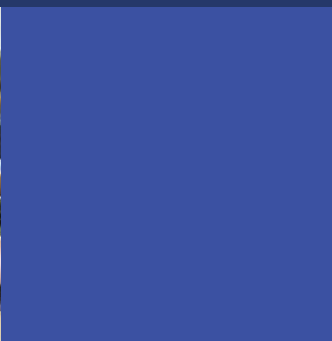


KYRGYZ REPUBLIC

2018

FROM VULNERABILITY TO PROSPERITY

A Systematic Country Diagnostic



WORLD BANK GROUP

Kyrgyz Republic: From Vulnerability to Prosperity

Systematic Country Diagnostic
2018

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Abbreviations

CHP	combined heat and power plant
EEU	Eurasian Economic Union
EITI	Extractives Industry Transparency Initiative
FDI	foreign direct investment
GDP	gross domestic product
HPP	hydropower plant
LMIC	low- and middle-income country
MSME	micro, small, and medium enterprise
PPP	purchasing power parity
R&D	research and development
SCD	Systematic Country Diagnostic
SME	small and medium enterprise
TFP	total factor productivity
WTO	World Trade Organization

Introduction: A New Development Model Is Needed

The purpose of this Systematic Country Diagnostic is to identify the main constraints and opportunities the Kyrgyz Republic faces in continuing to progress towards the World Bank Group's twin goals. It analyzes trends and drivers of growth, poverty reduction, and income distribution, as well as the policies that underpin them, while assessing the elements constraining more rapid progress and sustainability. The main conclusions of this analysis are as follows:

- **Growth has been driven by an ad hoc, opportunistic adaptation to constraints**

Since the collapse of the Soviet Union and the structural transformations that ensued, economic activity in the Kyrgyz Republic has relied on drivers that represented ad hoc opportunistic adaptations to the key constraints of weak governance, poor connectivity, and a limited industrial base. These adaptations, which included (1) exporting migrant labor, with remittances fueling growth in domestic consumption and services; (2) exploiting the gold extracted from one major mine;¹ and (3) leveraging import-reexport bazaar trade, helped sustain growth, while being far from first-best, deliberate, and policy-guided long-term solutions.

- **This 'growth model' led to significant welfare gains, as it rode on the back of the commodity super-cycle...**

Starting at the turn of the millennium, the onset of large-scale migration and the growth of remittance income deeply transformed the economy and society. Outmigration towards countries that were benefitting from the booming commodity prices

provided a safety valve for the labor market, which was under pressure from surplus agricultural labor. Moreover, growing remittances from abroad fueled rising household consumption and the development of urban services, spurring internal labor shifts from low-productivity agriculture into marginally more productive informal urban employment. The transformation propelled robust growth on average (even as frequent shocks derived on significant volatility and sustained uncertainty) and, at least initially, rapid poverty reduction.

- **...But its lack of coherence in addressing key constraints has implied that vulnerabilities remain widespread**

While the country experienced steady poverty reduction in 2005–09, progress plateaued thereafter, and in fact reversed among urban households. The high consumption growth in 2005–09 was inclusive and benefiting the population in the bottom 40 percent of the income distribution. However, thereafter, shared prosperity (which is the result of a ‘catch-up’ process that improves the situation of the most vulnerable relative to the higher-income levels in a society) was only achieved because consumption growth for the top 60 percent was even lower than that of the bottom 40 percent: for the overall population, real consumption per capita declined in 2009–15. The country is now struggling with significant remaining poverty (afflicting a third of the population), as well as widespread vulnerability. Nearly the entire population is living in or close to poverty, at constant risk of falling back; while the prospects of reaching the middle class are limited.

- **Prospects for further progress under the same paradigm are limited**

The features of the economy—characterized by high informality, small-scale, and low productivity in the private sector—do not lend themselves to sustained, dynamic growth. Prospects are further depressed by structural and cyclical factors in the absence of deliberate policy reforms. Gold exports and remittances provide a critical source of foreign exchange, allowing the country to accommodate a significant trade deficit, but they also drive Dutch disease effects, undermining export-oriented tradable production and exacerbating the inherent limitations of a small and poorly connected domestic market. Moreover, these drivers are volatile and precarious. Gold production is concentrated in one mine, which is scheduled to cease extraction in five years.^{2 and 3} International labor migration is highly vulnerable to external shocks and the health of the economies of Kazakhstan and the Russian Federation. In addition, there are significant headwinds. First, the structural downturn in oil prices will continue to depress the regional demand for Kyrgyz products, while heightening competition on domestic markets. Second, the tendency to maintain expansionary fiscal policies in response to the end of the commodity super-cycle has proven ineffective to sustain inclusive growth, while largely depleting fiscal buffers, as well as the headroom to boost aggregate demand through public spending, when temporary shocks (requiring a countercyclical response) do arise.

FIGURE 1.1
Key SCD Priorities



- **A new development model is necessary**

In short, the country now needs a new development model to (i) tackle the sources of low overall productivity—a critical source of sustainable dynamism—and (ii) unleash private investment and job creation, given the limited options for public spending and redistribution. This will require a three-pronged approach to (1) address cross-cutting constraints to private sector development, (2) promote conducive policies in areas where the country has significant unexploited endowments (especially minerals and hydropower), and (3) foster greater sustainability, including by maximizing the efficiency of public policies. This will also require a fundamental departure from haphazard policy making, whereby macro-fiscal policies have failed to support greater poverty reduction and resilience, and weak governance has undermined the effectiveness of reforms.

Notes

1. Kumtor is 100 percent owned by Centerra Gold, which is a publicly traded Canadian company. Kyrgyzaltyn (100 percent owned by the Kyrgyz government) owns around 30 percent of Centerra Gold.
2. According to Kumtor's official mine closure plan: <https://www.kumtor.kg/en/mine-closure/>.
3. Other mines are active, or in the pipeline, but only account for a small fraction of total gold output.

PART II

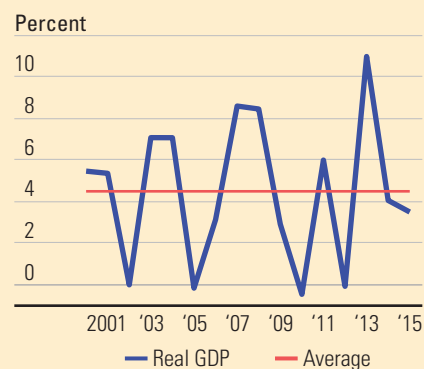
The Development Trajectory to Date: Some Gains but Many Missed Opportunities

Growth Has Relied Heavily on Commodities Exports and Remittances-Enabled Consumption

Until the end of the commodity super-cycle, poverty reduction and shared prosperity in the Kyrgyz Republic were driven by relatively robust overall growth, underpinned by remittance-fueled consumption and a significant expansion in services. Since 2000, real growth in gross domestic product (GDP) averaged 4.5 percent annually (figure 2.1), in line with the average among developing countries in Europe and Central Asia. In 2005–12, the changes in poverty mirrored trends in output, and the economic expansion went hand-in-hand with poverty reduction.¹

As in any typical Dutch disease episode, growth was overwhelmingly driven by commodity exports (gold) and nontradable sectors (services and construction). After the collapse of the Soviet Union, all sectors of the economy experienced massive contractions—particularly industry, which production fell by more than 70 percent between 1990 and 1995. The moderate recovery of industry thereafter can be attributed to a rise in construction and the onset of gold extraction, while traditional manufacturing has been receding ever since. Agriculture grew at a below-average rate; its share in value added declined over 2000–15, coupled with an even greater decline in employment. Meanwhile, the services sector expanded rapidly, driven by wholesale and retail trade, which grew to about one-sixth of GDP, and other commercial services that developed in the mid-2000s, namely, tourism, communications, and the financial sector. As a result, services and construction became the main contributors to overall growth (figure 2.2).

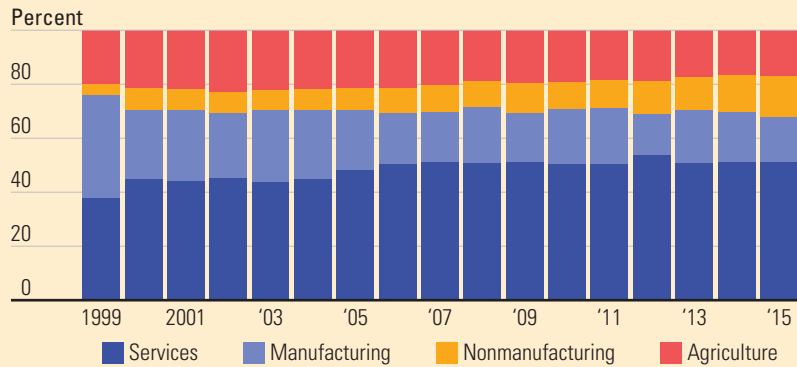
FIGURE 2.1
Robust Average Growth, but Highly Volatile GDP growth



Source: Calculations based on data from the National Statistical Committee of the Kyrgyz Republic.

FIGURE 2.2
De-industrialization and the Expansion of Services

Contribution to total value added by sector



Source: Calculations based on data from the National Statistical Committee of the Kyrgyz Republic.

