



WORLD BANK GROUP

KYRGYZ REPUBLIC

COUNTRY ECONOMIC MEMORANDUM



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2020

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The painting on the cover is Kyrgyz mazar. Sanju (Киргизский мазар. Санджу) by Nicholai Roerick, from 1925. The image is in the public domain.

Executive Summary

The Kyrgyz Republic has experienced modest and volatile economic expansion since the economy bottomed out from the transition recession in 1995, when GDP amounted to about half of its pre-independence levels. As a result of structural reforms at the start of transition, the emergence of remittances and commodity exports – largely gold – as powerful new drivers of growth, and improvements in the macroeconomic management in the recent decade, per-capita real GDP grew by 3.1 percent a year on average since 1995. The Kyrgyz Republic is now a lower middle-income economy, as it was in 1990. Economic expansion has benefitted from fixed investment that has risen to 31 percent of GDP, one of the highest in Europe and Central Asia and well-above the threshold of 25 percent reached by the group of successful countries studied by the Growth Commission in 2007.¹ Lower fiscal deficits and low inflation indicate the success of recent macroeconomic policies.

These achievements notwithstanding, Kyrgyz Republic's growth and productivity performance has lagged most relevant comparators, frustrating the needs of the poor and the young. As a result, while per-capita GDP in constant prices has doubled since 1995, it has still not caught up with pre-independence levels.² Per-capita incomes in the Kyrgyz Republic have increased by 20 percent less than the average of lower middle-income countries since 2000 and 40 percent less than the average for the Caucasus and Central Asia. Productivity increases – proxied by changes in total factor productivity – have averaged half a percent since 2000, leaving largely factor accumulation as the driver of economic growth. And while “Productivity isn’t everything, but in the long run it is almost everything” – highlighting one of the main challenges of the country’s current growth model.³ Poverty has declined, but modest growth has made a modest dent, leaving the poverty rate as high as 31 percent, with a substantial part of the population living in regions with more limited and lower quality government services than in Bishkek.

The country's growth performance is in stark contrast with the country's potential and with the promises of the structural reforms and the opening to the rest of the world in the 1990. By 2000, Kyrgyz Republic's progress in transition was assessed as equal or better than all countries of the Caucasus and Central Asia, Russia, and some economies in Eastern Europe.⁴ In the following decades, the reform momentum slowed, and implementation weakened. The Kyrgyz Republic was one of the first countries in the region to accede to the WTO after a record-low 2.7 years of negotiations. Nonetheless, after 20 years, the country has implemented just over one-tenth of the WTO trade facilitation agreement and still has not complied with the WTO sanitary and phytosanitary standards that would allow it to export fruits and vegetables to the Eurasian Economic Union (EEU) and China. These are profoundly missed opportunities, especially given the direct borders and huge demand in the EEU and Chinese markets.

Governance and institutional weaknesses, coupled with an inefficient bureaucracy, are one of the major reasons for Kyrgyz Republic's growth and jobs underperformance. Since 2011, there have been 10 changes of government; the average tenure of the cabinet of ministers is less than one year. Kyrgyz Republic's nascent democracy and vibrant political discourse are important assets of the country. Each government, however, has come with a new economic program and team. As a result, the authorities have found it challenging to pursue a consistent economic policy and bring reforms from design to implementation without significant delays or changes.

¹ World Bank. 2008. Growth Report, Strategies for Sustained Growth and Inclusive Development. http://siteresources.worldbank.org/EXTPREMNET/Resources/489960-1338997241035/Growth_Commission_Final_Report.pdf

² Data before independence should be interpreted with care because of methodological issues converting data from the national statistics of the former Soviet Union.

³ The quote is from Krugman, Paul. 1997. The Age of Diminished Expectations.

⁴ EBRD. 2000. Transition Report. <http://www.ebrd.com>

There is substantial evidence of governance weaknesses. The World Bank Worldwide Governance Indicators place the Kyrgyz Republic well below the average performance in terms of the rule of law, control of corruption, and political instability. The World Economic Forum's 2017 Executive Opinion Survey placed corruption at the top of business concerns. In a 2015 investor perceptions survey conducted by the World Bank Group, 80 percent of surveyed firms identified corruption, poor transparency, and unpredictability of government decisions as key constraints in operating a business in the country. Doing Business 2020 ranked the Kyrgyz Republic 70th of 190 economies, down from 67th in 2011, because of slower progress compared to other CIS economies. Over the same period, Kazakhstan, Uzbekistan, and Russia all substantially improved their rankings. Almost twice as many firms than in ECA and in lower middle-income countries on average rank corruption and political instability as the top constraints to doing business in the 2019 World Bank Enterprises Survey.

Geography has also been a challenge for the Kyrgyz Republic's growth prospects. The country is landlocked, with a rugged mountainous terrain – and the fourth highest elevation in the world, just behind the top three.⁵ Growth spillovers from the country's neighbors have been negligible, reflecting constrained trade due to limited product complementarity and cumbersome customs procedures, negligible cross-border investment and, until recently, a slow flow of people and ideas.

Macroeconomic stabilization has been effective in recent years, but government spending is high, and the exchange rate appears overvalued, negatively impacting non-resource exports and business development. On the positive side, the fiscal deficit has been reduced to about 2.5 percent of GDP a year over the last several years; the 2010 number was just 0.6 percent because of under-execution of capital spending. It is accompanied with sizable public spending given the Kyrgyz Republic's stage of development; consolidated expenditures amount to about 37 percent of GDP, well-above the 25-28 percent average for countries with similar levels of income per capita and lower middle-income countries, and the 30 percent average for the Caucasus and Central Asia. Adequate government resources are necessary to provide much needed upgrades to public infrastructure and human capital. But overly high spending levels are counterproductive, especially with governance challenges and weaknesses; this is a topic addressed in the forthcoming World Bank Public Expenditure Review. Government debt amounts to about 55 percent of GDP even after the 2002 and 2005 Paris Club restructuring and the 2018 Russian debt write-off. Prudent fiscal policy that keeps debt at a sustainable level is crucial. Large inflows from remittances and commodity-related revenues appear to have led to an overvaluation of the exchange rate by some 10 percent according to a recent IMF assessment. An overvalued exchange rate saps export growth and nips in the bud the potential new business dynamism.

The answer to the question: Why reforms, large remittances, foreign aid, substantial natural resources, debt forgiveness, and improving macroeconomic management have not resulted in stronger, less volatile, and more inclusive growth? – is simple. The reform momentum has not been sustained in all critical areas and the quality of the country's institutional framework has not improved substantially. Frequent changes in government and government policies, along with two revolutions and external shocks, have led to macroeconomic volatility, curbing the stability that is needed for sustained increases in private investment. The business environment still does not allow for the private sector dynamism that will transform the economy and the patent regime encourages firms to remain small. Low-hanging fruits, such as setting up the sanitary and phyto-sanitary (SPS) laboratories and policies to allow exports of fruits and vegetables, have not been picked up. Increased outward orientation should allow the Kyrgyz Republic to benefit from foreign knowledge while providing ample opportunities to reinvigorate private enterprise. The electricity sector offers a striking example of how such a strategy can be realized:

⁵ The top three are Bhutan, Nepal, and Tajikistan.

better regulation and reduced structural impediments for domestic and foreign private investors to build generation capacity, and more efficient and effective public investment.

The simple answer comes with a complex policy dilemma and even more challenging implementation agenda. How should the country reach the consensus needed to reduce policy volatility and adjust its strategies and institutions to revamp the growth model that so far has disappointed? And what should be the priorities in addressing the country's growth challenges? Sustained macroeconomic stability, lower fiscal deficits and more moderate and more effective spending, and increased exchange rate flexibility are the *sine qua non*, the necessary condition. The government plans to do exactly this in 2020-2022 according to the recently adopted 2020 budget. Addressing export constraints – including on SPS requirements and completing the implementation of the full trade facilitation agreement with the WTO – is similarly essential and a priority for the authorities. The agenda that will take longer to implement but needs to start without delay has to do with tackling the other constraints to business development and shifting to a more decisive external orientation of government policies.

Towards a New Growth Model

The existing growth model has not managed to generate the growth in output, exports, and jobs that are consistent with the country's potential, challenges, and opportunities. This CEM suggests that the authorities should give priority to retooling government policies, strategies, and institutions, and craft a new growth model, more attuned to the population's needs and the country's aspirations. The next four sections summarize the key messages of the report and the main recommendations; the detailed analysis and policy options are contained in the main body of the CEM. In brief:

- The authorities need to reduce and manage macroeconomic and financial risks to support investment and growth. Political contestability in the Kyrgyz Republic is a valuable feature of the country's political system; to prevent it from engendering policy uncertainty, there needs to be fundamental common agreement on the strategic goals for the country's development and the policy measures that deliver macroeconomic stability.
- Renewed private sector dynamism will be needed, along with policy measures to ensure more competitive domestic markets and a level playing field for firms of all sizes.
- Kyrgyz Republic's future needs to be more firmly anchored in deepening and diversifying integration with external markets: for a small open economy that is often characterized as "land-locked", more trade and integration should be the foundations of prosperity.
- A reinvigorated energy sector – provided the authorities address regulatory and pricing challenges– will help fuel the domestic economy and support an expansion of exports.

Macroeconomic Stability

Modest per capita growth has been one of the main characteristics of the Kyrgyz Republic's economic performance since 2000. Whereas real GDP has expanded by an annual average of 4.3 percent since 2000, income per capita has risen by just 2.9 percent over the same period, lifting per-capita GDP from \$280 in 2000 to \$1,160 in 2018. Average GDP growth since 2000 fell short of the rates recorded in the Kyrgyz Republic's regional, economic, and structural peers. While the countries of the former Soviet Union experienced similar transitional recessions in the 1990s, economic growth in most of these countries was faster subsequently than in the Kyrgyz Republic.

The volatility of growth has been substantial – even though the volatility of most its peers in the Caucasus and Central Asia has been higher. Frequent swings between periods of expansion and contraction—and deviation in the growth rate between these periods—characterizes the country’s economic performance. Since 2000, the Kyrgyz Republic experienced four one-year contractions (in 2002, 2005, 2010, and 2012). The average deviation in GDP growth from a period of expansion to one of contraction is 5.5 percent, ranging from 3.4 percent to 7.2 percent. Such considerable volatility generates uncertainty and negatively affects investor sentiment and investment.

Three main factors contribute to the growth volatility: political instability, gold, and remittances. Two of the four one-year contractions coincided with the country’s revolutions, which saw major changes in government. Overall, the Kyrgyz Republic has had 15 governments since independence and since 2011, there have been 10 government; the average tenure of the cabinet of ministers is less than one year.

Gold, which plays a significant role in the Kyrgyz economy, has been the main contributor to three of the one-year GDP contractions since 2000. The gold sector’s importance in the economy rose in 1997 with the start of operations at the Kumtor gold mine, the country’s largest mining project. Gold output rose sharply in the early 2000s before falling markedly in 2006 and again in 2012. Gold production and exports have since been on an upward trend. Gold accounts for about 10 percent of GDP, 25 percent of government revenues, 36 percent of exports – but a negligible share of employment.

Remittances have fueled domestic consumption. More than one-fifth of the working-age population works in neighboring countries, mostly Russia and Kazakhstan. Kyrgyz growth performance has benefited as a result, with migrant remittances rising from almost nothing in 2000 to \$2.1 billion by 2018, equivalent to nearly 30 percent of GDP. However, the slowdown of the Russian economy in 2009 and the recession in 2014–15—following a sharp decline in oil prices at the end of the commodity super-cycle—resulted in weaker remittance flows. Swings in commodity prices and economic cycles in key trading partners like Russia and Kazakhstan have a significant influence on the Kyrgyz economy, more than doubling the volatility of overall GDP compared to non-gold gross value-added.

The structure of the Kyrgyz economy has changed dramatically since 2000, but the transformation appears to have done little to boost productivity growth. The share of value-added in agriculture fell by 22 percentage points and the sector’s share of employment dropped by 33 percentage points. A similar but less dramatic shift in value-added occurred in most transition economies, with the share of agriculture in both value-added and employment declining by 7 percentage points in Europe and Central Asia (ECA). In the Kyrgyz Republic, firms in the services sector have been the largest employer since 2004, accounting for 55 percent of total employment in 2018, up from 36.5 percent in 2000. Surprisingly, employment in manufacturing has more than doubled since 2000, while its share in GDP has declined modestly, indicating declining productivity. In fact, of all the sectors with an increased share of employment from 2000 to 2018, only retail and wholesale trade experienced increases in sectoral productivity.

Productivity growth – proxied by total factor productivity changes – has averaged half a percent a year since 2000, way too low for the country’s ambitions, challenges, and potential. With low contributions from productivity, factor accumulation accounted for most of the economic growth. Capital accumulation has dominated, as indicated by the surge in fixed capital formation to more than 30 percent by 2018. Fixed capital contributed 2.1 percentage points to the average GDP growth rate of 4.3 percent, labor and human capital added 1.7 percentage points.

TFP growth remained relatively unchanged in the period until the global financial crisis and its aftermath. Structural shifts—away from agriculture to services—dominated during 2000–08, whereas more balanced and modest economic growth across sectors has characterized the period since 2009. Cross-sector resource allocations dominated TFP developments in the first half, but within-sector gains became the dominant force in the second.

The authorities have restored fiscal prudence since independence, underpinning macroeconomic stability, a *sine qua non* for economic growth. The overall balance shifted dramatically from a deficit of nearly 11 percent of GDP in 2000 to a surplus of nearly 2 percent in 2008, supported by strong revenue performance and in line with the government's program to restore and maintain macroeconomic stability. The deficit widened again in 2009–10, as automatic stabilizers played their role following a weakening of output, and large donor support to address urgent social needs supported the authorities. In recent years, the deficit has fluctuated in a range outside the limits of the proposed fiscal rule. The authorities plan to sustain fiscal consolidation and limit the fiscal deficit to 1.8 percent of GDP by 2022. This is a commendable ambition that will require substantial efforts to reduce oversized spending and sustain robust growth in revenues.

External grants, *ad hoc* efforts, and revenue administration measures helped boost government revenues from 20 percent of GDP in 2000 to 33 percent on average in the last several years. The authorities need to rely more on improvements in the tax regime, broadening the tax base, reducing exemptions, and strengthening revenue administration. Widespread tax exemptions—amounting to roughly 4.4 percent of GDP—present substantial room for increasing revenues. Another option is increasing the rate of VAT from its current level of 12 percent, one of the lowest rates among the Kyrgyz Republic's comparators. The VAT rate in the CCA, for example, is in the 18-20 percent range.

While revenues could contribute modestly to the fiscal adjustment needed to reduce debt to lower levels, the main contribution needs to come from spending. Public spending is high and above the levels of relevant comparators (see the forthcoming World Bank Public Expenditure Review). Government spending increased from 30 percent of GDP in 2000 to 37 percent on average in recent years, excluding the one-off lows in 2018. Government spending is now on par with levels immediately following independence. The surge since reflects increases in both current and capital expenditures, the 2018-19 drop in the latter notwithstanding.

The quality and effectiveness of public spending, essential to support growth and poverty reduction, appear to be sub-standard. Spending on wages and salaries is much higher than in comparable countries, for example, driven to a large extent by higher public employment. Partly for countercyclical reasons, compensation has grown rapidly over the past five years. A rationalization of the wage bill should be achieved by a thorough review of total employment and efficiency gains followed by reform of the civil service pay system. Measures approved for rationalizing the wage bill have not been fully implemented, including differentiated pay scales in public services such as education and health, an increase in the share of base pay in total pay, and the elimination of the 13th-month salary and some performance-linked bonuses.

Improved public investment management is also needed. The Kyrgyz Republic spends substantial resources on public infrastructure, but project selection, execution, and monitoring will require strengthening given the country's significant needs, especially in energy.

Government debt has declined from its highs in 2000, thanks to Paris Club restructuring in 2002 and 2005 and the 2018 debt write-off by Russia. General government debt fell from 123 percent of GDP in 2000 to about 55 percent in 2019. The proposed fiscal rule plans to limit debt to GDP to 70 percent. This is a very high level for a country at Kyrgyz Republic's state of development; a more conservative rule, perhaps with limits not higher than 60 percent will be more conducive to fiscal sustainability.

Monetary policy in the Kyrgyz Republic targets inflation. The central bank's indicative target for inflation is in the range of 5-7 percent using a broad money aggregate as the intermediate target. Several factors complicate the conduct of monetary policy. First, the financial system is shallow. Bank deposits and loans are substantially dollarized, even though the extent of dollarization has declined since 2016 to 36 percent for loans and 45 percent for deposits. Second, there is a weak relationship between monetary aggregates and inflation. Furthermore, open market operations are hampered by the small volume of

securities available. In an environment of substantial excess liquidity, limited bank competition, and high bank operating costs, the policy rate is still not fully effective in influencing bank lending rates.

The exchange rate has remained little changed against the US dollar since 2016. This stability followed the sharp depreciation of the nominal exchange rate by nearly 40 percent against the dollar in 2015 and of the real effective exchange rate by about 12 percent in 2015, following the sharp drop in oil prices and remittances at the end of the commodity super-cycle.

The exchange rate is assessed to be overvalued by 10-15 percent, according to the latest calculations by the IMF. A more flexible exchange rate should help the economy react better to external shocks, minimize shocks to its buffers and foreign exchange reserves, and limit losses in external competitiveness for its non-commodity exports.

We invite the authorities to consider the following policy options:

- Plan for lower fiscal deficits and lower debt levels relative to GDP. Fiscal deficits should be consistent with public debt to GDP ratios that are well within debt sustainability thresholds to ensure there is fiscal space to respond to adverse fiscal shocks.
- Formulate budgets with an explicit countercyclical objective to strengthen macroeconomic stability. Countercyclical policy must operate both in good and bad times.
- Raising real GDP growth rates over the medium to long term will require a stronger growth orientation of fiscal policy, notably in improving the effectiveness of spending on education and investment.
- Improve the quality of public investment by focusing on project selection, execution, and monitoring. Only on this basis, gradually increase budgetary allocations to investment.
- Broaden the VAT base by reducing exemptions and consider raising the VAT rate.
- Allow for more exchange rate flexibility and do not allow an overvaluation of the currency. An overvalued exchange rate saps the country's competitiveness and curbs the ability of companies to export.

Renewed Private Sector Dynamism

The share of private sector activity in the Kyrgyz Republic is larger than in most other countries in the region because of early economic liberalization, rapid privatization, and new firm entry. The private sector is reported to account for more than 75 percent of GDP in the Kyrgyz Republic compared to 60 in Kazakhstan and less in the other countries of Central Asia. In contrast to comparators, however, Kyrgyz firms face substantial constraints to expansion and their productivity growth appears to be lagging many comparators. The public sector includes 23 joint stock companies and 104 state enterprises, or unincorporated legal entities. The largest SOEs are in energy (the only loss-making sector), mining, transport, and banking.

Economic activity is spatially concentrated around the capital, Bishkek, where 37 percent of value-added is produced. Bishkek also accounts for half of the registered workers and firms in the country. In terms of the spatial concentration of economic activity, the Kyrgyz Republic is above the average of countries in its income group. About 38 percent of value-added is produced in Bishkek, above comparators with similar incomes and double the level in Kazakhstan. The advantages of locating in Bishkek far outweigh those found elsewhere, particularly given the condition of supporting infrastructure, more reliable electricity, and logistics for business.

High agglomeration of firms and people – or spatial concentration – is an important precondition for the country to reap benefits from the Belt and Road Initiative (BRI); but it will not be enough. It will require complementary policies, such as measures to advance the country’s trade and investment with neighbors, steps to strengthen the legal protection of investment, efforts to address labor displacements and the territorial inequality and labor mobility, and, most importantly, a determined agenda to support private sector development.

The Kyrgyz Republic is a story of the “missing middle” – unlike many relevant comparators, medium-sized firms are largely missing in terms of their contribution to output and employment. Medium-size firms comprised less than 0.1 percent of the total number of firms (just 769 of 856,549 firms) in 2018, 4.6 percent of GDP and 3.7 percent of employment. Not only is their contribution low, but it has declined since 2001 both in number and their share of employment, while the share of small and large firms has increased. Large firms contribute the most to value-added (60 percent) – similar to Kazakhstan, and employment (80 percent), similar to Azerbaijan and Uzbekistan. In this regard, the country differs from most other economies, in which small – and medium-size enterprises dominate. Employment data indicate that the number of workers in very large firms has risen only slightly over time, but the most significant increase has been in micro and small-size firms. In terms of the sectoral distribution of employment, agriculture's share has declined substantially, to 21 percent by 2018 from 54 percent in 2000, with wholesale and retail trade rising the most, and manufacturing and construction also showing increases.

The “missing middle” indicates that firms face substantial constraints to expanding. In part, this reflects low productivity and financial constraints to support scaling up production and employment. It also reflects the burdensome regulatory environment and a playing field that is tilted against small companies. Firms single out unfair competition from informal companies as an important obstacle to doing business, but informality is an outcome that reflects the various limitations and policies in the economy. Informal companies are typically small and micro in size and, like formal companies, face obstacles to expansion. As a result, both the missing middle and informality are indications of what needs to change to allow for a more dynamic private sector.

The government should follow no-regrets policies concerning informality. Policy makers should not place unnecessary pressure on informal firms to formalize. Instead, policy should focus on improving the business and regulatory environment, and ensuring taxes are fair and collection is even-handed. As the business, regulatory, and macroeconomic environments improve and incomes per capita rise, more firms will formalize.

Labor productivity and labor costs also set the Kyrgyz Republic apart. Relative to comparators, the growth rate of labor productivity is more modest (except Azerbaijan, Belarus, and Moldova). At the same time, unit labor costs have increased substantially since 2000 because of the appreciated exchange rate and wage increases. Unit labor costs are twice as high in 2018 as in 2000. Tajikistan, another large recipient of remittance inflow, has also experienced such doubling of unit labor costs over the same period, while the other countries in the Caucasus and Central Asia have had more moderate increases or even declines, as in Kazakhstan.

Besides policy instability and governance weaknesses – as highlighted earlier – the main constraints to business development in the Kyrgyz Republic are in the areas of business inspections, licenses and permits, taxation and financing.

Business inspections: In 2012, the government reduced the number of state inspectorates from 21 to 12 and made fewer administrative bodies responsible for inspections. The scope of inspections narrowed, the number of inspections has been reduced by 30 percent, and businesses have saved about \$5 million in compliance-related expenses. More challenges remains. There is little incentive for the state inspectorate to move away from a penalty-based approach to a compliance and awareness-building approach.

Licenses and permits: Firms must comply with 800 different administrative procedures (including permits) according to a recent OSCE survey. In comparison, Moldova has 155 such procedures, and Kosovo has approximately 480 that have a direct relation to the regulation of business. Obtaining permits is a major obstacle for businesses in terms of time and cost. The existence of multiple permits—each with its own process—has facilitated corruption and reduced the transparency of the system. Plans to simplify the system are in development; digitalization and automatization should help.

Investment protection and foreign direct investment (FDI): The Kyrgyz Republic is the lowest-ranked country in Central Asia on investor protection. Doing Business, for example, ranks the Kyrgyz Republic below the regional average across most indicators. The country scores particularly low on resolving insolvency and enforcing contracts.

Taxation: The effective tax burden on firms is modest and not a significant concern for the private sector. Tax compliance, by contrast, is burdensome, particularly for micro, small, and medium enterprises (MSMEs), owing to a plethora of complex tax regimes and rules that lack clarity. There are six national taxes (the sales tax overlaps with the VAT, but existing fiscal constraints prevent a rapid phase-out), and two local taxes. In addition to the general tax regime, there are six other specialized tax regimes for distinct categories of companies. Recent reforms include consolidating the tax on interest income with the corporate income tax and the establishment of an online platform for filing and paying taxes. If implemented well, these reforms should make paying taxes easier.

Patent system for small business: Most small businesses prefer to apply for patents. In addition to the low cost of entry, the patent regime offers a very generous threshold of KGS 8 million (\$116,000), among the highest in Europe and Central Asia. Business owners under the patent regime pay about one-seventh of the social insurance contributions paid by those under the general tax regime. Some enterprises abuse the patent system and grow much larger (as informal entities) than allowed by the system. Others stay small and forego expansion that would raise their taxes and social security contributions and increase their interactions with regulators. This may be an important explanation of why so few enterprises in the Kyrgyz Republic grow into medium-size firms.

Finance: Access to finance is one of the top constraints to doing business in the Kyrgyz Republic. About 26 percent of Kyrgyz MSMEs identified access to finance as a major constraint compared to 16.6 percent of firms in ECA on average, and 8.8 percent in Kazakhstan. Credit to the private sector reached about 24 percent of GDP at end-2018 compared to over 40 percent in lower-middle-income economies on average. Only 9 percent of the population borrowed from a financial institution in 2017, and even fewer saved or took out a loan for opening a business. Agriculture is one sectors that would benefit substantially from improved access to credit. Over the last two years, the situation in the banking sector has improved, with financial sector growth accompanied by declining interest rates. The transformation of major microfinance organizations (MFOs) into banks may have influenced these rates by increasing competition in the market. The establishment of the Russia-Kyrgyz Development Fund (RKDF) also had an impact on lending rates as it provided a new source of financing. However, private sector financing through the development fund cannot and should not substitute for a commercially-viable financial sector that can provide business and household credit.

Reform to the tax and business regulatory frameworks is needed to facilitate rather than constrain firm growth, competition in markets, and ease in resource reallocation. Input markets—whether in finance, labor, energy, or other services (not all covered in this chapter)—will need attention if they are to support firm development. In addition to horizontal regulatory reform, focused sectoral initiatives (in agriculture or tourism, for example) could add additional momentum so firms can best compete in global markets in non-commodity sectors.

We suggest the government consider the following main policy actions; more details can be found in Chapter 2 of the main report:

- As a priority, implement sanitary and phytosanitary requirements by the WTO and the EEU and build the needed infrastructure to unlock export markets and support domestic businesses.
- Move to a more transparent and simplified tax and social insurance administration, including a lower threshold in line with the Kyrgyz Republic's GDP per capita, and establish unified taxpayer IDs for business. Small businesses—including those on the patent regime—should be properly registered as such.
- Simplify and make more transparent the licensing and inspection regime.
- Develop risk-based inspection checklists and dynamic risk models.
- Deal with other cumbersome procedures limiting firm growth, such as access to land, construction permits or energy.
- Streamline oversight of foreign investment disputes.
- Move faster with e-government and a one-stop shop to reduce opportunities for corruption.
- Improve the availability of information about borrowers and collateral; avoid subsidizing finance.

Increased Trade and Regional Integration

A small and open economy like the Kyrgyz Republic needs increasing trade and integration with its neighbors and the world economy. Such an ambition is well placed: the Kyrgyz Republic's exports of goods and services have barely changed in U.S. dollar terms since 2008, while global exports and exports from lower middle-income countries have risen by 26 percent and 53 percent, respectively. As a share of GDP, exports of goods and services in the Kyrgyz Republic have fallen by 36 percent of exports, and half during this period to 33 percent in 2018. This is below that in countries with similar levels of GDP per capita and—owing to Kyrgyz Republic's commodity exports—just above the average of lower middle-income countries. For a country that was the region's first to join the WTO, this poor export performance is diminishing the scope for boosting output, income, and wages.

The Kyrgyz Republic is not resource abundant, but commodities dominate its exports. The Kyrgyz Republic, together with Tajikistan, is the least abundant in natural capital in ECA and is in the bottom 20 percent of all countries in the world by natural capital per capita. Nonetheless, gold, other metals, and minerals account for 63 percent of exports, a share unchanged since 2000. Together with fuels, these exports account for 72 percent of the country's total – similar to the share of commodities in the exports of the six most resource-rich countries in Europe and Central Asia. Like other countries with natural resource endowments, the Kyrgyz Republic has integrated into the global economy via its commodity exports: more than one-third of the country's total exports (primarily gold) goes to Switzerland and the United Kingdom. The Russian Federation and Kazakhstan purchase a further 30 percent. But commodities have created little backward linkages in the economy and account for less than 3 percent of the jobs. Commodity production

is operated as an enclave, an economy within the economy. It is imperative for the authorities to reinvigorate the export engine of growth and jobs.

The WTO, the Eurasian Economic Union, and the BRI are three of the most important avenues for strengthening Kyrgyz Republic’s regional and global integration. The country acceded to the WTO in 1998 – the first in Central Asia – after completing its accession process in just 2.7 years, the shortest on record. Despite the early accession, the Kyrgyz Republic has yet to take full advantage of its WTO membership. For example, the country has implemented just 12.2 percent of its commitments under the WTO Trade Facilitation Agreement, and the government plans to implement another 16.4 percent by the end of 2020 without external assistance. Such assistance will be needed, however, to implement the remaining 71.4 percent of the country’s commitments. Specifically, the Kyrgyz Republic has requested assistance and support for a total of 26 TFA measures,⁶ the most pressing of which concern the legislative and regulatory framework. Other major needs include developing appropriate information and communication technology (ICT), human resources and training, institutional procedures, awareness-raising, and carrying out diagnostics and needs assessments. While the Kyrgyz Republic is committed to adhering to the provisions of all related WTO agreements on standards, implementation has fallen short.

Several donor agencies and international organizations have been providing dedicated technical assistance on trade facilitation, although gaps remain. In particular, the Central Asia Regional Economic Cooperation (CAREC)’s trade facilitation programs (under the Asian Development Bank) have been guided by several strategies, including the Transport and Trade Facilitation Strategy 2020 and the Common Agenda for Modernization of Sanitary and Phytosanitary Measures for Trade (CAST). The Regional Improvement of Border Services (RIBS) project, for example, coordinates infrastructure improvement and the simplification of border crossing clearance procedures in select border crossing points in the Kyrgyz Republic, Mongolia, Pakistan, and Tajikistan. An emerging suggestion is that the Kyrgyz Republic accedes to the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention, RKC).⁷

Kazakhstan has filed several sanitary and phytosanitary emergency measures against the Kyrgyz Republic. These include temporary restrictions on the import of Kyrgyz potatoes due to the “systematic identification of pests in quarantine products.” Procedures are slow owing to a lack of infrastructure, and, as a consequence, Kazakhstan again introduced a temporary ban—on the import of Kyrgyz meat—in October 2018.⁸ A 2015 study of the procedures required to export processed fruit from the Kyrgyz Republic to Kazakhstan indicated that procedures are slow and cumbersome. The total time for processing documents and delivering fruit in 2015 ranged from 30-45 days, with the highest percentage of time spent on obtaining a phytosanitary certificate (27 percent).⁹ Limitations in the Kyrgyz Republic’s infrastructure are directly affecting its competitiveness. In addition, these limitations have limited its ability to notify trading partners. For example, Kyrgyzstan, while notifying TBT measures as early as 2007, only submitted its first SPS notification in 2015, the year of EEU accession.

The Kyrgyz Republic is still in the process of adapting its economic and regulatory structure to the Eurasian Economic Union; as such, it may be too soon to predict long-term impacts. The Kyrgyz Republic joined the Eurasian Customs Union, the predecessor of the EEU, in 2015. With a nascent

⁶ See the WTO’s TFA website at <https://www.tfadatabase.org/members/kyrgyz-republic/category-c-analysis> for a full list of the 26 measures.

⁷ The RKC is considered the 21st-century blueprint for modernized customs procedures and complements the WTO TFA.

⁸ 24.kg News. 2018. “Kazakhstan lifts ban on import of meat products from Kyrgyzstan.” October 19. https://24.kg/english/99230_Kazakhstan_lifts_ban_on_import_of_meat_products_from_Kyrgyzstan/.

⁹ UNESCAP 2018.

regulatory standards structure, the Kyrgyz Republic was granted an exemption to distribute products not in compliance with EEU standards (within its domestic market only) until August 2019. Export to other EEU member states has remained a challenge, primarily owing to the Kyrgyz Republic's failure to comply with WTO SPS requirements and World Organization for Animal Health standards for slaughter, regular vaccination, and animal identification. To reap the full benefits of EEU membership, however, the Kyrgyz Republic will need to do more than harmonize regulations; it should build the necessary infrastructure for testing and certification. Currently, only some facilities, including food testing laboratories, have the capacity for sample analysis, and several are not internationally accredited.

The EEU's common external tariff (CET) is significantly higher than those of several of its member countries before accession. As all of Kyrgyz Republic's external tariffs need to align with the CET by 2020, the country's average duty will rise to 8 percent from 5 percent in 2016. Negotiations with the WTO members on compensation for increased EEU tariffs present an additional challenge. When the Kyrgyz Republic acceded to the WTO, it committed only to impose tariffs that conform with relevant WTO provisions¹⁰ in the event that it joined a free trade or customs union agreement. Because nearly 50 percent of tariff rates under the new EEU-tariff structure do not comply with the country's WTO commitments, the Kyrgyz Republic will be required to renegotiate and provide compensation to other WTO member states.

To make the best of its membership in the EEU, however, the Kyrgyz Republic needs to improve its institutional infrastructure to support its exports to EEU countries. Requirements for stricter sanitary and phytosanitary standards need to be met, more laboratories – including for food testing – need to be internationally accredited and better linked to exporters. Trade facilitation should be rapidly improved to allow seamless border crossing with Kazakhstan that will reduce substantially the time trucks spent at customs.

The need to improve behind the border trade facilitation and sanitary and phytosanitary standards has acquired a new urgency because of the dramatic reforms in Uzbekistan. Many of Uzbekistan's exports compete directly with those of the Kyrgyz Republic – and while that will not improve trade between the two countries, it will pose substantial challenges for Kyrgyz exports of fruits, vegetables, and textiles, to name just a few, in EEU countries.

The Kyrgyz Republic stands to become one of the biggest beneficiaries of the BRI. A recent study finds that the BRI could boost the Kyrgyz Republic's GDP by 9-32 percent over the long term; the higher impact is estimated based on combining BRI improvements in infrastructure with ambitious complementary policy reforms on trade facilitation, logistics, and other steps to reduce border-crossing delays by half. That is, infrastructure alone cannot deliver large gains: policy reforms are an essential part of the package needed to benefit substantially from improved connectivity. The completion of BRI transport projects is forecast to increase Kyrgyz Republic's exports by 7.3 percent. This improvement reflects a sizeable reduction in the time to trade and an associated decline in trade costs. If complementary reforms that reduce border crossing delays by half across all countries combine with the transport infrastructure improvements, Kyrgyz exports could rise by almost 22 percent.

In summary, we suggest the government consider the following main policy actions; more details can be found in Chapter 3 of the report:

- Urgently upgrade the country's sanitary and phyto-sanitary capacity to support exports of fresh fruits and vegetables.

¹⁰ These relevant provisions include Articles I and XXIV of the General Agreement on Tariffs and Trade 1994.

- Complete all remaining commitments under the WTO TFA. Seek donor support.
- Advance compliance with the EEU's other technical regulations and standards.
- Work deliberately on tackling trade facilitation challenges. The World Bank is providing technical assistance in this area.
- Buoyant exports require a buoyant private sector, with reduced obstacles to the mobility of capital and labor, business entry, and innovation (Chapter 2).

Reinvigorated Energy Sector

The energy sector has the potential to provide the (hydro) fuel for Kyrgyz Republic's new growth model by reinvigorating the domestic industry and boosting exports. The country's strong comparative advantage in hydropower offers a transformative opportunity to raise the country's economic growth potential in a sustained manner. Electricity exports to Kazakhstan and Uzbekistan have traditionally generated revenues for the country, although trade is highly cyclical and dependent on hydrological patterns. In recent years, however, the country has imported electricity to meet its domestic needs. There is potential to increase the revenue stream as regional demand increases. The CASA 1000, the transmission line connecting the Kyrgyz Republic and Tajikistan as exporters of clean power with South Asia's growing markets of Afghanistan and Pakistan, is expected to start operations in 2023. Exports via the new high-voltage line can generate an estimated \$90 million annually during the spring and summer months when there is surplus generation in the Kyrgyz Republic.

More abundant hydro energy will also help private companies expand. Private sector employment, especially in the formal economy, is likely to increase and wages rise in line with higher productivity. Inclusion will also depend on the new energy-related fiscal revenues used to support investments in human capital, skills, and infrastructure.

With its rich endowment of natural water reserves in mountainous terrain, particularly in the Naryn River basin, the Kyrgyz Republic's untapped hydropower potential is enormous. The country's installed capacity of 3.1 gigawatts (GW) places it 40th globally. Hydropower potential, which exists for small, medium, and large generation plants, is estimated at 140-170 terawatts (TW), the 56th largest in the world.¹¹ The country uses just 10 percent of its existing hydropower potential. With the cost of generation relatively low,¹² the country enjoys a strong comparative advantage in hydropower.

