Trade Economist, World Bank Group) and Andrew Myburgh (Consultant, World Bank Group). Michael Ferrantino (Lead Trade Economist, World Bank Group) reviewed the document. The views presented in this document belong solely to the team.

and coordination between industry and the institutions providing training. The third set of interventions focuses on increasing the use of new equipment and production processes. It is recommended that industrial extension services be provided to advise firms on the improvements they can make by adopting new equipment and processes. This report suggests establishing a lease-financing program to support this effort, which will offer firms financing terms that reduce the risks of purchasing new equipment.

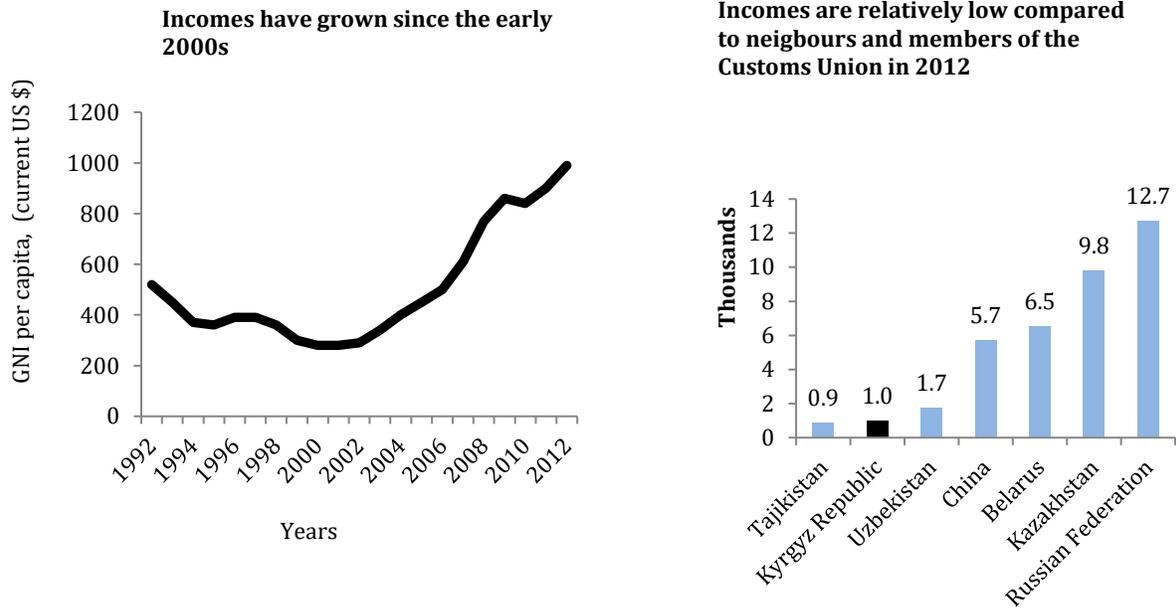
Introduction

This paper describes the impact that joining the Eurasian Customs Union will have on the Kyrgyz garment industry and what can be done to strengthen the sector's competitiveness. It starts by providing an economic context. It then moves on to describe the development of the garment industry and its importance to the Kyrgyz economy. This is followed by a discussion of the impact of joining the Customs Union, which is determined by computing the increase in production costs that will arise after adopting higher tariffs in textiles and the value-added tax. The findings indicate that joining the Eurasian Customs Union will raise input costs and subsequently reduce the sector's competitiveness. The next section describes a number of recommended interventions to help increase the sector's competitiveness, based on an analysis of the factors that supported the sector's success in international markets and the constraints that are undermining the sector's competitiveness. To overcome these constraints a number of recommendations are made. These include: supporting trade promotion, strengthening skills and education, and supporting the adoption of new equipment and production processes. The paper does not discuss two issues discussed in more depth elsewhere: (a) quality certification for garments, and (b) issues around changes to the border regime.

Economic context

Despite consistent growth since the mid-1990s, incomes in the Kyrgyz Republic remain relatively low. With a GNI per capita of under US\$1,000 in 2012 the country has one of the lowest levels of incomes in the ECA region. As can be seen in Figure 1 this is far lower than that of the other members of the Customs Union (Belarus, Kazakhstan and the Russian Federation). Incomes are low despite steady growth since the mid to late 1990s and reflect the fact that the country has had a difficult time recovering in the post-independence period. When the Kyrgyz Republic gained independence from the USSR, the economy struggled when subsidies and market access were reduced. In the three years after independence incomes fell by around 40 percent on a purchasing power parity basis. The economy grew consistently in the years after that, but some of these gains were reversed due the global economic crisis and political instability.

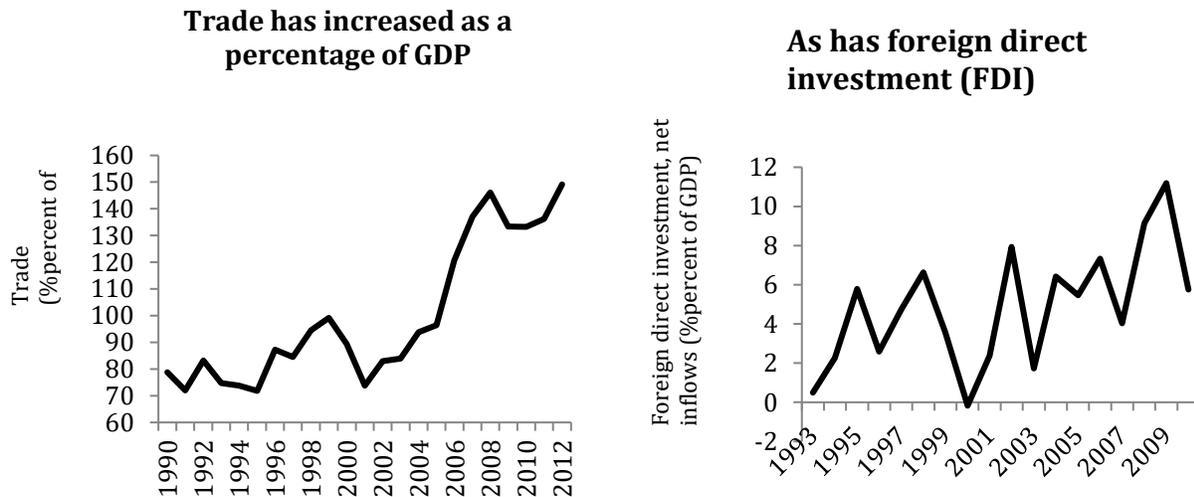
Figure 1: GNI per capita in the Kyrgyz Republic



Source: *WDI*

Economic growth has coincided with increasing openness to international trade and investment. As is shown in Figure 2 trade made up 140 percent of GDP in 2012; this reflects the steady increase in trade as a percentage of GDP seen since the early 2000s. The country has also attracted greater volumes of foreign direct investment (FDI) over time. On UNCTAD’s FDI performance index, the country is currently ranked 36. This increased openness in part reflects a liberal foreign trade policy, full currency convertibility, and limited restrictions on FDI.

Figure 2: Summary of Customs Union expected Common External Tariff in 2015 and 2020 for chapters 50 to 63



Source: WDI

Trade exports remain concentrated in gold and other minerals. The country’s other exports include electricity from the country’s hydroelectric plants, agricultural products, garments and tourism. There is also an industry based on the import and re-export of finished Chinese products.⁶² Another important source of foreign exchange is remittances, which made up almost 30 percent of GDP in 2008.⁶³

The country’s business climate has been successfully reformed in a number of areas but remains challenging overall. The country is a leading performer on certain Doing Business indicators such as starting a business, registering a property, and getting credit, where it ranks among the top twenty in the world. However, the country has performed relatively poorly in several other components of the Doing Business index. For instance, it is ranked below 120 for the Doing Business indicators relative to resolving insolvency, paying taxes and getting electricity. Overall, the country ranked 68 on Doing Business. Another index that rates the environment for private business, the World Economic Forum’s Global Competitiveness Index (GCI), ranked the Kyrgyz Republic 127 in 2012–13.

⁶² Alexander Pavlov, 2011 “Assessing the Economic Effect of Kyrgyzstan’s Accession to the Customs Union” A study on the Kyrgyz Republic Integration into the EurAsEU Customs Union (<http://www.eabr.org/e/research/centreCIS/projectsandreportsCIS/kyrgyzstan/>)

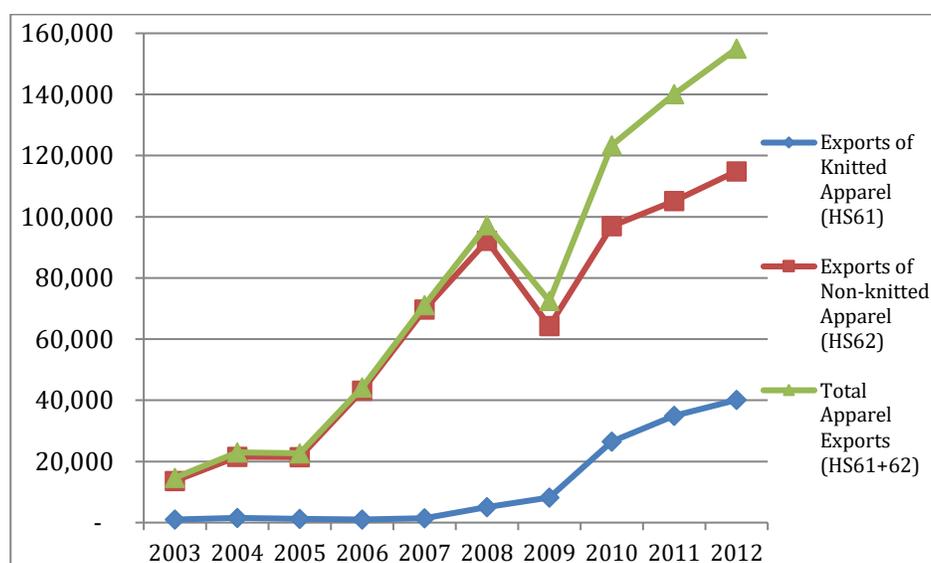
⁶³ World Bank. 2010. —Kyrgyz Republic Trade Brief. || World Trade Indicators 2009/10: Country Trade Briefs. Washington, DC: World Bank. Available at <http://www.worldbank.org/wti>.