The structural shift from agriculture to services generated gains in productivity and labor incomes, although these were one-off. Whereas agriculture employed about 54 percent of all poor workers in 2003, this share was only about 30 percent by 2015. With low initial labor productivity in agriculture, the shift to other forms of employment, even to low-value informal jobs, effectively raised overall labor productivity, the growth of which averaged 7 percent annually in 2005–09. Likewise, real wages rose by almost 9 percent annually in 2003–12.

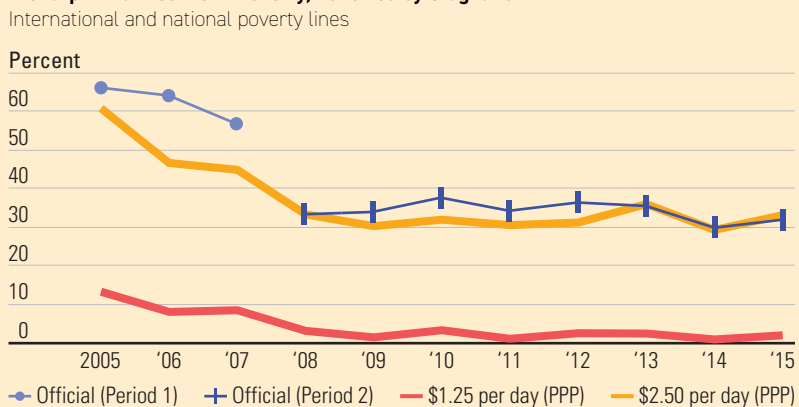
Growth Has Yielded Initial Progress toward the Twin Goals, but the Momentum Has Slowed and Many Challenges Remain

Poverty reduction proceeded rapidly during the first half of the past decade, but then stagnated. The poverty rate, measured at the international \$2.50-a-day line, fell from 60 percent of the population in 2005 to 30 percent in 2009 (figure 2.3).² Progress nearly halted at that point, and, over the following six years, the share of the population living in poverty even rose slightly, to 33.1 percent in 2015. Applying the official national poverty line yields a similar trend, also showing little recent improvement. By this measure, the poverty rate rose from about 33 percent in 2008 to nearly 38 percent during the political crisis of 2010, before falling again to about 32 percent in 2015.

Although growth has been pro-poor, consumption has declined among the top 60 percent households, as well as in urban areas. Between 2003 and 2007 and again between 2008 and 2015, expenditure growth per capita was significantly higher among households at the bottom of the distribution. The largest gains were among the rural poor. However, consumption growth among the top 60 percent was negative between 2008 and 2015, while it was either flat or negative among most urban residents. Urban poverty increased by more than 9 percentage points, from 23.8 percent in 2008 to 33.1 percent in 2012, before falling again to 29.3 percent by 2015.³

There are strong seasonal fluctuations in poverty, indicating a high degree of vulnerability for most Kyrgyz. Annual poverty rates suggest some progress in the ability of households to exit poverty durably. While about 15 percent of non-poor households in 2013 had fallen into poverty by 2015, some 45 percent of poor households in 2013 had exited poverty two years later. However, these annual averages mask substantial seasonal fluctuations and exposure to poverty risks. In 2005, only 22 percent of households never fell below the poverty level across the four quarters of the year.⁴ By

FIGURE 2.3
A Sharp Initial Decline in Poverty, Followed by Stagnation
International and national poverty lines



Source: Calculations based on data from the Kyrgyz Integrated Household Survey.

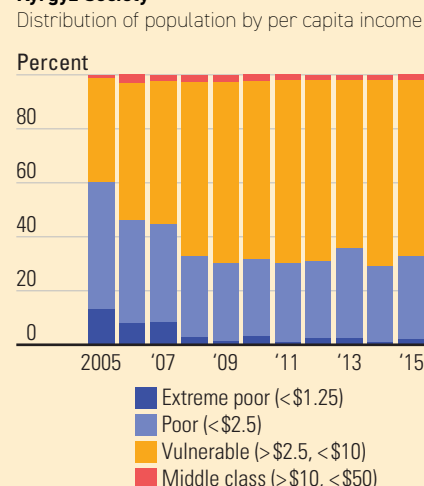
2009, this proportion had improved to nearly half of the population. However, since then, progress in reducing temporary spells of poverty has stagnated and a consistent pattern emerged. About 10 percent of the population is chronically poor in all four quarters of the year, and between 37 percent and 48 percent of households never fall into poverty. The remaining 47 percent of the population experience spells of poverty at least once during the year. This combination of a high rate of poverty, substantial churning, and low upward mobility among the chronic poor implies that poverty reduction will be increasingly difficult without a more sustainable growth model.

Most of the population is living either below or only slightly above the poverty line. The high prevalence of transient poverty alongside chronic poverty points to the limited capacity of households to expand their income earning potential beyond basic subsistence. Thus, membership in the middle class is out of reach for a large majority, although many households have formally become nonpoor. Defined using the international threshold at \$10 a day, only about 2 percent of the population was in the middle-class in 2015, nearly unchanged from a decade earlier, and about 65 percent of the population was vulnerable to falling back into poverty. Bunching around the poverty line has also meant that the national poverty rate has become more responsive to relatively minor changes in consumption expenditure. Therefore, even small declines in consumption, such as those resulting from changes in food prices, can lead to a noticeable rise in the poverty rate. For instance, hypothetical shocks to the consumption of nonpoor households by 5 percent, 10 percent, and 20 percent increase poverty prevalence by 5.6, 10.1, and 20.3 percentage points, respectively.

Notes

1. Except in 2006–07.
2. There are two series of poverty estimates discussed here for the Kyrgyz Republic: estimates based on the international poverty line in 2005 purchasing power parity and the national official poverty estimates. The former are better suited to cross-country comparisons, while the latter are calibrated by national authorities to the local context. Long-run comparisons of poverty rates in this report rely on the international approach because a break in the national series in 2008 complicates comparisons of periods pre- and post-2008. This break is not present in the series used for the international poverty estimates.
3. Possibly reflecting the migration of poor rural residents to cities, as well as the dynamics of food prices.
4. Using the poverty line of \$2.50 a day in 2005 PPP terms.

FIGURE 2.4
High Vulnerability, a Defining Feature of Kyrgyz Society
Distribution of population by per capita income



Source: Calculations based on data from the Kyrgyz Integrated Household Survey.

A Wake-Up Call

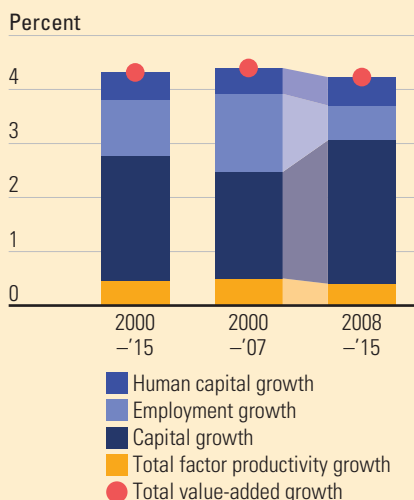
The Old Opportunistic Approach Will Not Drive Future Inclusive Growth

The relationship between gross domestic product (GDP) growth and poverty reduction appears to have weakened. While growth and poverty reduction went hand in hand in 2000–08, the strength of the association decreased significantly and reversed thereafter. The poverty reduction elasticity of growth declined from 3.2 percent in 2005–08 to -0.7 percent in 2009–15, indicating there had been a delinking.¹ Rapid economic growth over 2011–13 did not prevent an increase in poverty, while slower growth in the following year coincided with a sharp dip in poverty. Likewise, while consumption growth among the population and the bottom 40 averaged 4.6 percent and 7.8 percent, respectively, over 2005–14, the figure dropped to -1.1 percent and 0.4 percent over 2009–14. Shared prosperity was only achieved in a formal sense because the outcomes among the top 60 percent were even worse than those of the bottom 40 percent, while the core objective of shared prosperity—rapid welfare improvements for all, especially at the bottom of the income distribution—remained elusive.

By some measures, both job² and productivity growth slowed significantly toward the end of the first decade of the 2000s.³ In 2009–13, job growth averaged only 0.9 percent annually, barely two-thirds of the increase in the labor force. The relatively steady official unemployment data are explained by continued out-migration and withdrawals from the labor force, particularly among women, whose participation declined from 62 percent to 50 percent in 2000–13. Productivity growth also dropped mark-

FIGURE 3.1
Capital and Labor Accumulation Drove
Growth, with Limited Contributions from TFP

Period average



Source: OGREsearch calculations based on data of the National Statistical Committee of the Kyrgyz Republic.
 Note: TFP = total factor productivity.

edly across all sectors, falling from 7 percent annually in 2005–09 to a mere 0.7 percent annually in 2009–12. Productivity growth was negative in both agriculture and industry.