Economic growth and social development are driving an increase in electricity demand that outstrips the currently installed generation capacity. Although the number of residential electricity consumers rose by 16 percent in 2007–18, consumption jumped by 71 percent. Compounding the challenge of rapid demand growth is the very high seasonality of demand—winter consumption was 2.6 times greater than summer consumption in 2017, posing a challenge for system planning, considering peak demand.¹³ Between 2014 and 2016, the Kyrgyz Republic imported power from neighboring countries for the first time to supply peak demand during the winter months. The authorities have announced they expect electricity imports in 2020 as well. The risk of unmet winter demand is projected to rise if current growth trends continue. During low hydrology cycles, imports have become a new reality.

¹¹ International Hydropower Association 2018.

¹² The cost of generation in the Kyrgyz Republic is variable, but averaged KGS 1.7 per kilowatt-hour in 2014 and KGS 2.8 in 2015.

¹³ As cited in March 2019 by Praveer Sinha, CEO of Tata Power, at the World Bank's Energy and Extractives learning week, the "top 10 percent of capacity is needed only 1 percent of the time."

More generation capacity is sorely needed. However, for this to materialize, the country will need to foster an environment conducive to the large-scale private – both domestic and foreign – investment required to expand hydropower generation capacity. While private investment will be important, public investment will remain critical, with a renewed effort to improve the efficiency and value for money of public expenditures. Investments cannot be delayed; neighboring countries are already adding capacity, for example, the Rogun hydropower plant in Tajikistan¹⁴ and solar capacity in Uzbekistan.¹⁵ In addition to its hydro resources, the country has significant amounts of coal, moderate amounts of oil and natural gas, and renewable energy resources, primarily solar, and limited wind potential.

The investment costs to develop the most economically attractive large-scale hydro sites in the Kyrgyz Republic are considerable. At the same time, the energy sector already represents a heavy fiscal burden: debt amounted to about 18 percent of GDP at the end of 2018. The capacity of the sector to carry the existing debt is inadequate due to underpricing and contracting such amounts of new debt under current circumstances represents a challenge.

An essential pre-condition for an energy-powered growth strategy is the correction of the country's massive pricing distortions in the retail electricity sector. Tariff rates in the Kyrgyz Republic, which fall well-short of cost recovery, are among the lowest in the world. Since 2015, there has been no adjustment in tariffs, the annual tariff proposals prepared by the sector regulator have been rejected, and the tariff policy which was adopted for 2014-17 was not implemented. A reform of the institutional structure of the sector was announced in 2018, notably the option to re-establish the Ministry of Energy to restore policy leadership. No concrete proposals or plans have been announced since then.

Subsidies to the energy sector amount to a substantial 3 percent of GDP and disproportionately benefit the rich. Quasi-fiscal deficits – foregone revenues and government mandated or encouraged expenditures that are not compensated by the government – further increase contingent liabilities and fiscal risks. At the same time, the financial conditions of existing companies need improvement, including through private sector-based solutions, and the operational and maintenance gaps must be addressed. The formation of a common electricity market in the EEU offers incentives and financing for institutional strengthening, improvements in the market operations and regulatory frameworks, and the creation of modern infrastructure.

Although politically and socially sensitive, it is possible to increase tariffs while protecting the poor and the vulnerable. As the case of Armenia shows, when the public understands that higher tariffs can lead to improved service delivery and trusts that the government will manage the sector with the public interest in mind, raising tariffs is feasible. For the Kyrgyz Republic, increasing electricity and heating tariffs through 2023—as proposed by the country's energy regulator—is expected to result in real income losses of 2 percent of total household expenditures for poor households. People most affected by tariff increases will be those that are already energy-poor (spending more than 10 percent of their income on energy), those living in Bishkek, and those who depend on electricity for heating. Vulnerable people can be protected from the impact of tariff increases through a targeted lifeline tariff, mechanisms to smooth energy payments and prevent bunching in winter months, and targeted social protection systems. These measures were proposed as part of the 2009 reform package, which was not implemented.

We suggest the government consider the following main policy actions; more details can be found in Chapter 4 of the report.

¹⁴ Tajikistan's Rogun hydropower plant has a planned capacity of 3,600 MW.

¹⁵ Uzbekistan recently auctioned 100 MW at a price of \$0.0269, with another 400MW on course for auction and a total of 1,000 MW slated for addition.

- Strengthen the sector's financial viability by: (i) implementing the government plan to increase tariffs to cost recovery levels; (ii) stemming technical and non-technical losses by new investment and policy changes; and (iii) putting in place mechanisms to smooth highly volatile hydropower revenues.
- Bring the quasi-fiscal deficits on budget and replace them with explicit subsidies.
- Implement measures to protect the poor and vulnerable from the price adjustments.
- Strengthen the institutional and regulatory capacity of the sector by clarifying the roles and responsibilities in the sector.
- Improve the regulatory framework for small-scale hydropower development. Foster transparency and communication through governance reforms. Increase the accountability of sector companies, for example, using consistent monitoring of key performance indicators and their publication, and credible initiatives to strengthen the oversight function of the company boards, should be pursued.

1. Growth and the Macroeconomic Framework

The Kyrgyz Republic has experienced modest and volatile economic expansion since the economy bottomed out from the transition recession in 1997, when GDP amounted to about half from its pre-independence level. As a result of structural reforms at the start of transition, the emergence of remittances and commodity exports – largely gold ---as powerful new drivers of growth per-capita real GDP grew by 2.9 percent a year on average since 2000. Economic expansion has benefitted from fixed investment that has risen to 31 percent of GDP, one of the highest in Europe and Central Asia and well-above the threshold of 25 percent reached by the group of successful countries studied by the Growth Commission in 2007. Lower fiscal deficits and low inflation indicate the success of recent macroeconomic policies. The Kyrgyz Republic is now a lower middle-income economy, as it was in 1990.

These achievements notwithstanding, Kyrgyz Republic's growth and productivity performance has lagged most relevant comparators, frustrating the needs of the poor and the young. As a result, while per-capita GDP in constant prices has doubled since 1995, it has still not caught up with pre-independence levels. Per-capita incomes in the Kyrgyz Republic have increased by 20 percent less than the average of lower middle-income countries since 2000 and 40 percent less than the average for the Caucasus and Central Asia. Productivity increases – proxied by changes in total factor productivity – have averaged half a percent since 2000, leaving largely factor accumulation as the driver of economic growth. And while “Productivity isn't everything, but in the long run it is almost everything” – highlighting one of the main challenges of the country's current growth model. Poverty has declined, but modest growth has made a modest dent, leaving the poverty rate as high as 31 percent, with a substantial part of the population living in regions with more limited and lower quality government services than in Bishkek.

Macroeconomic stabilization has been effective in recent years, but government spending is high, and the exchange rate appears overvalued, negatively impacting non-resource exports and business development. On the positive side, the fiscal deficit has been reduced to about 2-2.5 percent. It is accompanied with sizable public spending given the Kyrgyz Republic's stage of development; consolidated expenditures amount to about 37 percent of GDP, well-above the 25-28 percent average for countries with similar levels of income per capita and lower middle-income countries, and the 30 percent average for the Caucasus and Central Asia. Adequate government resources are necessary to provide much needed upgrades to public infrastructure and human capital. But overly high spending levels are counterproductive, especially with governance challenges and weaknesses; this is a topic addressed in the forthcoming Public Expenditure Review. Government debt amounts to 48 percent of GDP even after the 2002 and 2005 Paris Club restructuring and the 2018 Russian debt write-off.

Large inflows from remittances and commodity-related revenues appear to have led to an overvaluation of the exchange rate by some 12-20 percent, according to a recent IMF assessment. An overvalued exchange rate saps export growth and nips in the bud the potential new business dynamism.

Chapter I suggests that the Kyrgyz Republic's future transition should focus on revamping its economic growth model by strengthening human and physical capital, building on a supportive macroeconomic environment. This new growth model will need renewed vigor in implementing structural reforms of the business environment, behind the border trade facilitation and trade connectivity with neighbors, and the availability of affordable, plentiful energy (that does not consume vital fiscal space). Chapters II, III, and IV include discussions of these issues.

In summary, Chapter 1 invites the authorities consider the following policy options:

- *Target lower fiscal deficits and lower debt levels relative to GDP. Fiscal deficits should be consistent with public debt to GDP ratios that are well within debt sustainability thresholds to ensure there is fiscal space to respond to adverse fiscal shocks without risking debt sustainability.*
- *Formulate budgets with an explicit countercyclical objective to strengthen macroeconomic stability. Countercyclical policy must operate both in good and bad times.*
- *Raising real GDP growth rates over the medium to long term will require a stronger growth orientation of fiscal policy, notably in improving the effectiveness of spending on education and investment.*
- *Improve the quality of public investment by focusing on project selection, execution, and monitoring. Only on this basis, gradually increase budgetary allocations to investment.*
- *Broaden the VAT base and consider raising the VAT rate.*
- *Allow for more exchange rate flexibility and do not allow an overvaluation of the currency. An overvalued exchange rate saps the country's competitiveness and curbs the ability of companies to export.*

A. GROWTH: STYLIZED FACTS

Modest per capita growth is the main characteristic of the Kyrgyz Republic's growth performance since 2000. Whereas real GDP has expanded by an annual average of 4.3 percent since 2000, GDP per capita rose by just 2.9 percent over the same period, lifting GDP per-capita from \$280 in 2000 to \$1,160 in 2018 (Figure 0.1 and Figure 0.2). Average GDP growth since 2000 fell short of the rates recorded in the Kyrgyz Republic's regional, economic, and structural peers. While the countries of the former Soviet Union experienced similar transitional recessions in the 1990s, economic growth in most of these countries was faster subsequently than in the Kyrgyz Republic.

The period 2000–18 saw a substantial change in the production structure of the Kyrgyz economy, with the share of value-added produced in agriculture declining by 22 percentage points and the sector's share of employment falling by 33 percentage points. A similar but less dramatic shift in value-added occurred in most transition economies, with the share of agriculture in both value-added and employment declining by 7 percentage points in the Europe and Central Asia (ECA) region on average during the same period. In the Kyrgyz Republic, employment mainly shifted to lower-productivity occupations in services and, surprisingly, in manufacturing. Employment in manufacturing has more than doubled since 2000, while its share in GDP has declined modestly. Within services, transport and communications became dominant as modern communications technologies proliferated from a low base. Transport and communications also dominated growth within services, similar to the experience across many other ECA economies.

Second, the Kyrgyz Republic has experienced substantial growth volatility – even though the volatility of all its peers in the Caucasus and Central Asia has been higher. Frequent swings between periods of expansion and contraction—and deviation in the growth rate between these periods—characterizes the country's economic performance. In the period 2000–18, the Kyrgyz Republic experienced four one-year contractions (in 2002, 2005, 2010, and 2012). The average deviation in GDP growth from a period of expansion to one of contraction is 5.5 percent, ranging from 3.4 percent to 7.2 percent. Such considerable volatility generates uncertainty and negatively affects investor sentiment and investment.

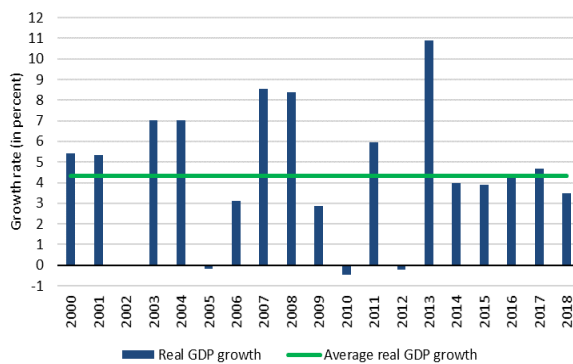
Three main factors contribute to the growth volatility: political instability, gold, and remittances.

Two of the four one-year contractions coincided with the country's revolutions, which saw major changes in government. Overall, the Kyrgyz Republic has had 15 governments since independence. Gold has grown to be a critical economic sector, accounting for 10 percent of GDP, 36 percent of exports, and 25 percent of government revenues in 2018 – and a negligible share of employment. And as the number of migrants surged over the last two decades, so did remittances. Swings in commodity prices and economic cycles in key trading partners like Russia and Kazakhstan have a significant influence on the Kyrgyz economy, more than doubling the volatility of overall GDP compared to non-gold gross value-added.

Growth may be volatile, but fiscal policy and household consumption smoothing can help mitigate it.

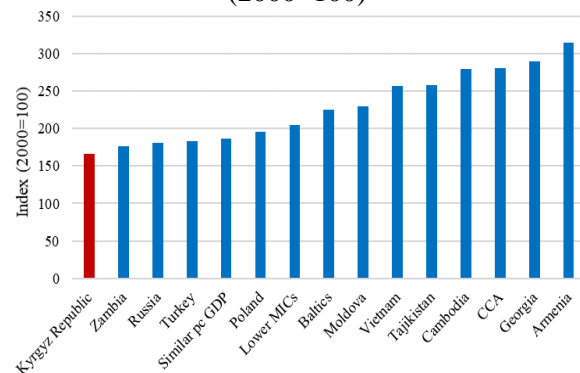
On the fiscal side, this means that fiscal policy needs to be countercyclical both in good and in bad times. If fiscal policy is not countercyclical in good times, it will not accumulate adequate buffers for bad times.

Figure 0.1. Annual Real GDP Growth
(in percent)



Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

Figure 0.2. Real GDP Index, 2018
(2000=100)



Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

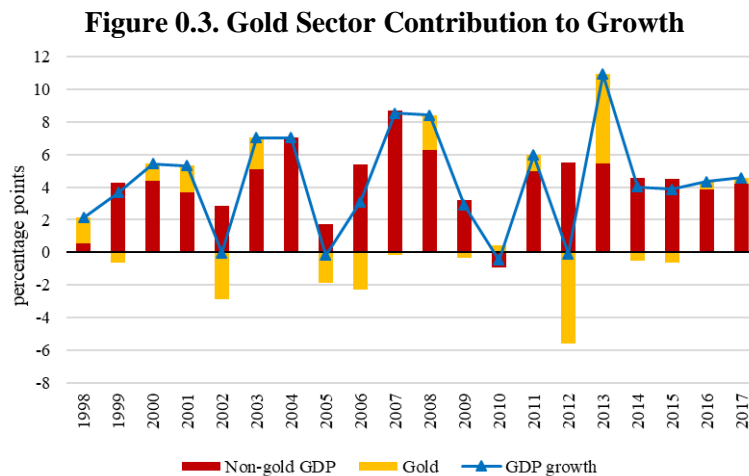
Table 0.1. GDP per Capita and Average Real GDP Growth Rates

		GDP per capita	Average GDP growth (%)			Std. deviation of GDP
		(current US\$)	2000-2010	2010-2018	2000-2018	growth (2000-2018)
Regional	Kyrgyz Republic	1,281	4.1	4.6	4.3	3.1
	CCA	4,152	8.7	4.5	6.8	3.0
	Similar GDP pc	1,308	4.9	5.7	5.2	1.2
Economic	Cambodia	1,512	7.9	7.2	7.6	2.6
	Zambia	1,540	7.4	4.6	6.2	2.1
	Lower MICs	2,219	5.9	5.5	5.7	0.9
Structural	Tajikistan	827	8.1	7.1	7.7	1.7
	Moldova	3,189	5.1	4.0	4.6	3.6
	Armenia	4,212	7.9	4.3	6.3	6.5
	Georgia	4,345	6.3	4.6	5.5	3.6
	Vietnam	2,564	6.6	6.2	6.4	0.7
Aspirational	Turkey	9,311	4.0	6.1	4.9	4.3
	Russia	11,289	4.8	1.5	3.4	4.1
	Poland	15,424	3.9	3.5	3.7	1.5
	Baltics	20,035	3.9	3.7	3.8	5.4

Source: World Development Indicators, World Bank.

Note: *Similar GDP pc* denotes countries with GDP per capita within 15 percent of that of the Kyrgyz Republic. *Baltics* represents the unweighted average of Estonia, Latvia, and Lithuania. *CCA* is Caucasus and Central Asia.

Gold, which plays a significant role in the Kyrgyz economy, has been the main contributor to three of the one-year GDP contractions since 2000. The gold sector's importance in the economy rose in 1997 with the start of operations at the Kumtor gold mine, the country's largest mining project. Gold output rose sharply in the early 2000s before falling markedly in 2006 and again in 2012. Gold production and exports have since been on an upward trend. The Kumtor gold mine is associated with the high rates of foreign direct investment and export growth recorded in the period 1998–2017. However, the gold sector is also a source of volatility (Figure 0.3), owing only in part to gold price fluctuations. The main reasons are geological and technical factors in the production process.

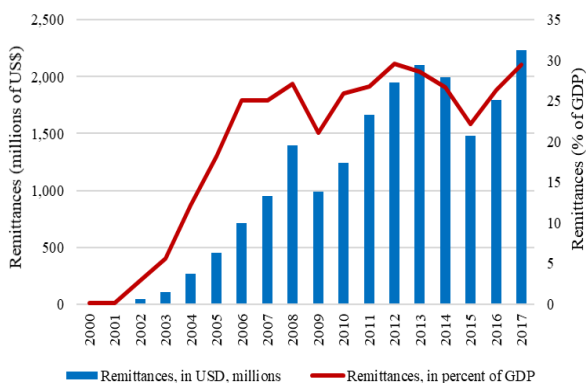


Source: Kyrgyz National Statistics Committee.

Remittances have fueled domestic consumption. More than one-fifth of the working-age population works in neighboring countries, mostly Russia and Kazakhstan. Kyrgyz growth performance has benefited as a result, with migrant remittances rising from almost nothing in 2000 to \$1.3 billion by 2010, and further to \$2.1 billion by 2018 (equivalent to nearly 30 percent of GDP). However, the slowdown of the Russian economy in 2009 and the recession in 2014–15—following a sharp decline in oil prices at the end

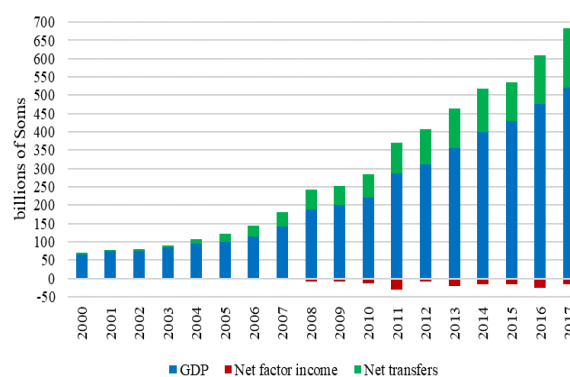
of the commodity super-cycle—interrupted the flow of remittances to the Kyrgyz Republic (Figure 0.4 and Figure 0.5).

Figure 0.4. Kyrgyz Republic: Remittances
(in percent of GDP and millions of U.S. dollars)



Source: National Bank of the Kyrgyz Republic.

Figure 0.5. Gross National Disposable Income
(in billions of soms, current prices)



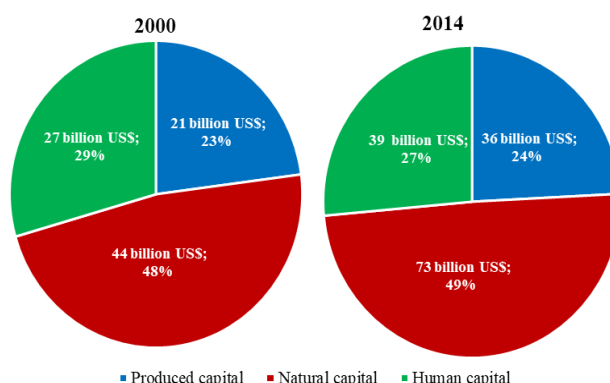
Source: World Bank staff calculations.

Remittances can be a powerful driver of growth, but they also pose challenges to economic development. Historically, remittances supported consumption and allowed citizens to achieve higher living standards. Countries that receive large amounts of remittances appear to enjoy consumption stability for the poor and increase expenditures on education and health. With modest job creation in the Kyrgyz Republic, migrants help ease the pressure on the domestic labor market. At the same time, many migrants are dynamic and entrepreneurial citizens (that could have helped boost growth at home). Remittance-dependent countries might become less competitive because of currency appreciation driven by “Dutch disease” type of effects. The weak performance of exports and the shift from tradeable to nontradeable activities has reflected to an extent the real appreciation of the som.

Third, while the government’s macroeconomic management has been largely successful, it has been accompanied by slow progress in advancing structural reforms, missed opportunities for building a strong private sector, and entrenched corruption. Early reforms after independence provided a strong foundation, and by the early 2000s, the Kyrgyz Republic had successfully transformed the economy to a market-based system.¹⁶ This included liberalization of prices, trade and foreign exchange regime, privatization of land and small and medium size enterprises, and financial sector reforms. The share of state-owned enterprises in GDP is the lowest in the region (Chapter 2). However, the post-Soviet leadership lacked a long-term economic vision, which was necessary for achieving sustainable and high growth. While the government was able to maintain macroeconomic stability using fiscal and monetary policies, it did not succeed in advancing the reforms to supporting long-term growth.

¹⁶ World Bank 2005.

Figure 0.6. Kyrgyz Republic: Composition of National Wealth
(in constant 2014 billions of U.S. dollars)



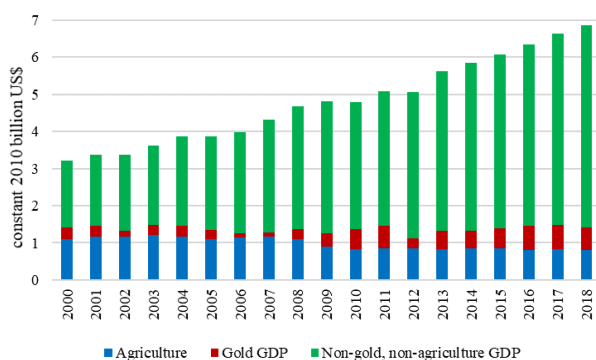
Source: The World Bank Wealth of Nations Database, 2018.

Fourth, natural capital dominates the Kyrgyz Republic's overall wealth portfolio (Figure 1.6). This has two major implications. First, for a country that has the second-lowest level of natural capital per capita in ECA (below only Tajikistan), the dominance of natural capital suggests that human and physical capital are not contributing to their full potential. The authorities should focus on improving the quality of education and the business environment as the foundation of sustained and inclusive economic growth. Second, countries export goods intensive in their dominant assets. As a result, gold dominates Kyrgyz exports, and one-fifth of the working-age population lives abroad owing to a lack of job opportunities at home.

B. GROWTH DECOMPOSITIONS

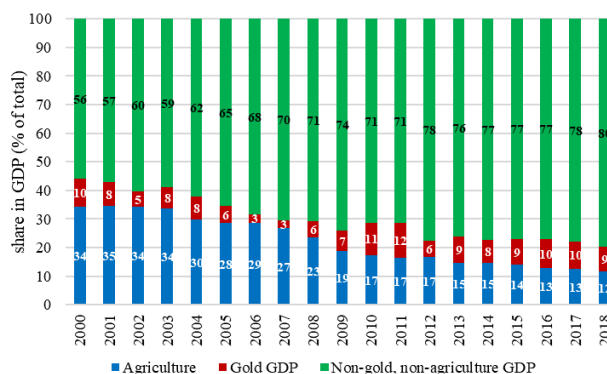
The Kyrgyz Republic's structural transformation since 2000 has been dramatic. The share of agriculture in GDP fell from 34 percent in 2000 to about 12 percent by 2018 and employment contracted more than two-fold even with substantial population growth (Figure 0.7-Figure 0.12). At the same time, the share of services and construction in GDP rose dramatically, while the share of industry declined.

Figure 0.7. Structure of GDP
(in constant 2010 billion U.S. dollars)



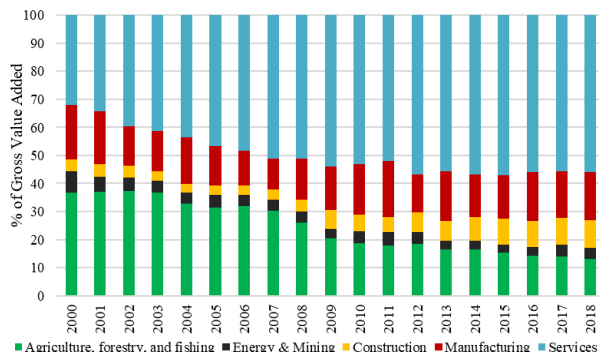
Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

Figure 0.8. Employment by Value-added
(in percent of total)



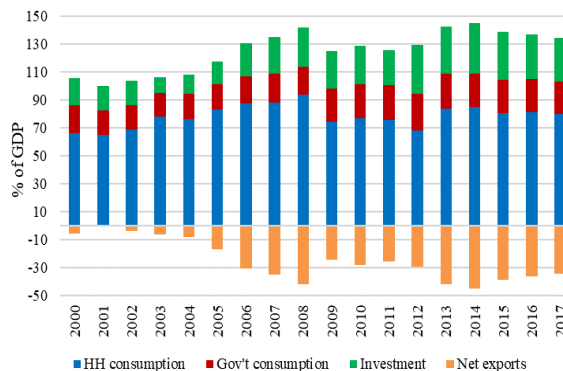
Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

Figure 0.9. Share in GDP by Sector
(in percent of GVA)



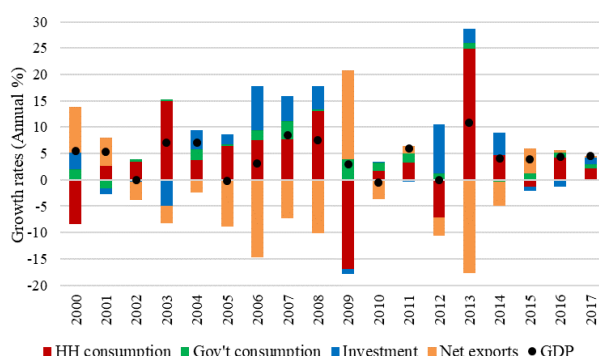
Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

Figure 0.10. Share in GDP by Expenditure
(in percent of GDP)



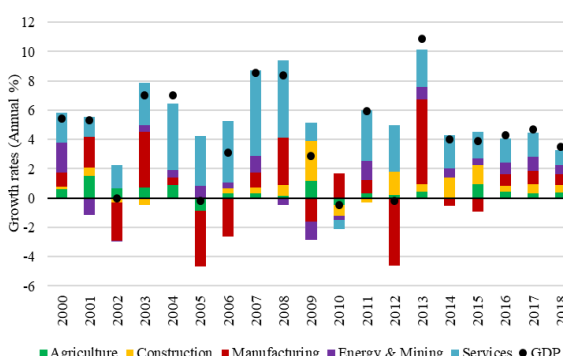
Source: International Financial Statistics Database, International Monetary Fund.

Figure 0.11. Drivers of Growth, Demand Side
(in percent)



Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

Figure 0.12. Drivers of Growth, Supply Side
(in percent)



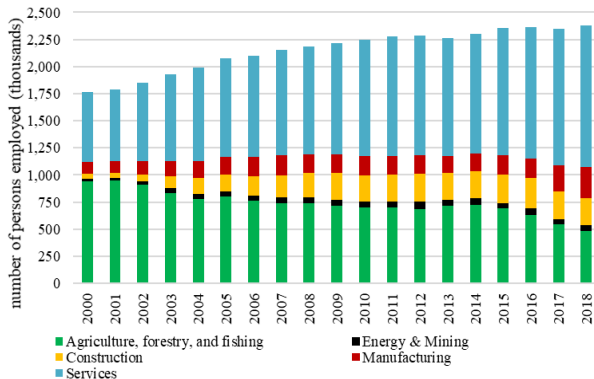
Sources: World Development Indicators, World Bank; Kyrgyz National Statistics Committee.

The structural transformation of the Kyrgyz economy included changes in employment. The number of employed persons rose by 35 percent from 2000 to 2018, to 2.4 million. Employment increased most in construction, manufacturing, and services while remaining broadly stable in energy, and mining.

- The construction sector, which employed roughly 250,000 workers in 2018, accounted for about 10.4 percent of total employment, five times more than in 2000. Mostly remittance-financed residential projects in major cities contributed to the rapid growth of the construction sector.
- The manufacturing sector, employment in which doubled from 6.4 percent of total employment in 2000 to 12 percent of total employment in 2018, absorbed a significant number of workers from the shrinking agriculture sector. This increase in manufacturing employment resulted in a sharp decline in sector productivity.

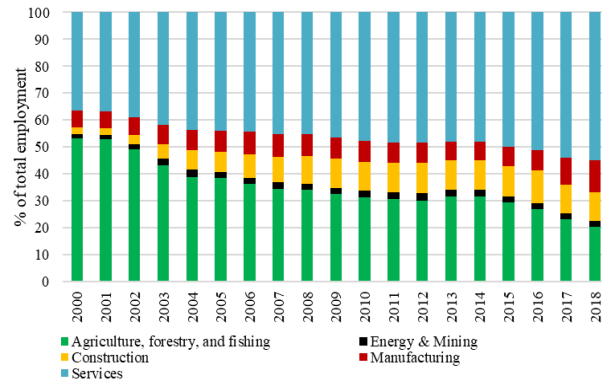
- The services sectors have been the largest employer since 2004, accounting for 55 percent of total employment in 2018, up from 36.5 percent in 2000. Apart from tourism, transportation, and IT services, most of the jobs are in low-productivity enterprises.
- Employment in agriculture fell from 53.1 percent of total employment in 2000 to 20.3 percent in 2018. A combination of “push” factors out of agriculture and “pull” factors into services, construction, and manufacturing drove these movements in employment.

Figure 0.13. Persons of Employed by Sector
(in thousands)



Source: Kyrgyz National Statistics Committee.

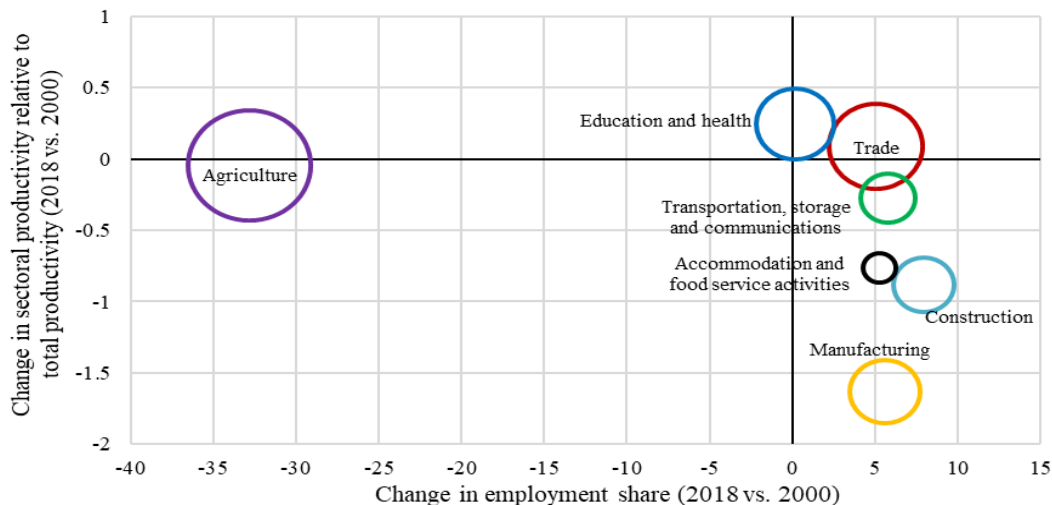
Figure 0.14. Persons of Employed by Sector
(in percent of total employment)



Source: Kyrgyz National Statistics Committee.

Structural transformation has not resulted in improvements in sectoral productivity. In fact, of all the sectors with an increased share of employment from 2000 to 2018, only retail and wholesale trade experienced increases in sectoral productivity (Figure 0.15).

Figure 0.15. Changes in Employment and Productivity Shares by Sector
(2018 vs 2000, in percentage points)



Source: Kyrgyz National Statistics Committee.

Note: The size of the bubble indicates the number of employees in 2018. The vertical axis captures the relative sectoral increase in productivity. The horizontal axis captures the change in sectoral employment.

Table 0.2. Kyrgyz Republic and Comparators: Growth in Labor Productivity
(in percent)

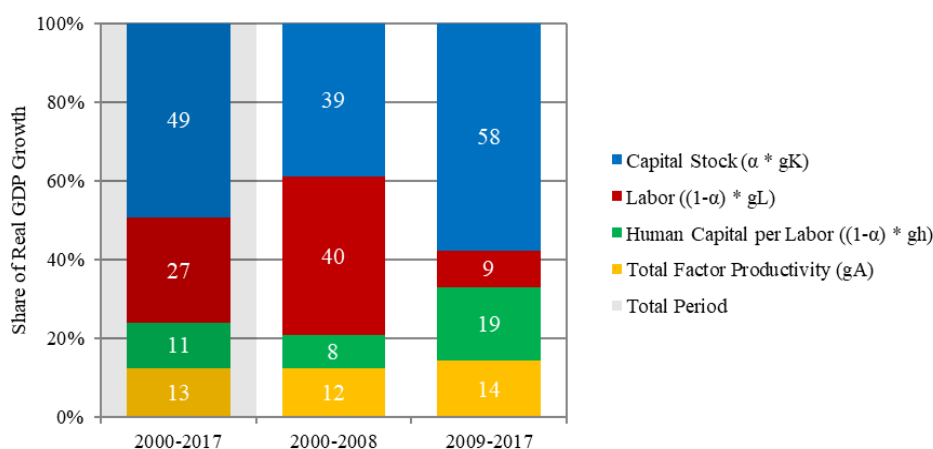
		Labor Productivity (Annual Average Growth)		
		1990-2000	2000-2010	2010-2018
	Kyrgyz Republic	-3.8	1.6	3.6
Regional	CCA	-3.6	7.6	3.8
Economic	Similar GDP pc	-0.7	2.8	3.5
	Cambodia	3.8	4.1	5.0
Structural	Tajikistan	-7.0	5.3	5.5
	Armenia	-2.1	9.7	6.1
	Georgia	-5.3	7.6	3.9
	Vietnam	4.9	4.3	6.1
Aspirational	Turkey	2.1	2.6	2.0
	Russia	-2.4	4.0	1.4
	Poland	3.9	3.5	3.0
	Baltics	5.9	4.9	2.6

Source: Total Economy Database.

Compared to other ECA countries, labor productivity is low in the Kyrgyz Republic. Even though overall labor productivity increased sharply during 2000–19, it lagged countries with similar GDP per capita and all CCA countries. The unweighted average annual labor productivity increase in the CCA (including the Kyrgyz Republic) was 5.8 percent during 2000–19, ranging from 2.5 percent in the Kyrgyz Republic to 8 percent in Armenia and 8.4 percent in Turkmenistan (Table 0.2). Although labor productivity has lagged, increased employment and exchange rate appreciation since 2008 have resulted in higher unit labor costs (Chapter 2).

Assessing labor productivity is one way of looking at the productivity of the economy; the other is total factor productivity. Labor productivity – as used in the discussion above -- measures output put employed person. Total factor productivity (TFP), sometimes called multifactor productivity, measures the share of output that is not explained by the accumulation of factors of production, typically capital, labor and human capital. It is the efficiency with which these factors are combined in the production process. To calculate TFP, we typically assume a production function linking output to the factors of production; that is, we decompose growth into factor accumulation and TFP.

Figure 0.16. Growth Decomposition (Solow)



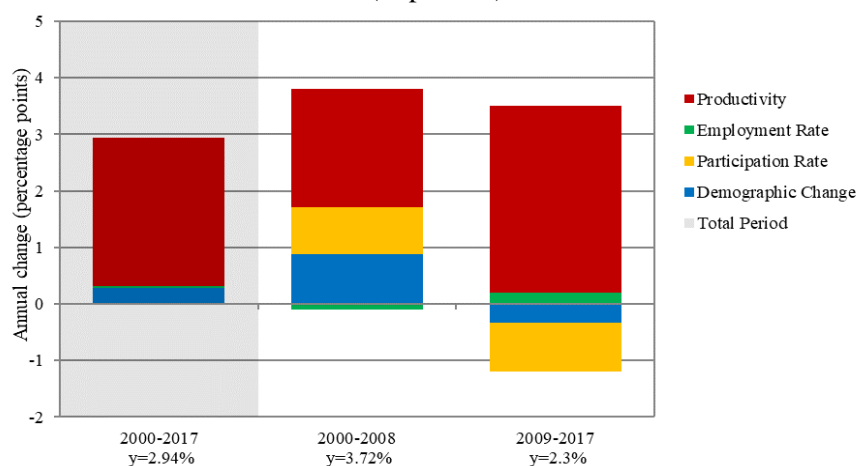
Source: World Bank staff calculations.