The garment sector

A. Development of the sector

The apparel industry in the Kyrgyz Republic has grown dramatically in the last 10 years. Garment exports increased just over ten-fold from US\$14.7 million to US\$155 million as shown in Figure 3, with a brief interruption in 2009 that coincided with the recession that followed the financial crisis. Industry growth has been the result of the gradual conversion from pure re-exporting of mainly Chinese apparel to producing garments using foreign inputs and Kyrgyz labor. Compared to textile production, apparel making is more intensive in low-skilled labor and as such, low-income countries attract tend to attract this industry.

Figure 3: Kyrgyz Apparel Exports (US\$ thousands)

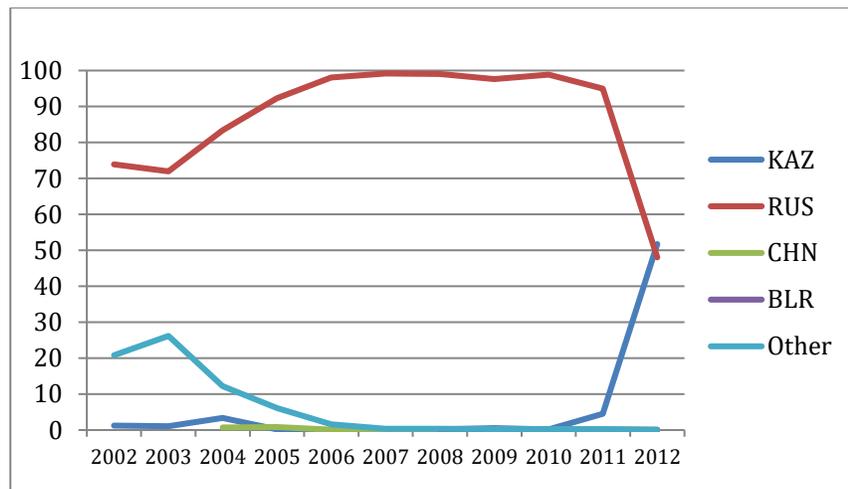


Source: Staff's calculation with data from COMTRADE.

Exports in the sector are mainly concentrated in non-knitted apparel (cut and sew) but knitted apparel exports have been growing in the last four years. Knit apparel production of knitted is relatively more intensive in capital, whereas the production of non-knitted apparel is more intensive in labor. There are around 400 firms in “Legprom,” a representative agency that is mainly comprised of cut and sew companies, and slightly more than twenty companies are currently registered in the knitted wear representative agency “Soyuztextile.”

Exports of Kyrgyz garment are mainly concentrated in Russia and Kazakhstan. Estimates indicate that only five percent of production is sold in the domestic market, where it faces fierce competition from low cost Chinese imports. Russia was the most important market for Kyrgyz garments until 2011. In 2012, the share of exports to Kazakhstan was higher than the share of exports to Russia, as shown in Figure 4. It is likely that Kazakhstan has been used as a re-export platform into Russia as they are part of the Eurasian Customs.

Figure 4: Share of garment exports to main destinations (in percentage)



Source: Staff calculation with data from COMTRADE.

Diverse factors lie behind the robust expansion of Kyrgyz garments. First, the accession of Kyrgyz Republic to the WTO in 1998 has been conducive to a more open trade regime with simplified customs clearances. According to Legprom and Souztextil, garment production constitutes more than 80 percent of light industry production with over 3,000 small and medium-sized enterprises (SMEs). Second, a simplified customs clearance procedure has been applied to imported textiles, which contemplates a tariff that is applied by weight: US\$0.35 per 1 kg regardless of the type of textile⁶⁴, instead of an ad-valorem tariff (i.e. a percentage of the imported value). The simplified regime has facilitated the import of cheap fabrics and accessories from China, Turkey and, at to a lesser extent, from other countries. Notice that the higher the quality and the value of the textile, the lower the tariff in ad-valorem terms. This procedure was initially applied to support the Kyrgyz Republic's re-exportation policy. Naturally, this procedure makes it more difficult to collect statistics.

Third, a Patent System helped drive the sector by providing garment manufacturers with favorable tax treatment. The patent system provides for a simplified means to pay taxes. This provided a good number of SMEs that to formalize who had previously worked in the informal economy with an incentive to formalize been garments. Yet, it is estimated that 26 percent of firms are still in the informal sector. Currently, around two thirds of formal companies operate under the patent system (Jenish, 2014).

Fourth, Kyrgyz garment producers seem to have better knowledge regarding the tastes and preferences of Russian and Kazak consumers than Chinese competitors. The producers that have been interviewed agreed that their apparel designs are preferred by Russian consumers compared to Chinese designs. The presence of a relatively large Kyrgyz diaspora in Russia and Kazakhstan is likely to improve market knowledge of the region.

⁶⁴ The rate used to be US\$0,28 per 1 kg between August 2012 and 2010, US\$0,15 per 1 kg prior to 2010, according to Syar (2011)

Finally, the Kyrgyz Government, multilateral organizations and donors have been actively promoting the garment industry. For instance, GIZ helped the government develop a National Strategy for the Textile Sector to support industry competitiveness and exports diversification. ADB, through its Vocational Education and Skills Development Project, developed a competency-based modular sewing training curriculum offered at 25 lyceums throughout the Kyrgyz Republic. ITC provided a series of training programs and advisory services to garment companies.

Firms in the sector tend to range in size from less than twenty employees to around one hundred. There are a few larger, previously state owned firms with up to a thousand employees. New entrants into the cut and sew sector tend to establish mini-workshops with five to fifteen machines. Firms take one to three years to establish a stable client base.⁶⁵ It appears that the most productive firms have one hundred workers on staff and were established ten to twenty years ago.

B. The sector’s importance to the economy

The apparel and textile sector makes a substantial contribution to GDP and employment. Much of the activity in the sector goes unrecorded, which lends to uncertainty about the sector’s actual size. Nevertheless, as demonstrated in Table 1, a number of estimates suggest that the sector’s size is substantial. Estimates indicate that it accounts for 5 to 15 percent of GDP and employs between 90 and 300 thousand people. This is between 4 and 12 percent of total employment. Many of the firms are owned by women, who make up around 70 to 85 percent of employees (Birkman, 2012).

Table 1: Estimates of economic activity and employment in the garment sector

Source	Production (US\$ million)	Employment	Year
Official (National Statistics Committee)	165	114,000	2011
Unofficial estimate Birkman, et al. (2012)	300 - 1,320	150,000 - 300,000	2010
Unofficial estimate SIAR for USAID (2011)	375	90,000 - 150,000	2010
Figure used in this report (average of mid-point of Birkman and SIAR)	593	172,500	

Source: OECD (2014) and staff calculations

The sector has the potential to be a stepping stone to higher value added activities. Historically, for many countries the first step in engaging with the global economy has been to develop their apparel sector. The United Kingdom, Japan and the United States had an “apparel phase” during industrialization. The garment sector often acts as a gateway into manufacturing for countries and

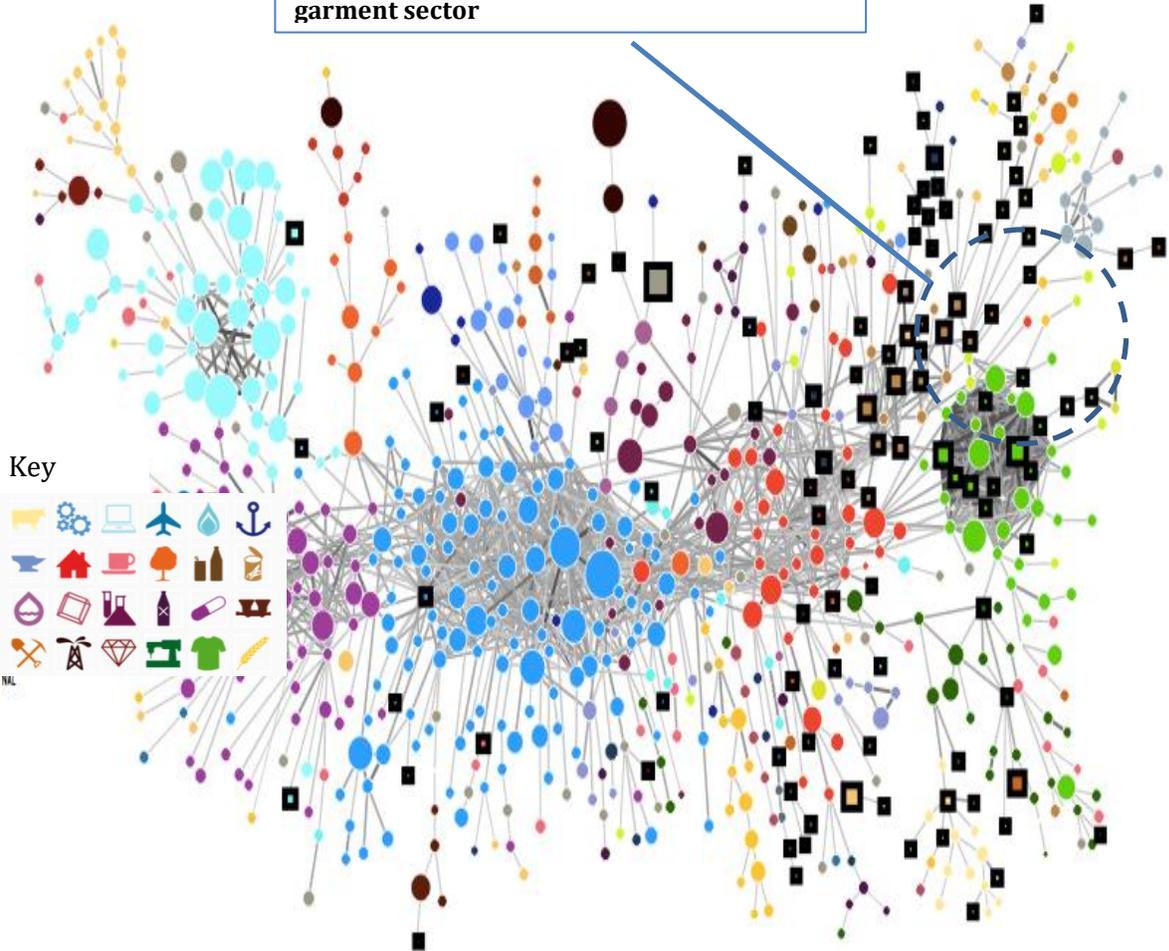
⁶⁵

workers whose alternatives might be in agriculture, or low productivity services. It plays this role for three reasons: (a) firms can open with relatively small capital investments and training costs; (b) the garment sector is integrated into the global economy with nearly 70 percent of garment exports coming from low income countries and (c) there are opportunities to move up the value chain. Companies can enter at the simplest stages of production and then move into more complicated processes with higher value added.