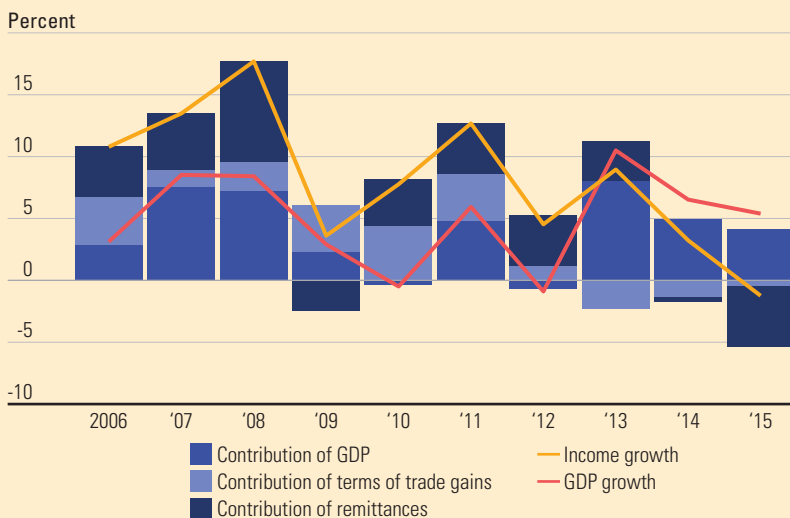
Hitherto, growth has been driven by one-off gains from structural transformation and factor accumulation, but total factor productivity (TFP) lagged. Growth decompositions⁴ suggest that, (1) over 2000–07, labor productivity was mostly driven by labor reallocation, that is, labor outflows from low-productivity agriculture and labor inflows into high-productivity industry, probably related to gold production, and, (2) over the subsequent period, it stemmed mostly from an expanding contribution of capital, in line with high investment rates in the mining sector. Over 2000–15, the contributions of capital investment and employment to the average growth of 4.5 percent each equal to approximately 2 percentage points. The TFP residual—which measures how efficiently the economy uses the capital and labor it has—was consequently low by international standards, at around 0.5 percent. Moreover, post-2008, the positive contribution of TFP stemmed essentially from industry, while it was nil and negative in services and agriculture.

Past drivers, therefore, cannot continue to lift growth forever. The sectoral reallocation effect appears to have mostly run its course, since further labor shifts are constrained by limited urban development and the informality of the urban labor market. Likewise, capital accumulation is also constrained by fiscal pressures on the public side and on the private side by poor access to finance and investment climate weaknesses. This implies that future growth will need to derive largely from greater efficiency in production within existing activities.

The Prevailing Paradigm Is Also Unsustainable

Not only has the old “model” failed to deliver a sustainable improvement in outcomes among the population in recent years, but growth prospects in the short- and medium-term also appear constrained. They are limited by structural factors, such as (1) high exposure to the regional environment, which means that prospects for migration and remittance growth are uncertain; (2) the small size of the domestic market, limited access to regional markets, and the lackluster dynamism of exports; and (3) the inherent limitation of a growth path dependent on factor accumulation (adding more capital and labor) and structural transformation without accompanying complementary increases in productive efficiency. Prospects are also affected by the consequences of implementing a policy framework that has not been sufficiently cohesive and long-term oriented, and which has effectively reduced the fiscal space to expand needed public service delivery, maintain high public investment, and implement countercyclical policies when appropriate.

Continued reliance on migration and remittances is risky. The stock of Kyrgyz migrants abroad plateaued at the end of the previous decade, and has been falling since then. While remittances continued to grow in dollar terms until 2013 (albeit among a shrinking share of receiving households), they declined thereafter, significantly affecting the purchasing power of recipients and the national income (figure 3.2). Given the new normal regional environment, and the brisk pace of labor force growth, the Kyrgyz Republic will be faced by a significant jobs challenge under a “business-as-usual” scenario.

FIGURE 3.2**The Income Contribution of Remittances: Past Boon, Potential Liability**

Source: World Bank 2015.

The economy has a large productivity deficit which highlights the inherent limitations and vulnerabilities of heavy reliance on labor and commodity exports. The Kyrgyz Republic has experienced an atypical structural transformation, whereby the movement of labor out of agriculture has not been triggered by new jobs in emerging industries (aside from gold, which offers relatively few linkages to other economic activities), but by foreign employment alternatives and opportunities in the informal urban economy.

This phenomenon is seriously limiting productivity growth. One side effect of the premature graduation to services has been that the skills content of all wage-earning jobs in the economy has not expanded. There has been a positive reallocation effect as workers who left agriculture found better jobs in urban services, but the jobs have been only marginally better, and the shift has not been symptomatic of a dynamically sustainable transformation. While growth has been buttressed by a favorable demography and reasonable rates of investment (largely foreign financed), sustaining the growth will necessarily require higher total factor productivity and greater investment efficiency.

There Is No Room for Policy Complacency

The Kyrgyz Republic has not managed to fully leverage its open political landscape. While the institutionalization of democratic principles is a major achievement in and of itself, the flipside is a high degree of political churn, which does not lend itself to long-term policy commitment in the absence of solid institutions and a state-level reform vision. The legitimacy of consensus and dialogue in rulemaking in the Kyrgyz Republic presents a very real opportunity to strengthen the inclusiveness of growth—but this will require that institutions are made more resilient to short-term political changes and that systems are strengthened to ensure that citizen feedback effectively informs policy.

Faster progress, moreover, will require a more supportive, deliberate, sustained, and internally consistent policy framework. Macroeconomic policies have—at best—not supported greater poverty reduction and resilience and, at worst, have contributed to output and income volatility, along with social vulnerability. Likewise, governance shortcomings, together with counterproductive tax policies, have probably helped keep the economy small and informal by deterring large, productive private sector investments, while generating incentives for firms and individuals to stay below the radar.

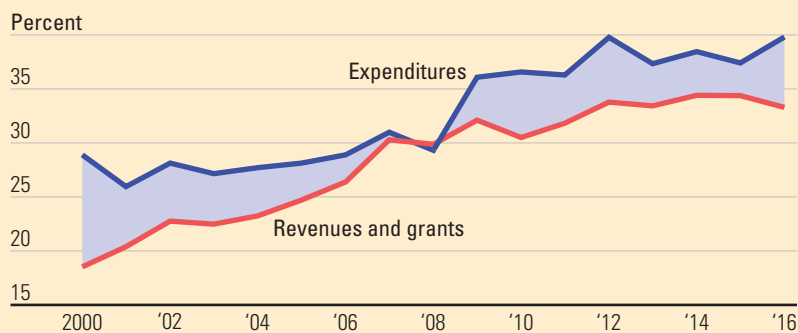
While counterfactual analysis is tricky, one could argue that development outcomes of the past decades were largely achieved not thanks to—but in spite of—public policies. This is so, first, because growth was largely driven by external pull factors—foreign demand for gold and labor—and windfalls, the benefits of which were insufficiently leveraged to grow the asset base of the country; and second, because macroeconomic policies failed to mitigate the negative impacts of large external flows, fueling the Dutch disease, and adding to the volatility of output and income.

Fiscal policy—the main macroeconomic management tool available in the country—has been suboptimal in many respects. The policy response to shocks has been ad hoc and insufficiently anchored in an explicit countercyclical approach; moreover, there has been a tendency to respond with strong fiscal expansions to long-lived shocks, that would require, instead, a smooth adjustment towards an equilibrium consistent with a less favorable external environment. The result has been a steady erosion in fiscal buffers, which can exacerbate volatility, and limit options for effective protection of the most vulnerable population groups. Poorly calibrated policies were rolled out against the backdrop of deficient or missing institutions for effective fiscal policy management and planning.

In response to shocks, the authorities adopted an expansionary fiscal stance that was poorly calibrated. Following the global financial crisis, the government resorted to fiscal stimulus, which came not in the form of targeted and time-bound programs but mostly from permanent shifts in current expenditures, namely, increases in wages and pensions. Then, following the 2010 revolution,⁵ additional spending was directed not only to prop up the financial sector, but also toward social protection to align benefits with the cost of living. However, the benefits that were meant to be one-off were permanently embedded in the fiscal accounts, triggering additional wage increases for the remaining public-sector groups, as well as resulting in a large rise in outlays for pensions. The structural deficit thus grew significantly, from 0.3 percent of GDP in 2008 to 4.5 percent in 2012, thereby limiting fiscal margins of maneuver to respond to shocks or to make adjustments.

Public investment is also suboptimal. In recent years, the government has significantly ramped-up public investment spending to address the large infrastructure gap. However, there are significant concerns over the efficiency of spending—in the presence of weak management systems—as well as over the sustainability of investments in the absence of adequate provision for maintenance. Moreover, a significant share of public investment is carried-out by state-owned enterprises, that are financially unviable—given the tariff structures that they apply—and whose large footprint and low efficiency contribute to low overall productivity.

FIGURE 3.3
Fiscal Consolidation Has Given Way to Unsustainable Expansion
 Share of GDP



Source: Adapted from the National Statistical Committee of the Kyrgyz Republic.

The fiscal stance deteriorated markedly. Following a period of major consolidation from 2001 to 2008, government spending ballooned (figure 3.3). By 2016, it stood at 39.2 percent of GDP, which was one of the highest rates among developing countries and high even by the standards of the former Soviet Union. The fiscal deficit, including on-lending, had widened to 7.1 percent, raising total public debt to almost 60 percent. While the fiscal position remains solvent thanks to concessional support and measures to boost revenues, the presence of a large structural deficit suggests that the current fiscal stance is not sustainable. Moreover, it is likely that fiscal expansions put pressure on prices and wages, thus undermining the competitiveness of the economy.

Notes

1. The poverty reduction elasticity of growth is the percentage change in poverty associated with a 1 percentage point change in GDP growth.
2. Formal and informal.
3. Various parameters of growth decomposition yield somewhat different results, which are also sensitive to the period chosen as indicative of the average effects.
4. Accounting exercises which decompose the growth rate of output into shares that can be attributed to increases in factors of production (capital and labor) and—residual—shares that must be explained by improvements in productivity.
5. During which the president was removed from office by street protests and ethnic clashes in the southern part of the country and threatened to trigger full-scale civil conflict.