A decomposition of growth for the period 2000–17 shows that TFP accounted for a modest share of growth while factor accumulation dominated. Capital contributed 2.1 percentage points to the average GDP growth rate, labor contributed 1.1 percentage points, and total factor productivity contributed just 0.5 percent (Figure 0.16).

TFP growth remained relatively unchanged in the period until the global financial crisis and its aftermath. Structural shifts—away from agriculture to services—dominated the first period (2000–08), whereas more balanced and modest economic growth across sectors characterized the second period (2009–17). Cross-sector resource allocations dominated TFP developments in the first half, but within-sector gains became the dominant force in the second. The contribution of human capital was higher in the second period.

An alternative growth decomposition, using the Shapley value allocation method, suggests that increases in labor productivity in 2000–17 were the primary determinant of the rise in value-added per capita, with changes in the working-age population and the participation rate making a minor positive contribution. Behind the averages, there are substantial differences between the 2000–07 period and the 2009–17 period (Figure 0.17). In the former, the participation rate and demographic change made almost as large a contribution as labor productivity. In the latter, the contribution from the participation rate was negative, as migration to Russia and Kazakhstan surged. As a result, the contribution of labor productivity was much larger.

Figure 0.17. GDP per Capita Decomposition (Shapley)
(in percent)



Source: World Bank staff calculations.

Box I.1 Productivity Growth Policies

It is useful to examine the different elements of TFP—and how policy changes influence these—to understand what type of policies the Kyrgyz Republic can adopt to accelerate productivity growth. A study by Cusolito and Maloney (2018) decomposes aggregate physical total factor productivity (efficiency) into three components or margins: the reallocation of resources from low-productivity firms to high-productivity firms (the “*between*” component); increases in productivity within existing firms due to technology adoption, innovation, and better managerial skills (the “*within*” component); and the entry of high-productivity and exit of low-productivity firms (the “*selection*” component).

Policies targeting productivity growth should focus on improving both the operating environment and human capital and firm capabilities, two essential and complementary ingredients that cut across all components. Opening markets to international trade, exposing state-owned industries to competition, and reducing their ability to prevent the emergence of competitors are of central importance over the long term. Attracting foreign direct investment is an initial way of transferring technology and driving reallocation. Still, over the longer term, the enhancement of human capital along several dimensions—managerial capabilities, technological literacy, capabilities in risk evaluation—becomes central for both within-firm performance upgrading and new firm entry.

Source: Cusolito and Maloney 2018.

C. FISCAL POLICY

The authorities have restored fiscal prudence since independence, underpinning macroeconomic stability, a *sine qua non* for economic growth. The fiscal deficit has been cut dramatically since 2000, but in recent years it has fluctuated in a range outside the limits of the prospective fiscal rule. Government debt has been reduced, benefiting from Paris Club restructuring and, over the last decade, by the more moderate fiscal deficit. Nonetheless, debt remains high and tilted toward foreign currencies. Fiscal policy has been supportive of monetary policy, allowing the authorities to reduce inflation substantially. The main fiscal policy challenge for the authorities now remains the composition and effectiveness of government spending. Wage outlays are above those of comparators, and current spending is oversized as a share of total spending. At about 8 percent of GDP, government spending on physical capital is substantial but riddled with inefficiencies, while spending on human capital is modest.

Fiscal developments over the past two decades attest to generally responsible policy management.

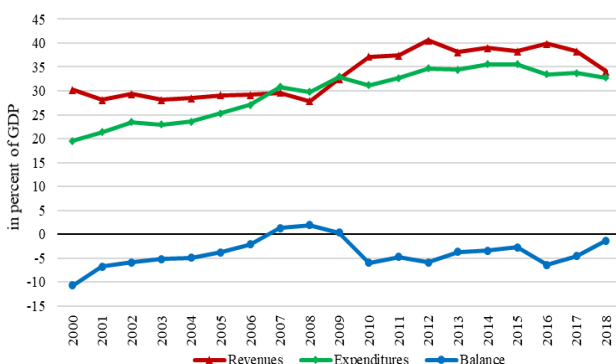
The overall deficit shifted dramatically from a deficit of nearly 11 percent of GDP in 2000 to a surplus of nearly 2 percent in 2008, supported by strong revenue performance and in line with the government’s program to restore and maintain macroeconomic stability (Figure 0.18). The deficit widened again in 2009–10, as automatic stabilizers played their role following a weakening of output in these years, and large donor support to address urgent social needs supported the authorities. After that, the fiscal deficit fluctuated in the range of 3–6 percent of GDP before narrowing sharply in 2018 on account of a large under-execution of capital spending. However, this reduction is likely to be a one-off; the fiscal deficit has averaged 4 percent of GDP since 2000.

Government debt has declined from its highs in 2000, thanks to Paris Club restructuring in 2002 and 2005 and the 2018 debt write-off by Russia. General government debt fell from 123 percent of GDP in

2000 to 49 percent in 2007.¹⁷ A sharp depreciation of the som in 2014-15 triggered by the fall of global oil prices and continued public sector borrowing led the external public debt to increase to 63.6 percent of GDP in 2015. Thanks to the Russian write-off, external government debt fell from 53 percent of GDP in 2017 to 48 percent in 2018. With domestic debt increasing from 3 percent of GDP to 8 percent over last five years, total public debt amounted to 56 percent of GDP in 2018 (Figure 0.19).

External grants, *ad hoc* efforts, and revenue administration measures helped boost government revenues from 20 percent of GDP in 2000 to 33 percent on average in the last several years. It is time for the authorities to begin relying much more on improvements in the tax regime, broadening the tax base, reducing exemptions, and strengthening revenue administration. Widespread tax exemptions—amounting to roughly 4 percent of GDP—present substantial room for increasing revenues. The phasing out of the sales tax in 2014 reduced revenues by about 2 percent of GDP, in part compensated by increased value added tax (VAT) revenues from the Eurasian Economic Union (EEU).

Figure 0.18. Government Finances, 2000–18
(in percent of GDP)



Source: IMF World Economic Outlook.

Figure 0.19. Public Debt, 2000–18
(in percent of GDP)



Source: IMF World Economic Outlook.

Tax revenues amount to 24 percent of GDP and, in the absence of spending reductions, could be higher to help narrow the fiscal deficit. One option is increasing the rate of VAT from its current level of 12 percent, one of the lowest rates among the Kyrgyz Republic's comparators. The VAT rate in the CCA, for example, is in the 18-20 percent range. There is also a need to broaden the base for VAT by eliminating numerous exemptions relating to agriculture, energy, health transport, public utility services, and financial services. Further, the authorities should address the emerging issue of tax evasion on imports from other EEU economies, now that customs control on the EEU's internal borders have been abolished.

¹⁷ For more information see <http://www.clubdeparis.org/en/communications/press-release/debt-reduction-of-kyrgyz-republic-11-03-2005>. The 2005 agreement canceled the equivalent of \$124 million due on loans and credits contracted by the Kyrgyz Republic before August 31, 2001, and debts previously rescheduled in 2002 by the Paris Club. Moreover, it rescheduled \$431 million.

While revenues could contribute modestly to the fiscal adjustment needed to reduce debt to lower levels, the main contribution needs to come from spending. Public spending is high and above the levels of relevant comparators (see forthcoming public expenditure review).

Government spending increased from 30 percent of GDP in 2000 to 40 percent by 2012 before easing to 37 percent on average in recent years, excluding the one-off lows in 2018. Government spending is now on par with levels immediately following independence. The surge from 2000 to 2012 reflected increases in both current and capital expenditure, the latter rising from 5.5 percent of GDP to almost 8 percent. Capital spending has remained relatively unchanged since 2012, while current spending has been cut modestly.

The quality and effectiveness of public spending, essential to support growth and poverty reduction, appear to be sub-standard. Spending on wages and salaries is much higher than in comparable countries, for example, driven to a large extent by higher public employment. Partly for countercyclical reasons, compensation has grown rapidly over the past five years. A rationalization of the wage bill should be achieved by a thorough review of total employment and efficiency gains sought with a reform of the civil service pay system. Measures approved for rationalizing the wage bill have not been fully implemented, including differentiated pay scales in public services such as education and health, an increase in the share of base pay in total pay, and the elimination of the 13th-month salary and some performance-linked bonuses.

Improved public investment management is critical for ensuring public money is spent to a good purpose. The Kyrgyz Republic spends substantial resources on public infrastructure, but project selection, execution, and monitoring will require strengthening given the country's significant needs, especially in energy (Chapter IV).

D. MONETARY POLICY, INFLATION AND THE EXCHANGE RATE

Monetary policy in the Kyrgyz Republic targets price stability and orderly conditions in foreign exchange markets. The central bank's indicative target for inflation is 5-7 percent using a broad money aggregate as the intermediate target. With inflation below the target range, the National Bank of the Kyrgyz Republic (NBKR) cut its policy rate by 25 basis points in May 2019. Credit to the economy has grown substantially from a low base to 22 percent of GDP, the same as deposits.

A number of factors complicate monetary policy in the Kyrgyz Republic. First, the financial system is shallow. Bank deposits and loans are substantially dollarized, even though the extent of dollarization has declined substantially since 2016 to 36 percent for loans and 45 percent for deposits. Second, there is a weak relationship between monetary aggregates and inflation. Furthermore, open market operations are hampered by the small volume of securities available. In an environment of substantial excess liquidity – although reduced in 2019, limited bank competition, and high bank operating costs, the policy rate is still not fully effective in influencing bank lending rates.

Annual consumer price inflation averaged 5 percent before 2008 and after 2018 but experienced considerable fluctuations in the intervening years. Inflation has fallen since 2015, in part due to favorable external conditions that dampened global price increases, and in part due to improved macroeconomic management at home. Lower inflation, in turn, has had a positive impact on investment and output growth (Figure 0.20).

Figure 0.20. Inflation, 2003–19
(twelve-month, percent change)

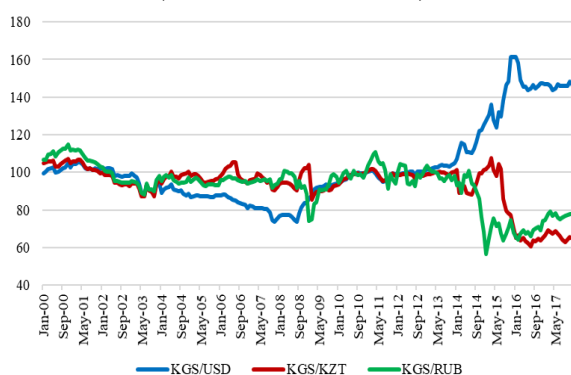


Source: National Bank of the Kyrgyz Republic.

The effectiveness of monetary policy can be improved over the medium to long term only as financial deepening takes place, confidence in banks and the currency rises, and competition among the banks intensifies. These steps require structural changes in the financial system, as well as incentives and regulation—for example, the resolution of banks in conservatorship, and greater authority for the central bank in banking supervision. Some of these reforms can be achieved only through the passage and implementation of the long-awaited banking law. Critically, the development of secondary markets in public debt and other capital market instruments would help to deepen markets.

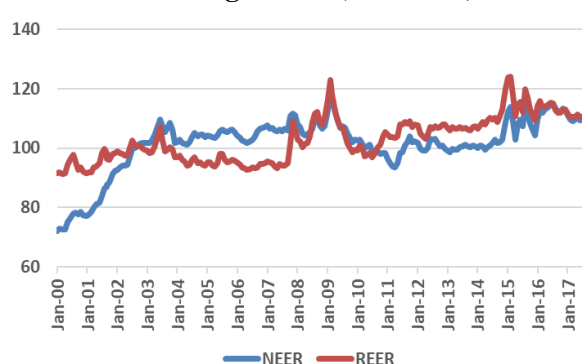
The exchange rate has remained little changed against the US dollar since 2016. This stability followed the sharp depreciation of the nominal exchange rate by nearly 40 percent against the dollar in 2015 and of the real effective exchange rate by about 12 percent in 2015, following the sharp drop in oil prices at the end of the commodity super-cycle (Figure 1.21 and Figure 0.22). The exchange rate is assessed to be overvalued by 12-20 percent, according to the latest calculations by the IMF. A more flexible exchange rate should help the economy react better to external shocks, minimize shocks to its buffers and foreign exchange reserves, and limit losses in external competitiveness for its non-commodity exports.

Figure 0.21. Nominal Exchange Rates
(December 2010=100)



Source: National Bank of the Kyrgyz Republic.

Figure 0.22. Real and Nominal Effective
Exchange Rates (2010=100)



Source: National Bank of the Kyrgyz Republic.

E. POTENTIAL DRIVERS OF FUTURE GROWTH

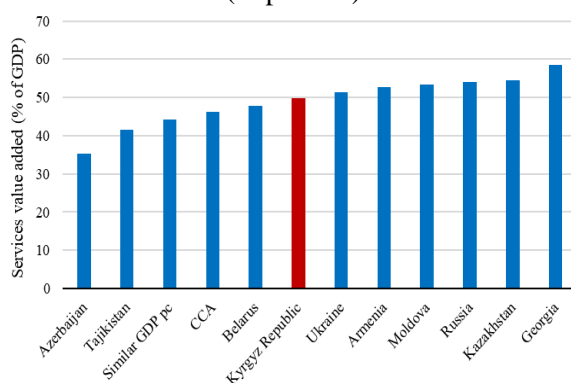
What could be the future drivers of economic growth? This section contains a few ideas, taking into account the membership of the EEU, a rising Uzbekistan, and opportunities from growing connectivity between China and Europe through the Belt and Road Initiative. Taking advantage of these opportunities will require complementary policy and institutional changes.

Because of the Kyrgyz Republic's small size, high transport costs, limited skills, and distance from global supply chains, the economy does not enjoy an advantage in large-scale industrial specialization.¹⁸ The possible exceptions are niche products—for example, in agriculture, processed food, and garments—that can serve the regional or EEU markets. Agriculture and processed food, however, require stricter sanitary and phytosanitary standards, the absence of which has resulted in limited export opportunities to date (see Chapter II). Mining is an enclave-type activity dependent on the tax and royalty regime as well as on international metal prices; it generates little employment but can be a significant source of fiscal revenues, which can provide a financial cushion during an economic downturn. Aside from these products, the comparative advantage of the country appears to lie in a range of tradable services: tourism, transport, and IT-related services.¹⁹

Services

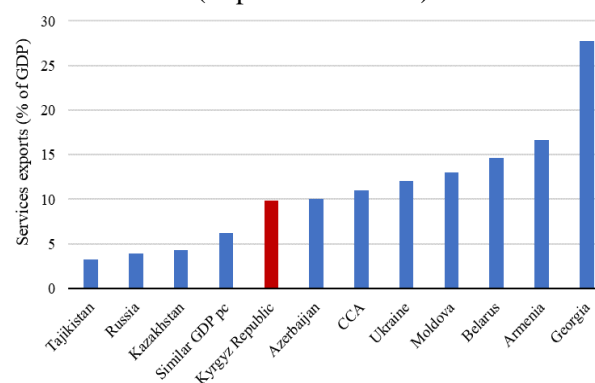
The steady expansion of the service sector over the past decade is in line with development in other transition economies and reflects the comparative advantages of the Kyrgyz economy. Services can be powerful in generating economic growth as well as employment, particularly if forward and backward linkages can be established with other economic activities within the economy.²⁰ Today, the country's service sector is on par with countries at a comparable stage of development (Figure 0.23 and Figure 0.24).

Figure 0.23. Share of Services in GDP, 2018
(in percent)



Source: WDI.

Figure 0.24. Services Exports, 2018
(in percent of GDP)



Source: WDI.

The expansion of services has also led to rapid growth in service exports, especially tourism and business services. With the development of strong linkages, both these types of activities can have

¹⁸ See chapter 2 of World Bank (2009) for a discussion of the impact of distance on economic prospects. In particular, the distance to density measure is a major cause of low output, labor productivity, and real wages. The natural way to reduce distance is for people to migrate, a powerful force that contributes to economic density, rising productivity, and higher incomes.

¹⁹ World Bank 2015.

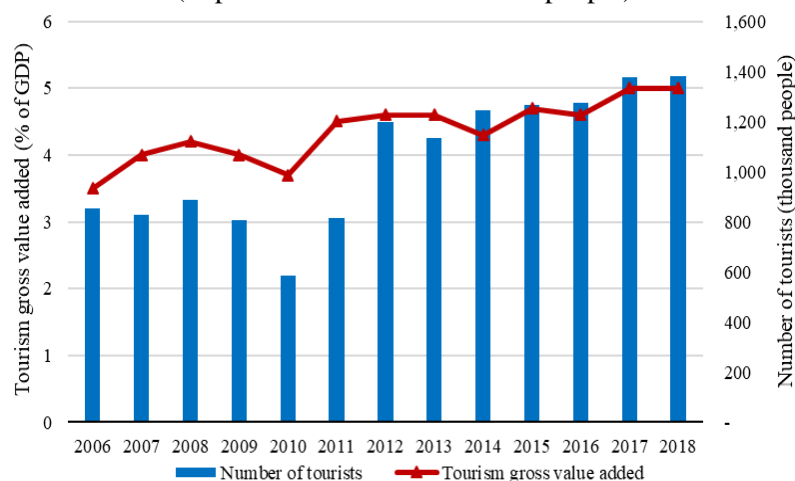
²⁰ Forward linkages are those in which the service in question provides an input to an activity; backward linkages are those that provide inputs to the service.

multiplier effects. Currently, however, such linkages are weak.²¹ Many firms carry out activities in-house that could be performed with greater efficiency if outsourced—transport and communication services, for example. Such outsourcing would, of course, also lower unit costs in manufacturing. Typically, the transport sector provides a rich source of linkages. In the Kyrgyz Republic, however, this is not necessarily the case; the transport environment is not competitive. The linkages that develop with growing transport services are logistics and freight-related services and the associated infrastructure. However, the growth in services and competitiveness for exports is weakened by rule-of-law factors such as contracting and enforcement and by unclear regulation. It is important to secure competition and open market structures through regulation in a liberal trading environment if the country is to maximize output and exports. Skill shortages constitute an impediment, particularly in business services and IT.

Transport. The transport sector needs better regulation. However, it should also not be subject to excessive restrictions. A restrictive regime in transport services—specifically in air transport and rail freight, but also in auditing services—curbs export opportunities. Cross-border trade in services is dampened, and inflows of foreign direct investment in the sector suffer. Second, international experience shows that liberalization should be followed by regulatory and governance improvements to maximize service exports. These improvements would address business climate questions as well as sector-specific regulations (for example, in transport) and the importance of the rule of law.

Tourism. Tourism, which accounts for about 5 percent of GDP and 13 percent of total exports, has significant growth potential (Figure 0.25). Untapped opportunities exist in both summer (lakes, hiking, mountain climbing) and winter (skiing) tourism. While investment will need to be private-sector driven, public policy will play a central role in developing the country’s tourism potential. The government will need to provide skills training (in mountain rescue services, for example, or as mountain guides), regulatory policies to protect the environment (particularly in Issykul), infrastructure in water and energy, zoning restrictions, and the branding and overseas marketing of the country. The business environment for creating hotels and the accompanying infrastructure is also essential for tourists to undertake longer trips to the country.

Figure 0.25. Share of Tourism in GDP and Number of Tourists
(in percent and in thousands of people)



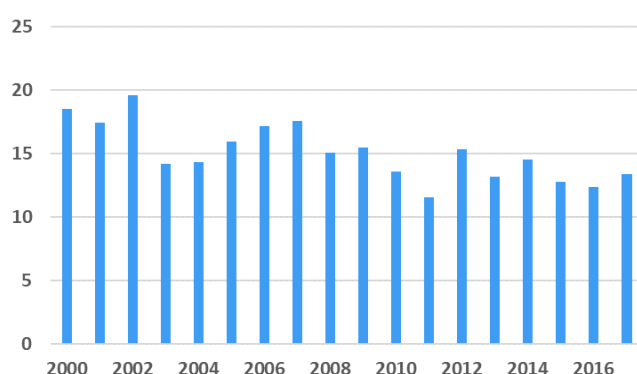
Source: Kyrgyz National Statistics Committee.

²¹ World Bank 2015.

Agriculture and Agro-Processing

The agriculture sector is currently competitive despite the sharp decline in agricultural production associated with the transition to a market economy and the transfer of employment to the services sector and urban activities. The sector's comparative advantage is in the production of vegetables, fruit, and dairy products, and generates significant formal and informal exports destined mainly for Kazakhstan and Russia.²² Agriculture accounts for one-fifth of GDP, and food exports comprise about 20 percent of total goods exports. There is a clear shift toward processing in higher value-added products, partly in response to foreign demand.

Figure 0.26. Share of Food Processing in Total Industry
(in percent)



Source: Kyrgyz National Statistics Committee.

especially protein-rich food, rising as incomes rise. However, the food processing sector is characterized by small-scale, low value-added, and informal enterprises, with some exceptions. These face credit and working capital constraints, obsolete equipment, poor access to credit, and fail to satisfy EEU or international food safety standards. Management skills are also low. This section of the value chain is also hampered by unreliability of supplies from farms, partly owing to weak infrastructure.

Downstream activities are wholesale and retail trade and exports. Given the potential scale of production and the small domestic market, the country has to focus increasingly on exports. Agricultural exports—mainly meat, milk, dairy, and fruits and vegetables—would benefit from diversification as well as greater use of air transport. Potential markets exist in the EEU countries, Turkey, and Asia.

The Almaty-Zhambyl region has a value chain concentrating on fruits and vegetables, and dairy and livestock. Greater connections between firms on the two sides of the value chains could yield large benefits and lead to a higher degree of specialization, greater spatial concentration, and value-added.²⁵ The Kyrgyz part of the value chains are comparatively stronger in production, but their competitiveness in the mid-stream sections is improving. The Kazakh portions have well-established mid- and downstream activities

²² Adriano 2016.

²³ Adriano 2016.

²⁴ World Bank 2014.

²⁵ Adriano 2016.

Considerable potential exists in food processing.²³ Although the agro-food value chain is long and poorly connected, it has considerable potential for raising value-added. Upstream of the value chain are small-size farms with low productivity, low investments in inputs and equipment, and limited access to credit. Some degree of land consolidation would help raise yields, but equally important is the building up of linkages with other segments of the value chain. Land sales and leases face high transaction costs.²⁴ Midstream sections of the value chain are harvesting and processing, with the demand for processed foods, and

that could expand with greater raw material supply. Transport routes are shared and could be used more intensively. Unified efforts in food safety and marketing would also boost export competitiveness.

EEU membership and investments in food safety, technical regulations, and infrastructure (laboratories and livestock) need strengthening to provide the basis for expanding output. The constraints discussed earlier will also help from public policy—farm fragmentation, investments in critical logistics, better infrastructure, and trade facilitation.

F. RECOMMENDATIONS

We invite the authorities to consider the following policy options:

- **Plan for lower fiscal deficits and lower debt levels relative to GDP.** Fiscal deficits should be consistent with public debt to GDP ratios that are well within debt sustainability thresholds to ensure there is fiscal space to respond to adverse fiscal shocks without risking debt sustainability.
- **Formulate budgets with an explicit countercyclical objective to strengthen macroeconomic stability.** Countercyclical policy must operate both in good and bad times.
- **Given the constraints on the effectiveness of monetary policy in a shallow and highly dollarized financial system, there is a role for fiscal policy to play in short-term macroeconomic stabilization.**
- **The Ministry of Finance should strengthen its technical capacity for macro-fiscal policy.** The creation of a macro-fiscal policy department within the Ministry could contribute to this objective.
- **Raising real GDP growth rates over the medium to long term will require a stronger growth orientation of fiscal policy.**
 - Improve the quality of public investment by focusing on project selection, execution, and monitoring. Only on this basis, gradually increase budgetary allocations to investment.
 - Improve the effectiveness of spending on education and health.
- **Strengthen fiscal risk assessments.** Incorporate the medium- to long-term budgetary pressures related to quasi-fiscal deficits and contingent liabilities.
- **Broaden the VAT base.**
 - Eliminate exemptions related to agriculture, energy, health, transport, public utility services, and financial services.
 - Consider raising the VAT rate in line with comparator countries.
- **Facilitate the expansion of tourism.**
 - Provide skills training (in mountain rescue services, for example, or as mountain guides)

- Improve the regulatory policies to protect the environment, infrastructure in water and energy, zoning restrictions, and the branding and overseas marketing of the country.
- Improve the business environment for creating hotels and the accompanying infrastructure.
- **Support agriculture and agro-processing.**
 - Invest in food safety, technical regulations, and infrastructure (laboratories and livestock); see Chapter 2 and Chapter 3.
 - Invest in critical logistics and better roads connecting farms to market. Address large gaps in trade facilitation (See Chapter 3).

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2. Private Sector Development

The share of private sector activity in the Kyrgyz Republic is larger than in most neighboring countries as a result of relatively early economic liberalization, rapid privatization, and new entrepreneur entry. In contrast, however, Kyrgyz firms face substantial constraints to expansion, or have low incentives to grow and innovate, partly due to the policy regime. Productivity growth is lower than in many comparators. Empirical evidence suggests that larger and more productive firms are more likely to export sustainably and offer higher returns to labor. As a small economy, the dynamism and sustainability of the country's future economic development will depend on its integration into international markets as an exporter of goods and services (and not just gold and labor). In this regard, the Kyrgyz Republic can do better - commodities comprise 75 percent of exports, and there is little diversification toward new export products. Comparator economies are more diversified, both in terms of trade partners and export products. In addition, the country's real exchange rate has appreciated significantly in relation to its main exporting destinations. Rising labor costs have contributed to this trend, as has the business climate, which constrains competitiveness in trade and firm growth.

Reform to the tax and business regulatory frameworks is needed to facilitate rather than constrain firm growth, support competition in markets, and ease resource reallocation. Input markets—whether in finance, labor, energy, or other services (not all covered in this chapter)—will need attention if they are to support firm development. Complementing horizontal regulatory reform, focused sectoral initiatives in current export sectors (in agriculture or tourism, for example) could add additional momentum so firms can best compete in global markets in non-commodity and new products. Finally, reducing risk in the macroeconomic framework (Chapter I) could boost non-commodity private investment.

To make the business climate more supportive of firm growth, the Kyrgyz Republic will need to (a) reduce policy instability, (b) strengthen its governance and anti-corruption efforts, (c) establish a regulatory and tax system that supports competition in markets and incentives for firm growth, and (d) develop the means to finance growth. Political regime instability has induced policy stability; yet the former need not automatically imply the latter; commitment to stability in macroeconomic and regulatory reform paths are key for investment.

Specifically, the following are suggested: (i) establish a transparent and simplified tax and social insurance administration, with a lower threshold for the patent regime commensurate with the Kyrgyz Republic's GDP per capita. All such payments would be done under a single taxpayer ID; (ii) adopt a simplified, transparent licensing and inspection regime; (iii) deal with cumbersome business procedures or anti-competitive behavior limiting firm growth, such as access to land, construction permits and energy (Chapter 4); and (iv) streamline oversight of foreign investment disputes. In the first three areas, e-government and a one-stop shop would reduce opportunities for corruption. In the fourth, unifying oversight of investor disputes in one body with transparent guidelines is recommended. (iv)

The reforms above are insufficient to support the sustainable growth of firms from micro-level, low-productivity activities. Simultaneously improving finance and facilitating export avenues will encourage firms to take advantage of scale economies or allow them to adopt new technology, fostering innovation. Subsidized finance may propagate existing distortions that could prevent the long-term development of effective financial markets. The focus of financial sector policy should be on reducing risk and transaction costs for lenders by improving information flow on borrowers and the use of collateral. Concerted action to support exports in key areas such as sanitary and phytosanitary (SPS) standards in agriculture (Chapter

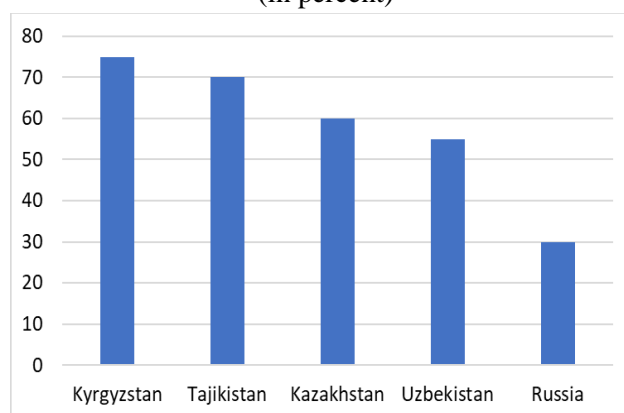
3), investments in tourism (Chapter 1), and rationalization of the energy sector (Chapter 4), will be important areas for outward-oriented private sector development. Finally, although not covered here, an educated workforce, and a market where labor is rewarded commensurately will enable Kyrgyz citizens to benefit from growth.

This chapter provides a brief snapshot of the Kyrgyz Republic's private sector as gleaned from global datasets and limited publicly-available data in national databases. Guided by the constraints identified in the empirical evidence, it then describes the policy and regulatory framework in which firms operate as well as other factors identified as constraints. It takes as given the premise that competing in export markets will be a key objective of private sector firms, as discussed in other chapters. This chapter analyzes the factors that would boost the productivity of private firms and improve their ability to compete in global markets over a broader range of activities and, perhaps, with more partners.

A. PRIVATE FIRMS AT A GLANCE

The private sector of the Kyrgyz Republic has three main characteristics: a larger private sector as a share of GDP relative to its neighbors; substantial concentration around Bishkek; and the inability or unwillingness of most firms to grow, resulting in a “missing middle” in an enterprise universe dominated by very small and very large companies. State-owned enterprises (SOEs) account for less than 7 percent of GDP, down from about 11.5 percent in 2012 (Figure 2.1). This reflects early progress on privatization and market reforms that help propel private companies in the 1990s. Together with the declining share of SOEs, the Kyrgyz Republic’s production structure changed similar to other countries in the region: the service grew substantially while the share of agriculture declined, both as a share of value-added and employment (Figure 2.2) and Chapter 1).

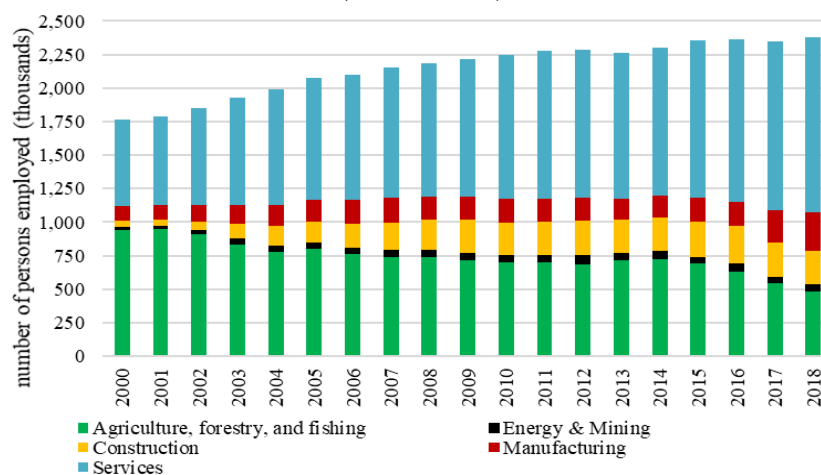
Figure 0.1. Private Sector Share in GDP, 2017
(in percent)



Source: WDI.

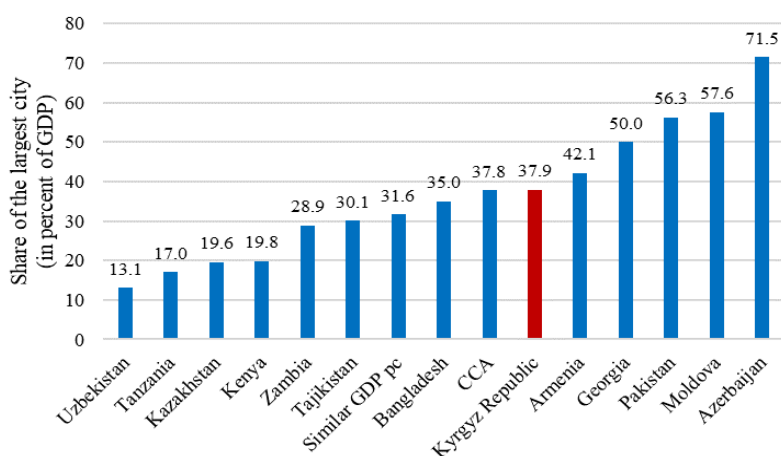
Economic activity is spatially concentrated, particularly around the capital, Bishkek, where 37 percent of value-added is produced. Bishkek also accounts for half of the registered workers and firms in the country. In terms of the spatial concentration of economic activity, the Kyrgyz Republic is above the average of countries in its income group. The advantages of locating in Bishkek far outweigh those found elsewhere, particularly given the condition of supporting infrastructure and logistics for business.

Figure 0.2. Sectoral Employment, 2018
(in thousands)



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 0.3. Share of Largest City in Value Added
(in percent of GDP)



Source: Statistical offices of various countries.

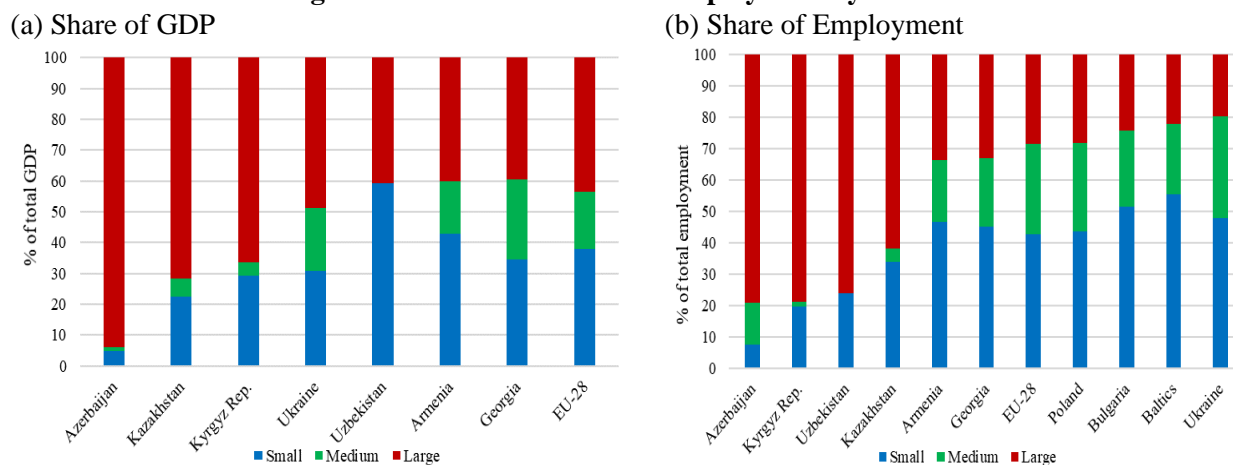
The Kyrgyz Republic is a story of the “missing middle” in terms of the contribution of medium-size firms to output and employment. A negligible number of Kyrgyz firms are of medium size (that is, with 50-200 workers). Medium-size firms comprised less than 0.1 percent of total firms (just 769 of 856,549 firms) in 2018.²⁶ Since 2001, the share of firms in this category has declined slightly, while all other categories have grown. The share of large firms (those with more than 200 employees) amount to 80 percent, similar to Azerbaijan and Uzbekistan but much larger than in other economies with a similar income level. However, empirical evidence suggests that economies at higher income levels have greater

²⁶ The total number of firms (as provided by the Statistics Office) were: 1,800 large firms, 769 medium-size firms, 14,520 small firms, 401,658 individual entrepreneurs, and 439,602 peasant farms.

shares of large firms because firms face fewer constraints to growth.²⁷ Without more time-series evidence at the firm level, however, it is difficult to interpret the changes in the share of various firm sizes and their causes.²⁸ The reduction in the number of medium-size firms in the Kyrgyz Republic may reflect the exit of low-productivity firms, for example, or an increase in size to the next category of firms (which are very large and appear to have grown in number). In the absence of more information, it is also not possible to understand the nature of competition in various sectors, specifically whether large, incumbent firms prevent growth of smaller ones or whether policy-related factors alone are responsible.²⁹

The small contribution of medium-size firms to value-added and employment reflect their low number. Medium-size firms account for about 4.6 percent of GDP and 3.7 percent of employment. Large firms contribute the most to value-added (60 percent) and employment (60 percent) among all firms in the Kyrgyz Republic (Figure 0.4).³⁰ In this regard, the country differs from most other economies, in which SMEs dominate. Employment data indicate that the number of workers in very large firms has risen only slightly over time, but the most significant increase has been in micro and small-size firms. Data on medium-size firms indicate that they have decreased both in number and their share of employment. In terms of the sectoral distribution of employment, agriculture's share has declined substantially, with wholesale and retail trade rising the most, and manufacturing and construction also showing increases.