It is relatively easy to diversify within the garment sector. As Figure 5 shows how easy it would be for the Kyrgyz Republic to diversify into new industries. The sectors in which the Kyrgyz Republic already has a comparative advantage are represented by black squares and the colored circles show global export industries. As shown in the key, different colors represent different industries. For instance, green reflects the garment industry and brown the mining industry. The distance from the squares to the colored circles is a measure of how easy it should be for Kyrgyz's economy to diversify from the industries in which the country has a comparative advantage into new industries. As can be seen in the diagram, many of the industries in which the Kyrgyz Republic operates (the black squares) are relatively distant from other industries (the colored circles) and as such do not provide a good platform for diversification. By contrast, it is relatively easy to diversify within the garment sector as shown by the cluster of green circles.

Figure 5: Kyrgyz Rep in the product space

The Kyrgyz garment industry is relatively well positioned to diversify within the garment sector



Notes: The product space provides a visual representation of (a) how difficult it is for a country to move into particular sectors – the further away a node is the more difficult it is for the country to make the jump to exporting that product, and (b) what products does the country have a revealed comparative advantage in. For more explanation on the Product Space please see Hausmann, Hidalgo et al. “Atlas of Economic Complexity, Mapping the paths to prosperity” [http://atlas.media.mit.edu/media/atlas/pdf/HarvardMIT_AtlasOfEconomicComplexity.pdf]

Source: The data for the graph comes from the Observatory of Economic Complexity, <http://atlas.media.mit.edu>

The potential impact of joining the Eurasian Customs Union (ECU) on Kyrgyz exports

If the Kyrgyz Republic joins the Eurasian Customs Union (ECU), the Common External Tariff (CET) should, in principle, replace the current MFN tariffs and the simplified tariff regime in textiles. The ECU member countries agreed that the Common External Tariff (CET) schedule will be adjusted over time to reflect Russia's commitments to the WTO. Russia's WTO membership was approved in December 2011. Russia's WTO commitments imply gradual import tariff cuts for trade of goods: one-third of Russia's tariff lines were reduced at the date of accession, one-quarter will be reduced within 3 years, and the rest within the next 7 years until 2020 (mainly cars and planes). Given a significant phased-in liberalization, the process of fully implementing the ECU tariffs will involve some transition dynamics. The ECU member countries agreed that the Common External Tariff (CET) schedule will be adjusted over time to reflect Russia's commitments to the WTO. Russia's WTO membership was approved in December 2011. Russia's WTO commitments imply gradual import tariff cuts for trade of goods: one-third of Russia's tariff lines were reduced at the date of accession, one-quarter will be reduced within 3 years, and the rest within the next 7 years until 2020 (mainly cars and planes). Given a significant phased-in liberalization, the process of fully implementing the ECU tariffs will involve some transition dynamics.

Table 2: Summary of Customs Union expected Common External Tariff in 2015 and 2020 for chapters 50 to 63
Summary of Customs Union expected Common External Tariff in 2015 and 2020 for chapters 50 to 63

Chapter (HS2)	Brief description	# of HS6 products	Customs Union 2015 tariffs			Customs Union 2020 tariffs		
			average	min.	max.	average	min.	max.
50	Silk	9	4.25	2.25	5.00	4.25	2.25	5.00
51	Wool, coarse animal hair, etc	38	6.52	3.00	11.30	6.18	3.00	10.00
52	Cotton	124	7.74	0.00	12.50	7.61	0.00	10.00
53	Other fibres	23	7.48	3.00	12.00	7.13	3.00	10.00
54	Man-made filaments	70	6.48	0.00	14.00	6.42	0.00	14.00
55	Man-made staple fibres	107	7.18	5.00	10.00	7.18	5.00	10.00
56	Wadding and other nonwovens	31	7.16	3.75	12.00	6.57	3.75	10.00
57	Carpets and other	21	9.04	2.57	15.76	4.97	1.26	14.12
58	Special woven fabrics	40	13.63	10.00	15.00	10.23	10.00	13.00
59	impregnated, coated or laminated	24	5.95	5.00	13.71	5.86	5.00	13.71
60	Knitted fabrics	43	7.37	5.00	8.00	7.37	5.00	8.00
61	Knitted apparel	106	9.58	3.14	27.54	9.58	3.14	27.54
62	Non knitted apparel	113	9.35	2.08	21.23	9.34	2.08	21.17
63	Other made up textile articles	52	12.42	4.17	22.01	12.01	4.17	22.01
50-53	Raw materials	194	6.50	0.00	12.50	6.29	0.00	10.00
54-60	Processed materials	336	8.11	0.00	15.76	6.94	0.00	14.12
61-62	Apparel	219	9.47	2.08	27.54	9.46	2.08	27.54

Source: Author's calculations based on data from WTO and Shepotylo

Most ECU tariffs related to the textile and garment sectors will be phased out by 2015, the year Kyrgyz Republic may join the Customs Union. Table 2 describes the schedule of tariffs for chapters 50 to 63 in 2015 and 2020 by providing the number of products in each Chapter at the HS6 level of disaggregation as well as the average, the minimum and maximum tariffs. It also provides aggregate statistics for the following broad categories: Raw Materials (CH50-53), processed products (CH54-60), and apparel (CH61-62). All tariff lines in chapters 50, 55, 60 and 61 are expected to be phased out by 2015, as shown by identical tariff schedules. Most tariff lines for other chapters are also expected to be phased out by 2015, as there are no major changes in the tariff configuration between 2015 and 2020.

The average CU ad-valorem tariff for processed materials (CH54-60) is expected to be 8.1 percent in 2015 and 6.9 in 2020, as shown in Table 2. In contrast, a significant share of these products is currently imported in the Kyrgyz Republic under the simplified tariff regime paying US\$ and pay US\$0.35 per kilogram. If the Kyrgyz Republic joins the Customs Union and no exceptions regarding tariffs on textiles are negotiated, CU tariffs should replace the simplified regime.

China, and to a lesser to extent Turkey, provides most of the textiles imported by the Kyrgyz Republic. According to mirrored import data (i.e. reported by exporters of textiles), China and Turkey accounted for about 89 percent and 4 percent of all imported textiles respectively in the Kyrgyz Republic in 2012. Table 3 shows the quantity and value of imported textiles across chapters 52 to 60 that are likely to be imported under the simplified regime as well as the average unit value per category. On average, the unit value for textiles from China is about US\$6.5 per kilo, whereas this figure is US\$5.4 for textiles from Turkey.

Table 3: Estimated ad-valorem equivalent of tariffs under the simplified tariff regime in Kyrgyz Republic for 2012

Chapter HS2	# of textile products at HS6 level	Quantity of Imported textiles [Q] (in 1'000 Kg)		Value of imported textiles [V] (in 1'000 \$)		Unit value [V/Q] (in \$/Kg)		Estimated ad-valorem-equivalent of tariffs [Q*0.35/V]	
		from China	from Turkey	from China	from Turkey	from China	from Turkey	from China	from Turkey
52	5	31,200	-	292,000	-	9.4		3.7%	
53	1	2	-	6	-	3.3		10.5%	
54	36	48,200	445	296,000	5,179	6.1	11.6	5.7%	3.0%
55	11	10,500	51	76,900	306	7.3	6.0	4.8%	5.8%
56	19	2,889	310	7,549	846	2.6	2.7	13.4%	12.8%
57	7	433	4,460	2,618	21,900	6.0	4.9	5.8%	7.1%
58	11	913	42	8,623	267	9.4	6.4	3.7%	5.4%
59	17	10,500	47	90,100	260	8.6	5.6	4.1%	6.3%
60	11	50,500	121	236,000	875	4.7	7.3	7.5%	4.8%
Total	118	155,137	5,475	1,009,797	29,633				
Average						6.5	5.4	5.38%	6.47%
							6.47	5.41%	

Source: Staff calculation using mirrored trade data from COMTRADE

Rough estimates show that the ad-valorem equivalent of tariffs collected on textiles imported by the Kyrgyz Republic was about 5 percent in 2012. Table 3 shows how the estimated ad-valorem equivalent of tariffs has been calculated for textiles imported from China and Turkey. Ad-valorem equivalents in table 3 may be slightly overestimated as the value of imported textiles reported by exporters are FOB (free on board) and do not consider insurance and transport costs. In contrast, the value of merchandise recorded at customs by importing countries are CIF (cost-insurance, and freight) including insurance and transport costs.

Average figures may mask the existing heterogeneity as imported textiles are taxed per weight under the simplified regime at US\$0.35 per kilogram. Indeed, importers of cheaper textiles that pay a lower cost per kilogram will pay more in ad-valorem terms than importers of finer textiles, which imply a higher cost per kilogram. Therefore, replacing the simplified tariff regime with the CU's common external tariff will tend to increase production costs disproportionately for firms that use more expensive textiles to produce garments.