Reference

World Bank. 2015. “Low Commodity Prices and Weak Currencies.” ECA Economic Update Fall 2015 (October), World Bank, Washington, DC. Doi: 10.1596/978-1-4648-0753-4.

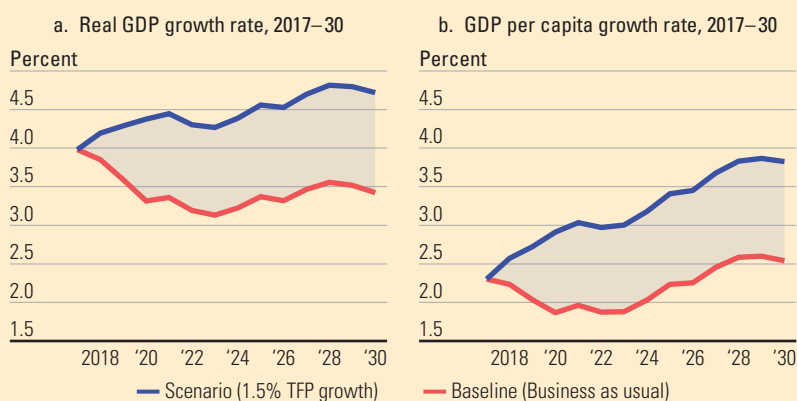
Toward a New Model That Nurtures Private Investment

Growth will need to be driven by productivity gains in a more vibrant and formal private sector. The private sector is the only long-term source of high-quality sustained domestic job creation. With already high levels of income equality, boosting overall growth will have to be the main pathway for poverty reduction, although some targeted action may be required to address the needs of those people who would otherwise be left out.

To maintain output growth, productivity growth will need to rise along with more and better capital accumulation. Over the coming decade, the high public investment rate and large current account imbalances will need to moderate. Assuming a conservative reduction by 5 percentage points of gross domestic product (GDP) in investment and a similar decline in the current account deficit by 2020, and standard assumptions for other variables,¹ GDP per capita growth would decline by around 0.4 percentage points, from around 2.3 percent to 1.9 percent by 2020, if total factor productivity (TFP) does not grow much faster.

By contrast, boosting TFP (or the efficiency in production) would allow the Kyrgyz Republic to offset the effects of a fall in investment and sustain economic growth (figure 4.1). A 1 percentage point increase in TFP growth—from 0.5 percent (the historical average) to 1.5 percent—by 2020 would more than compensate for the decline in public investment. It would also raise output directly and indirectly by lowering the marginal incremental capital output ratio; GDP per capita growth would rise from 2.3 percent to 3.8 percent by the end of 2020, or 1.3 percentage points higher than in the baseline scenario mentioned. Further gains would also materialize if the

FIGURE 4.1
Boosting TFP Would Make a Substantial Difference



Source: Calculations using the long-term growth model of Macroeconomics and Fiscal Management Global Practice, Development Economics Vice Presidency (World Bank).
Note: TFP = total factor productivity.

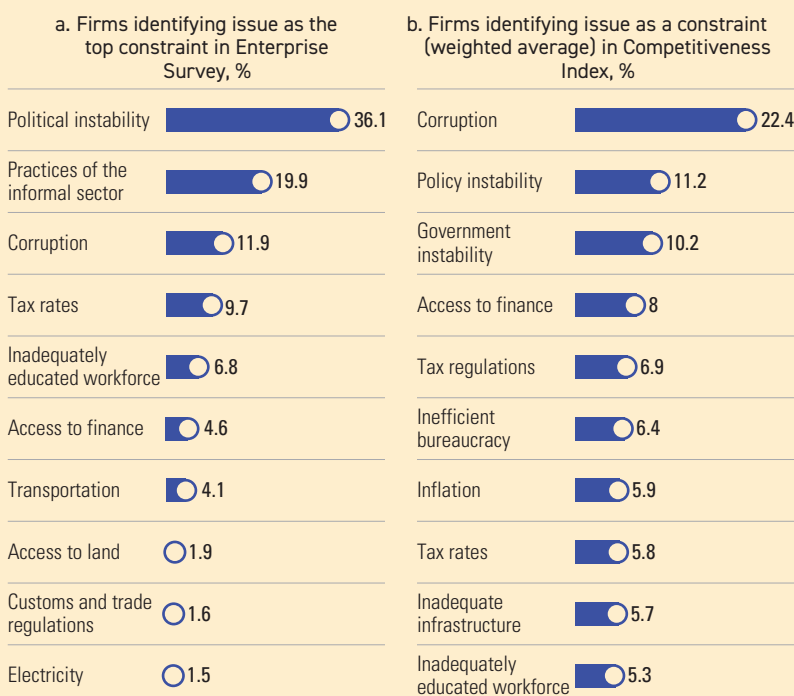
efficiency of investment also rises in tandem, including through strengthening public investment management.

The country has a strong base of natural and cultural resources that can drive inclusive growth. These include significant reserves of mineral resources as well as vast hydropower development potential. In addition, the climatic conditions in the country are well suited to the commercial development of agricultural production in areas such as fruit and vegetables and meat and dairy. Tourism is another sector with potential comparative advantage given the physical and cultural heritage of the country, especially if connectivity constraints are addressed. Finally, the accession to the World Trade Organizations (WTO) and Eurasian Economic Union (EEU), coupled with strong historical trade ties linking China and the wider Eurasian region and the prospects of “One Belt, One Road” development provide more opportunities in information and communication technology, logistics, trade, and the export of services.

Yet, with few exceptions, the full competitive potential of these sectors remains untapped. The energy sector, particularly hydropower, holds tremendous potential for large-scale investment, with domestic and foreign demand, yet tariff policy and long-term governance issues have deterred private investment. Mining has seen more investment inflows but despite the presence of global and regional investors, the sector is struggling to attract new investment in exploration because of governance and fiscal policy concerns. The agriculture sector remains highly unproductive overall, but with some emerging examples of successful projects that are improving competitiveness in areas such as legumes, dairy, and meat. All three of these sectors have significant upside potential to boost productivity by attracting new domestic and foreign investment. The annex provides a deeper analysis of sector specific constraints and opportunities. The following sections cover the cross-cutting constraints to private sector development.

Governance Is the Main Bottleneck for Private Sector Growth

Governance remains a defining challenge for the Kyrgyz Republic with uneven progress over the past decade. Relative to other low- and middle-income countries (LMICs) and even to low-income countries in the Worldwide Governance Indicators, the Kyrgyz Republic falls well behind average performance in key dimensions, including rule of law, control of corruption, and political stability. Governance reform has been a central

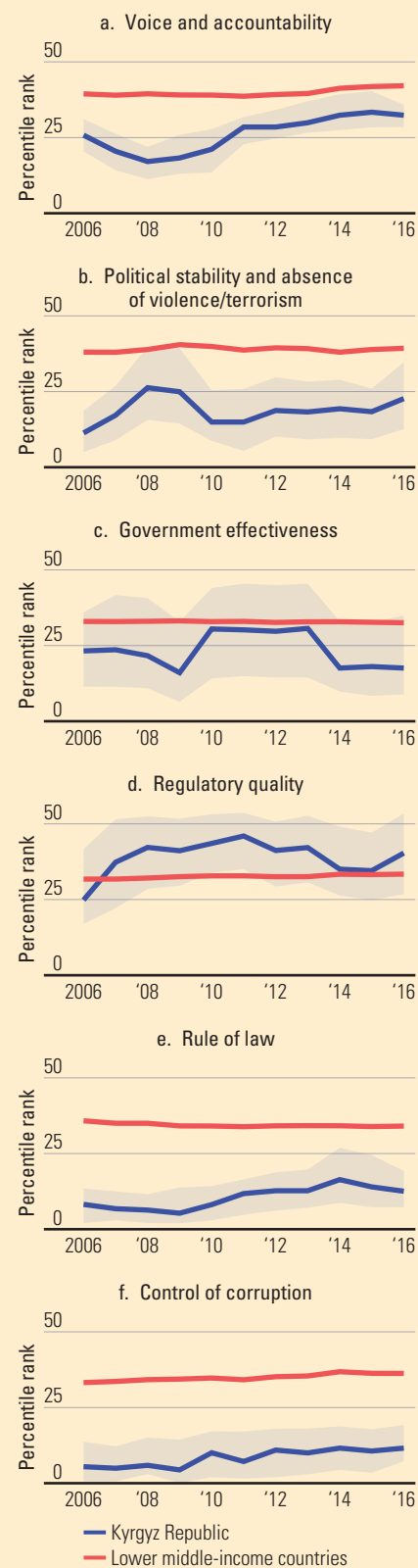
FIGURE 4.2
For Firms, Governance Constraints Top All Other Factors


Sources: Adapted from the Business Environment and Enterprise Performance Survey database (European Bank for Reconstruction and Development and World Bank), <http://ebrd-beeps.com/data/> and Global Competitiveness Index database (World Economic Forum), <http://reports.weforum.org/global-competitiveness-index>.

element of the National Sustainable Development Strategy 2013–17, but, without a comprehensive framework of indicators, or targets attached to the program, the results cannot be independently assessed.