Figure 0.4. Share of GDP and Employment by Firm Size



Source: OECD, Eurostat and Statistics Offices of countries. The employment figures do not include peasant farms in Kyrgyzstan. 2018.

Note: Medium-sized enterprises are included under small-sized enterprises for Uzbekistan.

²⁷ Firms in high-income economies can grow and take advantage of scale and invest in technology more easily than those in low-income economies. The following papers discuss the size distribution of firms across economies: Poschke (2017), Hsieh and Klenow (2014), Bento and Restuccia (2017), and Alfaro and others (2009). The firm-level data for the Kyrgyz Republic does not include informal firms and also does not include firms that pay a patent fee (see the section on taxation); these firms are not registered as such but are also not considered informal.

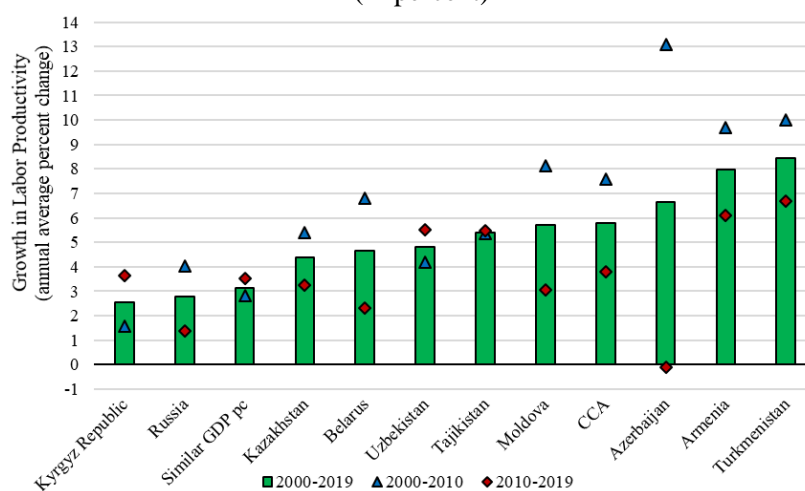
²⁸ The data are not longitudinal; there is no information on exit, and 2012 and 2016 are the only two data points available. Moreover, formal business activity covered under the patent regime is not covered here.

²⁹ The rest of the chapter is focused on policy-related issues.

³⁰ Employment on peasant farms is taken to be equal the number of peasant farms.

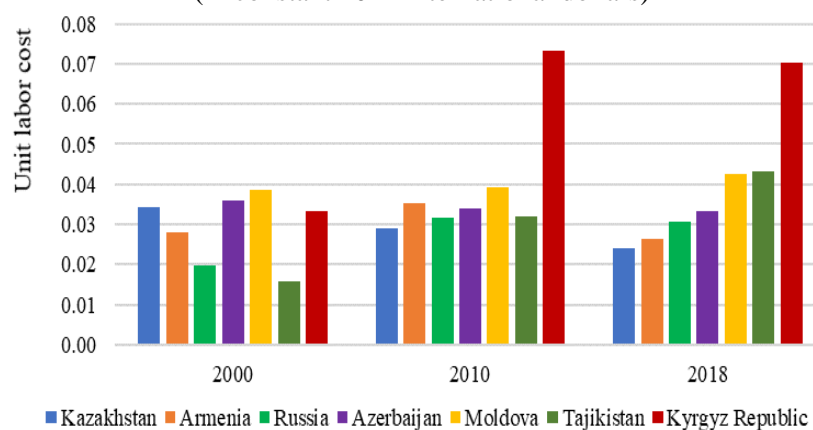
The Kyrgyz Republic's definition of firm size provides a part of the explanation of the missing middle. The Kyrgyz statistical office uses lower firm-size thresholds than its comparators: firms with more than 200 employees, for example, are considered large in the Kyrgyz Republic, whereas firms with more than 250 workers are considered large in comparator economies. Moreover, this “missing middle” has shrunk over time. There is little growth in the number of large firms, and their share in value-added has remained roughly constant. Available data suggest that many firms enter the market; either they do not grow to medium-size or medium-size firms exit (move into the next category). In any case, the dynamic properties of firm growth need more attention.

Figure 0.5. Growth in Labor Productivity, 2000-2010, 2011-2019
(in percent)



Source: WB staff calculation using data from the Total Economy Database (2019).

Figure 0.6. Unit Labor Cost Increase across Comparators
(in constant 2011 international dollars)

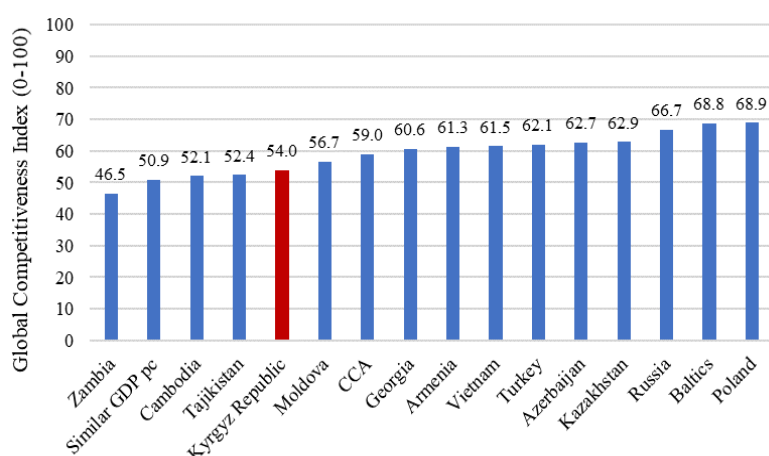


Source: WB staff calculation using data from the WDI and Statistics Offices of countries.

Data on labor productivity and costs also set the Kyrgyz Republic apart. Labor productivity growth has risen over time (the period 2000–10 versus 2011–18) in the Kyrgyz Republic: in all other comparator countries, labor productivity growth was slower in the latter period (Figure 0.5). Relative to comparators, the growth rate of labor productivity is more gradual (except Azerbaijan, Belarus, and Moldova). At the same time, unit labor costs increased substantially since 2000 because of the exchange rate and wage increases (Figure 0.6). Tajikistan, another large recipient of remittance inflows, also experienced high increases in unit labor costs. These trends, along with other constraints to business, such as the high cost of capital, lend a degree of urgency to reforms that would improve the Kyrgyz Republic's competitiveness.

Figure 0.7. Global Competitiveness Index Across Comparators

(Index, 0-100, higher is more competitive)



Source: Global Competitiveness Report 2019.

Technology adoption and innovation are other factors that relate to labor productivity and the ability of Kyrgyz firms to export competitively. The Kyrgyz Republic ranked 94 of 126 economies in the 2018 Global Innovation Index (GII) behind Kazakhstan (74) and the Russian Federation (46).³¹ The country improved one position in the ranking in 2018 by improving its score on indicators such as institutions and human capital, and research, knowledge, and technology outputs. In the World Economic Forum's Global Competitiveness Index, however, the Kyrgyz Republic significantly improved its position from 102 of 141 economies in 2018 to 96 in 2019, despite a worsening in its ranking for domestic competition (117). Some of these key areas are discussed below.

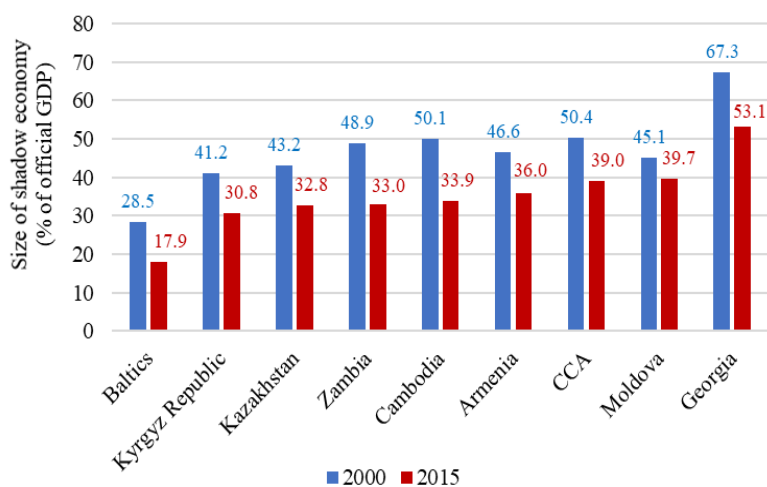
³¹ The GII ranking is based on 80 parameters that are used for evaluation and gives a full picture of innovative development, including an overview of the political situation, the state of education, the level of infrastructure and business development. The GII 2018 edition is dedicated to the theme "Energizing the World with Innovation." It analyses the energy innovation landscape of the next decade and identifies possible breakthroughs in fields such as energy production, storage, distribution, and consumption. The Kyrgyz Republic's GII ranking in 2019 was in line with comparators with similar income levels.

B. THE INFORMAL PRIVATE SECTOR

Informality is a feature of all economies; it is a response to the state of the business environment, government regulation and taxation, and political instability. According to the 2019 World Development Report, informal workers make up roughly 81 percent of workers in low-income economies, 68 percent in lower-middle-income economies, and 46 percent in upper-middle-income economies.³² There is substantial debate internationally about the informal economy, how to measure it, its impact, and the best government policy response. Lower informality does not necessarily translate to higher total factor productivity or improved welfare.³³ Indeed, informality is the outcome of numerous developments and policies rather than a lever on which the government can apply pressure.

The government should follow no-regrets policies concerning informality. Policy makers should not place unnecessary pressure on informal firms to formalize. Instead, policy should focus on improving the business and regulatory environment, ensuring taxes are fair and collection is even-handed, and investing in building human capital. As the business, regulatory, and macroeconomic environments improve and incomes per capita rise, more firms will formalize. Firms in need of external (to the firm) financing, greater education, and more mobile workers will also contribute to formalization.

Figure 0.8. The Informal Sector: Kyrgyz Republic and Comparators
(in percent of officially reported GDP)



Source: Medina, Leandro and Schneider, Frederick (2018). "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?". IMF working paper.

A large share of the Kyrgyz private sector engages in informal activity, which accounts for about 24 percent of GDP.³⁴ Informal firms employ roughly 37 percent of the labor force, below the average for

³² World Bank 2019.

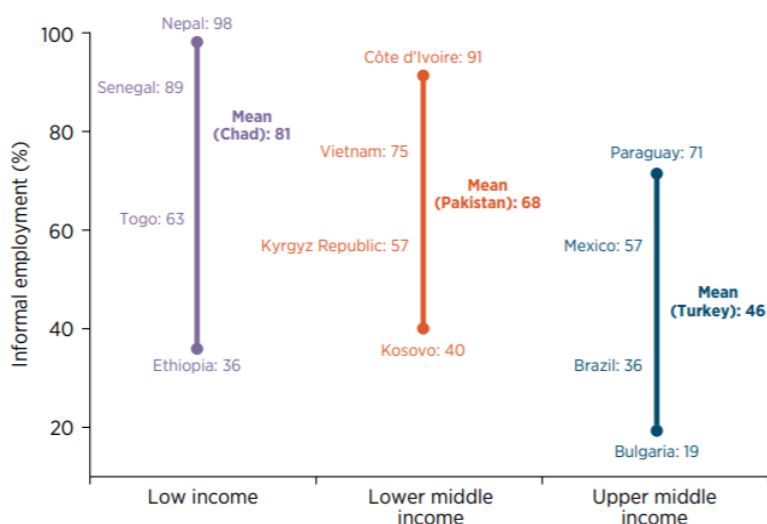
³³ Ulyssea, Gabriel. 2018. "Firms, Informality, and Development." VoxDev (blog) <https://voxdev.org/topic/firms-trade/firms-informality-and-development>.

³⁴ As per the ILO definition, an activity is considered formal if it takes place either with registration of the enterprise as a legal entity, or with registration as an individual *entrepreneur* or registration of a patent, license, certificate, or another similar document. Similarly, workers are informal if they do not have a written contract and are not subject to labor laws or social security legislation (and may be unpaid family members).

lower-middle-income economies. The Kyrgyz Republic's level of informality is not higher than comparator economies (Figure 0.8). As in its neighbors, over one-third of informal employment relationships in the Kyrgyz Republic are in formal production units. Informality varies by economic sector, with the highest rates of informal employment in wholesale and retail trade and agriculture; that is, sectors where there are more low-skilled jobs. Over time, informality has declined, reflecting rising income per capita, labor force changes, migration, and economic structures. However, in agriculture and construction, 85.7 percent and 61.7 percent of wage workers, respectively, work informally.

Informal activities tend to be of lower productivity for two reasons. First, low-return activities can survive better in lower-cost environments (paying no taxes, for example). Second, high-return activities may require inputs such as finance that are only available with formalization. Firms and employment will remain informal as long as the net benefits to remaining so are higher than those gained with formalization.

Figure 0.9. The Share of the Informal Sector in Various Income Groups
(in percent of employment)



Source: World Development Report 2019.

Some informal activities are in direct competition with formal ones, while others are in different price-quality groups. Services for the elderly and house care fall into the former category. The formal economy produces most of the high value-added, higher-quality output (including in the overlap areas, such as clothing). The types and extent of activities in the informal sector that are good substitutes for those in the formal economy vary from country to country. Surprisingly, formal firms cite informality as their greatest constraint to doing business in the 2019 Enterprise Survey for the Kyrgyz Republic; this is especially pronounced for smaller firms. Interpreting the results—and assuming operation under the patent regime is included in this definition of informality—suggests that registered businesses are in direct competition with informal or patent-regime firms.³⁵ They pay higher costs to operate in the market, as their scale of operation is higher. Yet, their profit margins are lower according to the degree of overlap with

³⁵ In the Kyrgyz Republic, firms operating under the patent regime are not formally registered firms. Registered firms may also be referring to entrepreneurial activity under the patent regime as “informal.”

informal production.³⁶ While they must charge similar prices for similar products, other advantages of formality—such as those that come with scale—are eroded.³⁷

Several factors affect the evolution of the informal sector and its relationship with the formal sector.

At least two endogenous processes will reduce competition from the informal sector: changes in consumer preferences toward more expensive goods as incomes rise, and the ability to produce better-quality goods at lower prices with technology adoption. At the same time, if regulatory and structural changes reduce the costs associated with formality, and if other advantages (cheaper access to finance and other inputs, for example) increase, firms will be more likely to reap higher profits from formalizing. Formal firms will benefit by investing to move up the product ladder into areas where less sophisticated or informal firms do not produce.³⁸ And informal firms can take advantage of scale efficiencies or access to finance by becoming formal.

How might policy affect the transition to more efficient and productive activities? The shares of informal output and employment fall as countries become richer precisely because the benefits of formality that come with more efficient, developed, and integrated input and output markets and better institutions (such as employer pensions, better working conditions, better tax systems, and less harassment, larger customer base, preference shifts as a larger share of customers moves up the quality ladder, better financial systems) outweigh the costs (complying with regulations and taxes). Among the business environment factors that may encourage firms and the workers they employ to remain informal in the Kyrgyz Republic are the cost of registration, fear of harassment by inspectors, international trading costs, little benefits from increasing scale, and the costs of complying with business or labor legislation.

C. THE ROLE OF THE STATE IN ECONOMIC ACTIVITY

The functioning of private sector firms is substantially affected by state-owned enterprises. Some SOEs provide essential goods and services, such as energy, water, and transport services. At the same time, other SOEs dominate certain sectors or activities, receive preferential treatment or transfers, and—with the playing field tilted in their favor—limit private sector entry. The share of public enterprises in the Kyrgyz Republic is much smaller than in comparators (Table 2.1). The sector distribution of state-owned entities in the Kyrgyz Republic is typical for the region, with the state dominating in energy and mining, with a strong presence in transport and communications. Government efforts to divest SOEs in the communications sector and state-owned banks have not led to a substantial reduction in state ownership. Infrastructure companies, such as the airport and railways, also remain in state ownership, despite ongoing discussions to either fully or partially divest these or to place them under private management.

The energy sector accounts for the bulk of SOE assets in the Kyrgyz Republic and holds the largest share of liabilities among all SOEs in the country. Energy sector assets account for 62 percent of total non-financial SOE assets and over 91 percent of non-financial SOE liabilities. Total liabilities of the energy SOEs exceed their equity almost eight-fold, indicating that the debt of the Kyrgyz Republic's energy sector is unsustainable over the medium term. Although most Kyrgyz energy SOEs presently borrow through the

³⁶ Demand is substituted to the goods produced in the informal sector.

³⁷ The last survey did not highlight this as a significant complaint of firms.

³⁸ However, firms surveyed may be referring to firms operating under the patent regime—small firms that are “formal” as per the definition above but are exempt from a variety of taxes and regulations. These firms, too, choose to remain large because the benefits of growing in size are not great enough to incur the additional costs.

government from international financial institutions on favorable terms, this continued access is not assured.³⁹

Table 0.1. SOEs in Operation by Sector
(number)

Sectors	SOEs (JSC)	SEs	Total
Agriculture, forestry, and fishing	0	33	33
Mining	3	7	10
Manufacturing	2	5	7
Energy & Energy Construction	4 (+9)	1	5 (+9)
Transportation	2	7	9
Information and Communication	2	7	9
Financial	7	0	7
Other	3	44	47
Total	23 (+9)	104	127 (+9)

Source: State Property Management Fund.

Note: The “+9” figure reflects the addition of the nine subsidiary companies of the PJSC National Energy Holding because national statistics report the Holding and the subsidiaries as a single enterprise.

The performance of financial SOEs has been relatively stable. These SOEs comprise two banks, one insurance company, and three companies providing other financial services. In 2018, the net income of the state-owned financial institutions rose by 54 percent. The financial results of state-owned Aiyl Bank and RSK Bank, together accounting for 90 percent of the state-owned financial sector and generating 95 percent of its revenue, are the main drivers of the sub-sector's performance.

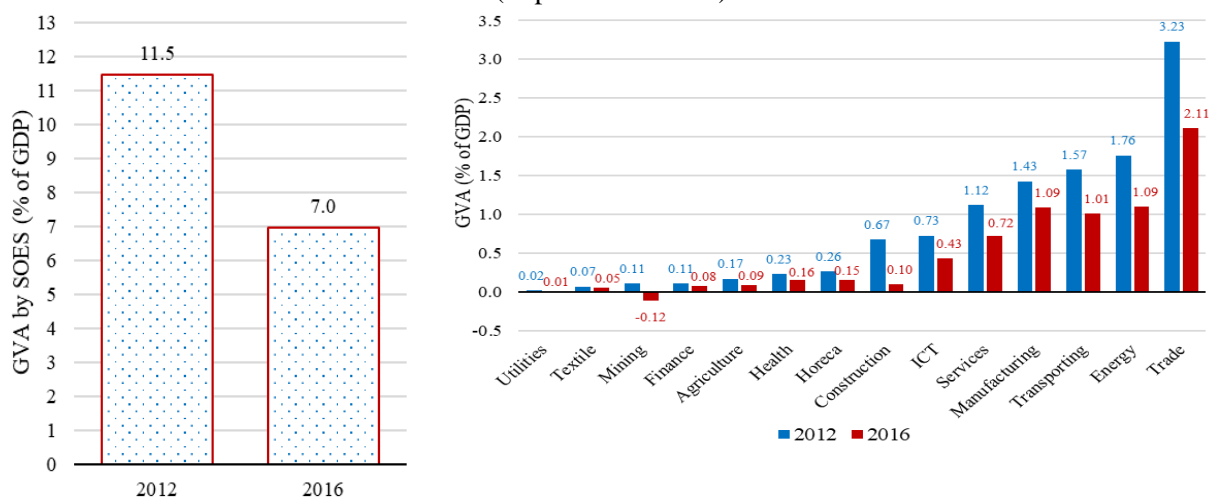
SOEs employ a modest 2 percent of the working age population. The largest share of SOE employment is with energy sector companies (19,000 employees), followed by transport and communications (9,000 employees each). SOE's share of GDP declined across all sectors in the Kyrgyz Republic between 2012 and 2016 (Figure 1.10).

D. BUSINESS CONSTRAINTS

This section discusses the most important areas of concern to businesses. It uses information from the WBG's Enterprise Surveys, *Doing Business* report, and Worldwide Governance Indicators as well as the World Economic Forum's Executive Opinion Survey and Transparency International's Corruption Perceptions Index, among other relevant surveys and studies.

³⁹ SOEs may not borrow directly in the Kyrgyz Republic.

Figure 0.10. Value-added by SOEs
(in percent of GDP)



Source: WB staff calculations using data from the State Property Management Fund.

Corruption

A range of indicators and surveys point to corruption as a significant concern to businesses operating in the Kyrgyz Republic. The World Economic Forum's 2017 Executive Opinion Survey placed corruption at the top of business concerns (Figure 2.11). According to a 2015 investor perceptions survey conducted by the World Bank Group, 80 percent of surveyed firms identified corruption, poor transparency, and unpredictability of government decisions as key constraints in operating a business in the country.⁴⁰ Corruption comes in many forms; in the Kyrgyz Republic, bribe-taking is widespread. On individual transactions, firms report a high incidence of requests for informal payments across every area tracked by the Enterprise Surveys. About 60 percent of firms experience at least one request for an informal payment, compared with an average of 13 percent in the Europe and Central Asia (ECA) region. The World Bank Worldwide Governance Indicators place the Kyrgyz Republic well below the average performance in terms of the rule of law, control of corruption, and political instability. Furthermore, the country's rankings have deteriorated in recent years.⁴¹ Corruption in the Kyrgyz Republic (as measured by the graft index and the bribery index) is significantly higher than in the ECA region and low-income economies. In 2018, the Kyrgyz Republic ranked 132 of 180 economies in Transparency International's Corruption Perceptions Index, with its score unchanged from 2017.⁴²

Business Regulation and Implementation

Doing Business 2020 ranked the Kyrgyz Republic 70 of 190 economies, down from 67 in 2011, because of slower progress compared to other CIS economies.⁴³ Over the same period, Kazakhstan, Uzbekistan, and Russia all substantially improved their rankings. The Kyrgyz Republic's ranking on *Doing Business* is still better than others at its income level. However, while *Doing Business* includes relevant factors to assess

⁴⁰ World Bank 2015. The survey respondents included a total of 304 companies (201 operating and 103 non-operating or withdrawing investments).

⁴¹ For more information, see the Worldwide Governance Indicators website at <https://info.worldbank.org/governance/wgi/>.

⁴² More information can be found at Transparency International's website, <https://www.transparency.org>.

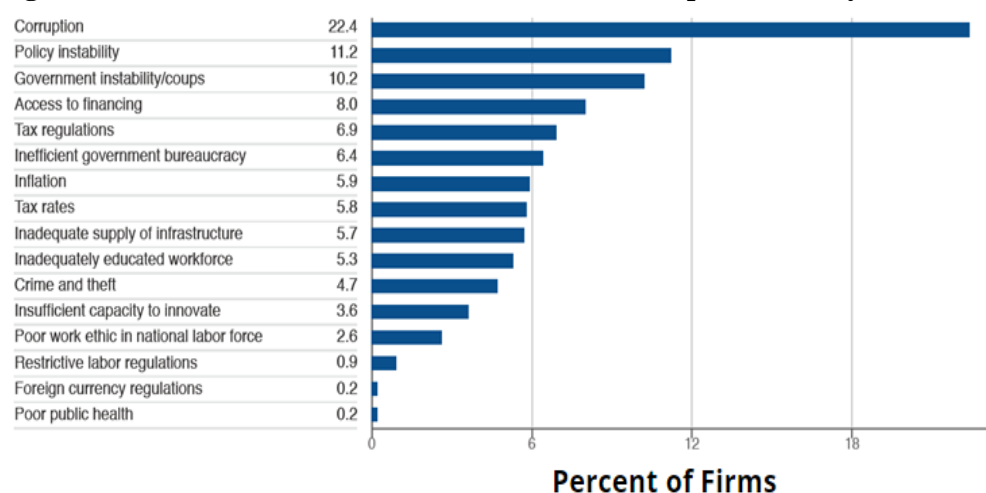
⁴³ For further information on the *Doing Business* rankings, see the website at www.doingbusiness.org.

the cost of doing business, it does not include relevant business environment issues such as political or regulatory uncertainty, government implementation capacity, and opportunities for scale-up, among others. Yet, enterprises cite policy instability as one of the most important constraints to their operation, according to the latest Enterprise Survey.⁴⁴

Policy and Government Instability

Policy and government instability and inefficient bureaucracy are among the most critical constraints to doing business. Since 2011, there have been 10 changes of government. The average tenure of the cabinet of ministers is less than one year. Because each new government has come with a new economic program and team, it has been challenging to pursue a consistent economic policy and bring reforms from design to implementation without significant delays or changes. Government resources have been spent on drawing up economic programs with little time or capacity to implement them. Such a context negatively affects business confidence, investment, and economic growth (see Chapter I).

Figure 0.11. World Economic Forum 2017 Executive Opinion Survey



Source: World Economic Forum Executive Opinion Survey 2017.

Multi-country research supports the concerns about instability affecting business development. Substantial evidence around the world points to the potential constraints that an overly complicated, expensive, non-transparent, or cumbersome regulatory burden present for private sector growth.⁴⁵ The causes of these constraints are: (i) the direct financial cost of compliance; (ii) an inability to meet non-financial requirements due to language or education differences, lack of which compound the deterrence provided by complexity; (iii) indirect financial costs related with compliance, such as paying bribes to avoid harassment or to gain access to a service. Other important aspects of the regulatory environment are stability, predictability in implementation, and even-handedness in implementation.

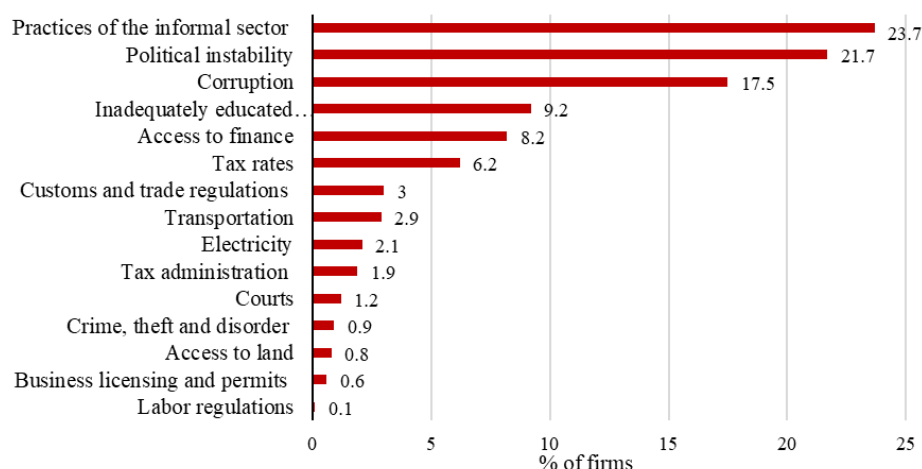
The Kyrgyz regulatory regime—with its complex licenses and permits, and numerous and punitive inspections—fuels corruption and implementation inconsistency, raising risks for potential investors.

⁴⁴ <https://www.enterprisesurveys.org/en/reports>

⁴⁵ See Holcombe and others (2008), Tanzi (1998), Treisman (2007), and Djankov and others (2002).

While the Kyrgyz Republic has made improvements to its legal and regulatory framework, these have not gone far enough.

Figure 0.12. Top Business Environment Obstacles for Firms in Kyrgyz Republic



Source: World Bank Enterprise Surveys 2019.

a. Business inspections

The authorities began inspections reform in 2007 to improve the regulatory environment for firms. In 2012, the government reduced the number of state inspectorates from 21 to 12. Inspections by the Tax Authority, the Social Fund, the Fire Safety Agency, and the Sanitary and Epidemiological Service are those most commonly faced by firms. Making fewer administrative bodies responsible for inspections is a step in the right direction. The government has developed an inspections management system and portal.⁴⁶ These reforms have reduced the number of inspections by 30 percent. Furthermore, the number of businesses covered by inspections declined by 39 percent, and the authorities narrowed the scope of inspections. As a result, compliance-related savings was roughly \$5 million.⁴⁷

More work remains. It is not enough to reduce the number of inspectorates and inspections; inspections must also follow a rational process. Risk-based inspections, utilized around the world but not in the Kyrgyz Republic, fulfill this role. At the same time, assessments of the state inspectorates' performance are based on the number of inspections conducted, fees collected, and the number of violations identified. There is little incentive for the state inspectorate to move away from a penalty-based approach to a compliance and awareness-building approach. Counseling and, in some cases, training entrepreneurs can increase the capacity of firms to comply with regulations; such initiatives also serve to build trust between the private sector and state bodies. To reduce the burden of inspections further, the government introduced a two-year moratorium on inspections in December 2018. It is unclear what upside impact this reprieve may have on businesses, particularly as there is no plan to address the needed reforms during these two years. On the downside, the two-year absence of inspections could exacerbate worker/public health and safety issues, as

⁴⁶ For more information, see www.proverka.gov.kg.

⁴⁷ IFC, KYG Investment Climate ASA, Project Completion Report 2018. Data from the Ministry of Economy and an IFC survey.

well as compliance issues regarding export requirements. An appropriately modified inspection system is needed.

b. Licenses and permits

Many licenses and permits are needed to operate a business. A recently-conducted Organization for Security and Cooperation in Europe (OSCE) assessment of national legislation identified more than 800 different administrative procedures (including permits) with which firms operating in the Kyrgyz Republic must comply. In comparison, Moldova has 155 such procedures, and Kosovo has approximately 480 that have a direct relation to the regulation of business.²³ Obtaining permits is a major obstacle for businesses in terms of time and cost. According to the OSCE assessment, firms spent 60 working days and completed six different procedures on average in 2018 to obtain a simple operating permit. The existence of multiple permits—each with its own process—has facilitated corruption and reduced the transparency of the system. Plans to simplify the system are in development—one would automate license and permit issuance online. The digitalization and automatization of the system⁴⁸ would also reduce the uneven implementation of regulations.

Box 0.1 Case in Point: Kumtor Gold Arbitration

In 2016, Kyrgyz law enforcement officials raided the Bishkek headquarters of Kumtor Gold on suspicion of financial irregularities. Kumtor Gold is owned by a Canadian company, Centerra, which operates the Kyrgyz Republic's largest gold mine. The Kyrgyz government prevented expatriate officials from leaving the country while a local court issued an injunction precluding the company from transferring profits to Centerra. The Kyrgyz government's failures to abide by the previous investment agreement led Centerra to file claims in a court of international arbitration. The two parties successfully negotiated a comprehensive settlement in September 2017 that lifted the travel ban and allowed for the repatriation of profits. Subsequent changes in the Kyrgyz government have delayed the full implementation of the agreement and made further renegotiation possible. In 2019, the case was resolved, and investment resumed.

Source: U.S. State Department.

c. Investment protection and foreign direct investment (FDI)

The Kyrgyz Republic has some potential advantages as an FDI destination, including low labor costs, cheap electricity, a competitive taxation system overall, and trade preferences that grant access to the large markets of the Eurasian Economic Union and European Union.⁴⁹ The authorities recognize that FDI is essential for bringing in much-needed financing and technology.⁵⁰ Reform of investment laws has improved the investment climate for foreign companies. The legal framework specific to foreign investments is in line with international good practice – there is even treatment of foreign and domestic investors and no discrimination or preferential treatment of investment in some sectors over others.

Weaknesses in legal and regulatory enforcement affect the implementation of laws and regulations. The institutional arrangement for foreign investment oversight and protection is split between three different bodies, and there is no clear delineation or separation of their responsibilities. Furthermore, the

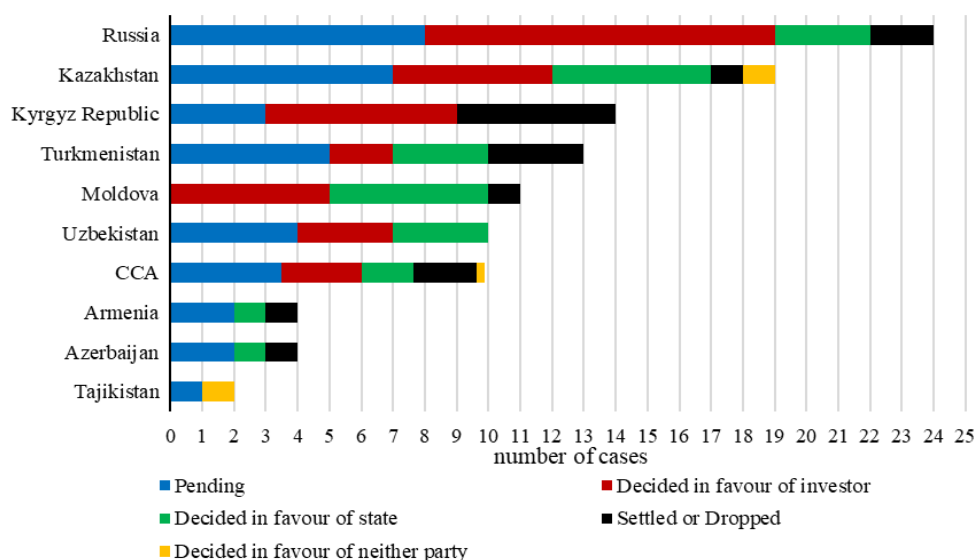
⁴⁸ Some electronic submission services exist with the Tax committee, but government-to-business services are not fully digitized.

⁴⁹ The Generalized Scheme of Preferences (GSP) allows vulnerable developing economies to pay fewer or no duties on exports to the European Union, giving them vital access to the E.U. market and contributing to their growth.

⁵⁰ Cochrane and others 2017.

Kyrgyz Republic is the lowest-ranked country in Central Asia on investor protection. *Doing Business*, for example, ranks the Kyrgyz Republic below the regional average across most indicators; the country scores particularly low on resolving insolvency and enforcing contracts. Poor investor protection has resulted in more than 12 international arbitrations cases, a higher number than comparators (Figure 2.13). Although most cases to date have been resolved in favor of the investor, the cost to the investor is high as production stops during this time. Furthermore, the potential financial cost of such cases to the Kyrgyz government is high: the average award per arbitration case has been \$10.4 million, with about \$3 million per case in legal and administrative costs alone.⁵¹ There is no adequate mechanism to prevent grievances from escalating to investment disputes.

Figure 0.13. Investor-State Disputes
(number of cases by resolution)



Source: UNCTAD Investment Dispute Settlement Navigator.

d. Taxation

Corporate taxes: The effective tax burden on firms is modest and not a significant concern for the private sector. Indeed, Kyrgyz firms face one of the lowest tax burdens among neighboring economies. For example, the total tax and social contribution as a share of commercial profits for a medium-size company is only 29 percent of gross profits. This rate is on par with Kazakhstan (29.2 percent) but significantly below that of Uzbekistan (38.1 percent), Russia (47.4 percent), and Tajikistan (65.2 percent). In addition to the profit tax, companies pay a sales tax that was put in place during the 2009 reform to complement the value added tax (VAT), with rates that vary from 1–5 percent (Appendix II.1). The reform resulted in an overlap in the tax base of the VAT and sales taxes so that a given taxpayer could pay both taxes; cashless transactions and exports do not pay the sales tax.⁵² The authorities have committed to phasing out the sales tax gradually, fiscal conditions permitting, to reduce the burden on firms.⁵³ For social

⁵¹ Investment Roadmap Kyrgyzstan 2017.

⁵² The regulatory base for the sales tax was developed based on previously-existing contributions to the emergency fund, the tax on the use of roads, and the retail sales tax.

⁵³ The sales tax leads to a cascade effect, especially for VAT payers, which creates obstacles to the formation of an independent production chain.

security allocations, all companies, regardless of size, are required to report monthly to the Social Fund. Only entrepreneurs who work under the patent regime are exempt from this tax; these entrepreneurs are also not considered firms from an administrative viewpoint.