Assuming that a value added tax (VAT) of 12 percent will be enforced in the Kyrgyz Republic when it joins the Customs Union, production costs are estimated to increase in the range of 3.7 percent to 7.7 percent. Table 4 below provides the assumptions for the estimating the increase in total production costs for a high-impact and a low-impact scenario. We assume that the VAT will only be applied to the value added in the country as a tax system may be implemented in which the tax paid

on imported inputs is deducted from taxes on sales.⁶⁶ Figures on the share of imported textiles and value added are drawn from Annex 1 in Jenish (2014), which provides production costs for different types of garments in the Kyrgyz Republic and represents upper and lower-bound figures.⁶⁷ We take the average ad-valorem equivalent of the low-impact scenario and the lower average ad-valorem estimate in Table 4 for the high-impact one. Finally, we take the average CET tariff for processed materials in 2015 and 2020 reported in Table 2 for the low-impact and high impact scenarios. Most of the increase in total costs is due to the implementation of a value added tax (VAT) of 12 percent. If the VAT is higher, its contribution to VAT will be higher. Notice that these estimates are illustrative and they may hide heterogeneity as less competitive firms may be hit disproportionately and be less able to absorb the increase in production costs. More competitive firms producing differentiated garments with their own designs may have more market power and/or a bigger profit and can better absorb the increase in production costs by reducing profits or charging a higher sales price in Russia or Kazakhstan up to a certain limit.

Table 4: Estimates of the total increase in production costs of Kyrgyz garment following accession to the Customs Union.

Assumptions	Low-impact scenario	High-impact scenario
Share of imported textiles/fabric costs in total costs (f)	50%	70%
Share of production costs in total costs (p)	24%	48%
Ad-valorem equivalent of current tariff regime (t)	5.4%	3.7%
Customs Union Common external tariff (T)	6.9%	8.1%
Value added tax (VAT)	12%	12%
Expected Outcomes		
Increase in tariffs (T-t)	1.5%	2.7%
Increase in total costs due to :		
- tariff increase (T-t)*f	0.8%	1.9%
- collected VAT (VAT*p)	2.9%	5.8%
Total increase in total costs: (T-t)*f+(VAT*p)	3.7%	7.7%

Source: Author's estimates and description in text.

⁶⁶ A firm's value added can be seen as the sum of production costs and profits. As our focus is the increase in production costs, in our estimates VAT only applies to firm production and excludes the portion of VAT that is applied to profits.

⁶⁷ The share of imported textiles in the low-impact scenario roughly corresponds to men's shirts, and the share in the high-impact scenario corresponds to dress "Kacheli". The share of production costs in the low-impact scenario corresponds to winter jacket/parka and the share in the high-impact scenario also represents dress "Kacheli".

Strengthening the garment's sector's competitiveness

This section proposes interventions to improve the garment sector's competitiveness. These interventions aim to increase garment companies productivity and thus strengthen their competitiveness in international markets. The analysis has four parts. The first section reviews the competitive strategies that underpin firm's competitiveness. The second discusses education and training needs in the sector. This is followed by a discussion of access to finance and adopting modern production technology. The fourth section discusses government failures that undermine the sector's performance as well as beneficial co-ordination in the sector. This is followed with recommendations in the fifth section.

The section begins by analyzing the constraints to the sector's competitiveness. It does this by reviewing the competitive strategies used by companies to compete in international markets. This is followed by an analysis that benchmarks companies in Kyrgyz's garment sector with companies in several other countries. The benchmarking exercise compares Kyrgyz garment companies to twelve countries that are garment exporters or are in the Eurasian Customs Union. They reflect a range of incomes from Bangladesh (which has a lower income than the Kyrgyz Republic's) to the Russian Federation and Turkey, which have much higher income levels.

The recommended interventions aim to overcome market and government failures, which are inhibiting the sector from increasing its productivity. The failures addressed include the pressing lack of training and education, industrial upgrades and financing. This section does not discuss two areas that are extensively discussed elsewhere, including formalizing the border and the quality certification required in the Customs Union.

Box5: Benchmarking countries

This section compares the Kyrgyz Republic to a number of benchmark countries. The benchmark exercise compares the Kyrgyz Republic's garment sector to (a) countries whose companies compete with Kyrgyz firms, and to (b) countries exporting into the European Union and internationally. The countries were selected for inclusion as benchmark countries for three reasons (with some countries included for more than one reason):

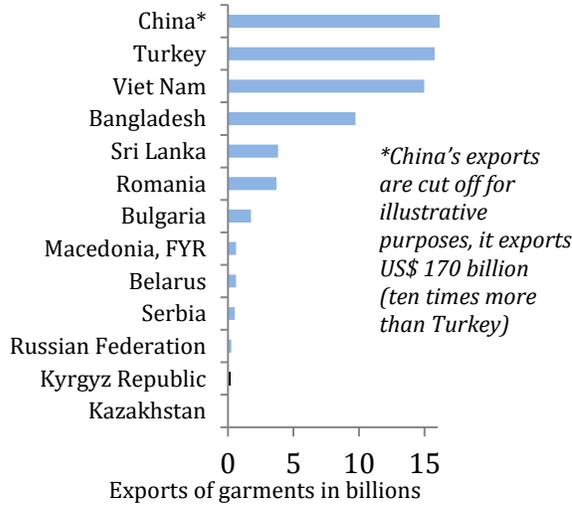
- Countries whose firms compete directly with garment firms from the Kyrgyz Republic. Companies in the Kyrgyz Republic reported competing most directly with firms from Belarus, and to a lesser extent Turkey, in high quality segments, and with firms from China in lower quality segments.
- International exporters. This includes countries whose companies largely export into the European Union (Bulgaria, Romania, Turkey, and FYR Macedonia), as well as companies exporting internationally (Bangladesh, China, Sri Lanka and Vietnam).
- Membership of the Eurasian Customs Union, the Customs Union are the main markets for the Kyrgyz Republic's exports, in particular the Russian Federation. These countries have garment companies that can directly compete with sectors which Kyrgyz companies from these countries are in a position to compete with Kyrgyz firms currently. The countries included were the Russian Federation, Kazakhstan and Belarus.

The benchmark countries garment sectors in the benchmark countries represent quite different levels and types of competitiveness. With few exports, the garment sectors in the Russian Federation and Kazakhstan garment sectors appear to only be competitive only in their domestic markets. East and South Asian countries such as Bangladesh and Vietnam are relatively low cost production centers. In contrast, costs are higher in Eastern Europe but many companies in these countries are able to turn around orders relatively quickly.

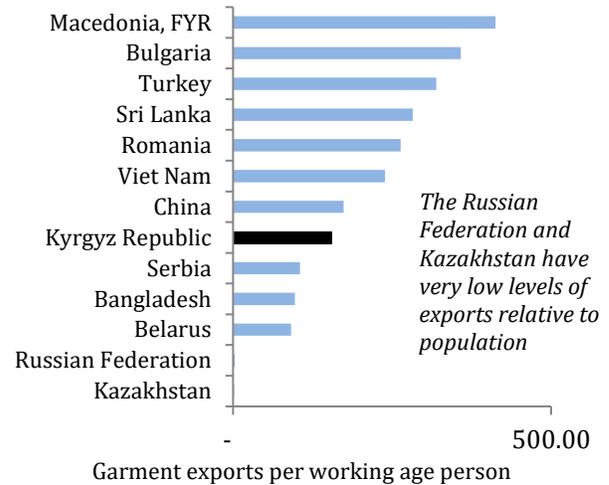
The benchmarking exercise is largely conducted using data from the World Bank's 'Bank' Enterprise Surveys. These are firm-level surveys of a representative sample of an economy's private sector. Since 2002, the World Bank has collected this data from face-to-face interviews with top managers and business owners in over 130,000 companies in 135 economies. The surveys cover firms in the formal sector that employ more than five workers.

Figure 6: Comparison between Kyrgyz Republic and benchmark countries

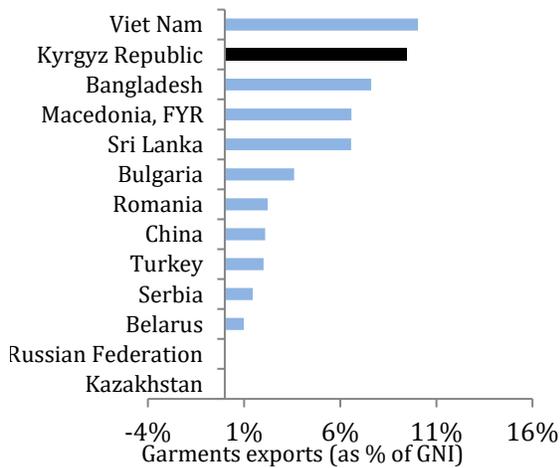
The Kyrgyz Republic exports far fewer garments than the benchmark countries



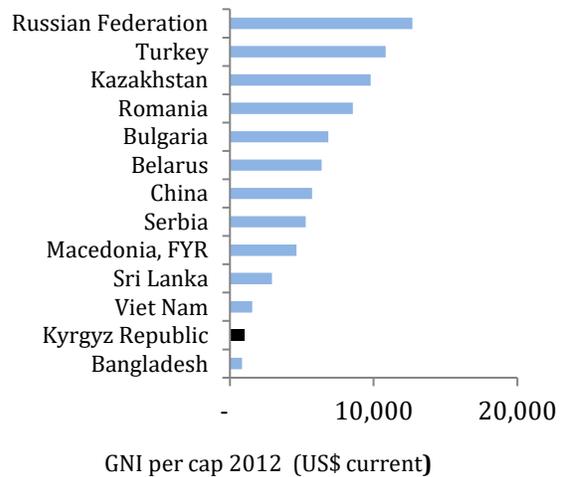
However, it exports more when its relatively small population is taken into account



The sector is relatively large compared to the size of the economy



In part, this reflects the Kyrgyz economy's relatively low GNI per capita



Note: Export figures are for HS 61, 62 and 63. Figures for Bangladesh are for 2007 (the latest available data), and the figures for the Kyrgyz Republic have been scaled up in line with the figures shown in Figure 3.