Governance issues are particularly relevant to investors, with nearly 70 percent of firms citing some aspect of governance as their single largest constraint. When investors cite the top obstacle to the business environment in the World Bank Enterprise Survey, governance concerns occupy the first, second, and third positions (panel a in figure 4.2). Among respondents, 67.9 percent flag either political instability, informality, or control of corruption. These findings are consistent with other survey products including the Global Competitiveness Index (panel b in figure 4.2), which found corruption to be the single greatest concern to investors, at nearly twice the level of the next most important concern. The Kyrgyz Republic is placed 130 out of 140 countries in the use of irregular payments and bribes and 120 for protection of property rights in the Global Competitiveness Index.

In the area of political stability, the nature of concerns has changed over time—from security-related issues following the 2005 and 2010 revolutions to public dissatisfaction with the ability of the government and the legislature to create a long-term sustainable political environment. Since 2010, there have been frequent changes in government, with significant turnover in senior policy roles, including prime ministers, ministers of the economy, and ministers of finance, creating great uncertainty among firms. At a minimum, it is critical to ensure that new governments do not go back on commitments made by previous ones as this leads to costly arbitration and drags down the perception of the country. A further step would consist in building institutions that can implement a ‘state-level vision’ despite political volatility.

FIGURE 4.3
The Kyrgyz Republic Lags Lower-Middle-Income Peers in Governance


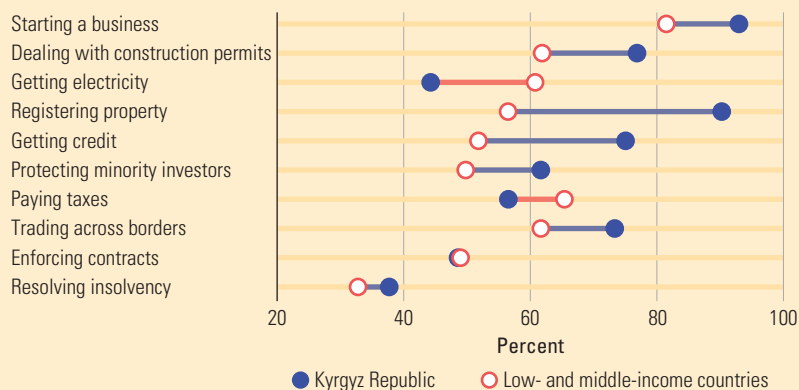
Source: Adapted from the Worldwide Governance Indicators database (World Bank), <http://info.worldbank.org/governance/wgi/index.aspx#home>.

Poor corporate governance continues to limit the financial performance of firms and the ability to attract investment. This is particularly relevant for finance and for firms looking for foreign investment, which in many cases requires stronger firm-level corporate governance standards than what is required under Kyrgyz law. In recent years, the government has taken efforts to strengthen the regulatory foundation for corporate governance, including (1) amendments to the Kyrgyz Law on the National Bank, banks, and banking activities, which introduced international standards on corporate governance to the financial sector, and (2) amendments to the Joint Stock Companies Law, which introduced the concept of independent directorship and strengthened requirements for external auditors.

Weak Implementation Undermines Policy Effectiveness and the Investment Climate, Deterring Investment and Driving Informality

The Kyrgyz Republic is doing reasonably well on the formal quality of the regulatory environment. Over the years, the country has made significant progress in adopting a framework legislation that is increasingly aligned with global best practices in areas such as inspections, permits, technical regulations, tax administration, and more. While some regulatory areas with high-compliance costs remain (such as export and import procedures), there is little evidence that the regulatory environment poses significant obstacles to firm growth. Indeed, the findings of the Worldwide Governance Indicators show the Kyrgyz Republic exceeding the LMICs average distance to frontier in only one area, regulatory quality. This finding is confirmed by the World Bank's Doing Business and the World Bank-European Bank for Reconstruction and Development Business Environment and Enterprise Performance Surveys (BEEPS). The Kyrgyz Republic ranks 77th (out of 190 economies) in the Doing Business report and is closer to the regulatory frontier than LMICs in seven of ten indicators (figure 4.4). The BEEPS find that senior management of Kyrgyz firms spends 12 percent of their time dealing with government regulations, a slightly lower share than the 12.3 percent average in the Europe and Central Asia region.

FIGURE 4.4
The Kyrgyz Republic Performs Well, on Paper, in Many Aspects of Doing Business
 Doing business indicators, distance to frontier, 2018

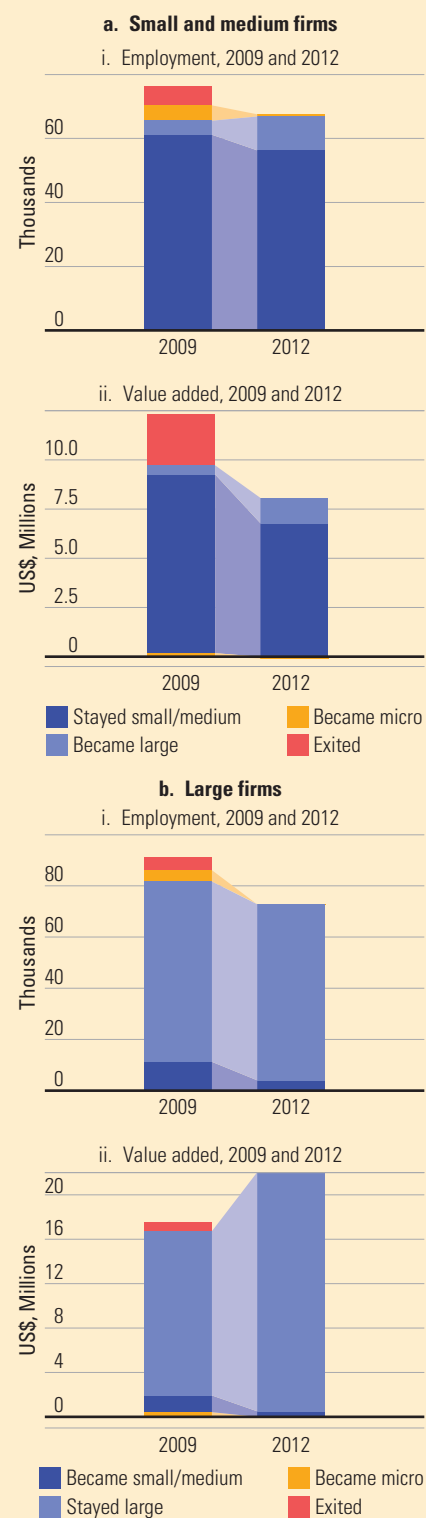


Yet, capacity constraints within the government—in addition to corruption—have led to significant gaps between *de jure* design of regulation and *de facto* implementation. On individual transactions, Kyrgyz firms report significantly greater incidence of requests for informal payments across every area tracked in the BEEPS. Some 60 percent of firms experience at least one request for an informal payment, compared with only 18.0 percent in Europe and Central Asia on average, while 60.2 percent identify corruption as a major constraint, far above the Europe and Central Asia average of 23.5 percent. The Kyrgyz government has taken some steps to address the issue of implementation quality including the shift of government-to-business services increasingly to electronic channels, widespread use of public private dialogue, and experiments with feedback mechanisms for firms and citizens to provide real time data on service delivery quality. However, implementation gaps remain a persistent issue, undermining the efficacy of regulatory reforms.

The high degree of informality seen in the Kyrgyz economy and related job outcomes are likely linked to these compliance cost and governance issues. First it should be acknowledged that data on informality is scarce and the issue is a recognized and critical knowledge gap. The limited data that exist, as well as anecdotal information gathered through consultations, strongly suggest that informality is a response of firms to factors, including a perception that the threats associated with governance—from the expectation that informal payments must be made to expropriation—increase significantly with firm growth, while the rule of law is insufficiently strong to protect against these pressures; competitive pressure from other firms operating informally drives down prices; the rising costs of compliance associated with business growth; and even a perception that the negative consequences of informality are not serious. The available data reflects some of these concerns, particularly around weak rule of law, high incidence of corruption, and increasing compliance costs for large firms. For example, the average time required to obtain an electrical connection for small firms is only 6 days, but 88 days for medium-sized firms. The latter also have higher tax rates and encounter more requests for informal payments. Informality can even be seen in firm survival data. Smaller firms experience not only the highest churn (market exit) rates, which is the global norm, but, more concerning, also low rates of graduation to medium or large size, suggesting that they either lack the competitive potential to grow, or are voluntarily capping their formal growth to avoid the higher compliance costs and perceived governance risks that come with being a larger firm (figure 4.5).

While the financial sector's depth is relatively shallow, it is not clear whether the lack of available finance is a binding constraint to firms. Indeed, access to finance is viewed by few firms as the top obstacle in the BEEPS and the World Economic Forum (WEF) Competitiveness Index. In addition, the problem does not appear to be lack of availability of finance as banks have excess liquidity and even subsidized lines of credit remain largely underutilized. Rather than the availability of finance, it appears that more obstacles exist with the terms of finance—high interest rates, short repayment periods, and very high collateral requirements—the distortive effect of subsidized lines of credit that tend to be lent to the most creditworthy, and politically connected borrowers, driving up risk and thus costs for banks to lend to the rest of the private sector, particularly micro, small, and medium enterprises (MSMEs). Although there are no comprehensive

FIGURE 4.5
Small Firms Shed Employment and Lost Value Addition, 2009–12



data on access to financial services for MSMEs (for example, payment, credit, and savings), most indicators suggest that utilization of formal financial services is low and most financing is either small, micro, or collateralized bank lending. MSME growth is constrained by the shortage of nonbank financing and inadequate supply of uncollateralized financing. Total domestic credit to the private sector as a share of GDP stands at just 23 percent, higher than the 19.6 percent average for low-income economies, but below the 42.7 percent average of LMICs. Only 18 percent of the population over 15 years hold an account at a formal financial institution, compared to 43 percent for the Europe and Central Asia region in 2014.² In comparison, individuals fare better and appear to have slightly greater access to credit than in comparator countries: in 2015, 13.5 percent of the population age over 15 reportedly borrowed from a financial institution, compared with 12.4 percent for Europe and Central Asia and 7.5 percent for LMICs. However, better results for access to finance, at the household level, do not apply to housing finance where both mortgage lending and home improvement finance are lagging.