Tax compliance is burdensome, particularly for micro, small, and medium enterprises (MSMEs), owing to a plethora of complex tax regimes and rules that lack clarity. There are six national taxes (the sales tax overlaps with the VAT, but existing fiscal constraints prevent a rapid phase-out), and two local taxes (Box 2.2 and Annex 2.1). In addition to the general tax regime, there are six other specialized tax regimes for distinct categories of companies. Legal entities that are VAT payers incur maximum costs related to tax payment procedures, while individual entrepreneurs working under a simplified tax regime incur minimal costs. Recent reforms include consolidating the tax on interest income with the corporate income tax and the establishment of an online platform for filing and paying taxes. If implemented well, it should make paying taxes easier.

Box 0.2. Tax Regime and Tax Rates

The following taxes fall under the general tax regime:

- National taxes: profit tax, income tax, value added tax, sales tax, excise tax, mining taxes (bonuses and royalties)
- Local taxes: land tax and property tax

In addition to the general tax regime, Kyrgyz law establishes special tax regimes for specified categories of taxpayers. These regimes are:

- Simplified single tax-based tax regime
- Mandatory patent-based tax regime
- Voluntary patent-based tax regime
- Tax contract-based tax regime
- Free economic zone tax regime
- High-tech park tax regime

Under the *simplified single tax-based tax regime*, SMEs may pay the single tax instead of profit tax or sales tax on their taxable income. For agricultural product processing, production, and trade, the single tax rate is 4 percent of earnings in case of cash settlement and 2 percent in case of non-cash settlement. For other activities, the single tax rate is 6 percent of earnings in case of cash settlement and 3 percent in case of non-cash settlement. Where the taxpayer is engaged in several undertakings, the single tax is assessed and paid separately for each undertaking at the rates established for these undertakings.

The simplified tax regime is optional for all business entities, except payers of VAT, excise tax, or patent-based tax, providers of financial and insurance services, investment funds, professional securities market participants; providers of catering services; providers of resort and spa services.

The *mandatory patent-based tax regime* applies instead of income tax, VAT on taxable supplies, and sales tax only to the providers of certain services (saunas and baths, currency exchange offices, the export of agricultural products, and so on).

The *voluntary patent-based tax regime* applies instead of profit tax and sales tax only to individuals who are not VAT payers in selected activities. The base rates of the voluntary patent-based tax are also set by the Tax Committee, with local authorities having no authority to set these taxes.

The *tax contract-based tax regime* applies to organizations and individual entrepreneurs engaged in business for over three years (except for catering, housing construction, financial and investment services, those who pay excise taxes on alcohol, tobacco, and oil, and resorts, among others). Under this tax regime, a taxpayer and a competent tax authority execute a contract setting forth the fixed amount of profit tax, sales tax, and VAT expected to be paid by the taxpayer in the next calendar year.

The *free economic zones (FEZ) tax regime* applies only to residents of the FEZ engaged in the production and sale of goods (works, services) except excisable goods in the FEZ. Residents of the FEZ are those organizations registered with the FEZ General Directorate. Residents are exempt from all taxes except the income tax (withheld and paid by the employer on behalf of the employee) and other taxes withheld and paid at source, such as taxes on interest income, insurance payments, honoraria, and so on. The sale of goods to other parts of the Kyrgyz Republic requires payment of VAT. FEZ residents only pay a fee (2 percent of their turnover) to the FEZ Directorate. There are five FEZs in the country: Bishkek, located near the capital; Maimak, on the Kyrgyz-Kazakh border; Naryn, on the Kyrgyz-Chinese border; Karakol, near Issyk-Kyl lake; and Leilek.

The *high-tech park tax regime* applies only to residents of high-tech parks engaged in business or international trade, provided that they comply with the requirements set in Kyrgyz law on the high-tech park. In addition to taxes, firms must pay social insurance for employees.

Source: Kyrgyz authorities and World Bank staff.

Patent system for small business: In the Kyrgyz Republic, small firms have the choice to apply for either the small business single tax regime or business patent regime, with the latter generally offering comparatively favorable tax treatment relative to any other tax regime. As a result, most small businesses prefer to apply for patents. During 2014–17, the number of patents issued rose by 20 percent; on the other hand, the number of SMEs that are not part of the patent regime grew by 18 percent (Box 2.3).

In addition to the low cost of entry, the patent regime offers a very generous threshold of KGS 8 million (\$116,000), among the highest in Europe and Central Asia. Considering the Kyrgyz Republic's relatively low income per capita it is particularly high. Only Russia, which has a much higher GDP per capita, has a more generous threshold in the ECA region. The patent regime is structured so that each patent is not identified with a unique taxpayer, and the law does not require the keeping of accounting records. One taxpayer/individual business could, in practice, have several "patents," thus resulting in a larger business than would be allowed by one patent. Moreover, businesses under the patent system are allowed to export and import. Given these conditions, business growth and migration into the formal VAT system and the general tax regime (required after reaching the \$116,000 threshold), are less likely. Inspections of individually-owned businesses are not required, and the tax authorities face difficulties in controlling abuse of the regime.⁵⁴

Business owners under the patent regime pay about one-seventh of the social insurance contributions paid by those under the general tax regime. There is no system linking the patent owner to the insurance he or she is required to pay for the employee. As a result, patents purchased exceed the number of insurance policies many times over.

Because of favorable treatment, the temptation to use patents is high. Some enterprises abuse the patent system and grow much larger (as informal entities) than allowed by the system. Others stay small and forego expansion that would raise their taxes and social security contributions and increase their interactions with regulators. This may be an important explanation of why so few enterprises in the Kyrgyz Republic grow into medium-size firms.

Box 0.3. The Voluntary Patent: A Specialized Regime for Small Entrepreneurs

A patent is a document issued by a tax authority certifying the payer's right to perform a specific type of (business) activity provided upon payment of a patent tax or fee. An individual entrepreneur is exempt from paying income and sales taxes when acquiring a voluntary patent. The process for obtaining a patent is simple: the individual entrepreneur pays the fee at a designated bank, presents the payment receipt to the tax authority, and receives the patent. A patent is valid only in the territory where it was issued (district, a city without district division, or Bishkek city). The amount of the patent tax is established by government decree. The tax authority has the right to adjust the tax amount depending on seasonality, profitability, type, and place of business.

Source: Kyrgyz authorities and World Bank staff.

⁵⁴ Engelschalk and Loeprick 2016.

Table 0.2 Patent Regimes and Thresholds in Various Countries

Country	Micro business turnover threshold	Micro business regime (income tax treatment)
Albania	ALL 2 million (\$19,100)	Patent
Armenia	AMD 6 million (\$14,750)	Patent
Bulgaria	BGN 50,000 (\$34,700)	Patent
Croatia	HRK 149,500 (\$28,900)	Patent
Hungary	HUF 6 million (\$26,000)	Patent
Georgia	GEL 30,000 (\$18,000)	Exemption
Kazakhstan	KZT 3,732,000 (\$23,700)	Patent
Kosovo	€5,000 (\$6,700)	Patent
Kyrgyzstan	KGS 8,000,000 (\$116,000)	Patent
Latvia	€50,000 (\$56,500)	Patent
Macedonia	MKD 3 million (\$66,000)	Exemption/Patent
Poland	Depends on the number of employees	Patent
Russia	RUB 60 million (\$1.7 million)	Patent
Serbia	SRD 6 million (\$71,700)	Patent
Tajikistan	TJS 100,000 (\$20,800)	Patent
Ukraine	UAH 1 Million (\$110,000)	Fixed single tax

Source: World Bank staff.

E. FINANCE AS A CONSTRAINT TO FIRM GROWTH

Access to finance is one of the top constraints to doing business in the Kyrgyz Republic. About 26 percent of Kyrgyz MSMEs identified access to finance as a major constraint compared to 16.6 percent of firms in ECA on average, and 8.8 percent in Kazakhstan.⁵⁵ Credit to the private sector reached about 24 percent of GDP at end-2018 compared to over 40 percent in lower-middle-income economies on average (Figure 2.14).⁵⁶

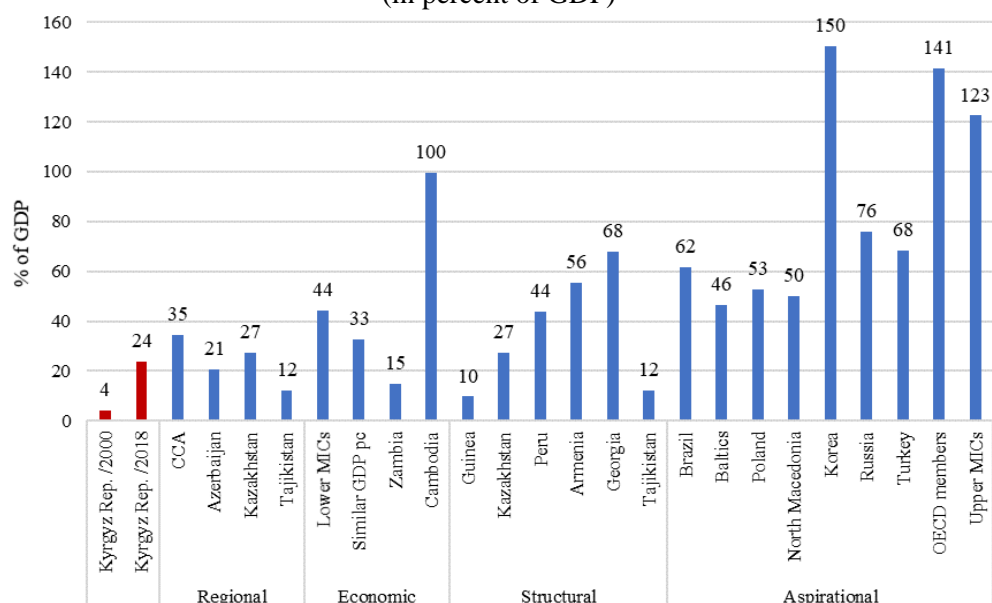
MSMEs rely heavily on internal resources to finance their investment and working capital. Only 18.4 percent of Kyrgyz MSMEs used financial institutions for investment financing compared to 24.7 percent on average in the ECA region. Overall, only 29.2 percent of businesses had a bank loan or line of credit.⁵⁷ Most companies also report financing themselves through informal channels and internal resources. More recent data, comprising financial activities of both businesses and individuals, indicate that only 9 percent of the population borrowed from a financial institution in 2017, and even fewer saved or took out a loan for opening a business. The agriculture sector (see Section F) is one sectors that would benefit substantially from improved access to credit.

⁵⁵ World Bank 2013.

⁵⁶ IMF 2018

⁵⁷ World Bank 2013.

Figure 0.14. Domestic Credit to the Private Sector
(in percent of GDP)

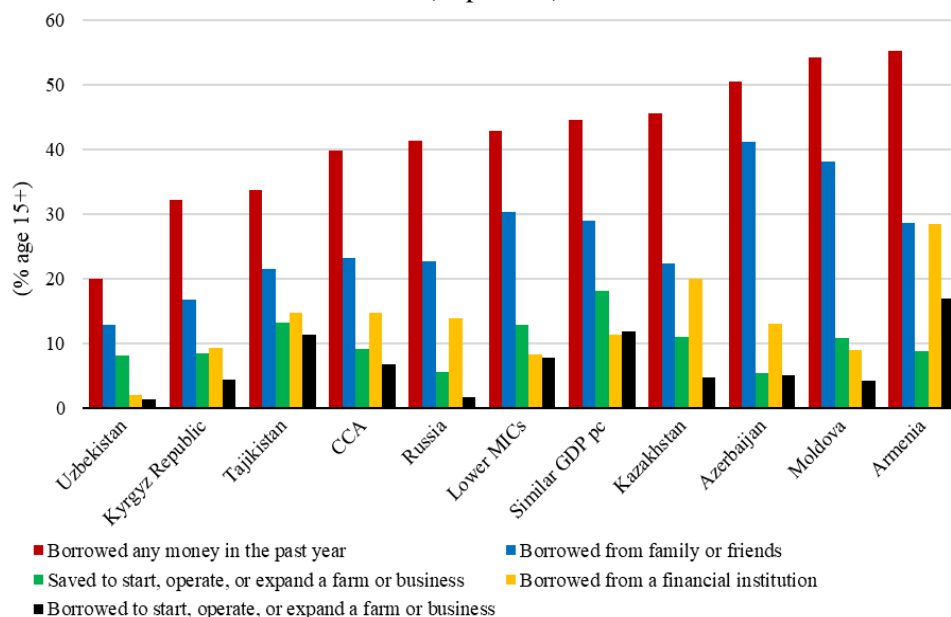


Source: World Development Indicators 2019.

Tight constraints on finance reflect a number of factors. The Kyrgyz Republic's net interest margin of 7.9 percent at end-2018 is high compared to the ECA median of 4.6 percent and higher than those of Kazakhstan, Uzbekistan, or Armenia. This high margin reflects limited competition and high operational costs due, in part, to a fragmented banking system that lacks scale economies and strict regulatory requirements. For example, the cost-to-income ratio in the Kyrgyz banking system was more than 70 percent in 2018, while in comparable countries this ratio was below 50 percent. Similarly, the operational costs-to-total assets ratio was more than twice as high in the Kyrgyz Republic relative to comparators.

Over the last two years, the situation in the banking sector has improved, with financial sector growth accompanied by declining interest rates. According to the National Bank of the Kyrgyz Republic (NBK), the average lending interest rate peaked in 2016 at 22.49 percent but decreased to 16.4 percent by February 2019. The transformation of major microfinance organizations (MFOs) into banks may have influenced these rates by increasing competition in the market. The establishment of the Russia-Kyrgyz Development Fund (RKDF) also had an impact on lending rates as it provided a new source of financing. However, private sector financing through the development fund cannot and should not substitute, over the medium-term, for a commercially-viable financial sector that can provide business and household credit.

Figure 0.15. Use of Credit in the Kyrgyz Republic and Comparators, 2017
(in percent)



Source: Findex Database, World Bank 2017.

Constraints Faced by Financial Institutions

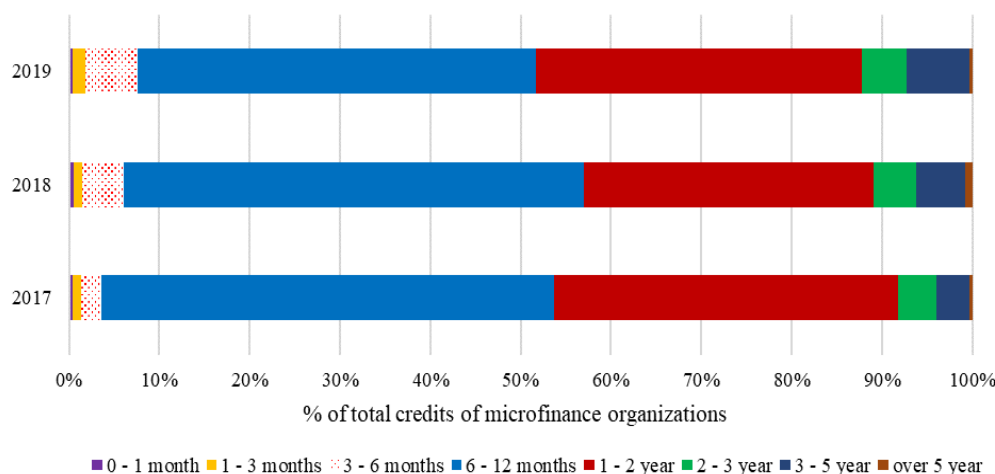
The constraints faced by financial institutions are not unique to the Kyrgyz Republic. Long-term finance remains one of the most significant challenges for banks and MSMEs alike. Although the loan-to-deposit ratio stood at 101.4 percent in February 2019, up from 99.6 percent in 2016, it remains considerably lower than in neighboring countries. The short-term, risky nature of Kyrgyz Republic's deposit base is part of the explanation. The two primary financing sources for banks are deposits and foreign funds. The former tends to be short-term in nature. As a result, banks are reluctant to extend long-term loans (more than five years) in local currency. The latter has been limited and risky, given recent external shocks and currency swings. High liquidity requirements—which were increased by the NBK in 2017 from 12 percent to 45 percent—further impede lending to the private sector. Furthermore, the maximum risk exposure resulting from unsecured loans is limited to 50 percent of a bank's total net capital. The availability of long-term finance (5–8 years) would be a boon for infrastructure and manufacturing growth. Eventually, capital market development would help extend the yield curve as a reference for corporate bonds.

The economy's high rate of dollarization exacerbates this situation. Although the overall share of dollar deposit and loans decreased from 69.1 percent and 55.1 percent in 2016 to 43.5 percent and 38.3 percent in February 2019, respectively, it remains difficult for banks to attract funds in local currency. The situation has not improved with the influx of additional dollar denoted capital to the market through the RKDF. Local financial institutions are aiming to reduce their foreign exchange risk but hedging against foreign currency risk is expensive and reduces the availability of funds.

Microfinance organizations are regionally widespread but play a less significant role in SME finance. Businesses prefer to work with banks because MFOs have similar documentary requirements and, typically,

a higher prevalence of short-term loans and higher interest rates (30.4 percent in Q42018).⁵⁸ Nevertheless, the microfinance sector plays a vital role in the Kyrgyz Republic, especially in rural and remote areas where the availability of collateral is limited and in the agriculture sector with short-term loans of under one year (Figure 2.16).

Figure 0.16. Loan Maturity in the Microfinance Sector, 2017-2019
(in percent of the total loan portfolio)



Source: National Bank of the Kyrgyz Republic.

Firms offering collateral have found it easier to get credit, though more risky lending such as the use of cash flow-based lending and other financial products has not developed. Lack of suitable collateral, especially in remote and rural areas, remains a more significant issue where a non-existent land market limits the ability of people to pledge land plots. About 86 percent of loans required collateral in 2013, with the value of collateral needed as large as 188 percent of the total loan amount.⁵⁹ As recently as 2017, 80.2 percent of loans were secured with immovable assets.⁶⁰ Considering that local legislation does not count movable assets lending as secured, it increases conservative behavior and the collateral required by banks.

The uptake of new financial products such as leasing and movable asset-based lending is still minimal. Although the legislation in place allows for effective leasing, most banks either never started or have stopped offering to lease, and the number of companies specialized in this area is small. Between 2010 and 2014, only 1,659 leasing deals occurred,⁶¹ mostly by commercial banks; since then, banks have further decreased their activities in this area. According to the latest World Bank survey, in 2017 only 3.5 percent of loans issued were against movable assets, down from 5.3 percent the previous year. MSMEs are open to the use of such products due to the prohibitive collateral requirements for loans. However, most leasing companies face a barrier to scaling up their businesses due to the small size of the market and the limited number of companies selling the necessary specialized leasing equipment and tools, particularly in the agriculture and construction sectors.

⁵⁸ National Bank of the Kyrgyz Republic 2019.

⁵⁹ World Bank 2013.

⁶⁰ IFC 2018.

⁶¹ USAID 2016.

F. IN FOCUS: AGRICULTURE

In addition to the horizontal issues faced by firms, sectoral issues may also hinder firm and productivity growth. After the early period of transition (1991–95), when agriculture moved from a collective, Soviet-style farm production system to private land ownership, agricultural productivity saw sustained growth for a decade, reaping the benefits of private farm ownership and structural adjustments. Value-added grew by 7 percent a year on average. Since 2005, however, agriculture has seen sporadic growth partly due to uncoordinated and inefficient public policies and external shocks, including political and weather-related shocks.⁶² In this period, the annual average growth rate was 1 percent. For a large part of the last three decades, total factor productivity (TFP) growth was negative, with low investment or technology improvements, little public sector investment in research and development, and poor market linkages. Infrastructure, including access to input and output markets, improved only slightly, and that improvement relied heavily on external donor assistance. Agricultural machinery, on-farm irrigation networks, and extension services for farmers have all depended heavily on limited foreign assistance and donor support programs.

Small and medium enterprises account for about 70 percent of agri-food production in the Kyrgyz Republic. Small firms tend not to be competitive in mainstream markets because they face intense competition from large firms, including multinationals. They lack access to capital to invest in the technology needed to expand production and markets. Typically, they also find it challenging to establish effective linkages with primary agricultural producers, and thus fail to grasp the benefits that a developed agri-food processing sector brings. Finally, small firms have difficulty entering markets, especially export markets. When compared with other similar post-Soviet economies that also have smallholder-dominated agricultural systems, the TFP in the Kyrgyz agriculture has consistently declined (Figure 2.17). However, small firms such as those in the Kyrgyz Republic *can* become competitive and profitable in premium, niche, and specialized markets. For this to occur, they need to be able to scale up and comply with various food safety and SPS regulations and standards.

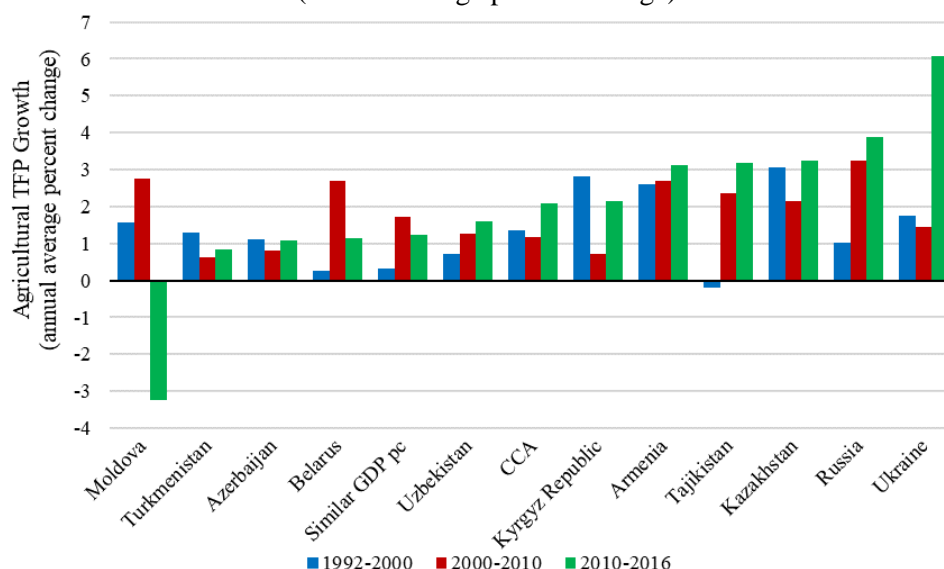
Public policies can help agriculture and particularly smaller farmers. One initiative that may enhance productivity growth and exports is supporting coordination among smallholders (cooperatives, alliances) through competitive matching grants. SMEs can also be supported to comply with export requirements, advertise in export markets, through irrigation provision to small scale farms, through the provision of better rural roads and reliable access to energy, and better sanitation, among other services. Input markets are critical to the growth of exports.

The second track for expanding markets is to promote exports of agri-food products by focusing on quality and safety and on conducting export promotion activities. The Kyrgyz Republic has two relatively well-developed export markets where its agri-food products have strong growth potential: Russia and Kazakhstan. Both are sophisticated in their regulatory requirements.

⁶² Broka and others 2016.

Figure 0.17. Agricultural Total Factor Productivity in Selected Countries, 1992–2016

(annual average percent change)



Source: USDA International Agricultural Productivity database.

Third, business environment reforms that support financial development would help. Over the years, there has been a proliferation of microcredit in the Kyrgyz Republic. Still, these programs primarily focused on making capital available to local banks and creating an advanced microcredit network. Supporting the introduction of modern mobile payment systems, innovative tools for collateral assessment, and alternative credit scoring systems is recommended for the expansion of credit to small farmers and agri-enterprises.

G. RECOMMENDATIONS

Concerted action by the authorities is needed to support stronger growth in productivity, exports, and private sector participation in economic activity. We invite the authorities to consider the following recommendations:

Administrative procedures should be digitized and an online one-stop shop introduced for all administrative procedures. Doing so will enable businesses to provide relevant information to the government without having to interact with multiple agencies or officials. Reducing the number of interactions and steps can facilitate more even implementation of regulation and reduce corruption. The electronic system would support the entire process from the receipt of the application to back-office operations, and then the issuance of the permit/license in electronic form. Of course, this will necessitate access to the relevant hardware and software, as well as a degree of literacy to manage the system. Digitization should be initiated once the electronic interdepartmental interaction system "Tunduk" is established, the DIGI CASA project is underway, and government interoperability is functional. This process will entail creating an electronic register of all administrative procedures by ministry/agency, adjusting the legal framework as necessary for digitization, and enabling data exchange and interoperability of systems, among other steps.

Business exit procedures will also need to be clarified; it will need to be linked to financial sector reform and allocation of property rights.

Business taxation should be reformed. The patent regime threshold should be lowered substantially (to the level of comparator countries),² and the taxation regime should differentiate between micro and small businesses. Small business taxes may be implemented in different ways; in most other countries, mass transport and mass trade, for example, are not covered by patents. At the same time, small businesses—including those on the patent regime—should be properly registered as such.

Investor protection for foreign investors should be improved to encourage FDI. The first steps could include amending the Investment Law to align it with good practice, ensuring the introduction of the most-favored nation clause guaranteeing all foreign investors equal treatment, and introducing an investor grievance mechanism relevant for local and national level grievances to prevent investor disputes from going to court. Oversight of grievances by multiple bodies should be eliminated, with a single agency being made responsible.

Business inspections should be rationalized. Inspection reform is an overarching reform that requires institutional, organizational, operational, and ICT reform, and usually takes many years to complete, but should begin now. The authorities should move away from the *voluntary coordination body* to a more *systemic and permanent central oversight function*. Performance of inspectors should not depend on the number of inspections they complete; rather, it would be useful for them to focus on systematic and constant data analysis, and to ensure that all inspectorates have the same checklist for inspections. The development of checklists requires an analysis of what should be included in compliance checks and allows inter-departmental cooperation. In addition, the authorities will need to:

- Upgrade the inspection software for better interoperability and coordination of inspections (for example, data exchange with the business registry and registries of permits and licenses, integration of border inspections, shared inspection history view);
- Develop risk-based inspection checklists and dynamic risk models, to employ inspection history and knowledge base for improved risk management;
- Introduce inspector's mobile application to support recording inspection findings and outcomes in the field using mobile devices and creating standardized inspection reports;
- Introduce additional self-regulation mechanisms, for example making inspection checklists available online for businesses to make self-assessments, publishing information, and manuals on sound risk management practices for businesses.

The financial sector must be developed to be a viable source of financing for firms, a critical precondition for firm growth. The financial situation of SOEs, the causes of high interest margins, the types of collateral accepted, and exploring digital finance for business are areas that will need attention. At the same time, the Kyrgyz-Russia Development Fund should not operate in such a way that it retards the progress of the domestic financial system. Its governance structure and financing terms will need to be reviewed so that over the medium-term it does not take away business on market terms from commercial banks, further distorting the financial system. Improving the collateral system and adjudication of creditor-borrower disputes will reduce transactions costs and risks in the financial system, helping to lower interest rate spreads.

Along with the horizontal reforms discussed above, sector reforms, such as in agriculture, should be implemented to improve business conditions, particularly for exporters.

- Support coordination among smallholders (cooperatives, alliances) through competitive matching grants.
- Support SMEs to comply with export requirements, advertise in export markets, through irrigation provision to small scale farms, through the provision of better rural roads and reliable access to energy, and better sanitation, among other services.
- Promote exports of agri-food products by focusing on quality and safety and on conducting export promotion activities.
- Support the introduction of modern mobile payment systems, innovative tools for collateral assessment, and alternative credit scoring systems is recommended for the expansion of credit to small farmers and agri-enterprises.

The reforms needed are several and will need sustained attention over the next few years. The immediate priorities would be in the following areas and they can be implemented fairly quickly:

- Business regulations: Do an inventory of all business administrative procedures related to entering and operating a business. Rationalize them to the most essential ones.
- Business taxation: Lower the patent regime threshold in accordance with the level in comparator countries. Once this is done, implement mandatory social contribution payment at the same time and single taxpayer registration.
- Finance: Begin a reform of finance with (a) cutting subsidies to SOEs; (b) reducing the cost of recovering collateral, including movable collateral through improvements in the legal framework for collateral and business exit procedures; (c) ensuring that the legal framework supports digital finance for business payments; (d) review governance of the KR fund and operational framework to ensure that it not retard the progress of the domestic financial system.
- Inspections: Develop single body overseeing inspections and continue developing risk-based inspection checklists. Over the next two years, introduce train inspectors to use mobile e-system to record inspection findings and outcomes in the field create standardized inspection reports;
- Agriculture: In agriculture, support SMEs to comply with export requirements particularly agri-food exporters by focusing on quality and safety and on conducting export promotion activities. Support coordination among smallholders (cooperatives, alliances) through competitive matching grants.

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Annex 2.1

		Taxes		Social security		Registration/ liquidation	Inspections
Size of firm	Legal status	Rates	Compliance	Rates	Compliance		
Micro firm or entrepreneur	Voluntary patent ⁶³	7 – 714 USD a month, depending on the type of activity	No accounting, no reporting	6 percent of the average monthly salary of a concrete city/region	No accounting, no reporting	Simplified registration and liquidation	None or extremely rare, mostly tax to check patent registration.
	Single tax regime ⁶⁴	2-6 percent of revenue, depending on the sector of activity and type of payment	Simplified accounting, quarterly report	10 percent of the average monthly salary or 17.25 percent of the salary fund and 10 percent of the salary for a legal entity	Monthly reports	Registration at the STS and SF is required (single window). Liquidation is relatively simple.	None or extremely rare, mostly tax inspections to check patent registration.
SME	Single tax regime ⁶⁵	2-6 percent of revenue, depending on the sector of activity and type of payment	Simplified accounting, quarterly report	10 percent of the average monthly salary or 17.25 percent of the salary fund and 10 percent of the salary for a legal entity	Monthly reports	Registration with the STS, SF (single window) and with NSC is required. Liquidation is relatively simple.	Some inspections, covering several areas depending on the business sector.
	Single tax regime ⁶⁶	Corporate income tax – 10 percent (a simplified methodology to	Quarterly reports (quarterly for	17.25 percent of the salary fund and 10	Monthly reports	Registration with the Ministry of Justice (for legal entities), STS and	Numerous inspections, including Tax/VAT.

⁶³ Applicable to individual entrepreneurs with turnover below the VAT threshold (KGS8 million).

⁶⁴ Applicable to individual entrepreneurs based on a certificate of state registration with a turnover not exceeding VAT threshold.

⁶⁵ Applicable to individual entrepreneurs based on a certificate of state registration or a legal entity with a turnover not exceeding VAT threshold.

⁶⁶ Applicable to individual entrepreneurs based on a certificate of state registration or a legal entity with a turnover between VAT threshold and KGS30 million.

		Taxes		Social security		Registration/ liquidation	Inspections
Size of firm	Legal status	Rates	Compliance	Rates	Compliance		
		determine the tax base may be used) VAT – 12 percent Sales tax 1-5 percent	individual entrepreneurs)	percent of the salary		SF is required. Liquidation procedure is complex and long for legal entities.	
	General tax regime ⁶⁷	Corporate income tax – 10 percent (a simplified methodology to determine the tax base may be used) VAT– 12 percent Sales tax 1-5 percent	Monthly reports	17.25 percent of the salary fund and 10 percent of the salary	Monthly reports	Registration with the Ministry of Justice (for legal entities), STS and SF is required. Liquidation procedure is complex and lengthy for legal entities.	Numerous inspections, including tax/VAT
Large entity	General tax regime ⁶⁸	Corporate tax – 10 percent VAT – 12 percent Sales tax 1-5 percent	Monthly reports	17.25 percent of the salary fund and 10 percent of the salary	Monthly reports	Registration with the Ministry of Justice (for legal entities), STS and SF are required. Liquidation procedure is complex and long.	Numerous inspections, including tax/VAT

⁶⁷ Applicable to individual entrepreneurs based on a certificate of state registration or a legal entity with a turnover between VAT threshold and KGS30 million.

⁶⁸ Applicable to legal entities whose turnover exceeds KGS30 million.

3. Trade Policy: Characteristics, Challenges, and Solutions

Reinvigorating the Kyrgyz Republic's growth model will require increased trade and integration into the world economy, improved exchange of goods and services and better connectivity within the Eurasian Economic Union (EEU), and steps to capitalize on the opportunities presented by the Belt and Road Initiative (BRI). These opportunities take place amid stagnating exports: the Kyrgyz Republic's exports of goods and services have barely changed in U.S. dollar terms since 2008, while global exports and those from lower- middle-income countries have risen by 26 percent and 53 percent, respectively. Although the composition of Kyrgyz exports has shifted away from fruits and vegetables—in part because exporters are unable to produce in the volumes buyers require or meet sanitary and phyto-sanitary (SPS) certification requirements — commodities comprise nearly 72 percent of exports. Considering the high remittance inflows the Kyrgyz Republic receives from overseas labor, the bulk of the country's foreign currency earnings are generated by assets the country has in abundance: commodities and labor. Building up other assets or factors of production is the essence of economic development. To do so—and rejuvenate growth in exports, well-paying jobs, and output—will require policy measures that meet the requirements under the World Trade Organization's Trade Facilitation Agreement (TFA) and the standards of the EEU and other potential markets. Creating institutions to help farmers certify their products for the Chinese market will also be essential for the Kyrgyz Republic to diversify its export markets to the East. Substantial improvements in the business environment, better local infrastructure, and improved logistics are needed to take advantage of new linkages between East and West. These measures will also help the Kyrgyz Republic to avoid the fate of other countries that have become nothing more than transit points between large neighbors, missing out on the economic development benefits generated by increased trade and investment.

This chapter reviews the Kyrgyz Republic's trade patterns and trade policies and provides an assessment of the country's potential for further trade integration with the region and the world. The chapter focuses on the Kyrgyz Republic's membership in the WTO since 1998 and the Eurasian Economic Union since 2016,⁶⁹ recognizing the Kyrgyz government's prioritization of regional trade and economic cooperation, and the development of appropriate quality infrastructure, as stipulated in the Development Program of the Kyrgyz Republic 2018–22,⁷⁰ as well as the Kyrgyz Republic's participation in the Belt and Road Initiative. This chapter also discusses the role of these policies in promoting trade.

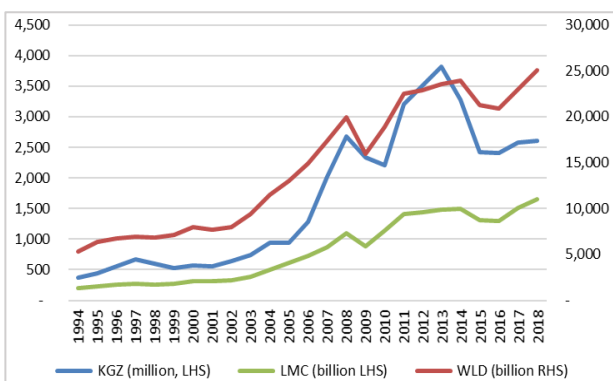
⁶⁹ The Eurasian Economic Union was preceded by the Eurasian Economic Community (EAEC or EurAsEC) that existed between 2000 and 2014 and aimed at the economic integration of its member state. The Kyrgyz Republic was a member of the earlier communities, as well. The EAEC originated in the Commonwealth of Independent States (CIS).

⁷⁰ Approved by the Decree Jogorku Kenesh of Kyrgyzstan, April 20, 2018, No. 2377-VI.

A. TRADE AND INVESTMENT PATTERNS

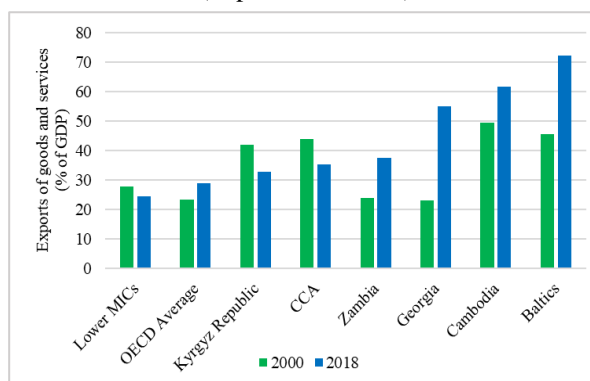
The Kyrgyz Republic is grappling with a large trade deficit, moderate exports dominated by gold, an overall reduction in goods and services exports, and volatile foreign direct investment (FDI) inflows. Weak competitiveness and challenging connectivity constrain export earnings while large remittance inflows finance a substantial import bill. In U.S. dollar terms, merchandise exports were largely unchanged from 2008 to 2018, while services exports rose only modestly (Figure 3.1).⁷¹ As a share of GDP, exports of goods and services almost halved over this period, falling from 57 percent in 2008, to 33 percent in 2018 (Figure 3.2). The Kyrgyz Republic lags countries with similar levels of GDP per capita, but—owing to commodity exports—is doing slightly better than lower-middle-income countries on average. For a country that was the region’s first to join the WTO, with a small and open economy, this poor export performance is diminishing the scope for boosting output, income, and wages.