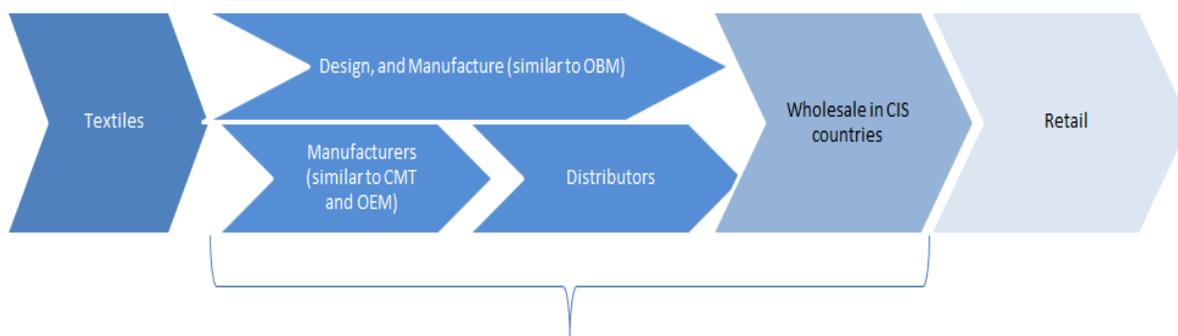
Source: World Development Indicators and UN Comtrade

A. Kyrgyz Republic companies have succeeded by focusing on under-served market segments

Successful Kyrgyz companies have focused on particular customer segments, for example, selling a particular style of women’s jackets in the Russian Federation. Other companies have produced goods on order from distributors who are familiar with market demand. In some cases these goods are replicas of goods that have been designed in the Kyrgyz Republic or elsewhere. Behind this success is the fact that companies in Kyrgyz have been able to serve certain market segments more effectively than competitors that aim to serve a broader range of customers.

Knowledge of market needs has been crucial to the success of Kyrgyz companies. Firms have been able to find and serve niche market segments not served effectively by producers from other countries. Some companies are engaged in brand, design and manufacture. Although, these relatively small firms don’t fit neatly into standard categories for the sector, they could be described as Original Brand Manufacturers (OBM). Another important approach has been a distributor – manufacturer supply chain where distributors in the Kyrgyz Republic have outsourced manufacturing to Cut-Make-Trim (CMT) and Original Equipment Manufacturer (OEM) companies. The resulting supply chain for the industry is shown in Figure 7. Firms earn higher returns from designing and marketing clothing than from manufacturing. This trend is consistent with a global trend whereby garment manufacture has become increasingly commoditized and concentrated in low wage countries. The value added in the industry is increasingly concentrated in points closer to customers (OECD, 2014).⁶⁸

Figure 7: Supply chain for garment companies



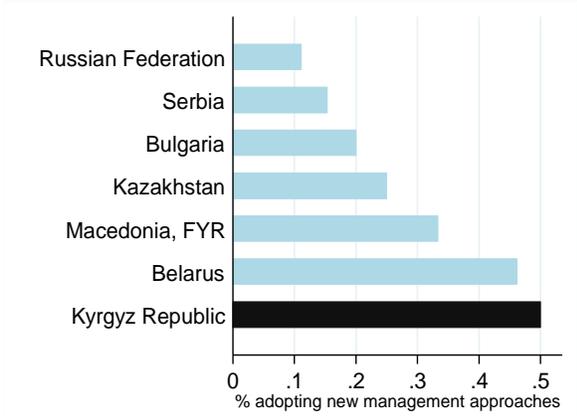
Kyrgyz firms are operational through to distribution in CIS countries

High levels of innovation are core elements in the firms’ focused strategies. As shown Figure 8, Kyrgyz firms are more likely than firms in the benchmark countries to introduce new products and adopt new marketing as well as management approaches.

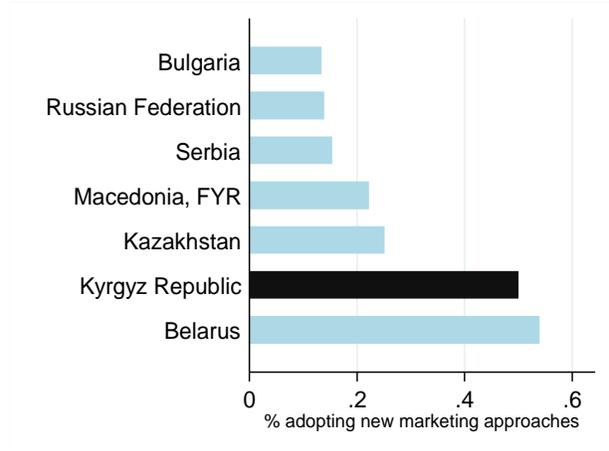
⁶⁸ For further background on the various levels of firm capabilities and country capabilities in apparel supply chains, see Gereffi and Frederick (2010).

Figure 8: Kyrgyz garment firms are relatively innovative in terms of management, marketing, processes and introducing new products

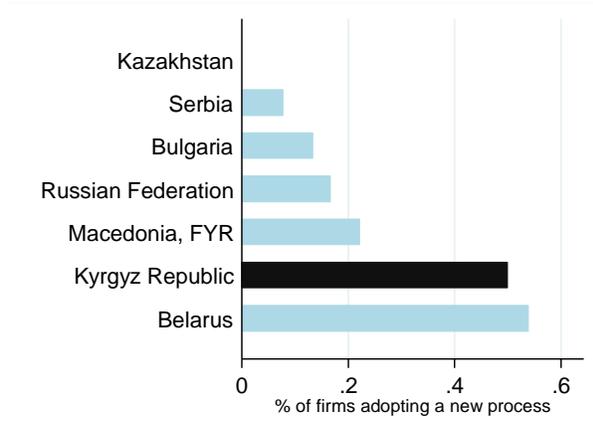
In Kyrgyz a relatively high proportion of firms introduce new management approaches,



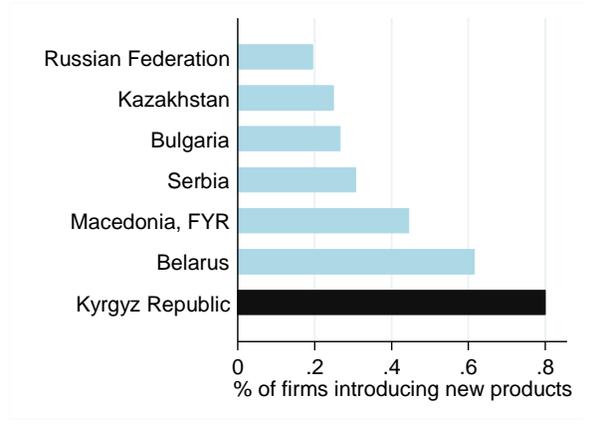
New marketing approaches,



New processes



And new products



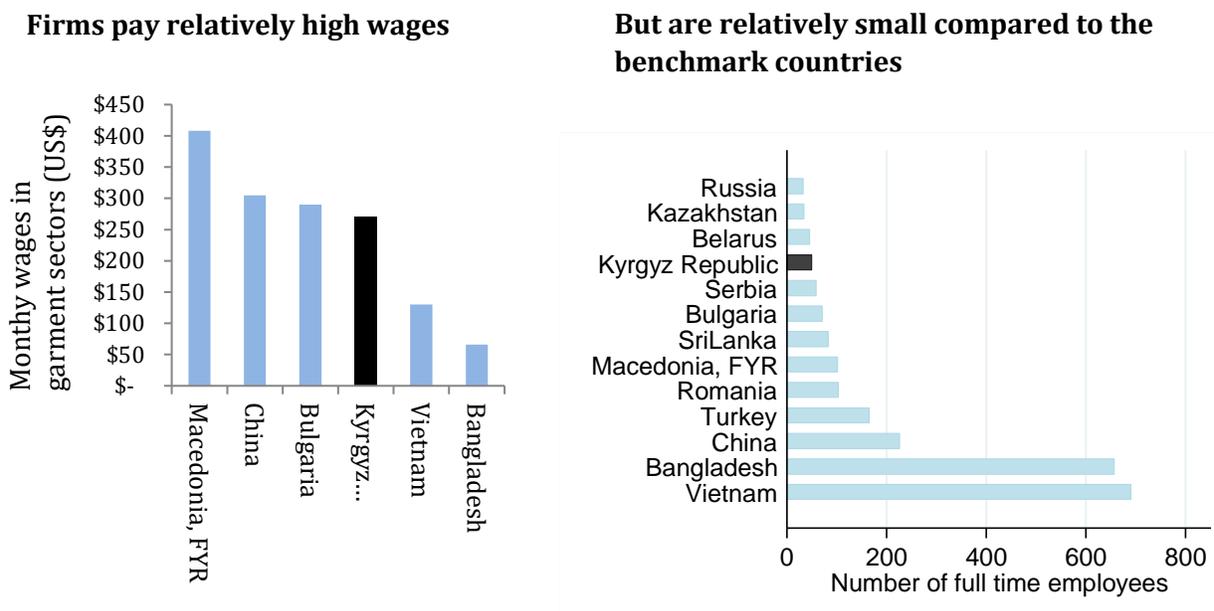
Note: Data only available for Europe and Central Asia

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank

Firms have been able to sustain relatively high wages. As can be seen in Figure 9, wages are far higher in Kyrgyz than in low cost producers in Asia such as Bangladesh and Vietnam, which have a similar level of income. Wages are reported to be comparable to those in Bulgaria and China which may indicate of comparable levels of productivity. The presumably high levels of productivity appear to largely arise from firms' ability to charge relatively high prices.

The high wages in the sector reflect, in part, integration in regional markets. ILO (2012) suggests that “the national labor market is competing with foreign markets for the same categories of labor”. More than half a million Kyrgyz nationals work outside the country, mainly in the Russian Federation and Kazakhstan. These countries have substantially higher incomes, which can be expected to lead to upward pressure on wages in the Kyrgyz Republic. When firms pay relatively high wages, they need to sustain higher levels of productivity and pricing to remain competitive.

Figure 9: Wages in the garment sector are relatively high, and firms relatively small



Note: Data shown for countries where data is available. Figures for wages in the benchmark countries are from 2011, except for those from Bangladesh, which are from 2014. Jenish (2014) reports wage levels for 2013; the wage rate shown is at the lower end of a range of wages reported by Jenish. The ILO (2012) reports far lower wage rates in the garment sector. This discrepancy may reflect under-reporting by firms or seasonality’s effects on average wages. That said, it means there is considerable uncertainty regard what true wages in the sector actually are.