Efforts to improve the investment climate should thus be directed more at improving market access and the delivery and reliability of regulatory services. While investment climate issues may not pose significant obstacles to existing firms, improving both the design of legislation and the delivery of regulatory services has the potential to boost the competitiveness of the economy, particularly through expanding market access. Quality standards systems remain incomplete, including gaps in both legislation and infrastructure, with the result that Kyrgyz firms are unable to demonstrate compliance with quality standards required for market access under the WTO and the EEU. In addition, trading across borders—critical for a productive firm in a landlocked country—remains subject to high formalities and slow border clearance processes. The 2018 Doing Business results indicate that it requires 41 hours and \$590 to export and 108 hours and \$712 to import, compared to Europe and Central Asia averages of 55.9 hours and \$305.2 to export and 53.2 hours and \$279.8 to import.³ Cross-cutting issues include the limited use of data and risk-based systems, ad hoc intra-governmental coordination for service delivery, and gaps in both physical infrastructure and delivery capacity.

Infrastructure Gaps Are Large, Requiring More Strategic Investment and Sustainable Financing

Poor physical infrastructure and service delivery negatively impact competitiveness. Particularly relevant for a landlocked country with an export-oriented growth strategy, building productive infrastructure assets and improving service delivery will positively impact costs for firms and improve competitiveness. The BEEPS confirm that transportation is one of the main obstacles to the business environment. The country was ranked 146 among 160 countries in the 2016 Logistics Performance Index, and an overall score of 1.9 for trade and transport-related infrastructure on a scale of one to five (figure 4.6). Domestically, poor infrastructure and service delivery specifically depress rural economic growth, as limited market access increases costs and reduces opportunities for producers to get the best prices for their goods.

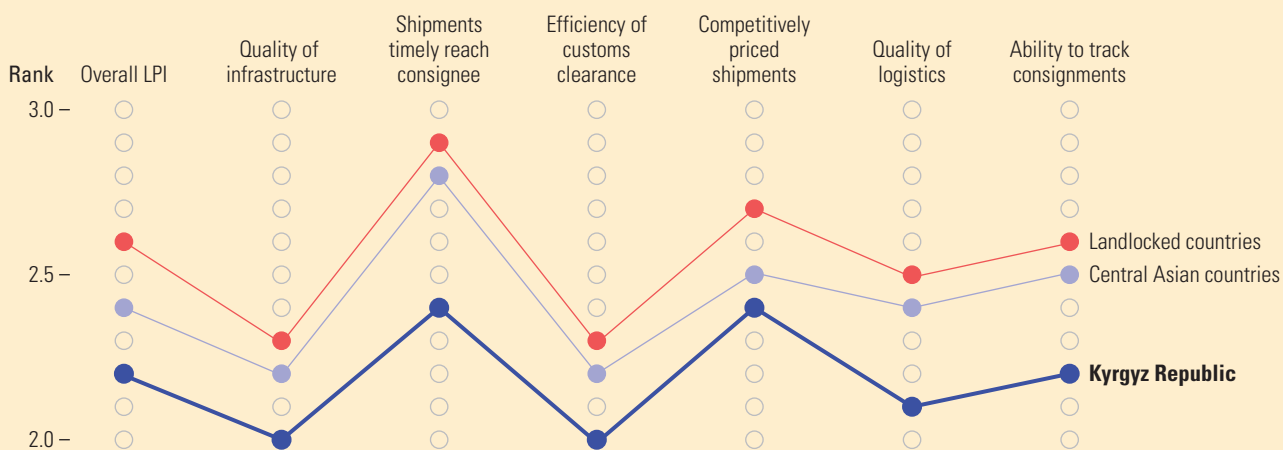
While much new investment is underway or planned, including as part of greater regional initiatives, the infrastructure deficit is daunting. The country ranks 113th (out of 138 countries) on the infrastructure subindex of the WEF Global Competitive-

ness Index 2016–17, or 130th when just looking at transport infrastructure. Road and rail densities are low, lagging both Uzbekistan and Tajikistan. Even where road access exists, more than half of the country’s road network is unpaved, its road quality is among the lowest in the region (131st) and behind every country in Europe and Central Asia other than Moldova and Ukraine. The Kyrgyz Republic is also poorly connected by air. The country had the lowest traffic share (0.03 percent), the lowest numbers of direct links (9), and the lowest closeness centrality (0.5) in the region. Service delivery and safety ratings in the road and aviation sectors represent serious challenges.⁴

The country performs much better on indicators of access to water, sanitation, and electricity, but with high variability in the quality of such services.⁵ Nearly 35 percent of firms identify electricity as a major constraint to their operations—presumably correlated with the 39.1 percent of firms that own or share a generator, relative to just 21.5 percent for the Europe and Central Asia region. Energy tariffs are among the lowest in the world, but below cost-recovery tariffs compounded by poor supply quality, and reliability undermine public and private investment in the sector (despite its huge unexploited potential in hydropower), and create a short-term risk that energy supply will not keep up with demand.

Investment needs in infrastructure are enormous, calling for a strategic approach including crowding-in of private capital. An estimate of national infrastructure investment needs for 2010–20 illustrates the magnitude of the challenge. Infrastructure investment needs for the decade were estimated at close to \$9 billion or 13.3 percent of GDP, mostly to ensure maintenance of the existing stock and toward transport and electricity (Bhattacharyay 2010). While public investment in infrastructure has grown over the past five years to 7.6 percent, there is little fiscal space to continue such growth in investment, leaving a significant gap in investment. In turn this means that added emphasis is required to (i) ensure that the efficiency of public investment is maximized, and (ii) private financing can be crowded-in, specifically in sectors where massive potential for private investment is being held back by distortionary policies, such as hydropower.

FIGURE 4.6
Logistics Performance Index, 2014



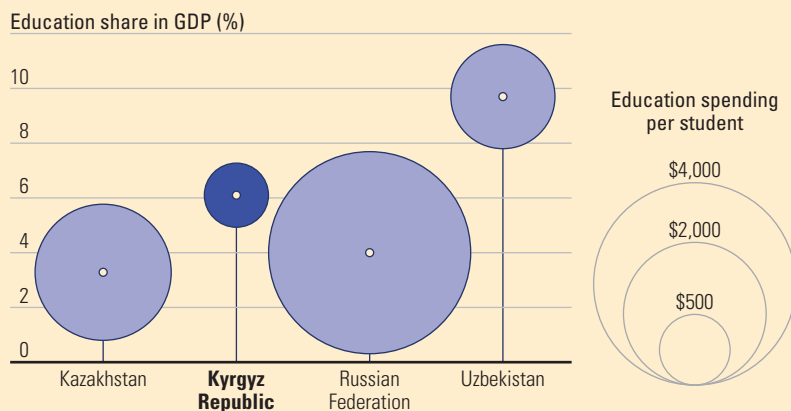
Fiscal Management Needs to Be Strengthened, Given Limited Headroom

Fiscally, the state is operating at full capacity, with little or no room to boost spending in the short run. Fiscal buffers have been significantly eroded, limiting the scope to expand spending in critical areas or to respond to shocks. During a period of fiscal prudence and consolidation (2000–08), the budget was brought from a 10 percent deficit to equilibrium. However, government spending rose substantially thereafter, and the fiscal deficit climbed to one of the highest levels in the Europe and Central Asia region. Over the same period, the fiscal position of the government remained solvent, essentially because of greater external support, debt write-offs, and ad hoc measures to boost revenues and make selected expenditure cuts.

Revenues are already high and unlikely to grow appreciably in the short run in the absence of wholesale reform. Revenue mobilization has been impressive. The ratio of revenues to GDP have been in the 31 to 38 percent range, which is high for a LMIC. However, recent improvements have relied on one-off nontaxation measures, such as privatization sales, and revenues have depended heavily on external grants and ad hoc domestic efforts. Additional gains will need to come from improvements in the tax regime and in administration.

The ratio of expenditures to GDP is high, but public spending is low in absolute terms. Total expenditure reached 39 percent of GDP in 2012 and was similarly high thereafter. Spending has been channeled toward growth-supporting sectors. A large share of spending has gone to building up the capital stock. Public investment in infrastructure rose from 4.8 percent of GDP in 2011 to 7.6 percent in 2015. Likewise, public outlays on education, health care, and social protection were high as a share of GDP, at, respectively, 6.0 percent, 3.0 percent, and 11.4 percent in 2015. While these ratios are high, spending in absolute terms is low on account of the low GDP base. For instance, while the Kyrgyz Republic spends almost twice as much as Kazakhstan on education as a share of GDP, this translates into per pupil allocations that are 4.5 times lower in dollar terms (figure 4.7).