Figure 0.1. Kyrgyz Republic’s Exports, 1994-08
(in US dollars)



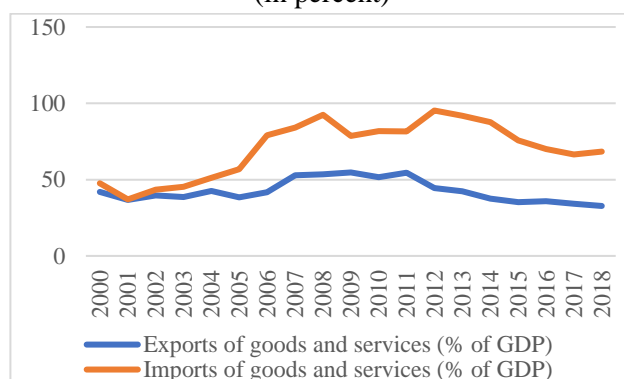
Source: WDI.

Figure 0.2. Exports: Kyrgyz Republic and Comparators, 2018
(in percent of GDP)



Source: WDI.

Figure 0.3. Kyrgyz Republic’s trade shares of GDP, 2000-18
(in percent)



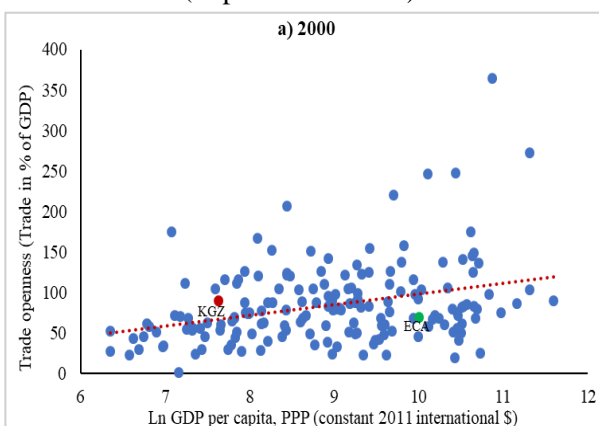
Source: WDI.

GDP.

Trade as a share of GDP is higher in the Kyrgyz Republic than predicted by its income level. The economy’s trade openness remained relatively unchanged between 2000 and 2018, even though the level of exports barely changed over that period (Figure 0.3-3.5). The main explanation for the Kyrgyz Republic’s higher-than-expected trade openness is the composition of the country’s exports (gold and other commodity exports, in particular). Imports are much higher than exports (Figure 3.3), driven to a substantial extent by large inflows of remittances. Most other countries at a similar income level do not export commodities and, therefore, have much lower shares of trade in

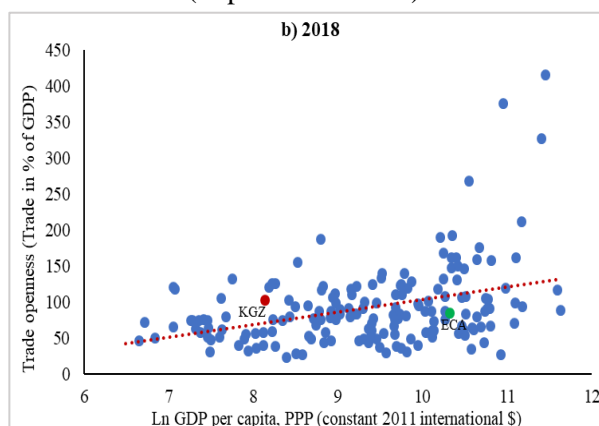
⁷¹ BoP, current USD World Bank Development Indicators.

Figure 0.4. Trade, 2000
(in percent of GDP)



Source: WDI.

Figure 0.5. Trade, 2018
(in percent of GDP)



Source: WDI.

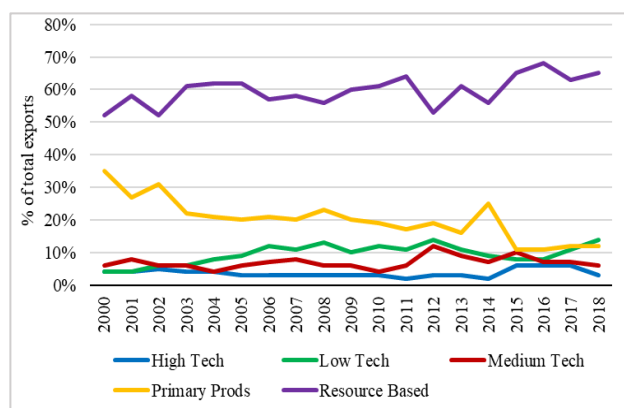
Commodities dominate Kyrgyz exports. Gold, other metals, and minerals account for roughly 60 percent of exports; textiles comprise an additional 11 percent (Table 3.1). Including re-exports, diversified products—such as trucks, machines, and foodstuffs—make up only a small share of exports. Like other countries with natural resource endowments, the Kyrgyz Republic has integrated into the global economy via its commodity exports: more than one-third of the country's total exports (primarily gold) goes to Switzerland and the United Kingdom. The Russian Federation and Kazakhstan purchase a further 30 percent (Figure 3.7). Exports to China still amount to less than a third of shipments to Russia, but imports from China are much larger, making China the Kyrgyz Republic's largest trading partner since 2013.

Table 0.1. Kyrgyz Republic's Structure of Exports, 2000-2018
(in US dollars)

Sectors	Export Value (millions of US dollars)			Percent of Total Exports			Growth (%)	
	2000	2012	2018	2000	2012	2018	2000-12	2012-18
Gold	195	562	664	38.7	33.4	36.2	-13.7	8.3
Minerals	87	251	293	17.2	14.9	15.9	-13.4	6.9
Textiles	43	205	193	8.5	12.2	10.5	43.3	-13.6
Metals	35	64	171	6.9	3.8	9.3	-44.8	145.4
Vegetable and vegetable products	15	148	96	3.0	8.8	5.3	196.8	-40.1
Transportation	15	140	80	3.0	8.3	4.4	182.1	-47.5
Machinery / Electrical	33	71	60	6.6	4.2	3.3	-36.3	-22.8
Foodstuffs	37	43	56	7.4	2.5	3.1	-65.5	19.7
Other	44	200	222	8.8	11.9	12.1	35.1	2.0
Total	504	1,683	1,835	100.0	100.0	100.0		

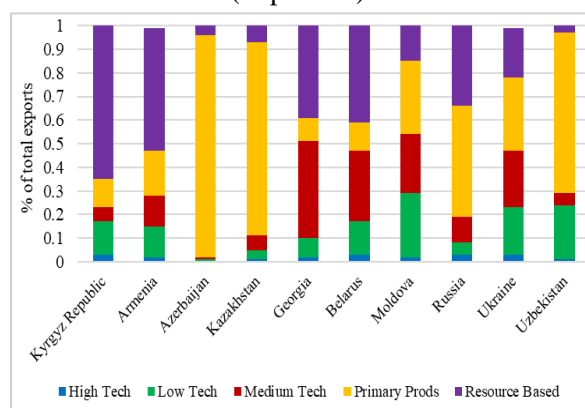
Source: COMTRADE (<https://comtrade.un.org/>).

Figure 0.6. Composition of Exports, 2000-18
(in percent)



Source: WDI.

Figure 0.7. Composition of Exports: Kyrgyzstan and Comparators, 2018
(in percent)



Source: WDI.

Table 0.2. Kyrgyzstan's Exports by Partners, 2000-2018
(in US dollars)

Region	Export Value (millions of US Dollars)			% of Total Exports			Growth (%)	
	2000	2012	2018	2000	2012	2018	2000-12	2012-18
EU	189	53	759	38	3	41	-91.5	1,202.0
China	44	61	61	9	4	3	-58.3	-8.5
EEU	102	636	639	20	38	35	86.1	-7.9
CIS ex EEU	101	24	216	20	14	12	-28.4	-17.6
ASEAN	0	0	2	0	0	0	-57.4	3,618.1
USA	3	3	2	1	0	0	-68.2	-42.0
Others	65	688	155	13	41	8	217.4	-79.3

Source: COMTRADE (<https://comtrade.un.org/>).

The composition of Kyrgyz exports has transformed over the past decade. Vegetables were the country's main export in 2008, accounting for 36 percent of total exports; in 2017, vegetables comprised just 5.7 percent of exports, mainly on account of tighter sanitary and phytosanitary (SPS) requirements in foreign markets and inadequate production volumes (Table 3.3). Exports of gold, precious stones, and glass rose from 6.7 percent of total exports in 2008 to 52.2 percent in 2017. Together, gold, other metals, minerals, and fuel account for 71.1 percent of Kyrgyz exports, a very high share for a country with only a modest natural resource endowment.

Between 2008 and 2017, the Kyrgyz Republic exhibited a revealed comparative advantage (RCA) in animals, minerals, gold, precious stones, and glass. The compound growth rate of these exports was

positive over the same period. Exports of vegetables, hides, and skins also have an RCA, but the volume of exports has shrunk.

Table 0.3. Kyrgyz Republic: Revealed Comparative Advantage, 2008-2017

Product Code	Share of total exports		RCA	
	2008	2017	2008	2017
01-05_Animal	3.34	2.58	1.91	1.23
06-15_Vegetable	35.8	5.67	12.62	1.65
16-24_FoodProd	2.85	1.73	1.03	0.51
25-26_Minerals	5.43	11.02	4.58	7.84
27-27_Fuels	4.82	7.95	0.29	0.76
28-38_Chemicals	2	0.5	0.23	0.05
39-40_PlastiRub	0.65	1.2	0.16	0.27
41-43_HidesSkin	6.63	2.56	13.32	3.92
44-49_Wood	0.8	0.49	0.32	0.21
50-63_TextCloth	16.98	3.82	4.32	0.88
64-67_Footwear	0.49	0.11	0.79	0.12
68-71_StoneGlass	6.68	52.22	2.27	11.7
72-83_Metals	5.98	6.34	0.69	0.92
84-85_MachElec	3.56	1.8	0.15	0.07
86-89_Transport	1.19	1.48	0.11	0.13
90-99_Miscellan	2.5	0.52	0.29	0.06

Source: COMTRADE (<https://comtrade.un.org/>); and World Bank staff calculations.

Note: Note: The RCA index is the ratio of a country's export share in a specific sector/product category to the world share of that sector in total world exports. An RCA index above the unit indicates that the country's share of exports in that sector exceeds the global export share of that same sector in the same period. In such cases, we infer that the country has a comparative advantage in that sector.

In the 2000s, the Kyrgyz Republic benefited from the re-export of Chinese goods to its neighbors, mainly Russia and other post-Soviet states. With a bustling re-export sector, trade drove economic growth and became a source of employment for about 15 percent of the Kyrgyz labor force. Owing to the expected increase in transparency, EEU membership limited the profitable business of re-exporting.

Much of the Kyrgyz re-export of Chinese goods to Russia and Kazakhstan is informal, and therefore not captured in the official data. For goods to be recorded as official re-exports, the re-exporter must declare that such goods were neither produced nor transformed in the Kyrgyz Republic. However, because of the likelihood that the goods originated outside of the EEU (from China), this declaration would be tantamount to an admission that a trader is contributing to making the perimeter of the customs union illegally porous. Informal re-exports, therefore, are more likely to be of economic importance than formal exports.

Although official data indicate a modest volume of re-exports (roughly 13 percent in 2013), research suggests a significantly higher figure. Furthermore, research shows that upon the Kyrgyz Republic's accession to the EEU in 2015, re-exports of Chinese goods saw a decline,⁷² perhaps owing to stricter border controls which discouraged re-export businesses.⁷³

Other relevant features of Kyrgyzstan's trade include:

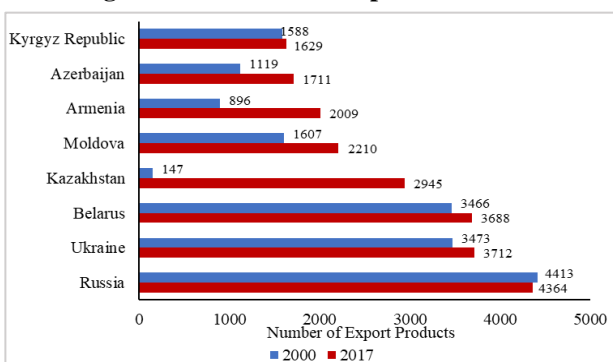
- The Kyrgyz Republic lags other countries in the Europe and Central Asia (ECA) region and other relevant comparators in terms of the number of products it exports and the number of trading partners (Figure 3.8 and Figure 0.9.)
- The top five products account for a substantial share of exports (Figure 3.10).
- The share accounted for by the top five partners is the highest among countries in the ECA region (Figure 3.11).
- High remittances finance consumer imports. World Bank data indicate that the Kyrgyz Republic is one of the most remittance-dependent countries in the world. At approximately 35 percent of GDP in 2018, remittance inflows finance a significant share of imports.⁷⁴
- A substantial proportion of cross-border trade with the Kyrgyz Republic's neighbors—including re-exports—is informal and not captured by official statistics.

⁷² Erkeaiym 2017.

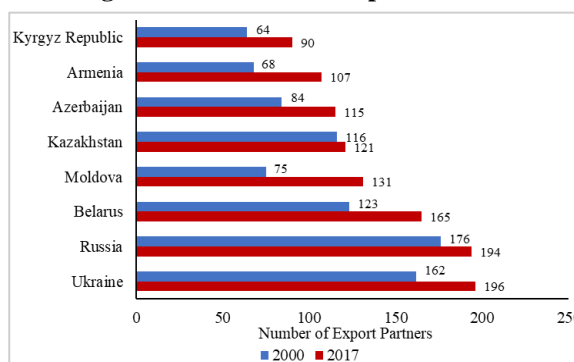
⁷³ World Bank 2015.

⁷⁴ Remittances data are from

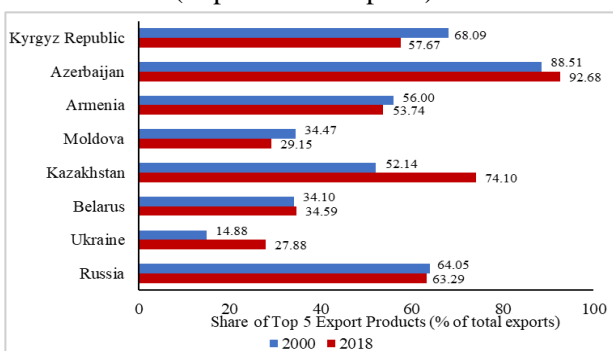
<http://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data>.

Figure 0.8. Number of Export Products

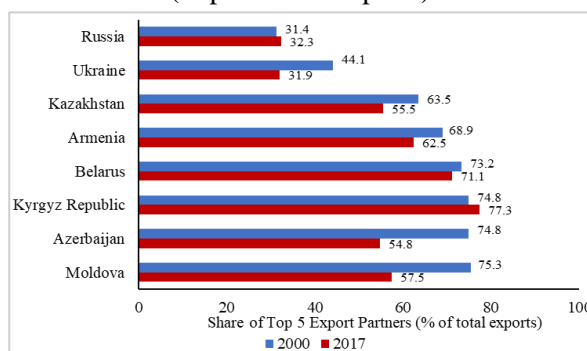
Source: COMTRADE (<https://comtrade.un.org/>).

Figure 0.9. Number of Export Partners

Source: COMTRADE (<https://comtrade.un.org/>).

Figure 0.10. Share of the Top Five Products
(in percent of exports)

Source: COMTRADE (<https://comtrade.un.org/>).

Figure 0.11. Share of the Top Five Partners
(in percent of exports)

Source: COMTRADE (<https://comtrade.un.org/>).

B. GLOBAL TRADE INTERGRATION: THE WORLD TRADE ORGANIZATION

The Kyrgyz Republic was the first Central Asian country to join the World Trade Organization (WTO). The country acceded to the WTO in 1998, completing its accession process in 2.7 years—a record it still holds (the average accession process takes 10.7 years).⁷⁵

The country has made little progress in implementing its commitments to the WTO's Trade Facilitation Agreement (TFA). To date, the Kyrgyz Republic has implemented just 12.2 percent of its commitments, and the government plans to implement another 16.4 percent by the end of 2020 without external assistance. Such assistance will be needed, however, to implement the remaining 71.4 percent of the country's implementation commitments. Specifically, the Kyrgyz Republic has requested assistance and support for a total of 26 TFA measures,⁷⁶ the most pressing of which concerns the legislative and regulatory framework. Other major needs include developing appropriate information and communication

⁷⁵ The economic literature criticizes the rapid nature of this accession, arguing that the necessary structural reforms required to benefit from the accession process fully were hardly implemented. Hastened negotiations resulted in a liberal regime, without adequate consideration of strategically important sectors of the economy such as agriculture. It is worth noting that in the case of the Kyrgyz Republic, tariffs were low before WTO accession. See Lacey (2002).

⁷⁶ See the WTO's TFA website at <https://www.tfadatabase.org/members/kyrgyz-republic/category-c-analysis> for a full list of the 26 measures.

technology (ICT), human resources and training, institutional procedures, awareness-raising, and carrying out diagnostics and needs assessments.

Several donor agencies and international organizations have been providing dedicated technical assistance programs on trade facilitation, although gaps remain. In particular, the Central Asia Regional Economic Cooperation (CAREC)'s trade facilitation programs (under the Asian Development Bank) have been guided by several strategies, including the Transport and Trade Facilitation Strategy 2020 and the Common Agenda for Modernization of Sanitary and Phytosanitary Measures for Trade (CAST). The Regional Improvement of Border Services (RIBS) project, for example, coordinates infrastructure improvement and the simplification of border crossing clearance procedures in select border crossing points in the Kyrgyz Republic, Mongolia, Pakistan, and Tajikistan. An emerging suggestion is that the Kyrgyz Republic accedes to the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention, RKC).⁷⁷

The failure to meet standards and technical regulations remains a major hindrance to trade, especially within the EEU. While the Kyrgyz Republic is committed to adhering to the provisions of all related WTO agreements on standards, implementation has fallen short. In its most recent WTO Trade Policy Review (2013), the Kyrgyz Republic had a designated institution for developing and maintaining standards. It was also developing national technical regulations, establishing mandatory requirements for products, processes (methods) of production, storage, transportation, and use, as well as mandatory conformity assessment procedures, through harmonization with international requirements for product and service safety regulations. However, cases have been reported of agricultural produce exporters being unable to export—to neighboring Kazakhstan, in particular—because their goods fail to meet the standards of the destination country.

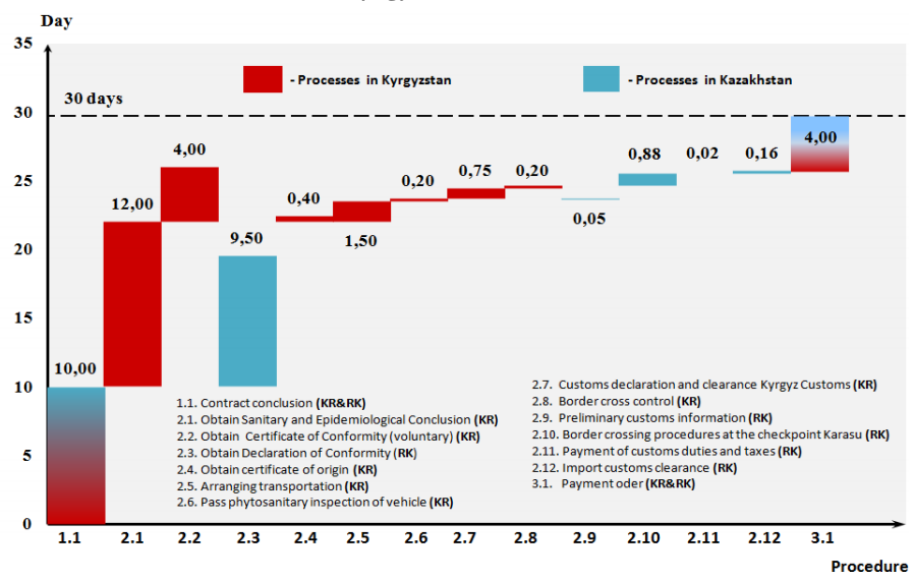
Moreover, some exporters are discouraged from entering certain markets because there is inadequate testing infrastructure at border points to authenticate the quality of their products. A UNECE Needs Assessment⁷⁸ on regulatory and procedural barriers to trade the Kyrgyz Republic suggested that in the absence of competent testing laboratories, efforts by customs officials who use mobile laboratories for testing, remain insufficient. Although introduced in 2015 as a solution, the laboratory for phytosanitary testing under the Ministry of Agriculture and Melioration⁷⁹ still lacks key equipment. Furthermore, the study reports that the State laboratory for food testing under the Centre for Standardization and Metrology is not accredited, as it is equipped for classical tests (using basic analytical methods and equipment) for only 11 of the 17 characteristics required for certification of product safety. As the government is unable to ensure food safety, potential exporters are compelled to either send samples overseas for testing, at a considerable cost, or seek markets where technical requirements are not too demanding.

⁷⁷ The RKC is considered the 21st-century blueprint for modernized customs procedures and complements the WTO TFA.

⁷⁸ https://www.unece.org/fileadmin/DAM/trade/Publications/ECE_TRADE_412E-Kyrgyzstan.pdf

⁷⁹ This was accredited to ISO/IEC 17025 in June 2015.

Figure 0.12. Average Processing Time for SPS Requirements for Processed Fruit from Kyrgyzstan to Kazakhstan



Source: ESCAP-ITRI/IDB (2015).

Kazakhstan has filed several sanitary and phytosanitary emergency measures against the Kyrgyz Republic. These include temporary restrictions on the import of Kyrgyz potatoes due to the “systematic identification of pests in quarantine products.” Procedures are slow owing to a lack of infrastructure, and, as a consequence, Kazakhstan again introduced a temporary ban—on the import of Kyrgyz meat—in October 2018.⁸⁰ A 2015 study of the procedures required to export processed fruit from the Kyrgyz Republic to Kazakhstan indicated that procedures are slow and cumbersome (Figure 3.12). The total time for processing documents and delivering fruit in 2015 ranged from 30–45 days, with the highest percentage of time spent on obtaining a phytosanitary certificate (27 percent).⁸¹ Limitations in the Kyrgyz Republic’s infrastructure are directly affecting its competitiveness. In addition, these limitations have affected its ability to notify trading partners. For example, Kyrgyzstan, while notifying TBT measures as early as 2007, only submitted its first SPS notification in 2015, the year of EEU accession.

C. REGIONAL INTEGRATION: EURASIAN ECONOMIC UNION (EEU)

The Kyrgyz Republic joined the Eurasian Customs Union—which subsequently became the Eurasian Economic Union—in August 2015.⁸² The EEU Treaty states that the Union provides for free movement of goods, services, capital and labor, and for the coordinated, harmonized, or unified policy of economic sectors. Mostafa and Mahmood (2018) highlight two reasons the Kyrgyz Republic joined the EEU. First, as the Kyrgyz Republic was one of the most unstable and vulnerable countries in Central Asia owing to

⁸⁰ 24.kg News. 2018. “Kazakhstan lifts ban on import of meat products from Kyrgyzstan.” October 19. https://24.kg/english/99230_Kazakhstan_lifts_ban_on_import_of_meat_products_from_Kyrgyzstan/.

⁸¹ UNESCAP 2018.

⁸² One of the primary motivations for joining the EEU was the already-existing, deeply-integrated Kyrgyz-Russia and Kyrgyz-Kazakh markets. Moreover, many Kyrgyz migrants were already living in Russia. Other potential reasons include attractive compensation packages from Russia and the possibility of averting the increasing Chinese influence in the Kyrgyz economy (Gast 2018).

internal political and socio-economic instability, it joined because of security concerns. Second, the Kyrgyz Republic relied on Russia's economic support. Upon joining the EEU, the Kyrgyz Republic was assured that Russian investment would be forthcoming and its oil and gas supplied at a discounted price.⁸³ Also, because of the high number of migrant workers in Russia (and Kazakhstan) whose remittances account for a significant share of GDP, joining the EEU had the potential to increase remittance inflows to the Kyrgyz Republic. The country also produced a large variety of fruits and vegetables—joining the EEU would provide a huge market.⁸⁴

With a nascent regulatory standards structure, the Kyrgyz Republic was granted an exemption to distribute products not in compliance with EEU standards (within its domestic market only) until August 2019. Export to other EEU member states has remained a challenge, primarily owing to the Kyrgyz Republic's failure to comply with WTO SPS requirements and World Organization for Animal Health standards for slaughter, regular vaccination, and animal identification.⁸⁵ All EEU member states must adopt and implement the requirements embodied in over 44 technical regulations to date to be fully compliant.⁸⁶

The Kyrgyz Republic has improved its performance on the World Bank's Logistics Performance Index, climbing 41 points between 2014 and 2018, with the most significant improvements observed in customs, border infrastructure, and timeliness.⁸⁷ For the country to reap the full benefits of EEU membership, however, it will need to do more than harmonize regulations; it will also need to establish the institutional infrastructure to boost the marketability of its exports. Currently, only some facilities, including food testing laboratories, have the capacity for sample analysis, and several are not internationally accredited.

Tariffs and Exemptions

EEU member countries need to align their external tariffs to the EEU's common external tariff (CET) after accession. The average EEU duty (10.5 percent in 2016) is significantly higher than those of several of its member countries before accession. For example, the average duty in the Kyrgyz Republic was 5 percent.⁸⁸ About 30 percent of Kyrgyz duties align with those of the EEU, and as such, would not need to be changed; 21 percent can be re-aligned with those of the EEU without violating WTO commitments. However, almost 50 percent of duties in the Kyrgyz Republic do not align and would require renegotiation and compensation to WTO members.

Some product lines are set to acquire excessively-high tariffs by 2020. Tariffs that in 2014 ranged from 0-20 percent will jump to a range of 0-100 percent in 2020. Some products currently in the 10-percent band will rise to 100 percent in 2020 (Figure 0.13). These products include two types of alcoholic spirits,⁸⁹ other caviar substitutes, and other used motor vehicles. One duty-free item, specifically—"aromatic bitters of an

⁸³ In January 2015 Russia's Gazprom announced a \$500 million investment to "overhaul" the Kyrgyz Republic's gas infrastructure.

⁸⁴ Mostafa and Mahmood 2018.

⁸⁵ Grast 2018.

⁸⁶ See the Eurasian Commission's "List of Technical Regulations."

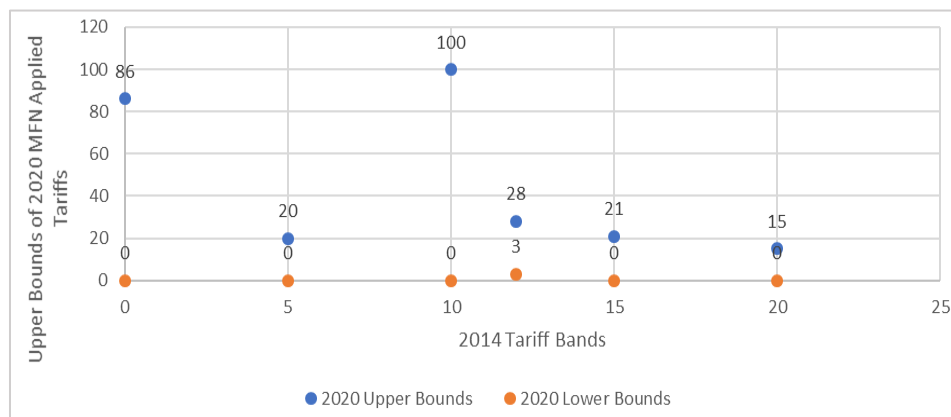
⁸⁷ For more information on the Logistics Performance Index, see <https://lpi.worldbank.org/international/global>.

⁸⁸ WTO 2013.

⁸⁹ The two types of alcoholic spirits are 'undenatured ethyl alcohol of an alcoholic strength by volume of 80 percent volume or higher' and 'ethyl alcohol and other spirits, denatured, of any strength.'

alcoholic strength by volume”—will jump to a duty of 86 percent in 2020. Notably, citrus juices undergo a significant reduction—from the highest applied rate of 20 percent in 2014 to 0 percent in 2020.

Figure 0.13. Upper and Lower Bounds of MFN Applied Tariff Rates in 2020



Source: Authors' calculations using data from WITS-TRAINS raw data and Rutherford T, D. Tarr and O. Shepotlyo (2005).

Note: The horizontal axis shows the 2014 tariff rates, the vertical the 2020 rates. *MFN*=Most Favored Nation

As a result of the EEU membership, the average Kyrgyz tariff will increase from 5 percent in 2016 to 8 percent in 2020. Except for a reduction of the rates of previously 20-percent-rated products, all other bands are set to increase from 2014 to 2020. Many of the tariff changes are between 5–14 percent, with several outliers above 15 percent (Table 3.4).

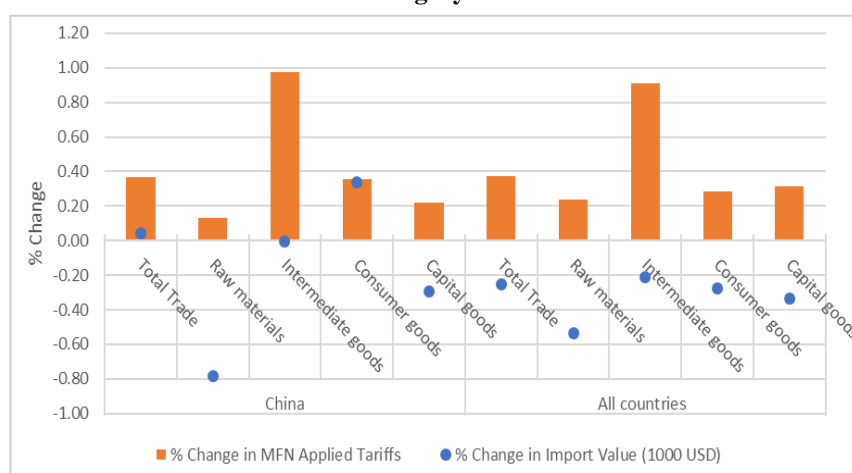
Table 0.4. Changes in Tariff Rates of Product Lines in 2014 (Before ECCU) and in 2020 (After Implementation of Final Rates)

		2020 MFN Applied Tariff Ranges						Total
		0-4	5-9	10-14	15-19	20-25	>25	
2014 MFN Applied Tariff Bands	0	13.4	25.8	7.5	1.2	0.1	0.3	48.3
	5	1.5	9.8	0.5	0.0	0.0	0.0	11.8
	10	3.5	10.1	10.7	5.6	0.9	1.3	32.1
	12	0.2	1.0	0.8	0.6	0.1	0.0	2.7
	15	0.0	0.3	1.2	0.4	0.0	0.0	2.0
	20	0.0	0.2	1.1	0.0	0.0	0.0	1.3
	blanks	0.1	0.3	1.3	0.0	0.0	0.0	1.8
	Total	18.8	47.5	23.0	7.9	1.2	1.7	100.0

Source: Authors' calculations using data from WITS-TRAINS raw data and Rutherford T, D. Tarr and O. Shepotlyo (2005)

Note: Grey highlights the largest percentage share of changes in each 2014 tariff band.

Figure 0.14. Changes in Import Volumes vs. MFN Applied Tariff, by Goods Category 2014-2017



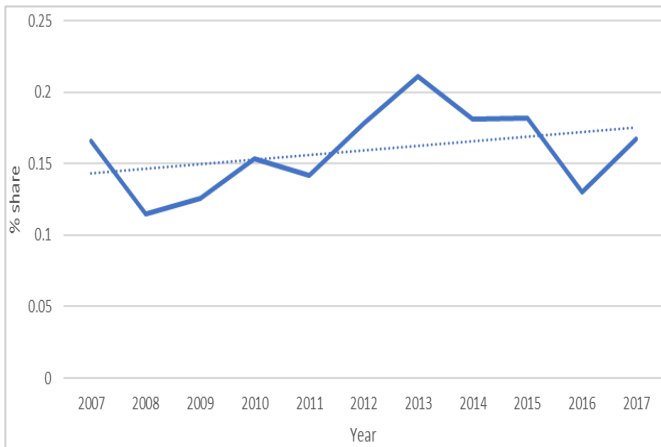
Source: COMTRADE (<https://comtrade.un.org/>).

The result of incremental changes in applied tariffs is a reduction in import values for each product category.⁹⁰ For increases in tariffs applied to all countries, the change in import values declined in each product category. For the case of consumer goods from China, the incremental change in applied tariffs is almost equal to the resulting change in import values. Despite a nearly 1-percent incremental change in

⁹⁰ “Import value” data are compiled from the monthly datasets received from the National Statistical Committee. In the UN COMTRADE database, imports are recorded *cif* (cost insurance and freight).

applied tariffs, there was no significant change in the import value of intermediate goods from China. As discussed earlier, textiles and clothing have comprised the largest share of Chinese exports to the Kyrgyz Republic since 2007. Moreover, textile and clothing imports made up 16 percent of the Kyrgyz Republic's total imports from Russia in 2017. The average price per unit of fabric product categories⁹¹ imported from the rest of the world increased from approximately \$329 in 2014 to \$1,716 in 2018.⁹²

Figure 0.15. Share of Russian Imports in the Kyrgyz Republic's Total Imports, Mirror Data



Source: COMTRADE (<https://comtrade.un.org/>).

slightly increased, with a notable dip in 2016 and a rise in 2017 (Figure 3.15).

Trade diversion has occurred – although minimal and tempered of late – with high applied tariff rates that came into effect after the EEU accession. Ferrantino, Gillson, and Schmidt (2016) found that while EEU accession initially resulted in higher Russian exports to Kazakhstan and Belarus due to trade diversion, a reduction in the CET—scheduled under Russia's WTO accession commitments for 2020—would drive a moderation of these exports over time. Since the Kyrgyz Republic's main trading partner within the EEU is Russia, we examined the evolution of imports from Russia in the Kyrgyz Republic's total imports. The share of Russian imports only

Some trade diversion was projected before Kyrgyz Republic's accession to the EEU. Given that Kyrgyz Republic's average unweighted tariff almost doubled upon EEU accession, Tarr (2016) found that modest trade diversion was likely to occur, particularly with the displacement of EU and/or Chinese imports by higher-priced or lower-quality imports from Russia, particularly towards Russian manufacturers, including automobiles. However, the magnitude of such trade diversion was likely to decline over time as Russia's own tariffs are being gradually lowered as a consequence of its WTO accession. Moreover, the trade diversion losses could be countered by an increase in migrant remittances due to the legalization of such migration under the EAEU, as well as the Russian subsidies promised prior to accession.⁹³ Thus, while it is challenging to identify all causal factors, the 2016 drop in Russia's share of imports corresponds to the possibility of increased enforcement detecting more Chinese imports.

Labor Force and Small Traders

All countries that joined the EEU saw a significant increase in labor migration to Russia, mainly owing to the search for better employment opportunities. The EEU Treaty contains a provision on "Labor Activity of the Member States Employees" (Article 97), which states that "... member states shall

⁹¹ Harmonized System (HS) Chapters 51, 53, 58, 59, and 60.

⁹² Calculations made using WTO IDB data from the WITS database.

⁹³ David G. Tarr (2016) The Eurasian Economic Union of Russia, Belarus, Kazakhstan, Armenia, and the Kyrgyz Republic: Can It Succeed Where Its Predecessor Failed?, *Eastern European Economics*, 54:1, 1-22, DOI: 10.1080/00128775.2015.1105672

not impose or apply restrictions set by their legislation in order to protect the national labor market, except for restrictions established by this Treaty.⁹⁴

The Kyrgyz Republic is a country of small traders with a large share of the population working in the retail trade. The wholesale and retail trade, mainly the textiles and clothing sector, employs roughly one in ten Kyrgyz workers. The country has one of the largest bazaars in Central Asia, the Dordoi Market in Bishkek. In 2009, the World Bank referred to Dordoi Market as a state within a state, calculating its annual turnover of over \$3.9 billion, mostly goods transiting from China for re-export to the Kyrgyz Republic's neighbors.⁹⁵ However, the hardening of the national border to the south—particularly following the foundation of a tripartite customs union comprising Belarus, Kazakhstan, and Russia in 2010—has threatened the livelihoods of trade entrepreneurs at the Dordoi market.