Source: Benchmark countries wages are from Global Development Solutions, LLC, figures for Kyrgyz are from Jenish (2014). Figures on the number of employees comes from Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank

Firms in the sector appear to be operating below minimum efficient scale. Kyrgyz firms are notably smaller than companies in most benchmark countries. Kyrgyz firms are far smaller than countries with the lowest cost base engaged in long turn around Cut Make Trim activities. It is notable that Kyrgyz firms are smaller than companies in Turkey and China which have similar wage rates. In both these markets, many firms engage in manufacture and design. This suggests that Kyrgyz companies could take advantage of economies of scale by expanding. Studies have found that there are economies of scale in the production of garments (for example see Datta and Christofferen,

(2004)). Branding provides substantial economies of scale. Larger firms find it easier to sell their products to larger retailers and distributors.

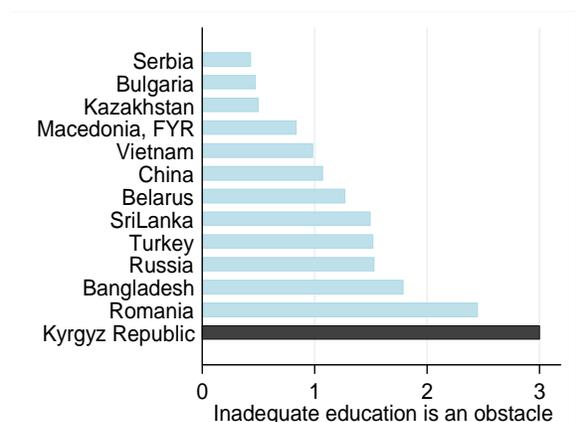
In part, companies can currently operate at lower scale due to fragmentation in the Russian Federation's retail sector. The top eight retail chains make up less than 20 percent of sales in the Russian Federation. There are few retailers in rural areas and open air markets still account for a notable share of garment sales. This fragmented retail structure has made it easier for smaller firms to distribute their product. However, this is expected to change as major retailers continue to grow and traditional retail formats such as markets decline (Kolchenikova, 2013). This will place pressure on smaller firms, which are likely to find it more difficult to access these markets.

i. A lack of skills and education is undermining the sector's competitiveness

A large proportion of companies report that uneducated workers are an obstacle to their business operations. As shown in Figure 10, a far higher proportion of firms in the Kyrgyz report that this is an obstacle than companies in the benchmark countries. As Figure 10 shows firms are struggling to find a broad range of skills. The most pronounced shortages are in professional level skills such as designers and dyers. Firms are also struggling to find seamstresses and technician level positions such as cutters (ILO, 2012). As discussed in STED (2011), the demand for a number of these skills is expected to continue into the foreseeable future with firms reporting that in the next five years the most in-demand workers will be designers (23 percent), universal sewing machinists (18.4 percent), process engineers (15.8 percent) and dress cutters (15.8 percent).

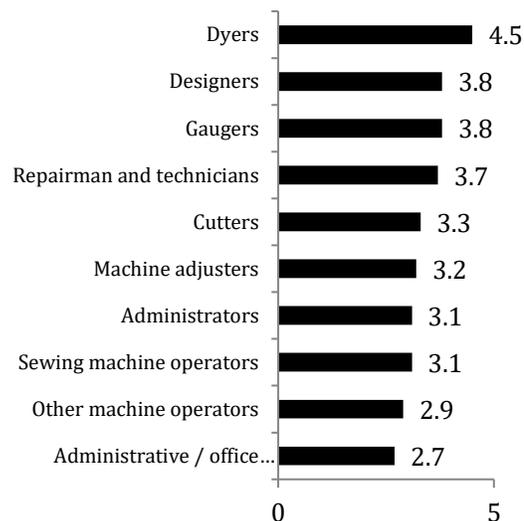
Figure 10: Firms report difficulties finding skilled workers

A lack of education and skills is a far larger constraint for Kyrgyz garment companies than it is for the benchmark countries



Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

The most difficult to find skills range from production, to design, and include processing workers, skilled workers and professional staff



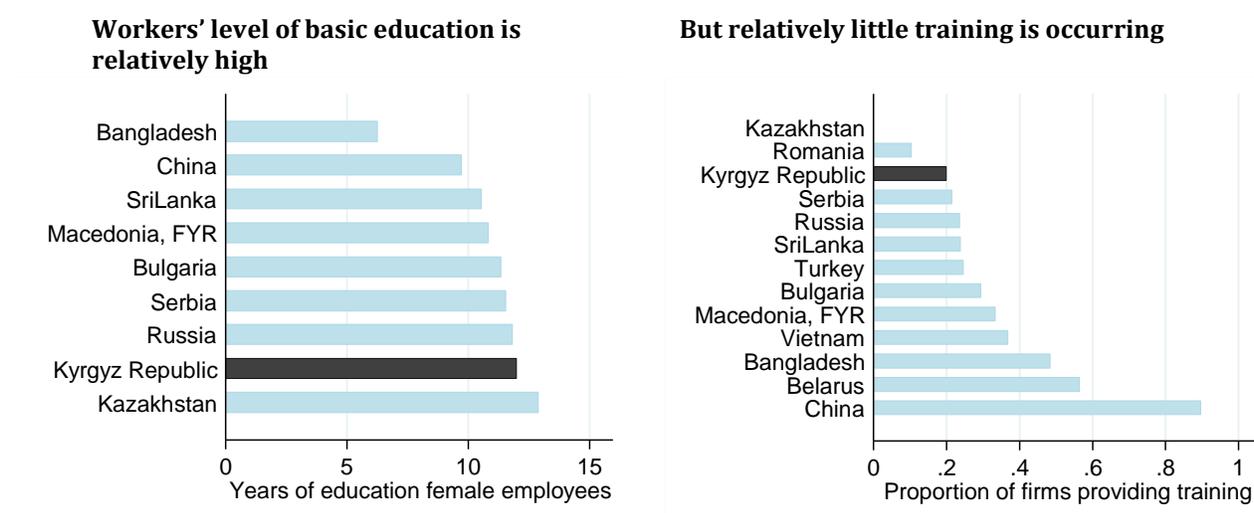
Assessment of difficulties related to finding workers with certain skills; 5-points scale (where 5=very difficult to find, 1= not difficult to find)

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank and for shortages of specific skills, STED the Kyrgyz Republic Survey (2011) as reported in ILO (2012), Skills for trade and economic diversification in the Kyrgyz garment sector, ILO, Geneva. Only skills with a score above 2.5 shown.

Relatively little training is being provided by firms. Figure 11 shows that training in Kyrgyz firms is low compared to that provided in benchmark countries and Belarus in particular, where more than 50 percent of firms provide training. The problem does not appear to be a lack of basic education. Figure 11 shows that Kyrgyz workers have more years of schooling than workers in a number of benchmark countries.

Little industry-specific education is being provided. The ILO (2012) reports that vocational lyceums focus on training machinists and provide little training for technical or professional positions. Moreover, the benefits of this training appear to be limited. More than fifty percent of firms did not know if they employed a graduate of one of these institutions. This suggests that firms place little weight on the training that the lyceums provide. The Shvei-Profi, which was started with support from industry associations and the GIZ, was a promising program. Unfortunately, it appears that this effort has been discontinued (OECD, 2014).

Figure 7: Difficulties finding skilled workers in the garment sector appear to reflect a lack of training rather than low levels of basic education



Note: Level of education for female employees is shown because data on male employees or the overall workforce was not available

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank

Training and education will be under-provided if left to market forces. The sector suffers from a number of market failures. Prospective students often don't know what skills are needed by the market and don't have access to credit to fund their education and training. Firms' incentives to train workers are reduced by the possibility that workers will leave their jobs, thus taking the benefits of their training to another company. This is a particular concern in Kyrgyz's flexible labor market where employees move easily and often between jobs.

ii. The sector lacks access to finance and new production technology

Firms struggle to access financing and relatively few are adopting foreign technology. For this reason it is important to increase access to capital, particularly for knitwear companies that are capital intensive. It is also important to assist companies in accessing and adopting new technologies – for instance through industrial extension services and financial services such as financial leasing, which reduces the risk of adopting new technology.

iii. The sector is lagging in the adoption of technology

Firms are not investing in innovative machinery and business approaches. This is reflected in

Figure 8: Kyrgyz firms have low levels of foreign technology and process adoption

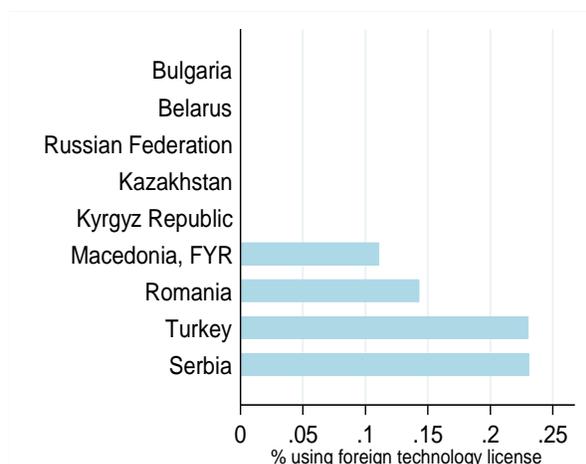
12 there is relatively low adoption of technology that requires licensing fees. It also shows that no garment or textile firms have ISO9001 certificates. The ISO9001 certifies that firms have adopted

systems and processes that ensure quality. It is a measure of firms' adoption of modern business practices and is often a requirement to access global value chains.

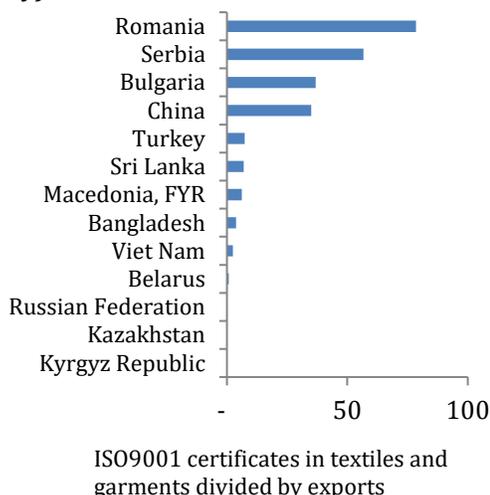
Small and medium firms that dominate the garment sector often struggle to adopt new technologies and business practices. This reflects, at least in part, the skill shortages described above. However, international experience suggests this is common. "Managers often are unaware of the flaws and opportunities for improvement in their own businesses. When administrators' responses to questions on their own performance in the use of modern methods and technologies of industrial management were weighed against the productivity of their businesses, their perceptions of their performance ranked well above average, but they ranked far below average in their application of best management practices" (World Bank, 2013). This tendency is one manifestation of various information-related market failures that inhibit firms from adopting new technologies and business practices. These market failures can be overcome through manufacturing extension services and foreign direct investment.