FIGURE 4.7
Nominal per Capita Budgetary Allocations Are Modest



Social and Environmental Resilience Are Long-Term Challenges

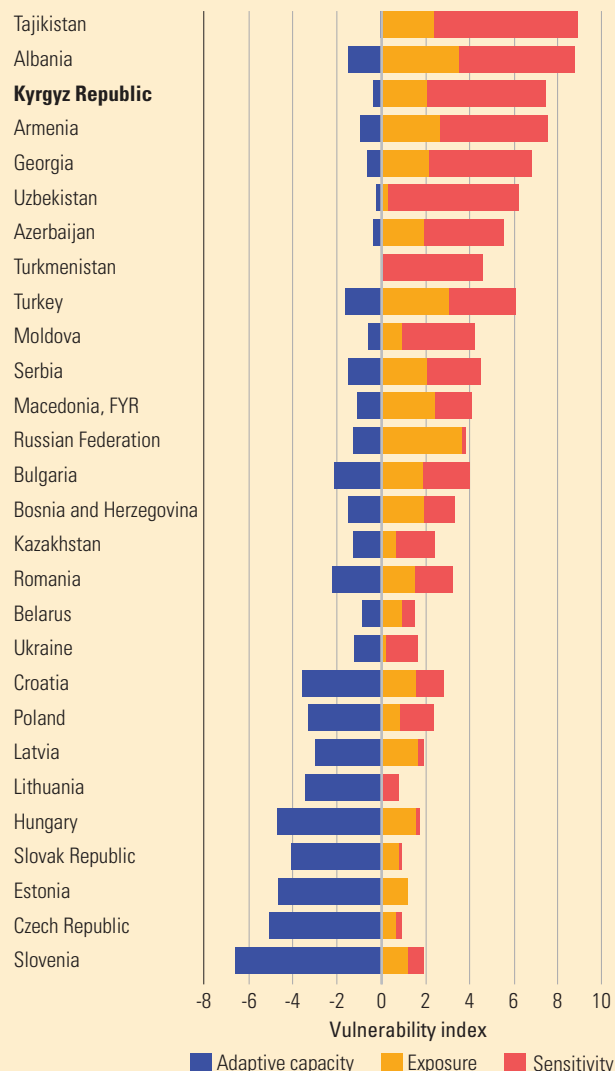
The Kyrgyz Republic is characterized by high levels of economic precarity, which is indissociably linked to environmental and social vulnerabilities. Critical sources of growth are dependent on the environment. Environmental protection is key for agriculture in which most of the poor are engaged and are also the first victims of natural disasters and conflict.

The Kyrgyz Republic is highly vulnerable to the effects of climate change and will need to mitigate emerging sources of risk. Growth opportunities for the Kyrgyz Republic are inextricably linked to the environment, particularly in sectors such as agriculture, hydropower, extractives, forestry, and tourism, which creates a significant risk of poor management of these natural resources and ultimately undermine the competitive potential of the economy. By contrast, more strategic and holistic management of natural resources would be needed to fully exploit these sources of comparative advantage. According to the country's Intended Nationally Determined Contribution (INDC) under the 2015 United Nations Framework Convention on Climate Change Paris Agreement, there are opportunities for increased usage of alternative renewable energy sources; less carbon intensive and climate resilient infrastructure; enhanced reforestation activities in mountainous regions; and potential for adaptation action across sectors of water resources (assessment of indicators of vulnerability in glaciers and lakes), agriculture (crop productivity and adaptability, assessment of pastures), health care and vulnerability assessment and adaptation measures for extreme climatic events.

The agricultural and energy sectors are highly vulnerable to climate change. Kyrgyz GDP is highly dependent on climate- and weather-sensitive industries, with both agriculture, with its 30 percent contribution to GDP, and energy facing major risk. Climate change will adversely impact agricultural productivity and is likely to lead to decreased water supply, an increase in the frequency, magnitude, and intensity of extreme weather events, increased damage to ecosystems, and greater jeopardy to the health of the local populations. Mountainous regions, lowlands, glacier areas, and the country's limited arable lands are all going to be impacted significantly.⁶ The Kyrgyz Republic's INDC estimates that annual losses, if climate adaption measures do not take place, would be \$1.3 billion, of which \$70 million is from agriculture and \$718 million is from the water sector. Of the total annual required adaptation budget of \$1.5 billion, only a fraction of that amount is available from domestic sources and the rest is expected from donor funded programs. Such a funding gap demonstrates that the government alone is unable to tackle the impacts of climate change.

The Kyrgyz Republic is among the countries most exposed to natural hazards in the region and is classified as the most seismically-dangerous territory in Central Asia. In a long-term perspective, earthquakes pose the greatest risk with 3,000 to 5,000 earthquakes registered annually and 96.7 percent of the population living under high seismic risk.⁷ A potential devastating 100-year return earthquake could have economic costs of around 50 percent of GDP. In turn, this would translate in a government liability of 13.6 percent and potential revenue losses of around 2.3 percent of GDP.⁸ Floods pose another significant threat to the Kyrgyz Republic in terms of frequency and extent, with 182 towns and villages at risk of river flooding and around 1,153 settlements at risk of flash floods and mudflows.⁹ The annual average population affected by flood-

FIGURE 4.8
Substantial Vulnerability to Climate Change



Source: Fay, Block, and Ebinger 2010.

ing in the country is about 80,000 and affected GDP is about \$60 million.¹⁰ Furthermore, climate change could cause dramatic events in the country with regard to floods.

The government and the population need to become prepared to deal with the impacts of climate change, as well as other country-specific environmental vulnerabilities, especially those affecting the poor, while meeting international mitigation and adaptation commitments. In Europe and Central Asia, the Kyrgyz Republic is among the countries most vulnerable to climate change, chiefly because of high sensitivity (linked to its reliance on hydro-power and agriculture), as well as low-adaptive capacity (figure 4.8). Exploring how the country can enhance its preparedness for natural disasters and adaptation to climate change, as well as ensure sustainable use of its natural resources—in particular its biodiversity, land, mineral, and water resources—should be key elements of its medium- and long-term growth strategy. The strategy would need to consider how the Kyrgyz Republic will reduce greenhouse gas emissions in the range of 11.5–13.8 percent below its business-as-usual scenario in 2030, and 12.7–15.7 percent below business-as-usual in 2050; as well as harnessing international support to achieve a total reduction in the range of 29.0–30.9 percent below business-as-usual in 2030 and 35.1–36.8 percent below business-as-usual in 2050. Its INDC estimates that the total cost for mitigation component is between \$1.9 billion and \$2.0 billion. Meanwhile, the total needs for adaptation are around \$1.9 billion.

In addition to environmental risks, conflict prevention remains a priority for the Kyrgyz Republic, with vulnerability at the regional, national, and local levels. At the regional level, contested border delimitation and management of transboundary resources provoke inter-community confrontations and frictions with neighboring countries. At the national level, risks stem from poor delineation of political power among government branches, brewing competition among elite groups for control of resources and entrenched corruption in government agencies. Subnational risk factors include urban overpopulation, youth unemployment and marginalization, and inter-ethnic tension.

Long-term stability and growth depend on meaningful reconciliation in the south, and the promotion of a national identity that includes all ethnic minorities, alongside tackling governance, or corruption challenges. The growing specter of religious radicalization (particularly among disenfranchised ethnic Uzbek youth who face chronic lack of economic opportunities) compounds preexisting sources of vulnerability. These challenges and risks would be exacerbated in a context where public policies fail to stimulate growth and job creation and/or to translate into significant improvements in service delivery. In the past, political instability and civil unrest has been inextricably linked to perceptions of misgovernance.

The Kyrgyz Republic is uniquely characterized in Central Asia by the openness of its political process and scope for voice and agency. The democratic process is vibrant, with a strong—at times vociferous—parliament and institutions of local representation, including for local communities. The country ranks high, relative to Central Asian peers, on international indicators of freedom of the press and of the political process. However, to date, the Kyrgyz Republic has been unable to capitalize on this asset and instead, political instability is seen by investors as a major deterrent to making long-term investment commitments in the country. Local government capacity and accountability varies considerably across the country, impacting service delivery and poverty reduction. Collaboration between local governments and communities in defining and implementing their development priorities is key to promoting social coherence, mitigating social and political tensions, and ensuring the sustainability of local development. With the 2008 amendment to the legal framework for local governance, which assigned more political, administrative, and fiscal autonomy to local governments, the 467 local authorities now have increased responsibilities toward local populations and there are increased opportunities for them to work closely with communities in local development initiatives. Nonetheless, local governments and communities are limited in their ability to undertake participatory approaches to governance and development, in part because of limited capacity. Local governments are underfunded, understaffed, poorly managed, inefficient, and distrusted by citizens across the country. They also suffer from lack of transparency, accountability, and an unclear division of responsibility with other state agencies, providing space for the elite capture of resources, exacerbating regional disparities in access to public services and goods, and fueling various social conflicts.