Implications of the EEU

The Kyrgyz Republic is still in the process of adapting its economic and regulatory structure to the EEU; as such, it may be too soon to predict long-term impacts. Moreover, one cannot attribute the Kyrgyz Republic's challenges to EEU accession—there also have been exogenous factors, for example the economic crises in Kazakhstan and Russia. While the increase in remittances from Russia has had a positive impact on the Kyrgyz economy, declining Kyrgyz exports and compliance with EEU standards remain significant challenges.

Negotiations with the WTO membership on compensation for increased EEU tariffs present an additional challenge. When the Kyrgyz Republic acceded to the WTO, it committed only to impose tariffs that conform with relevant WTO provisions⁹⁶ in the event that it joined a free trade or customs union agreement. Because nearly 50 percent of tariff rates under the new EEU-compliant tariff structure do not comply with the country's WTO commitments, the Kyrgyz Republic will be required to renegotiate and provide compensation to other WTO member states.

To make the best of the membership in the EEU, however, the Kyrgyz Republic needs to improve its institutional infrastructure to support its exports to EEU countries. Requirements for stricter sanitary and phytosanitary standards need to be met, more laboratories – including for food testing – need to be internationally accredited and better linked to exporters. Trade facilitation should be rapidly improved to allow seamless border crossing with Kazakhstan that will reduce substantially the time trucks spent at customs.

Improving behind the border trade facilitation and sanitary and phytosanitary standards has acquired a new urgency because of the dramatic reforms in Uzbekistan. Many of Uzbekistan's exports compete directly with those of the Kyrgyz Republic – and while that will not improve trade between the two countries, it will pose substantial challenges for Kyrgyz exports of fruits, vegetables, and textiles, to name just a few, in EEU countries.

⁹⁴ Treaty on the Eurasian Union. Full text available at https://www.wto.org/english/thewto_e/acc_e/kaz_e/WTACCKAZ85_LEG_1.pdf.

⁹⁵ Alff 2016.

⁹⁶ These relevant provisions include Articles I and XXIV of the General Agreement on Tariffs and Trade 1994.

D. REGIONAL: BELT AND ROAD INITIATIVE (BRI)⁹⁷

The Kyrgyz Republic’s participation in the BRI has been widely discussed. For significant benefits to be achieved, however, building infrastructure financed by BRI-linked investments need to be complemented by measures aimed at removing obstacles to foreign trade and foreign investment, improving the business environment, reducing barriers to the domestic mobility of capital and labor, and strengthening the connectivity of the regions around the BRI corridors. In addition, government efforts to enhance the country’s policies and institutions should aim to strengthen the legal protection of investors, or “de-risking” the country’s economic, business, and financial environment. Assuming the infrastructure is completed on time and complementary policies are enacted, the estimated gains from reduced trade costs under the BRI are potentially substantial and will increase until the completion of the BRI corridors.⁹⁸

The estimated potential large gains need to be understood in their proper context. First, the three rail and road projects used to benchmark Kyrgyzstan’s participation are experiencing serious implementation delays. And second, although the model estimations depict a largely positive outlook for the Kyrgyz Republic, it is important to remember that much of these estimates are based on adopting complimentary policies: infrastructure alone, even when completed, would not deliver these benefits.

- **Impact on GDP:** The estimated BRI impact on Kyrgyz GDP is among the largest across all the BRI countries.⁹⁹ The main impact on GDP appears to be through the accumulated stock of fixed capital. Using a structural model, a recent study finds that the BRI could boost the Kyrgyz Republic’s GDP by between 9 and 32 percent, with the higher impact estimated based on combining BRI improvements in infrastructure with complementary reforms to reduce border-crossing delays by half. Another estimate based on a CGE model¹⁰⁰ found GDP rising by 10.4–37.4 percent, with the highest estimate owing to the combined effect of reforms and transport infrastructure.
- **Impact on shipment time and trading cost:** The completion of the BRI transport projects—domestically, regionally, and around the world—is forecast to reduce the Kyrgyz Republic’s shipment time with trade partners by 13 percent and its trade costs by 6 percent. Furthermore, it could increase border efficiency by 23 percent (Figure 3.16).¹⁰¹
- **Impact on exports:** The completion of BRI transport projects is forecast to increase Kyrgyz’s exports by 7.3 percent.¹⁰² This improvement reflects a sizeable reduction in the time to trade and an associated decline in trade costs. If complementary reforms that reduce border crossing delays by half across all countries combine with the transport infrastructure improvements, Kyrgyz exports could rise by 21.9 percent.
- **Impact on FDI:** The BRI is forecast to boost FDI inflows to the Kyrgyz Republic by as much as 16 percent.¹⁰³ So far, BRI power projects have contributed to improving the supply and availability of electricity in the country. Urban hubs located close to border crossings are also likely to benefit.

⁹⁷ This section is based on the World Bank’s forthcoming country case study *South Caucasus and Central Asia – the Belt and Road Initiative: Kyrgyz Republic*.

⁹⁸ World Bank 2019.

⁹⁹ World Bank 2019.

¹⁰⁰ Malizewski and van Der Mensbrughe. 2019. Background paper for Belt and Road Economics. World Bank.

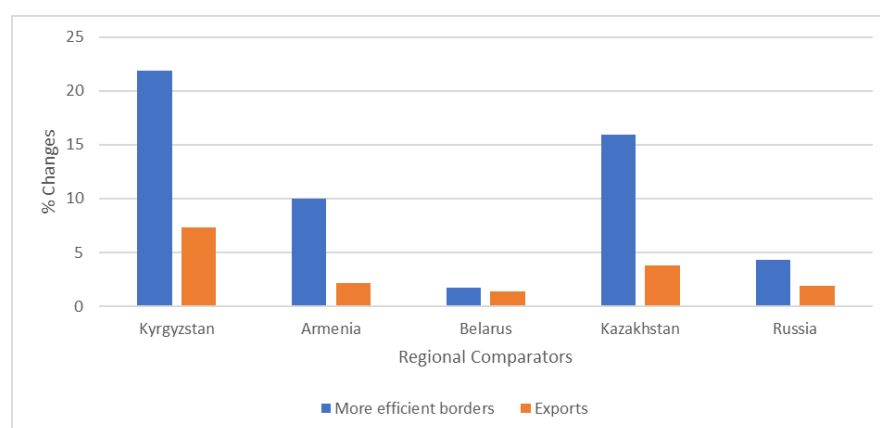
¹⁰¹ South Caucasus and Central Asia: BRI-Kyrgyz Republic Case Study, World Bank 2019

¹⁰² Baniya, Rocha, and Ruta 2019.

¹⁰³ World Bank 2019.

- **Spatial impact of BRI:** Improvements in connectivity are likely to be associated with more spatial concentration, rather than the dispersion of economic activity within countries. The spatial analysis undertaken by the World Bank projects that cities such as Osh and Bishkek will experience substantial income gains.¹⁰⁴ The reallocation of resources induced by a reduction in trade costs will drive these positive income effects. With cheaper or higher-quality inputs imported, resources will be reallocated to increase productivity, improve exports, and boost incomes.
- **Fiscal risks of scaling up public investment for BRI infrastructure:** The Kyrgyz Republic has been an active investor in BRI corridors since 2012 and plans additional investment. Currently, the country's debt with China is estimated at 44 percent of total external public debt, close to the 50-percent ceiling for a single creditor. Moreover, current debt levels limit the Kyrgyz Republic's space for borrowing for BRI-related investment.

Figure 0.16. BRI's Estimated Impacts on Border Efficiency and Exports



Source: World Bank staff calculations using data from Baniya, Rocha, and Ruta (2019).

E. RECOMMENDATIONS

Boosting trade will be required for the country to achieve more sustainable growth, supported by private sector development and job creation. A more diversified asset base could help reduce the economy's vulnerability to shocks and achieve higher technological content. More sophisticated exports are associated with higher levels of development and growth, as they have a higher potential for spillover, forward and backward linkages, thus elevating a country's future growth prospects.

Full implementation of the WTO TFA is necessary for the Kyrgyz Republic to benefit fully from trade integration initiatives. More than two decades after accession, the Kyrgyz Republic has implemented just 12.2 percent of its commitments to date. The authorities foresee the implementation of an additional 16.4 percent of commitments by the end of 2020. The authorities will need to request donor support to implement the remaining 71.4 percent of commitments, a substantial challenge.

¹⁰⁴ These two cities account for more than 40 percent of national income.

Within the EEU, poor compliance by the Kyrgyz Republic with EEU technical regulations and standards impedes exports. One category of exports that has suffered—and in which the Kyrgyz Republic has substantial untapped potential—is fresh fruits and vegetables. The authorities will do well to upgrade their technical capacity urgently.

Substantial gains from reduced trade costs under the BRI are likely to accrue to the Kyrgyz Republic. These gains are in terms of productivity, trade cost reductions, increases in trade flows, FDI, and real incomes. Policies that reduce the cost of doing business and barriers to trade and facilitate FDI will be most critical.

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4. Energy: A Transformative Opportunity to Fuel Growth

The energy sector has the potential to provide the (hydro) fuel for Kyrgyz Republic's new growth model by reinvigorating the domestic industry and boosting exports to help connect the country better with neighbors and beyond. The country's strong comparative advantage in hydropower offers a transformative opportunity to raise the country's economic growth potential in a sustained manner. However, for this to materialize, the country will need to take necessary steps to put the sector on sound economic footing and address the systemic sector deficit caused by the underpricing of energy for residential consumers. Once sector revenues cover costs, a least cost development plan will allow the government to identify the most viable options for capacity additions and prioritize the construction of new power plants with public and private resources – both domestic and foreign..

The new growth model proposed in this report seeks to build productivity gains through an outward orientation in trade and investment, and a reliance on the private sector as a driver of investment. The electricity sector has the potential to be included in a strategy towards faster and more inclusive growth. New generation capacity will give reassurance to investors ready to expand and attract others that may have been deterred by issues with the reliability of electricity supply. Inclusion will benefit from energy-related fiscal revenues and export revenues which can be re-invested in the further development of human capital, skills, and infrastructure, in a context of growing trade and investment ties within the countries of the Eurasian Economic Union (EEU), the other economies of Central Asia, and beyond.

An essential pre-condition for an energy-powered growth strategy is the correction of the country's massive pricing distortions in the retail electricity sector. Tariff rates in the Kyrgyz Republic, which fall well-short of cost recovery, are among the lowest in the world. Residential users, which make up 52 percent of consumption, pay \$0.01 per kWh, a tariff which covers 45 percent of the cost of service. At the same time, energy companies need to make improvements to replace and repair assets and repay loans, but face insufficient revenues. The formation of a common electricity market in the EEU offers incentives and financing for institutional strengthening, improvements in the market operations and regulatory frameworks, and the creation of modern infrastructure. But seizing the opportunities offered by regional integration requires sound sector economics, policy and planning, the same preconditions also required for making the sector attractive to private sector investment.

A. INTRODUCTION

Energy should have a central role in any effort in the Kyrgyz Republic to raise potential economic growth and ensure the inclusive distribution of the resulting output. Investment in hydropower, and increasingly in diversified energy sources such as solar, together with the broad-based reform of energy policies and institutions, represents a transformative opportunity to make the leap to a higher growth trajectory, expand export revenues, and to stimulate the private sector-driven economy. Both private and public resources generated through this transformative process could strengthen the forces of inclusion through investment in human capital, infrastructure, and technology. The imminent formation of a common electricity market among the member states of the EEU multiplies the opportunities available to the Kyrgyz Republic.

The need to exploit hydropower resources is critical, given the likelihood that Kyrgyz gold mines will reach depletion toward the end of the next decade. Nearly 40 percent of the country's export base and 20 percent of fiscal revenues—raised through taxation, royalties, and dividends obtained through the government shareholding in the gold mining company—will disappear. Revenues from expanding hydropower output through exports, royalties, fees, dividends, and corporate taxation and from tax revenues arising from a much larger domestic economy, if well managed, could provide a welcome boost to fiscal revenues.

This chapter examines the conditions under which investment in hydropower by third parties, public and private, could be incentivized by examining the economic and energy sector policy choices as well as financing strategies for the large investments needed to exploit the country's hydropower potential. It delineates the dependence of rising energy exports on policy and institutional reforms.

B. HYDROPOWER AS A DRIVER OF GROWTH

With its rich endowment of natural water reserves in mountainous terrain, particularly in the Naryn River basin, the Kyrgyz Republic's untapped hydropower potential is significant. The country's installed capacity of 3.1 gigawatts (GW) places it 40th globally. Hydropower potential, which exists for small, medium, and large generation plants, is estimated at 140-170 terawatts (TW), the 56th largest in the world.¹⁰⁵ Environmental and social concerns prevent the exploitation of a significant portion of these opportunities. Even so, the sector's scope for expansion is large: the country uses just a third of identified technical potential in the Naryn river basin, the main source for the country's hydro wealth. With the cost of generation relatively low,¹⁰⁶ the country enjoys a strong comparative advantage in hydropower. With a supportive policy and regulatory environment, this advantage could be used to create a strong position on the larger regional market and attract private sector-led innovative economic activity. New hydro capacity could be supplemented in the medium term by diversified investments into alternative energy sources, notably solar with is continuing to drop in costs, and with a well-balanced portfolio the Kyrgyz Republic could expand electricity exports to the large markets of Central Asia, South Asia, and, potentially, the Eurasian Economic Union, taking advantage of seasonal complementarity between markets.¹⁰⁷

¹⁰⁵ International Hydropower Association 2018.

¹⁰⁶ The cost of generation in the Kyrgyz Republic is variable, but averaged KGS 1.7 per kilowatt-hour in 2014 and KGS 2.8 in 2015, with the variation due to hydro conditions and the need to supplement with thermal generation.

¹⁰⁷ The members of the EEU are Armenia, Belarus, Kazakhstan, the Kyrgyz Republic, and Russia.

The exploitation of hydropower resources will raise the country’s long-term growth potential through three channels:

1. In the construction phase of new hydropower investments, the direct impact of these investments on growth will be significant. However, these will be muted by large imports of equipment and technical skills.
2. With the rise in the domestic supply of electricity generated at low cost, the economy will enjoy a competitive advantage and a strengthening of its comparative advantage in energy-intensive production will occur. The domestic supply curve will shift outward as investments in local industry—especially in energy-intensive activities—become profitable. These beneficial effects will be maximized if supporting policies are put in place to encourage private sector expansion and attract foreign investments with high governance standards.
3. The realization of the Kyrgyz Republic’s large export potential for electricity to the markets of the EEU, the rest of Central Asia, and South Asia, will also boost long-term growth. Electricity exports will add to the resources available for investment in the economy and bolster fiscal revenues.

To fully exploit the opportunities hydropower represents, the country should add generation capacity and build a sufficient reserve margin to mitigate the seasonal variability of supply as well as multi-year hydrological cycle. Investments cannot be delayed; neighboring countries are already adding capacity, for example, the Rogun hydropower plant in Tajikistan¹⁰⁸ and solar capacity in Uzbekistan.¹⁰⁹ In addition to its hydro resources, the country has significant amounts of coal, moderate amounts of oil and natural gas, and renewable energy resources, primarily solar, and limited wind potential.

Hydroelectric and thermal generators produce electricity in the Kyrgyz Republic. The bulk of production—78-85 percent in recent years—is from hydro. Most of the hydroelectric system (the Naryn Cascade) is operated using water released from the Toktogul Reservoir, located on the Naryn River in the Jalal-Abad Province. Toktogul’s multi-year storage capacity allows for the conservation of water in the wet season for use during the winter heating season. Thermal generators include two combined heat and power plants (CHPs), which provide electricity and heat and hot water.

Existing installed capacity is falling short of projected demand. The country’s current total installed generation capacity is 3,781 MW, of which 78 percent is hydropower. In 2015, hydro produced 85 percent of total electricity generation, compared with a global average of 16 percent. Production in 2017 totaled 13 GWh. Total annual consumption rose to 10,406 GWh in 2018, slightly above 2014 levels (10,114 GWh), after a dip in 2015 and 2016. However, economic growth and social development are driving an increase in demand from consumers of residential electricity. Although the number of residential electricity consumers rose by just 16 percent in 2007–18, consumption by those consumers jumped by 71 percent in the same period. Compounding the challenge of rapid demand growth is the very high seasonality of demand—winter consumption was 2.6 times greater than summer consumption in 2017, posing a challenge for system planning, considering peak demand.¹¹⁰ Between 2014 and 2016, the Kyrgyz Republic imported

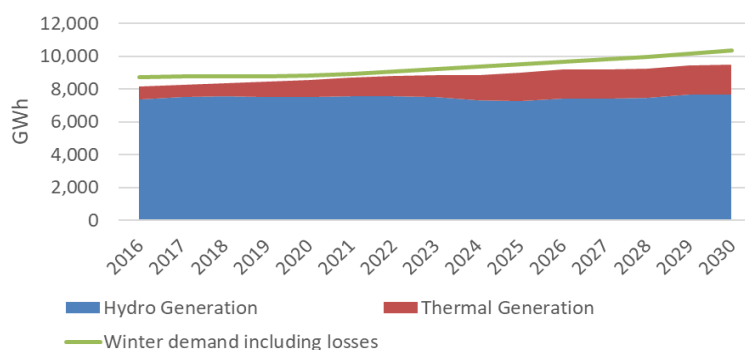
¹⁰⁸ Tajikistan’s Rogun hydropower plant has a planned capacity of 3,600 MW.

¹⁰⁹ Uzbekistan recently auctioned 100 MW of solar at a price of \$0.0269, with another 400MW on course for auction and a total of 1,000 MW slated for addition.

¹¹⁰ As cited in March 2019 by Praveer Sinha, CEO of Tata Power, at the World Bank’s Energy and Extractives learning week, the “top 10 percent of capacity is needed only 1 percent of the time.”

power from neighboring countries for the first time to supply peak demand during the winter months (the country reverted back to an export regime in 2017 and 2018 on the back of wetter years). The risk of unmet winter demand is projected to rise if current growth trends continue. During low hydrology cycles, imports have become a new reality (Figure 4.1 and Table 4.1).

Figure 4.1. Projected Winter Supply Gap, 2015–30
(in GWh)



Source: World Bank 2017.

Table 4.1. Unmet Winter Demand

Year	GWh
2015	581
2020f	244
2025f	543
2030f	883

Source: World Bank 2017.

Demand for electricity—domestically and regionally—is highly seasonal. Demand spikes in the winter as electricity is used for heating, but hydropower generation falls in the winter for hydrological reasons. As a result, reliance on thermal power is necessary during the winter, and the country imports gas and heavy fuel—in addition to electricity, more recently—in the peak winter months.

The integrated Central Asian energy system is recovering. The system fell into a prolonged period of disruption following the collapse of the Soviet Union for both political and technical reasons. The gradual integration of the Central Asia power system is occurring because of the improved political climate in the region and ongoing investment in transmission infrastructure strengthening and network synchronization. Of particular significance is the CASA-1000 electricity transmission and trade project, which the Kyrgyz Republic plans to use from 2022 to export up to 1,260 GWh of electricity during the summer months to Afghanistan and Pakistan, generating export revenues estimated at \$90 million.¹¹¹ In addition, regional trade will also grow through the TUTAP transmission line currently under construction, linking Turkmenistan, Uzbekistan, Tajikistan, Afghanistan and Pakistan, further increasing opportunities for regional arbitrage of complementary supply and demand patterns.

Apart from the expected earnings from the CASA-1000 project -- which is planned to use existing generation capacity -- energy exports rely on investment in new capacity. The development of the most economically attractive large-scale hydro sites will require significant investment. For example, the construction costs alone of a site such as Kambarata-1 (1,800MW) are estimated at \$3 billion. A medium-term investment program in hydropower based on demand projections could range from \$5-8 billion. To put this into perspective, since 2004, the sector has taken on debt of about \$1.5 billion, mainly for transmission lines and CHP rehabilitation and not hydropower expansion; only a comprehensive master

¹¹¹ Electricity exports to Kazakhstan and Uzbekistan have generated annual revenues of around \$30 million, but exports are highly cyclical and depend on hydrological patterns.

plan can provide a more robust estimate. Such a program will have to take into account competing investments in electricity generation in the rest of Central Asia and other EEU member states.

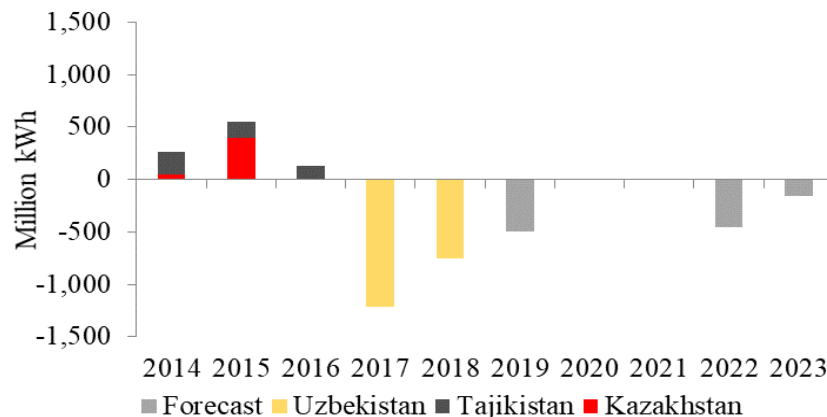
The rehabilitation and upgrade of generation assets, including Bishkek CHP and Toktogul, has helped alleviate supply constraints. Through 2023, ongoing rehabilitation projects will add close to 400 MW of new capacity, financed with assistance from multilateral and bilateral development partners and direct foreign loans. In 2017, Bishkek’s CHP saw the addition of new generation units with 300 MW of installed capacity. Ongoing donor support will help to modernize and improve the safety, efficiency, and reliability of the Toktogul plant, help develop one of the remaining two 120 MW units at Kambarata-2, and help rehabilitate the At-Bashi Hydropower Plant, resulting in a 10 percent capacity increase of that plant.¹¹² Beyond the rehabilitation of these assets, investment in new generation capacity will however be critical in the medium term. As the demand for extra capacity increases domestically—and the prospect of the completion of the CASA 1000 line nears with export commitments to Afghanistan and Pakistan—careful multi-year management of available reservoir capacity will increase in importance. The exploration of capacity additions with lower investment costs and shorter planning and construction periods than hydro is also increasingly relevant; as recent experience in Uzbekistan has shown, new solar capacity is increasingly competitive with costs continuing to fall.

The sector requires further investment in a generation to meet demand without having to resort to costly short-term imports in hydrologically-poor years. This supply gap is acute in periods when water intake in the Toktogul Reservoir is consistently lower than the outflow required for power generation. Due to low water levels in the Toktogul Reservoir, in 2014, the Kyrgyz Republic shifted from being a net power exporter to a net importer for the first time and remained as such in 2015 and 2016. Favorable hydrological conditions in 2017 and 2018 meant the country again became a net exporter; however, hydrology continues to determine the country’s position. According to forecasts from the State Regulatory Agency, hydro resources will decline according to the cyclical pattern after their recent high and net exports will decline, reaching zero in 2020 (Figure 4.2).¹¹³

¹¹² In 2017, with financing from the Export-Import Bank of China, new generation units with 300 MW of installed capacity were added to Bishkek City CHP. Ongoing support from the Asian Development Bank and the Eurasian Development Bank will help modernize and increase the safety, efficiency, and reliability of the Toktogul plant. One of the remaining two 120 MW units at Kambarata-2 will be completed with help from the Eurasian Development Bank, and Swiss bilateral aid is rehabilitating the At-Bashi HPP for a 10-percent capacity increase.

¹¹³ See the State Regulatory Agency’s official data “Electricity Balance in the Power System 2017–23.”

Figure 4.2. Net Electricity Imports, 2014–23
(In millions of kWh)



Source: Electricity Balance in the Power System 2017–23, provided by the State Regulatory Agency.

Note: Actuals until 2018, projections for 2019–23; exports to Kazakhstan in 2017 totaled 354,700 kWh and in 2018 totaled 343,200 kWh (reflected in the figure, but too small to see on this scale).

C. THE PROMISING POTENTIAL OF THE EEU COMMON ELECTRICITY MARKET

The EEU treaty envisages a single economic space in which a common energy market plays a central role.¹¹⁴ Such a market would see a free flow of energy resources, competitive conditions and market-based pricing, regulation of natural monopolies in production and transit, coordinated tariff policies, and joint development of infrastructure. In electricity, the treaty envisaged that a shared power market would be formed from the existing national systems, for which a gradual harmonization of legislation and technical regulations would be necessary.

In a development that has the potential to ease conditions for market access for Kyrgyz electricity exports, the EEU announced the establishment of a common electricity market from 2025.¹¹⁵ The treaty underlying the market, signed in 2019, provides for the legal, regulatory, management, and operational framework of the market, and electric power trade procedures. Detailed operational rules and regulations on power trade, transmission, allocation of transmission capacities, electronic trading, and information flows are now in development. Electricity will be traded freely in the common market, with access available to all EEU member state suppliers, minimizing costs and improving energy security.

This model follows that of the European Union in preserving national markets within a shared electricity market governed by common rules. The three major steps to be taken relate to harmonization, unbundling, and independent regulation at the EEU electricity market level.¹¹⁶

This development is promising for the Kyrgyz Republic. However, the advantages that the country could reap from the formation of a common electricity market go well beyond the prospects for increased exports. Apart from the scope for greatly expanded export markets, the main benefits of a common electricity market for the Kyrgyz Republic lie in the requirements for market-based pricing, energy sector reforms, modern

¹¹⁴ For more information, see the EEU treaty at <http://www.eaeunion.org/>

¹¹⁵ For more information, see the EEU treaty at <http://www.eaeunion.org/>

¹¹⁶ Zemskova 2018.

regulation and safety standards, and availability of financing for investments. Current practices on infrastructure operations and maintenance will be introduced. To tap into the opportunities offered by the common market and reap the benefits of integrated trade, it is necessary that domestic reforms are advanced: renewed political will is needed to advance lasting and deep energy sector reforms that have proven elusive so far and eliminate distortions which prevent the adoption of common principles, such as cost-based pricing. Provided reforms are implemented, energy security will be significantly enhanced, and efficiency gains reaped through trade.

The common electricity market in the EEU offers highly promising opportunities for the Kyrgyz Republic. First, it provides a distortion-free environment for maximizing energy exports while exploiting the country's strong comparative advantage in hydropower generation. Second, the principles that will underlie the regulations and the operations of the market will facilitate the reaping of significant efficiency gains through reform of energy sector institutions and an improvement in the allocation of sectoral resources. Third, the promise of a large, integrated market—coupled with reformed pricing, institutions, and regulations on a predictable, level playing field—will create the basis for attracting investments as well as resources for operations and maintenance.

D. FRAMEWORK FOR FINANCING HYDROPOWER INVESTMENTS

The Changing Role of the Private Sector

Mechanisms for attracting private investments are needed. For the Kyrgyz Republic to stimulate economic growth and explore the full potential of developing its hydropower resources, it must develop mechanisms to attract financing for the large sector investments required, both public and private.

Despite the high economic returns associated with the project, attracting investment in Kambarata-1 has proven difficult. A financing agreement by Inter RAO (a Russian company) was canceled in 2017. The Kyrgyz authorities could benefit from examining recent international examples of successful hydropower financing.

The role of the private sector has expanded, benefitting from good sector planning and management and realistic risk sharing between public and private actors essential to the sector. Over the past quarter-century, the traditional financing model of large dams financed exclusively through public resources has given way to a much greater—and in some instances, a dominant—role for private capital,¹¹⁷ in part because a predominant reliance on public resources tended to limit the scale of infrastructure investments.¹¹⁸ The role of private capital has expanded to fill the gap in infrastructure financing in emerging markets that far exceeds the capacity of fiscal resources available. Moreover, the liberalization of energy markets, together with greater sophistication of financial instruments available in emerging economies, has also fostered the conditions for private capital entry. Privatized energy companies have turned to private capital markets. In particular, given the highly capital-intensive nature of hydropower projects and hence sensitivity to the cost of capital, the low-interest-rate environment of the post-2008 period has seen a large expansion of the pool of private capital available for financing such projects.

The public sector has to retain a facilitating role, including providing capital as well as guarantees where a track record of private investment is missing. First, the public sector can provide equity and public sector loan contributions for a project to demonstrate its full commitment to a project. It can also

¹¹⁷ Merme, Ahlers, and Gupta 2014.

¹¹⁸ See Annex I for a further discussion of international experience.

create the conditions for attracting private financing through the establishment of a sound regulatory framework, market-based pricing principles, and measures to mitigate political and commercial risks. Governments often finance their equity stakes through concessional lending by international financial institutions (IFIs). However, this equity share must be kept within bounds to preserve adequate leverage for a sufficient expected rate of return (essential to secure private capital). In cases where no track record of successful private investment exists, the provision of partial risk guarantees, as provided by the World Bank, has also proven effective to enable private participation to secure payment obligations by off-takers of privately generated power.

Second, the state can play a role in obtaining longer maturities for debt, especially from multilateral banks. It can also lengthen private-sourced debt maturities by de-risking, partial credit guarantees, roll-over guarantees, late-maturity guarantees, and the like, using multilateral support or export credit agencies. International experience shows that it is feasible to attract large volumes of private capital to finance major dam projects when the risk-adjusted rates of return are sufficiently attractive. Private sector participation has been fostered through the development of new instruments such as public-private partnerships or by such variants as build-own-transfer/ build-own-operate vehicles. The example of the Nam Theun II Hydropower Project in the Lao People's Democratic Republic (Box 4.1) is highly instructive for the Kyrgyz Republic as it seeks to craft a prospectus for attracting foreign investment into future hydropower generation projects.

Box 4.1. Lao PDR: The Nam Theun II Hydropower Project

It is instructive to study the Nam Theun II (NT2) hydropower project in a major tributary of the lower Mekong River in Lao PDR because of the relevant lessons it carries for attracting investment into the hydropower sector. NT2, with an installed capacity of 1,070 MW, is a large investment of nearly \$1.5 billion (with about half accounted for by construction costs). The main purpose of constructing NT2 is the export of electricity. Thailand receives roughly 95 percent of NT2's output under a long-term power purchase agreement (PPA).

Financing for the NT2 project was primarily from the private sector, and foreign-sourced for both equity and debt with the active participation of two IFIs, the Asian Development Bank (ADB) and the World Bank Group (IDA and MIGA). Through a leveraged balance-sheet (the debt-equity ratio is 70:30), the project generates a high rate of return and has exemplary corporate governance standards. Fiscal revenues from royalties, dividends, and taxes flow into the budget through dedicated accounts used expressly for development and social priority spending.

Only one-quarter of the equity is state-owned; private domestic and foreign investors own the rest. Thus, state-equity is only 7.5 percent of the balance sheet. On the debt side (70 percent of the balance sheet), private commercial banks provided about half of the funding, with export credit agencies playing a major role and IFIs providing both commercial and concessional financing and guarantees.

The NT2 project is a variant of a public-private partnership (build-own-operate-transfer). Under this model, the power company is responsible for building the dam to its operational stage using financing options that maximize the returns to the project. The power company then operates the dam for a 25-year concessional period. At the end of this period, full ownership is transferred to the Lao PDR government, barring the renewal of the concession agreement. Subsequently, the responsibility for operating the dam and respecting all the then-existing PPAs and other agreements will devolve to the government.

The concession agreement is the core document underlying the operations of the project. It specifies the obligations and rights of each party—the power company, all equity and debt holders, and the government.

Return on equity. Over the concession period, the government will receive an estimated \$2 billion in royalties, dividends, and taxes. Because the life span of the dam is considerably longer than the 25-year concession period, the return on equity is projected at 38 percent in the period 2011–34. Beyond the concession period, income from dividends is expected to rise considerably in favor of the government as it will be the sole holder of equity.

Source: World Bank 2005.

The Essential Role of Sector Fundamentals, Transparent Policy and Sector Planning

Solid sector fundamentals, transparent policy and comprehensive sector planning are preconditions for attracting investment. Sector fundamentals have to support returns on investment as decisions are driven by the prospect of returns on equity or debt. This entails the certainty that financing and operational costs can be covered by future revenues. Given the enduring systemic deficit in the Kyrgyz sector and the under-recovery of costs in the domestic market, only commercial and industrial clients and export markets currently provide the basis for off-take arrangement. Transparent sector policy enables investors to assess the options provided by government for profitable entry. It needs to be complemented by a comprehensive sector plan that sets out the overall strategy for prioritized new generation capacity and the plan for associated network infrastructure necessary for the evacuation of power.

The forthcoming electricity sector master plan envisaged in the Kyrgyz Republic is a corner stone for future development. The development of a least cost master plan for the sector provides the necessary information for the Kyrgyz government to identify the best options for expanding electricity supply and optimize export opportunities. The approval of the sector master plan will make it clear for domestic stakeholders and the investor community what priority investments the country has identified within what timeframe. Building on the master plan, priority public investments (such as high voltage lines), and a pipeline of potential projects with private sector participation can be defined and presented to the investor community. A range of models exist to leverage private financing (including concessions or build-own-transfer models described later in the chapter), and a PPP options analysis is indicated to inform the decision regarding the best model for the Kyrgyz context and specific sites.

In determining the optimal structure for attracting investments into the hydropower sector, the Kyrgyz authorities must establish the criteria for evaluating financing choices. First, the financing solution selected should provide reasonable assurances as to the adequacy and timely flow of resources, given the financing needs of medium-term investments into hydropower. Second, resource costs should be minimized.¹¹⁹ Third, the financing solution should aim to maximize the returns to the government on its equity.¹²⁰ Fourth, the financing option should be consistent with macroeconomic stability and a viable fiscal framework. Specifically, the net budgetary contribution¹²¹ to the project—and the time profile for net flows from the budget—must ensure that the fiscal deficit remains within prudent bounds and safeguard budget resources for high-priority public spending.¹²² Fifth, the public sector external debt burden should be kept within prudent limits as determined by debt sustainability assessments. Sixth, the selected financing structure should incentivize high standards of corporate governance and the efficient management of projects such as Kambarata-1; only under such conditions can the benefits be maximized.

¹¹⁹ Defined as the cost of debt (adjusted for maturity), equity, and other instruments (such as convertible debt).

¹²⁰ Defined as dividends paid per dollar of equity.

¹²¹ Defined as budgetary outlays for equity, debt, guarantees, and other public spending (civil works, environmental and social) outside the Rogun HPP accounts, minus dividends, royalties, and tax payments received.

¹²² These include public investments and anti-poverty programs, in particular.

Finally, it is essential to note that long-term power purchase agreements must be negotiated at an early stage to ensure the viability of the investments. As noted, there are prospective buyers in the EEU, elsewhere in Central Asia, and South Asia.

The Enabling Environment for Public-Private Partnerships (PPP) and Concessions

The current regulatory environment for foreign investment in the electricity sector is supportive. The foreign investment law permits investment in generation and transmission, and there are no specific restrictions on the electricity sector. Under a new law on electro-energy, export volumes and prices are freely determined, and PPAs can be negotiated, both for exports and for supply to the local market through the local grid.

Although recent legislation on private-public partnerships places no barriers on electricity and allows for the negotiation of concessions, the environment for foreign investment needs strengthening. The scope for private investment to develop generation potential exists, but the country will need to make its business environment more investor-friendly. Doing so will involve, among other things, developing a clear framework for investors and addressing the sector's financial sustainability issues. Existing legislation provides for cost-recovery feed-in tariffs regarding investment in renewable power generation (including small hydro) and mandatory off-take of renewable generation output by distribution companies. However, the poor creditworthiness of the latter limits the commercial viability of investments in both hydropower (up to 30 MW) and solar plants. These investments are deemed not 'bankable' because the distribution companies (as designated power purchasers) constitute a high payment risk. This risk is worsened by below-cost recovery tariffs and a fiscally-constrained government unable to provide payment guarantees.¹²³ There has been limited private investment in energy infrastructure in the economies of Europe and Central Asia.

Box 4.2. Private Investment Trends in Energy Infrastructure in Emerging Markets: Georgia and Armenia

Private investment commitments to infrastructure projects in emerging markets have yet to reach the levels observed in 2012. The same investment trend applies to the energy sub-sector (excluding investments in oil and gas), which also peaked in 2012, and is only recently showing indications of a recovery.