Figure 8: Kyrgyz firms have low levels of foreign technology and process adoption

Relatively few firms are paying fees for the use of foreign technology



And there are no ISO9001 certificates in the sector (these certify adoption of up-to-date systems and processes to ensure quality)



Source: Firms using foreign technology the source is Enterprise Surveys (<http://www.enterprisesurveys.org>) and data is only available for Europe and Central Asia, The World Bank, and for the ISO9001 data the source is www.iso.org for data on industry specific ISO9001 adoption and for exports Comtrade

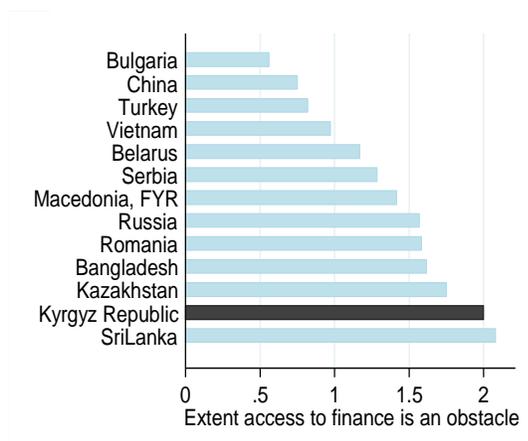
iv. Firms have limited access to finance

As shown in Figure 9, Kyrgyz firms report that access to finance is an important obstacle to conducting business. In an OECD survey, more than 50 percent of firms reported that they lack access to the financing they need to operate their business. This reflects, at least in part, the country's

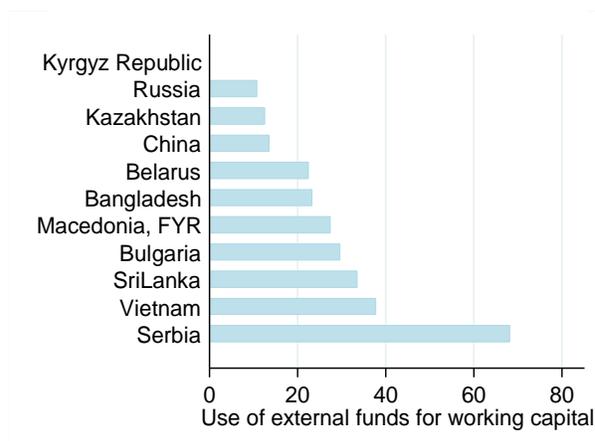
low bank credit-to-GDP ratio of less than ten, which is substantially lower than the ratio posted by benchmark countries. Further, 75 percent of firms report that high interest rates are an issue when seeking financing (OECD, 2014).

Figure 9: Access to finance is a major constraint for garment companies

Kyrgyz firms find access to finance to be more of an obstacle than companies in benchmark countries



Kyrgyz firms report using few external funds for working capital



Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Source: *Enterprise Surveys* (<http://www.enterprisesurveys.org>), *The World Bank*

Source: *World Development Indicators*, *World Bank*

The absence of financing is a constraint to firms’ working capital. As shown in Figure 13 none of the Kyrgyz firms in the survey reported access to external financing for working capital. This makes it more difficult for firms to meet the demand for their goods and makes them more vulnerable to financial distress. Access to financing is particularly important for joining global value chains. The OECD/WTO report (2013) indicates that access to financing represents the most significant barrier when firms attempt to penetrate global value chains. This is due to the fact that firms that enter into supply chain relationships want to know that their counterparts are financially stable.

Access to financing is likely to be a particularly binding constraint for knitwear companies. These companies are more capital intensive than sewing companies. This suggests that initiatives to expand access to financing should focus on these companies.

v. There is relatively little FDI in the sector

FDI can bring new technology to the sector, including modern machinery, and improve business practice. As such, it is troubling that according to Birkman (2012) “most foreign investors in apparel left the country after the 2010 revolt”. In the rest of the economy, the country has been relatively successful at attracting relatively high levels of FDI. In fact, it has attracted more FDI to the manufacturing sector relative to GDP than the benchmark countries.⁶⁹ The overall level of FDI is relatively high compared to GDP according to UNCTAD data. The country’s success at drawing FDI is consistent with policy initiatives to make it attractive for foreign investors, including the Doing Business reforms.

B. Supporting institutions and infrastructure have strengths and weaknesses

i. Industry level co-operation is a source of strength

The industry currently benefits from strong industry associations. For example, the two largest industry associations, Legprom and Soyuztextile, actively represent their members’ interests and provide a range of services. This has included engagement in a number of donor-led initiatives to strengthen the sector’s competitiveness.

ii. Firms show willingness to cooperate.

More than two thirds of firms report that they are willing to cooperate in promoting the sector (76 percent), organizing training to develop employee skills (72 percent) and gather market information on client tastes, new designs, suppliers and customers (68 percent) (OECD, 2014). Cooperation between companies is particularly important given the small scale of the majority of firms, as shown in Figure on page 116.

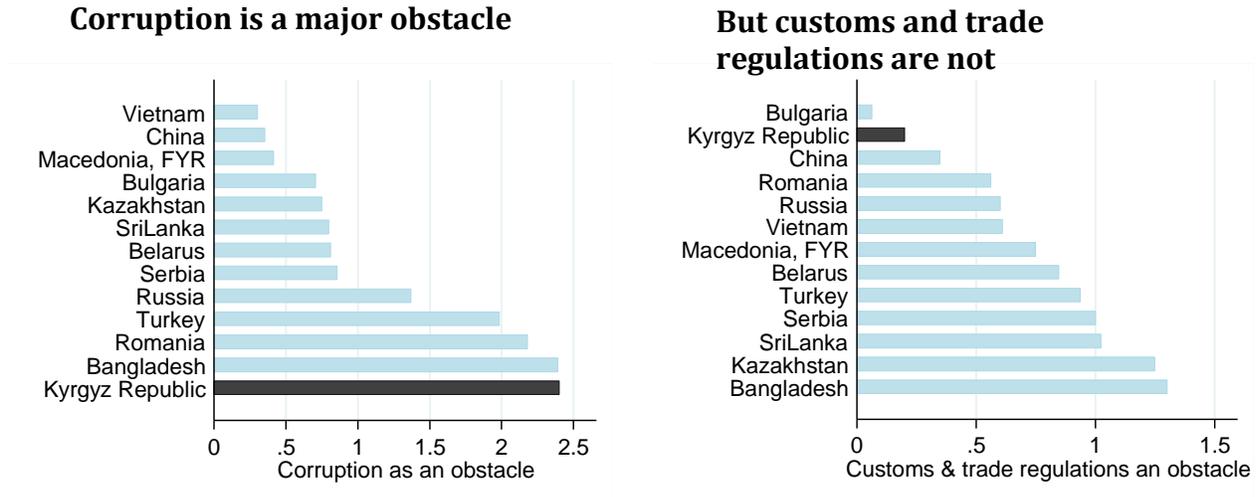
iii. Corruption is a major obstacle

As shown in Figure 14, corruption is a major obstacle. Corruption is more of an obstacle for Kyrgyz garment companies than it is for companies in the benchmark countries. It is reported to be a more severe constraint than the lack of access to financing and comparable to the constraint posed by limited access to electricity. This can be expected to reduce investment and as such, employment growth (Hallward-Driemeier, 2010).

Simplified regimes have reduced obstacles for businesses. As shown in Figure 14, customs and regulations are a less onerous constraint for businesses. The same is true for business licenses. The experience of Kyrgyz’s firms can be contrasted with that of Kazakhstan and Bangladesh, where customs and trade regulations represent a much greater obstacle.

⁶⁹ According to FDI data from the FT times

Figure 10: Corruption is a major obstacle to conducting business



Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank

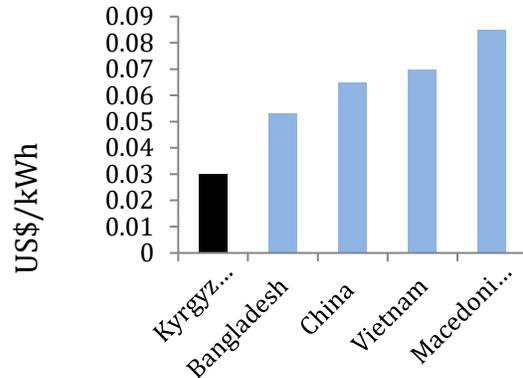
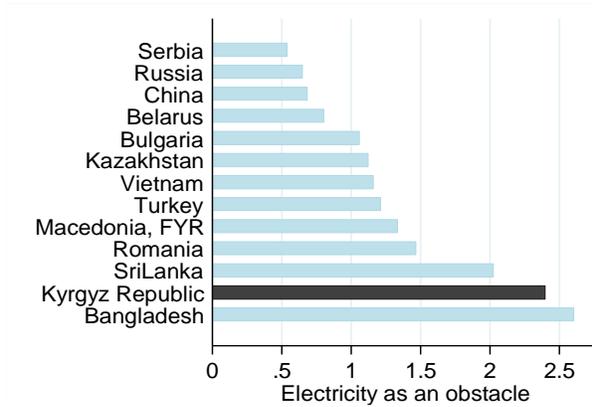
iv. Firms report that electricity is a major obstacle, but land and transport are not

The difficulties raised by electricity are reflected in Figure 15. The constraint imposed by electricity is mitigated to some extent by the relatively low cost of electricity in the Kyrgyz Republic compared to costs in benchmark countries and the fact that the garment industry is not a heavy user of electricity (electricity represents only a small percentage of costs).