Increasingly, small (<\$100 million) to medium (<\$100-500 million) projects are successfully attracting private investment. This trend also holds for energy projects in lower-middle-income economies in Europe and Central Asia (ECA) of a similar economic size to the Kyrgyz Republic. In these countries, energy projects of less than \$100 million most frequently received private investment. Drilling down further in these countries to the hydropower sub-sector shows that projects of 50 MW or more successfully secured investment, with investments ranging from \$32 million to \$417 million. Lower-middle-income ECA economies securing investments in the hydropower subsector from 2008 through the first half of 2018 included Armenia (one project), Georgia (five projects), and Tajikistan (one project).

As in the Kyrgyz Republic, hydropower is the main source of power supply in Georgia. In recent years, the sector has received approximately \$1 billion in private investment. Georgia has experienced remarkable reform progress since the 1990s, which has improved the sector's operating efficiency and

¹²³ Gassner and others 2017.

financial conditions and promoted private investment. Since these reforms, the country's capacity has tripled to 3,600 MW, collection rates have increased by almost 70 percent, and average hours of electricity supply per day has increased from 10 to 24. Further, the sector has achieved a more predictable regulatory framework with tariffs that allow the recovery of reasonable costs and return on assets.

Similarly, Armenia—which also relies heavily on hydropower and previously suffered from an electricity sector plagued by large implicit consumer subsidies and low collection rates—undertook efforts in the 1990s to reform the sector and attract private investment. Actions included relocating meters to prevent tampering, transferring the payment of utility bills to banks and post offices to reduce corruption, and implementing a strict disconnection policy for non-payment. Collection rates increased significantly and, following a public awareness campaign that explained the linkage between paying utility bills and a more reliable power source, tariffs more than doubled in the period 1995–99 to cost recovery levels. These actions, together with the creation of a sector regulator, helped to instill private sector confidence, with \$275 million invested in the hydropower sector since 2003.

Sources: Private Participation in Infrastructure Database (<https://ppi.worldbank.org/en/ppi>), World Bank; World Bank 2016

Different solutions are needed depending on the size of the investment. Obtaining access to private capital for much-needed investments in the sector is an attractive proposition for the country. It would no doubt help it address areas like generation capacity sooner than the public budget will allow. Whereas smaller hydro plants can utilize a standardized licensing regime, large hydropower plants (larger than 30 MW)—if not funded entirely by the public sector—can be better served by a PPP arrangement using project finance. Investors considering such investments will want to understand the likelihood of and possible mitigation mechanisms for key risks like hydrology, procedures for permitting and licensing, the possibility for payment default, the possibility of regulatory changes as well as broader political risk.

Much depends on the application of the laws. The legislative and regulatory environment for private investment appears to be relatively benign. However, the question arises of the application of the laws and regulations and the institutional ability of the authorities responsible for foreign investment and PPP matters to consider investment applications or PPP proposals, to evaluate them and provide clearances without undue delay.

A series of sequenced steps could be taken to attract private capital into hydropower generation. First, the authorities could open up the sector to private capital as a policy measure and institute the necessary legislative, regulatory, and institutional preparations to support the policy. As noted, the legislative basis is supportive but needs further development in several areas, and the capability to negotiate and implement concessions and other forms of PPPs needs to be built up. Second, in line with international good practice (such as the NT2 project), proposals on the financial structure of specific projects (such as Kamarata-1) could be outlined for discussion with interested parties. Third, in an early phase of a proposed project, power purchase agreements could be negotiated and put in place. Fourth, IFI support for financing the equity participation of the country and the necessary guarantees could be explored. Fifth, a corporation for the project could be established to high governance standards.

E. CRITICAL BARRIERS TO REALIZING THE POTENTIAL OF HYDROPOWER

The Reform Record

Since independence in 1991, the country has taken steps to restructure its energy sector to position it for investment and development. By 2000 the sector had been unbundled by function (generation, transmission, and distribution), resulting in the creation of six power companies, 16 wholesale buyers and resellers of electricity, and 21 private companies that operate portions of the distribution network in some areas of Bishkek. A district heating company (JSC Bishkekteploset) and a small hydropower company (JSC Chakan GSC) were also established. The government retains about 95 percent ownership in energy sector companies. While privatization of some of the companies in the unbundled sector structure was envisaged at the start of the reform, progress in this area has not occurred due to a combination of inadequate sector fundamentals (chronic underpricing of electricity rendering private sector entry unattractive) and backtracking not only on tariff policy but also reluctance to cede control over the sector to independent agencies such as a regulator or stand-alone entities such as an autonomous Energy Holding.

The sector underwent several key reforms in the 2000s. However, attempts to align revenues with the cost of service have been unsuccessful. Between 1999 and 2002, four tariff increases occurred, and in 2002, a two-tiered tariff replaced the six-tiered residential tariff. The tariffs remained unchanged until 2006 when a single-tier tariff was introduced. In 2008, the authorities adopted a medium-term electricity tariff strategy based on the principles of full cost-recovery, constant service delivery, and the premise that state social assistance programs would transfer electricity subsidies to low-income households. However, the strategy did not materialize; tariffs were increased that year. Efforts in 2009 to increase residential tariffs were reversed in 2010 by a new government amid political unrest.

Table 4.2. Kyrgyz Republic: Energy Companies

NESK	JSC National Transmission Companies
EPP	JSC Electric Power Plants
SE	Severelectro, distribution company for Bishkek, Chui, and Talas Oblasts
VE	Vostoelectro, distribution company for Issy Kul and Naryn Oblasts
OE	Oshelectro, distribution company for Osh Oblast
JE	Jalal-Abad electro, distribution company for Jalal-Abad Oblast
BTS	JSC Bishketeploset, district heating company serving Bishkek

Source: World Bank 2017.

The government made further reform attempts in 2014–16 when it took measures to address sectoral governance issues. The main reforms during this period included the following: (i) establishment of an independent sector regulatory agency in 2014; (ii) limited progress on tariff reforms, which mandated the first increases in the residential sector in 10 years and increased revenues from non-residential customers through tariff hikes for commercial and industrial users; (iii) adoption of tariff-setting methodologies for electricity, heating, and hot water services by the new sector regulator; (iv) setting up of a Settlement Center in 2015, and the implementation of a transparent revenue allocation mechanism across sector entities; (v) establishment of a National Energy Holding Company, unifying the country's six power companies under one management umbrella, to improve the industry's management and performance; and (vi) abolition of the Ministry of Energy and Industry in 2015, with a transfer of policymaking responsibilities to a new State Committee on Industry, Energy and Subsoil Use in 2016.

The Kyrgyz Republic will need to implement additional reforms if it is to unlock the potentially transformative economic benefits of its energy resources and meet domestic demand. Future reforms

will need to address the critical constraint of the financial unsustainability of the electricity sector, the result of a tariff schedule that does not meet cost recovery. The result of this mismatch is a poor quality of service and deteriorating energy infrastructure and assets.

Alleviating this constraint will require decisive, firm, and predictable action on electricity tariffs to build financial viability, thereby bolstering institutional and regulatory capacity, and fostering sector transparency with conditions favorable to investors. It will also entail strengthening political will and sector leadership and re-earning public trust in the sector's management.

The January 2018 failure at Bishkek's Heat and Power Plant, which left parts of the capital city temporarily without power and heat supply during cold temperatures, was a major setback. This event stalled reform momentum and rendered sector leadership more risk-averse. Overcoming heightened levels of public distrust, especially on areas such as tariff reform, will require additional effort and focus on the part of the national leadership.

Financial Sustainability

Tariffs below cost recovery lead to large deficits

The main reason for the sector's financial unsustainability is a tariff schedule that does not achieve cost recovery. More than half of electricity consumption is by end-users¹²⁴ who pay less than the cost of service: only 43 percent of the cost of supply was covered for this largest consumer group in 2018 (Table 4.3). While large residential customers and non-residential customers cross-subsidize residential users, the domestic market for electricity continuously runs a deficit, which amounted to more than KGS 2.4 billion in 2017 (0.4 percent of GDP).

Table 4.3. Cost of Service Versus Revenue by Customer Class, 2018

	<i>Domestic Consumption</i>						<i>Exports</i>
	Residential		Non-Residential	Pumping Stations	Other	Total	Total
	≤700 kWh	>700 kWh					
Percent of Consumption	52.9%	11.9%	29.5%	5.4%	0.4%	100%	
Tariff (KGS per kWh)	0.77	2.16	2.24	0.779	0.088	1.37	1.57
Consumption (billion kWh)	5.30	1.19	2.96	0.539	0.039	10.0	1.2
Revenue (billion KGS)	4.08	2.58	6.63	0.420	0.003	13.71	1.9
Cost of Service (CoS, KGS per kWh)	1.75	1.75	1.55	1.330	1.750	1.67	
Consumption (billion kWh)	5.30	1.19	2.96	0.539	0.039	10.0	
Full Cost of Service (billion KGS)	9.29	2.09	3.94	0.717	0.068	16.11	
Difference between CoS and Revenue (billion KGS)	-5.21	0.49	2.69	-0.297	-0.064	-2.40	1.9
Memo: Deficit (percent of 2017 GDP)	-0.94	0.09	0.48	-0.053	-0.012	-0.43	0.34

Source: World Bank and IMF staff estimates.

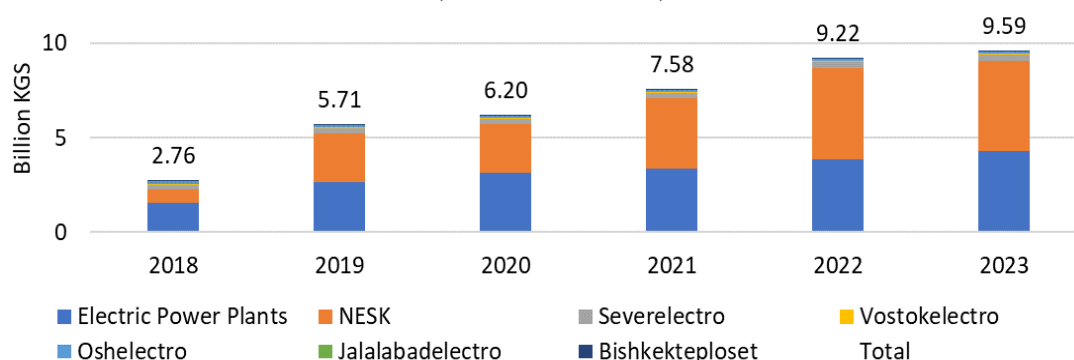
¹²⁴ The majority of these consumers are residential customers with a monthly consumption of less than 700 KWh.

Despite the sector’s structural weakness, electricity exports are improving its financial situation. The overall sector deficit narrowed from KGS 9.3 billion in 2015 to KGS 1.5 billion in 2018.¹²⁵ However, electricity exports are expected to decline to 0 by 2020 due to natural hydrological multi-year cycles. Consequently, this recent improvement is unlikely to continue. The prospect of further imports for thermal generation and electricity will open the sector to the risk of further increases in the cost of service, driven by imports.

An Unviable Debt Burden

The structural sector deficit, together with several large sector investments, has ballooned the debt to \$1.5 billion; debt repayment obligations by sector companies are rising rapidly. The cumulative debt of energy sector companies reached KGS 101.5 billion at end-2018 (roughly 18 percent of GDP). Furthermore, loan repayments jumped by 107 percent from 2018 to 2019, rising from KGS 2.76 billion to KGS 5.71 billion (Figure 4.3). Annual payments are expected to continue rising through 2025 when they will peak at KGS 11.8 billion.¹²⁶ The sector’s high debt levels and insufficient revenue recovery have led energy companies to rely on transfers from the Kyrgyz Ministry of Finance to cover operational deficits for ongoing expenses, implying an unsustainable sector model. Productive investments in new infrastructure, which would carry a return for the broader population, cannot be financed if the cost of supply is unmet.

Figure 4.3. Debt Repayment Schedule, 2018–23
(in billions of KGS)



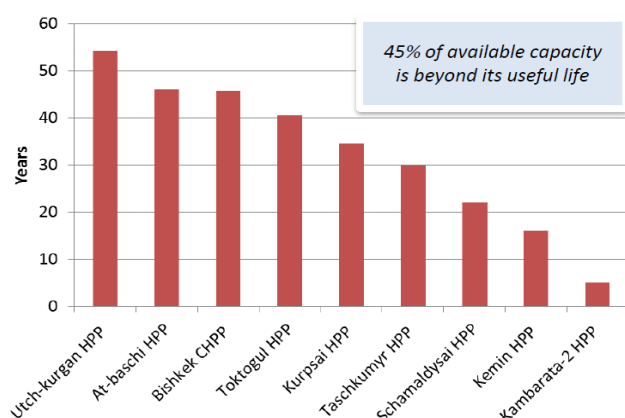
Source: World Bank staff calculations using Techno-Economic Indicators and individual company information.

¹²⁵ Derived from the Techno-Economic Indicators (2018), as provided by the State Regulatory Agency.

¹²⁶ 24.kg News. 2018. “Modernization? Wear of equipment in power engineering—80 percent.” April 28. https://24.kg/vlast/83181_modernizatsiya_iznos_oborudovaniya_venergetike_80protsentov/.

Poor Condition of Assets Affects the Quality of Service

Figure 4.4. Age of Key Generation Assets
(in years)

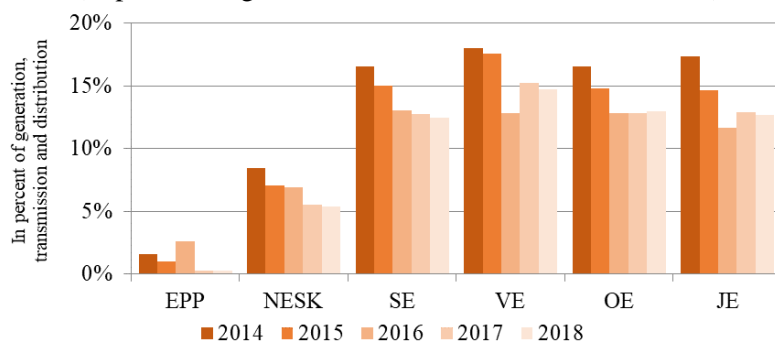


Source: World Bank 2019 based on Techno-Economic Indicators and company information.

Spending on the maintenance and rehabilitation of capital assets is insufficient. About 45 percent of generation assets are beyond their useful life (Figure 4.4). Depreciation of energy sector equipment is at 70-80 percent: more than 700 electricity towers (built in the 1960-70s) are in critical condition, and roughly 40 percent of the 928 kilometers of underground cable lines in Bishkek need replacement. Furthermore, several replacement parts required to rehabilitate the sector's capital assets are increasingly difficult to procure, as the original supplier, Russia, has stopped producing them.

The poor state of assets has led to significant service disruptions. These disruptions hinder business operations, as seen in the World Bank's *Doing Business 2019* report, which scored the Kyrgyz Republic's 'reliability of electricity supply' as very poor. The country's largest power plant, the Toktogul hydroelectric power station, experienced breakdowns two winters in a row (2015 and 2016) due to cable line breaks. The hydro units have a service life of 25 years but have been in use for 42 years. Equipment failure also affects the provision of heating services: in January 2018, Bishkek's Heat and Power Plant failed, leaving parts of the capital city without heat supply for several days, during winter temperatures of around -20° C.¹²⁷

Figure 4.5. Reported Losses, 2014–18
(in percent of generation transmission and distribution)



Source: World Bank staff estimate using Techno-Economic Indicators, 2019.

Significant rehabilitation and upgrade efforts in generation and network facilities, funded by external loans, have improved the situation in recent years. Severelectro (SE), the largest distribution company in the country, spent KGS 112.4 million on electrical equipment repairs, resulting in a 23 percent decrease in the breakdown rate of power networks in the Bishkek, Chui, and Talas regions. Although network companies have reported a decline in

¹²⁷ Charginov, Zamir. 2018. "Energy Challenges in the Kyrgyz Republic: It's Time to Act!" *Eurasian Perspectives* (blog), February 9. <http://blogs.worldbank.org/europeandcentralasia/energy-challenges-in-the-kyrgyz-republic>.

transmission and distribution losses, overall technical and non-technical losses¹²⁸ remain at roughly 20 percent,¹²⁹ costing the sector KGS 673 million (0.12 percent of GDP) in 2018 (Figure 4.5).

F. A REFORM STRATEGY FOR REALIZING THE POTENTIAL OF HYDROPOWER

Although not insurmountable, these constraints limit the country from reaping the full economic benefits of its natural energy resources. Alleviating them will, however, require the government to remain focused on sector reform. In the case of the Kyrgyz Republic, presenting an investment environment enticing to potential investors will require action on several fronts and could be a medium- to long-term goal. Addressing the sector's financial viability and stabilizing the fiscal situation related to sector debt would go a long way toward reducing the real and perceived payment risk of sector companies—the key power off-takers. Furthermore, without a strong regulator armed with the power to enforce tariffs according to a set formula and schedule, investors will be unsure of the ‘rules of the game’ and, therefore, unable to accurately assess potential investments. Factors like the country's frequent changes in government and existing energy sector investment deals facing corruption allegations contribute to a perception that political risk is high.

Key constraints will need attention. Attracting private investment will require a focus on strengthening the sector's financial viability, building institutional and regulatory capacity, and fostering sector transparency and communication.

Strengthen the Financial Viability of the Sector

Strengthening the sector's financial viability is urgently needed for the Kyrgyz Republic to reap the potential economic benefits of its energy resources. The following three key actions will boost the sector's finances: (i) increasing tariff levels; (ii) stemming technical and non-technical losses; and (iii) putting in place mechanisms to smooth highly-volatile hydropower revenues.

Tariffs

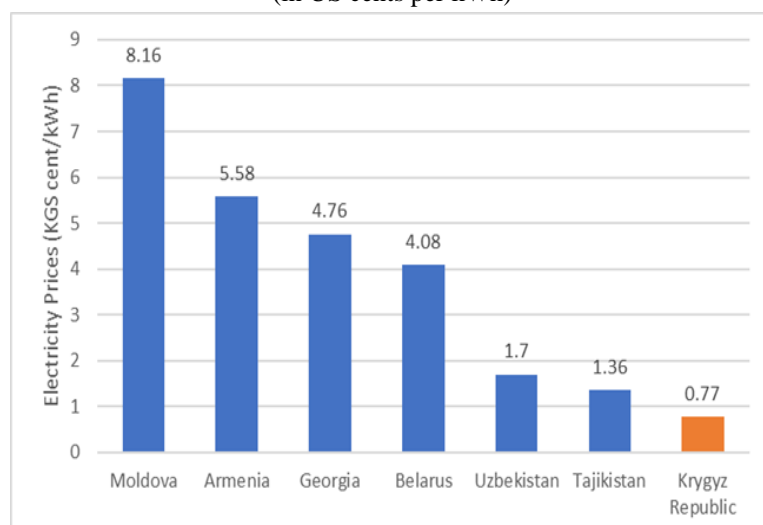
Below cost-recovery tariffs, the lowest in the region (Figure 4.6.) for the residential sector, are the main constraint. Tariff levels lead to sub-optimal sector financial performance and low interest from private investors due to a lack of bankability of projects aimed at capacity additions. The government covers the shortfall of costs not met through tariffs, through government loans, leading to strained fiscal space and inadequate incentives for efficient sector management. Increasing tariffs to cost-recovery levels will help the sector self-financed and enable the Kyrgyz Republic to attract more private investment

¹²⁸ Technical losses, such as power dissipated (lost) in transmission lines and transformers due to internal electrical resistance, are caused by physical properties of the power system. Technical losses are naturally occurring losses. Non-technical losses are caused by actions external to the power system. They generally occur as a result of theft, metering inaccuracies, and unmetered energy.

¹²⁹ Careful interpretation of the numbers is needed as complete transparency is not given. The numbers may be overly optimistic (reasonable numbers for distribution companies could be around 15-18 percent rather than the reported 13-15 percent in 2017). Utilities have previously alternated between hiding losses in collections and own use. Donor-sponsored loss reduction programs based on new metering equipment and better management systems are in place for SE and VE (including ongoing rehabilitation of VE, financed by EBRD) but have not been rolled out to other distribution companies to date.

alongside planned donor funding in the sector. True cost-recovery tariffs imply that the sector can both replace and fund new assets.

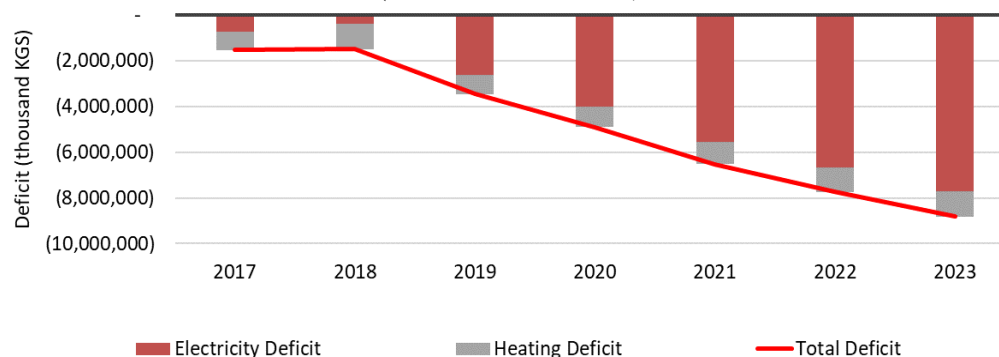
Figure 4.6. Residential Electricity Tariffs in the Region, 2018
(in US cents per kWh)



Source: World Bank 2018.

With exports forecast to be lower through 2023, the electricity sector deficit is expected to rise again. Without a change in tariffs, the electricity sector is forecast to have a deficit of KGS 7.7 billion by 2023 (an 18-fold increase compared with 2018), and the heating sector deficit is expected to reach KGS 1.1 billion by 2023 (a one-percent increase from the 2018 heating deficit level). An overall sector deficit is forecast for all years through 2023, with a deficit of KGS 8.8 billion in 2023 (a six-fold increase from 2018).

Figure 4.7. Energy Sector Deficit, 2019–23
(in thousands of KGS)



Source: World Bank 2018.

Though politically sensitive, it is possible to increase tariffs while protecting poor populations.¹³⁰ As the case of Armenia shows (Box 4.2), when the public understands that higher tariffs can lead to improved service delivery and trusts that the government will manage the sector with the public interest in mind, raising tariffs is feasible. For the Kyrgyz Republic, increasing electricity and heating tariffs through 2023—as proposed by the country’s energy regulator—is expected to result in real income losses of 2 percent (for electricity) of total household expenditures for poor households and 0.1 percent (for heating). Populations most affected by tariff increases will be those that are already energy-poor (spending more than 10 percent of their income on energy), those living in Bishkek, and those who depend on electricity for heating.

¹³⁰ Gassmann and Maisonnat 2018.

Vulnerable populations can be protected from the impact of tariff increases through a targeted lifeline tariff, mechanisms to smooth energy payments and prevent bunching in winter months, and targeted social protection systems for the poor. These measures were proposed as part of the 2009 reform package, which was not implemented due to public unrest and a change of government.

Output Losses

Another area for attention is the improvement of technical and non-technical losses. While network companies have reported a decline in transmission and distribution losses, overall technical and non-technical losses are still of the order of magnitude of 20 percent¹³¹ and cost the sector KGS 673 million (0.12 percent of GDP) in 2018. Recent steps by Severelectro (SE), which include a rehabilitation investment, the installation of 198,217 smart meters show that progress in stemming these losses is possible. Areas covered by SE's smart meters will see an estimated decline in losses of 10-20 percent after installation represents progress on this front.¹³² SE is also making efforts to recover debts, with receivables reduced by KGS 72 million (9.2 percent) since the beginning of 2018.¹³³ If such measures are taken by other sector companies—and result in a reduction of technical and non-technical losses—the sector's revenue shortfall would decline.

Risk-Mitigation Measures

Cyclical multi-year variations in hydro revenues are usually addressed by risk-mitigation instruments in countries reliant on hydropower. Given the Kyrgyz Republic's reliance on hydropower, the sector faces large swings in revenues, driven by year-on-year export variations resulting from changes in hydrological conditions. Other countries with a heavy reliance on hydropower have developed approaches to smooth such revenue variations. The World Bank has provided support to Uruguay, for example, to develop an optimal use of instruments to manage financial risk in the country's hydropower sector.¹³⁴ The financial instruments are triggered according to certain requirements, and lower severity risks are retained by the country's energy utility. Short-term or seasonal shocks, for example, are managed by the utility's cash reserve. In rarer cases—three-month actual generation is lower than the expected value, for example—an energy stabilization fund, also managed by the utility, provides financial coverage; this fund is replenished any time three-month actual generation is greater than 1.15 times the expected value. The fund has a ceiling of \$450 million, meaning no additional inflows occur once the fund achieves this level. If the fund's balance drops to \$50 million, a contingent loan from the World Bank is triggered. With these tools, Uruguay's energy utility can manage most risks. In cases of extreme severity, it can access

¹³¹ Careful interpretation of the numbers is needed: according to the regulator and sector specialists, the numbers may be overly optimistic with reasonable numbers for discos around 15-18percent rather than the reported 13-15percent in 2017

¹³² 24.kg News. 2019. "Severelectro to install 25,000 smart meters in 2019." January 24. https://24.kg/english/107027_Severelectro_to_install_25000_smart_meters_in_2019/.

¹³³ 24.kg News. 2019. "Debt of State Penitentiary Service for electricity amounts to 28.3 million soms." January 25. https://24.kg/english/107232_Debt_of_State_Penitentiary_Service_for_electricity_amounts_to_283_million_soms/

¹³⁴ See the project appraisal document at <http://documents.worldbank.org/curated/en/374711468319162565/Uruguay-Drought-Events-Impact-Mitigating-Investment-Project-Financing>

‘weather and oil price insurance,’ triggered when a weather index, calculated based on precipitation levels, drops below a certain level.

Bhutan, where hydropower plants generate 99 percent of total capacity, provides another example.

The country developed a stabilization fund for hydro revenues to stabilize and synchronize inflow/outflow mismatches, managed by the Central Bank and accountable to the Ministry of Finance for inflows and outflow through a set of rules and procedures. Similarly, the utility in Roseville, California, in the United States, uses several mechanisms including a hydroelectric adjustment—a surcharge to consumer bills in low rainfall years and a credit in high rainfall years—and a rate stabilization fund to manage hydrologic risk.¹³⁵

Strengthen Institutional and Regulatory Capacity

Between 2014 and 2016, significant reforms to the broader energy sector resulted in improvements to the sector’s governance. But progress has stalled since. Reforms included amendments to the Electricity Law, the approval of a ‘Medium-Term Tariff Policy’ for 2014–17, the establishment of a revenue settlement center for the sector, and the transfer of energy policymaking to the State Committee for Industry, Energy, and Subsoil Use. Reform momentum has stalled since 2016. Despite the approval of a ‘Medium-Term Tariff Policy’ that included the first residential tariff increases in a decade, there have been no tariff increases due to political interference. Furthermore, institutional changes since the end of 2015 have led to shifting roles and responsibilities in the sector, contributing to a lack of clarity over who does what and ultimately leading to stalled policy initiatives.

Continuing reform progress extends to the hydropower subsector and, more generally, the sector’s planning framework. For example, the regulatory framework for small-scale hydropower is considered underdeveloped; the key steps and authorizations required for project development—such as how tenders are awarded—are not specified clearly in the relevant legislation. This lack of clarity around the process complicates developers’ ability to design a ‘bankable’ project that is acceptable for financing. Development of the sector also requires a deeper engagement with sector planning questions, such as river basin plans, accounting for integrated water resource management, and detailed assessments of the feasibility of prioritization of particular projects. A wide-reaching sector master plan is being initiated by the Asian Development Bank in 2019 to address system upgrade needs comprehensively.

Foster Transparency and Communication Within Governance Reforms

The investment climate is poor, and perceptions of corruption are high. These perceptions extend to the sector and are backed up by specific instances where projects have been marred in scandal or perceived as corrupt. The energy sector has recently faced increased scrutiny and far-reaching changes in its staffing and institutional make-up following the 2018 failure at the Bishkek CHP plant. Allegations of incompetence

¹³⁵ For more information, see

https://www.roseville.ca.us/UserFiles/Servers/Server_7964838/File/Government/Departments/Roseville%20Electric%20Utility/Residential/Customer%20Service/Rates/Hydroelectric%20Rate/031809%20CC%20climate%20change%202009%20_3_.pdf.

and corruption associated with the rehabilitation investment at the plant led to a series of resignations and arrests of senior sector management.

Fostering sector transparency and communication will help on multiple fronts. Doing so will help achieve public buy-in for ongoing reforms, including tariff changes. It will also allow the public to hold the sector more accountable, ensuring the efficiency of investments and investment choices. Finally, it will help dispel perceptions of corruption and give any potential investors a better sense of how the sector functions.

Initiatives to increase the accountability of sector service providers need to continue and receive a higher profile. To re-establish public trust in the sector, efforts to increase the accountability of sector companies, for example, using consistent monitoring of key performance indicators and their publication, and credible initiatives to strengthen the oversight function of the company boards, should be pursued. Transparent communication on such efforts, as well as reporting on successes achieved, will help re-establish trust in the sector over the medium term.

ANNEX 4.1. SHIFT TOWARD PRIVATE SECTOR FINANCING

Over the past quarter-century, the traditional model of financing large dams exclusively through public resources has given way to a much greater—and in some instances, dominant—role for private capital.¹³⁶ Public financing generally consisted of using budget resources, tax revenues, or public debt, supplemented by specific infrastructure-linked public debt, supported at times by borrowing from multilateral development banks or bilaterally but with sovereign guarantees, and at times intermediated through national development banks. It had the advantage of ensuring availability and adequacy of resources for the project, the application of project appraisal standards for public investments, and accountability and control over public expenditures. However, a reliance on public resources tended to limit the scale of infrastructure investments, inadequate attention paid to commercial considerations, and a lack of market-orientation prevalent in the governance of the energy sector.

The role of private capital has expanded to fill the infrastructure financing gap in emerging markets that far exceeds the available fiscal resources. The liberalization of energy markets—together with a greater sophistication of the financial instruments available to emerging economies—has also created the conditions for private capital entry. Privatized energy companies have turned to private capital markets. Even where the public sector continues to dominate generation, independent power producers have found a role. Private equity in hydropower generation has been rising, and both foreign and domestic private banks—as well as credit export agencies—are providing debt financing.¹³⁷

Hydropower projects have to compete for capital with thermal power projects, which typically have far lower construction costs and risks per unit of electricity generated than hydropower projects. This is because hydro projects have far longer construction periods, deal with hydrological and environmental/social risks to a greater degree, and hence require loans of much higher maturity. However, hydro plants have a much higher life expectancy, and would typically produce a higher rate of return on capital. Average returns on equity for private investors range between seven and 20 percent, typically well above the cost of capital for debt lenders.¹³⁸ For private capital to be enticed into hydro-power financing, given the gestation periods, maturity structures of capital and overall risks, the structure of overall financing of the project is of considerable importance.

Given the highly capital-intensive nature of hydropower projects and hence sensitivity to the cost of capital, the low-interest-rate environment of the post-2008 period has seen a large expansion of the pool of private capital available for financing such projects. The class of long-term investors has widened to now include a significant presence of private equity, pension funds, and dedicated infrastructure funds, which are increasingly acquiring hydropower assets. Furthermore, venture capital funds have been financing construction, bearing the risk, with the aim of on-selling the completed projects.¹³⁹

Facilitating Role of the Public Sector

The public sector plays an important role. The state can provide capital for the project and create the conditions for attracting private equity through the establishment of a sound regulatory framework, market-based pricing principles and the like, and measures to deal with political and commercial risks. A bedrock of equity is essential and facilitates the raising of debt on attractive terms. In many cases, governments have been able to finance their equity stakes through concessional lending by IFIs. However, the equity share must remain within bounds to preserve adequate leverage for a sufficient expected rate of return, which is essential to obtain private capital. This is a point of particular importance for the financing structure of the Rogun HPP.

¹³⁶ Merme, Ahlers, and Gupta 2014.

¹³⁷ Chong and Poole (2013) considers a number of case studies.

¹³⁸ Ljung 2001.

¹³⁹ International Hydropower Association 2016.

The percentage of equity in hydropower projects has ranged from 15 to 40 percent, averaging 25 percent,¹⁴⁰ with higher equity percentages prevalent in cases of dams developed by state-owned power companies that generally have a higher tolerance for lower rates of return. Equity in projects has been supplied by private investors apart from the state, by suppliers, private equity funds, construction companies, foreign electricity companies, and multilateral development banks, among others.

The state can also play a role in obtaining longer maturities for debt, especially from multilateral banks. It can also lengthen privately-sourced debt maturities by de-risking, partial credit guarantees, rollover guarantees, late-maturity guarantees and the like, and using multilateral support or export credit agencies. The domestic bond market, where it exists, can be tapped with maturities being lengthened with official support.

International experience shows that high volumes of private capital can be assembled to finance large dam projects if the risk-adjusted rates of return are attractive enough. This requires the government to create the appropriate project framework and, in particular, to help deal with risks through a variety of instruments such as insurance or guarantees. The legal framework for the energy sector is of central importance, as is a regulatory framework that permits prices to reflect costs. The Clean Development Mechanism¹⁴¹ has also stimulated private investment in hydro projects.

Private sector participation has been fostered through the development of new instruments such as public-private partnerships or by such variants as build-own-transfer/ build-own-operate vehicles. These instruments have been particularly helpful for private investments as they allow for flexible contracts tailored to situations which permit the public sector to take on long-term risk. Contracts specify the role of the private sector in designing projects, construction, maintenance and operations, nature and volume of investments as well as the power purchase agreements and contingencies to address a variety of risks. Concession agreements will need to provide property rights over water use to the operator.

International Experience

The trend in private sector financing, noted above, is evident in a sample of 17 dams analyzed for the period to 2003.¹⁴² In a group of low-income countries (Colombia, Kenya, Lao PDR, and Uganda), where domestic capital was not available, project equity averaged 23 percent and private investments 20 percent. The participation of IFIs and export credit agencies amounted to 40 percent. For seven dams funded through domestic sources (Brazil, China, India, Venezuela), equity average nearly 50 percent, domestic national development loans a further 24 percent, and private capital only 20 percent. In Chile, Lesotho, and Turkey, commercial orientation in dam projects combined with export ambitions led to an equity structure averaging 25 percent and private bank loans of 62 percent.

The options for private financing have expanded with the formation of new investor classes and with active support from IFIs for private participation in hydropower financing.

Public-private partnership finance has grown. For example, in Nepal, the GMR Group provides 27 percent of free equity to the government in a PPP model. In Lao PDR, the PPP model is well entrenched, having been used for several dam projects. In Burundi, DR Congo and Rwanda, the Ruzizi III project is based on a PPP model with the support of the African Development Bank to both the government and private investors.

¹⁴⁰ Worm, Dros, and Van Gelder 2003.

¹⁴¹The CDM allows emission-reduction projects in developing countries to earn certified reduction credits, which can be traded, and used by purchasers to meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions, whilst giving purchasers flexibility in meeting their emission reduction targets.

¹⁴² Worm, Dros, and Van Gelder 2003.

The issuance of public bonds has risen. For example, for the Grand Ethiopian Renaissance Dam (bonds are available in a range of currencies to foreign and domestic private investors), given historically low interest rates and the availability of long maturities. China, India and Pakistan have issued bonds to the public for hydropower assets. Funds, such as the German-based Aquila Capital, have issued bonds for hydropower investments. Green bonds intended exclusively for environmentally sustainable infrastructure projects have been issued by IFIs as well as corporations to fund hydropower projects. This market is projected to grow rapidly given harmonization and standardization of its products and strong interest by lenders.

These private sector-oriented developments have been facilitated by IFIs, particularly the International Finance Corporation, which has expanded its equity, debt, risk management and advisory services to private companies through product innovation. IFC continues to syndicate or participate in major loans to hydropower developers such as Enerjisa in Turkey and CSAIL in Pakistan or project loans such as for the Gulpur project in Pakistan and for the Kabeli A project in Nepal. It has taken equity in developers such as CSAIL (the Karot project in Pakistan), and AGL (the Shuakhevi project in Georgia). In venture capital, IFC has provided upstream risk capital funds into Shuakhevi in Georgia and Upper Trishuli-1, in Nepal, together with other investors.

With the plenitude of private equity and debt financing that can be leveraged, if necessary, on concessional debt and guarantees, bonds, a variety of financial products, the menu of options for hydropower financing has become sophisticated. These instruments can be deployed at each stage of project gestation and operations and customized to fit the needs of the specific project.

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