Figure 11: Access to electricity is reported to be a major obstacle

Electricity is reported to be an obstacle

This is somewhat offset by the lower cost of electricity from the grid



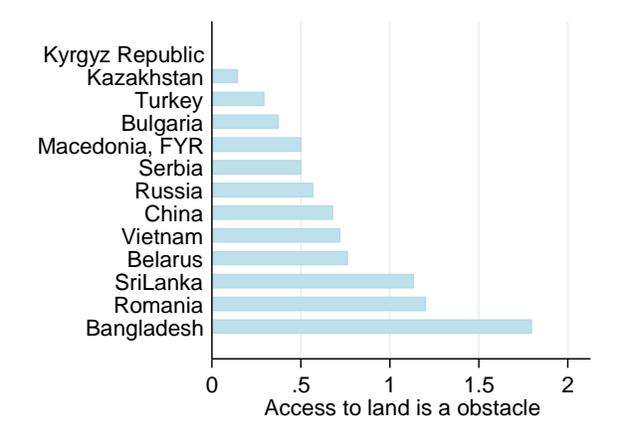
Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank for electricity, for costs of electricity figures are from Abylaev (2013) and Nathan (2009)

Firms report that land and transportation costs are not obstacles. This can be seen in **Figure 12**. It is reported that rentals in the Kyrgyz Republic are relatively low. Costs in Kyrgyz are half of rates charged in Bangladesh and represent around 60 percent of figures reported for China. In contrast, land and transportation are more problematic in benchmark countries, particularly in Sri Lanka and Bangladesh.

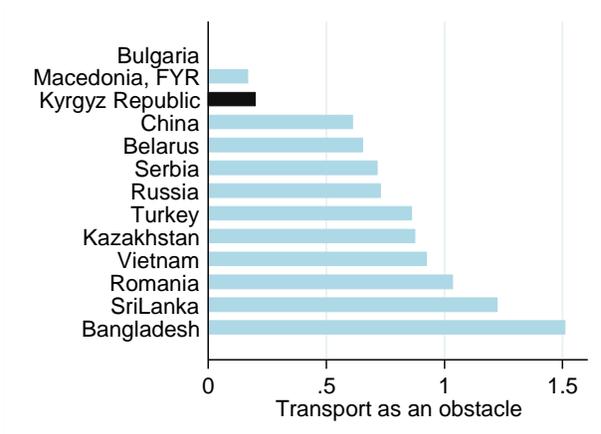
Figure 12: Access to land and transport infrastructure is not an obstacle

Firms don't report that land is a constraint to their operations



Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Nor is transport



Extent to which issue is an obstacle to the current operations of the business measured from 0 “no obstacle” to 4 “very severe obstacle”

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank

Recommendations

This section first proposes three initiatives to strengthen the sector. It then provides three approaches to guide implementation of these initiatives.

A. Initiatives to strengthen the sector

i. Improve market information through trade promotion

The sector's trade promotion programs should be extended and strengthened. The industry associations are engaged in trade promotion, and GIZ and ITC have established a trade promotion program that has assisted companies in their efforts to participate in trade shows abroad and develop communication materials. These activities should be continued and increased. They could be complemented by providing research into customer markets, fashion and design trends.

ii. Strengthening skills through education and training

There is a strong rationale for the government, the donor community and industry to fund initiatives to increase training and education in the sector. These initiatives should aim to reduce the cost borne by students and by companies that receive training. Training is needed for all activities in the sector. That said, the country needs to develop more professional skills such as management and

administration as well as technical skills, such as those employed designers and dyers. The courses taught should be closely coordinated with industry. This will ensure that the curriculum reflects industry needs and will link students to potential employers. Representatives of industry could engage in the governance of training and education institutions to bolster results.

iii. Increase the adoption of new equipment through lease financing and industrial extension

The initiatives to strengthen education and training are important to efforts to increase the sector's absorption of new technology. It is recommended that the following points be implemented:

- a) **An industrial extension program.** This would guide companies on ways to improve their production processes and educate them about machinery they are unfamiliar with. This advice should initially be provided for free and as such be fully subsidized. Once companies have established relationships with the program, they should pay fees and start to bear a larger portion of the cost of service provision.
- b) A financial leasing program focused on financing modern equipment acquisitions and the knitwear sectors. Financial leases can be structured to reduce the risk of purchasing new equipment. The firm finances the purchase of the equipment with a lease. If the purchase is successful, the firm can purchase the equipment. However, if the purchase of the equipment was not successful, the firm can return the equipment after paying a moderate fee. This reduces the loss for the firm if the new equipment is not successfully incorporated into the business. A large proportion of the cost of this program can be covered with the interest and fees charged to lease recipients.

A number of initiatives have been implemented to increase access to finance and technology. For instance, the revolving loan program provides money for the purchase of new equipment. Firms are only given a year to pay back the amount borrowed but no interest is charged. Another example is the USAID program. This was a similar to a manufacturing extension program. Around thirty firms were provided with innovative machinery garment companies received training. Companies were provided the equipment for little or no charge. The programs have been well received by the garment companies that have benefitted from them. The USAID program has found significant increases in productivity in firms that received equipment and training.

B. Approaches to Implement the Recommended Interventions

i. Create permanent institutions

Consideration should be given to establishing public-private partnerships to implement programs to strengthen the sector's competitiveness. These institutions would help ensure continuity, retain institutional knowledge and make it easier to scale up programs.

ii. Leverage industry associations and cooperation between firms

The sector benefits from established industry associations and the firms' willingness to cooperate. Policies should take advantage of this by including representatives of industry in governance

structures. The sector should also actively work to strength coordination by promoting social networks among industry players.

iii. Increase the sustainability of funding for the sector

Consideration should be given to increase coordination of funding in the sector. Funding for initiatives in the sector comes from industry, the donor community and government. This funding does not appear to be coordinated and there is little long term commitment to funding programs. A sector-wide approach (SWAP) would strengthen coordination and allow for more long term planning.

Conclusion

This paper has focused on four topics:

1. **The importance of the garment sector** – The sector makes a substantial contribution to economic activity. It also has plays an important strategic role. The garment sector has been an important stepping stone for economies in the process of industrializing.
2. **How the sector will be affected by joining the Eurasian Customs Union** – The analysis suggests that the impact of joining the Customs Union will be reflected in an increase in the cost of material inputs for the garment sector. This will reduce the sector’s competitiveness.
3. **A number of interventions are proposed to increase competitiveness.** This includes promoting trade, increasing training and education, and extending the program and support for a financial leasing program.
4. **These interventions will overcome a number of constraints that undermine the sector’s competitiveness if implemented effectively.** These constraints include a dramatic shortage of skills, difficulty in accessing financing and low levels of technology adoption.

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Appendix:

Letter from the Ministry of the Economy of the Kyrgyz Republic

September 4, 2014

Ministry of Economy of the Kyrgyz Republic

106, Chui Ave., Bishkek, 720002

September 4, 2014
13-2/9031

World Bank Office

The implementation of activities under the Roadmap for accession of the Kyrgyz Republic to the CU, which was approved by the CU countries and the Government of the Kyrgyz Republic, is currently underway. In addition, the Government has prepared preliminary version of the Roadmap for accession of the Kyrgyz Republic to CES.

Majority of the activities must be completed within very short timeframe and the next few months.

The Ministry of Economy of the KR is requesting you to send a representative of your organization to the meeting, at which the Deputy Minister of Economy of the KR will present the information on the ongoing preparation activities on accession to the CU and CES.

The meeting will take place on 8th of September at 14.00.

Considering the large volume of work and the tight deadlines for implementation of activities on accession to the CU and CES, we hope that your organization will be able to provide the required expert support for implementation of the stated activities.

The list of activities on accession of the Kyrgyz Republic to the CU and CES, for which expert support is required, is attached herewith.

Deputy Minister,
D.T. Ibraev

	d) comparative analysis of the regime when tariff preferences are provided in accordance with the KR legislation and contractual framework of the CU.	
II.	<p>Within the Road Map on the accession to the CES:</p> <p>Prepare draft regulatory acts on the following:</p> <p>Development of industries in:</p> <ul style="list-style-type: none"> Agribusiness; Natural monopolies; Energy sector; Competition policy; Public procurement; Trade in services, and institution, operations and implementation of investments; Intellectual property; Labour migration; Information interoperability; Exchange policy; Financial markets; Transport and infrastructure. 	Draft regulatory acts, RIA materials
III.	<p>Development of programmes on:</p> <p>1) structural transformation of the economy in the mid- and long-term perspective for its adaptation to the new conditions of the integrated market in the CU countries and increased standard of living of the Kyrgyz citizens;</p> <p>1.1. Analyze the active strategies of the Kyrgyz Republic on:</p> <ul style="list-style-type: none"> - industrial development; - processing industry; - agribusiness; - energy sector; - transport and infrastructure. <p>1.2. Analyze programmatic documents on the implementation of economic policy and prepare proposals on its adjustment in the following areas:</p> <ul style="list-style-type: none"> - macroeconomics; - policy on natural monopolies; - competitive (antimonopoly) policy; - public procurement; 	Draft programmes

	<ul style="list-style-type: none"> - trade in services, and institution, operation and implementation of investments; - intellectual property; - labour migration; - information interoperability; - financial markets; <p>2) mitigation of negative consequences after joining the CU, including measures to prevent a significant fall in the standard of living, especially of the vulnerable population groups, including the extended payment of unemployment benefits, allowances for the poor, disabled, implementation of broad programmes to retrain the persons made redundant, relief work programmes, etc.</p> <p>2.1. Analyze the impact of the Kyrgyz Republic joining the CU, including changes in the structure of branches and inflation rate growth, impact on the standard of living, employment and growth of unemployment by sectors and regions.</p> <p>2.2. Assess the needs in budget funding for the measures to prevent a fall in the standard of living, first of all, of risky social groups, in case of a consumer price spiral and other negative consequences.</p>	
IV.	<p>Prepare proposals on the development of foreign trade infrastructure, including:</p> <ul style="list-style-type: none"> - development and deployment of laboratories; - modernization and streamlined deployment of check points, including customs, sanitary, veterinary and phytosanitary services control points; - development of logistics terminals network; - transport and logistics companies. 	Analytical notes, draft programmes
V.	<p>Prepare proposals to support exports, including measures to alleviate tax burden, simplify procedures, provide preferences, subsidies, expand services of lending, insurance of export-import transactions, etc.</p>	Analytical notes, draft regulatory acts, RIA materials