Notes

1. A drop in the total population growth rate from 1.6 percent to 0.8 percent by 2030, an increase in the share of the working-age population in the total population, a human capital growth rate of almost 0.9 percent a year, and an initial capital-to-output ratio of nearly 3.8.
2. World Bank FinStat.
3. World Bank (2018).
4. The Kyrgyz Republic is ranked second in the Commonwealth of Independent States region on road accident fatalities; potential economic loss from road accidents is estimated at \$250 million annually. On aviation safety, the International Civil Aviation Organization's recent Universal Safety Oversight Audit, conducted in February 2016, exposed significant deficiencies in the Civil Aviation Agency's oversight and enforcement capabilities in safety-related matters.
5. The access rates are 90.0 percent, 96.0 percent, and 99.8 percent, respectively.
6. World Bank (2016).
7. World Bank (2017).
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9. World Bank (2017).
10. World Bank (2016).

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Constraints and Opportunities

This Systematic Country Diagnostic (SCD) has made the case that the Kyrgyz Republic needs a new development model—and a consistent and sustained strategy—to spur private investment in productive economic activities, while ensuring that the achievements already made in social equity and access to opportunities are preserved. The focus of the strategy should be, first and foremost, to address the obstacles that currently prevent firms—especially small and medium enterprises—to operate, formalize, grow, and compete. This would require not only addressing economy-wide constraints to private investment—targeting specifically the most binding bottlenecks—but also adopting deliberate strategies in those sectors, where (1) most of the population and the poor derive their livelihoods, (2) the country has a clear comparative advantage, and (3) new sources of growth and exports can materialize. Moreover, this would also require the state to play a supportive role, including by (a) refocusing its role on enabling and regulatory functions, (b) ensuring macroeconomic and fiscal stability, and (c) focusing squarely on efficiency and quality gains in the delivery of public services to individuals and firms. Meanwhile, over the longer run, key elements of social and environmental sustainability should also be addressed, including managing the transition from a predominantly rural to an increasingly urban society and economy and addressing the challenges brought about by environmental and disaster risks.

Based on available information and analysis, this SCD has made the following key inferences about the growth trajectory of the country and the characteristics of relatively poorer households.

- **The growth and development trajectory of the Kyrgyz Republic will be constrained under a “business-as-usual” scenario.** The country has achieved substantial progress in the past by following opportunistic adaptation to its environment, constraints, and opportunities. Migration and remittances and the production of gold have supported growth and exports, and the urban economy was able to absorb surplus agricultural labor, thus generating one-off productivity gains. The state has also invested significantly in expanding access to services and building the stock of infrastructure. However, these pathways are both unstable and unsustainable. In the future, growth will need to be driven by productivity gains in a more vibrant and formal private sector; the only source of good domestic job creation going forward. With already high levels of income equality, boosting overall growth will have to be the main pathway for poverty reduction, although some targeted action may be required to address the needs of those that stand to be left out.
- **Given the fast demographic growth, a major challenge will be to create more and better jobs for the Kyrgyz population.** While unemployment has remained low, there is a major concern over the quality of jobs. Moving up the jobs value chain will require action both on the supply and the demand side. First, while the private sector will be relied-upon to create jobs, removing the obstacles that currently prevent firms from formalizing and growing will need to be a priority, involving not only improvements to the business environment, but also governance reform. On the demand side, it will be important to ensure that future entrants into the labor market are equipped with the human capital required to access good and productive jobs. On that account, the Kyrgyz Republic has managed to maintain respectable levels of access to health and education services, but the quality of these services is believed to be low. Therefore, improving the relevance and efficiency of service provision will be key, including maximizing the value for money of increasingly constrained spending.
- **The country, hitherto, has not made the most of its endowments, and needs to focus more squarely on creating the environment for private investment to drive current and future sources of growth.** Although its shares in gross domestic product and employment have declined, the agricultural sector remains strategic not just as a driver of income (with untapped potential for productivity growth) and exports, but also as a source of livelihood for a significant number of Kyrgyz citizens. Therefore, it is key to lay the foundations for a more productive agriculture that can better drive output and incomes. Natural resources wealth has been underexploited in the Kyrgyz Republic. While gold extraction has acted as an engine of growth, the country has relied perilously on one single deposit whose sustainability is questionable, with no clear blueprint for generating a pipeline of future extraction. As for hydropower generation, for which the country has a massive potential, it remains grossly underexploited given a broad range of constraints (from sector governance to pricing policies) that need to be addressed urgently. Moreover, the macrofiscal management of these resources should also be upgraded to ensure that when they become a more reliable growth driver for the country, this happens sustainably and without undermining the

development of other sectors. Finally, in light of the “new normal” environment and limits on domestic demand imposed by shrinking fiscal space and level remittances, the country will need to do much more to develop export-oriented activities beyond those outlined above. This will require pursuing not just a broad trade facilitation agenda (including better leveraging membership in the Eurasian Economic Union and regional initiatives like the Belt and Road), but also laying the foundations for services exports to take off, whether in tourism or the digital economy. Critically, the key governance and business environment constraints that lead firms—particularly MSMEs—to operate with high informality, little growth from small to medium size, and limited investment in productivity must be addressed.

- **The state will also need to refocus its role.** A strong state is needed for development but, too often, public policy has been unpredictable, distortive, or inefficient. Investors consistently identify political instability and policy uncertainty as among the leading constraints for doing business in the country, and this is particularly true for foreign direct investment (FDI), which is critical to boosting productivity. Addressing this challenge is not only incumbent on the executive branch of government, but also on the legislative and judicial branches. A strong state, however, does not necessarily mean an activist state. Although this is an area for further investigation, there are reasons to believe that the Kyrgyz state is too involved and vested in managing the economy’s resources, and devoting too little focus on providing an enabling environment for the country to develop with an inclusive private sector. One also needs to factor-in the fact that the state resources are constrained by limited and shrinking fiscal space. What this means is that it will be critical, (i) on the one hand, to preserve macrofiscal stability going forward, including by resisting pressures to increase spending and build-up the national debt further, as well as by revising the current pricing policies for utility services, and (ii) on the other hand, to increase the efficiency of spending by focusing squarely on improving public financial and expenditure management and improving the quality (or efficiency) of expenditure, including for social services and assistance.
- **Given this analysis, the SCD has identified 11 key constraints to advancing the World Bank Group’s twin goals of shared prosperity and poverty reduction in the Kyrgyz Republic, and opportunities for addressing them.** The constraints and opportunities are presented in table 5.1. Many of these policy areas are eminently complementary within and across broad themes. For instance, it is obvious that the employment creation gains from measures to increase private sector development would be expanded by a parallel focus on the supply side of the labor market. Likewise, there are clear complementarities between the objectives of increasing agricultural productivity and rural livelihoods, and that of promoting more sustainable management of natural resources or expanding access of Kyrgyz producers to foreign markets. More and better infrastructure would be important to market access for competitive sectors, FDI links, and technology transfers. Finally, and fundamentally, progress in the area of good governance would leverage gains achievable in virtually all other areas (from infrastructure development to private sector promotion and social service delivery).

TABLE 5.1
Constraints to Reaching the World Bank’s
Twin Goals in the Kyrgyz Republic

Address poor governance and institutional quality
1. Enhance the macroeconomic and fiscal policy framework
2. Address policy uncertainty and weak rule of law
3. Make public administration more transparent and accountable
Remove obstacles to private sector growth and formalization
4. Improve the business climate
5. Tackle external competitiveness constraints
6. Address infrastructure bottlenecks, particularly connectivity and quality bottlenecks
7. Remove constraints to mining and hydropower development
Improve opportunities and protection for the poor
8. Improve agricultural productivity
9. Increase the targeting of social protection programs and subsidies
Tackle cross-cutting issues
10. Address the quality deficit in social service provision
11. Promote sustainable use and management of natural resources and mitigate climate and disaster risks

Priorities

The purpose of the prioritization process is to identify the priorities that are most important and likely to drive inclusive and sustainable growth in the Kyrgyz Republic. To do so, this SCD adopts a simple filtering process using the following criteria:

- Magnitude of expected impacts on twin goals
- Actual potential for (medium-term) reform
- Adequacy of balance between short-term and longer-term impacts
- Extent to which essential preconditions for a productive life are addressed (such as ensuring a basic minimum standard of living for all)
- Existence of links and complementary effects
- Soundness of the evidence base, both for identifying the problem and for suggesting solutions

Table 6.1 presents the outcome of this filtering exercise. According to this filtering, constraints or opportunities that meet at least four of the criteria (shown in yellow in table 6.1) include the following:

- Addressing source of macroeconomic and fiscal stress (constraint 1).

Given the growing fiscal imbalances, the crucial role played by public expenditure to address significant social and infrastructural needs and the high perception of country risk for international investors, a key priority forward will be to ensure that (i) fiscal

TABLE 6.1
Setting Priorities: Assessing Reforms and Alleviating Constraints

Constraint	Impact on twin goals			Reform potential			Time horizon of impacts			Precondition?		Complementarities			Evidence base		
	S	M	L	Low	M	H	Short	M	Long	Yes	No	W	M	St	W	M	St
Macroeconomic stress			✓			✓	✓			✓				✓			✗
Policy uncertainty and weak rule of law			✓	✗				✗		✓				✓			✗
Low accountability, or capacity of public officials	✗			✗				✗		✓				✓			✗
Business environment weaknesses			✓			✓		✗		✓				✓			✓
Poor external competitiveness			✓		✗			✗		✓				✓			✓
Infrastructure bottlenecks, particularly connective			✓		✗			✗			✗			✓			✗
Obstacles to mining and hydropower development			✓		✗		✓				✗			✓			✓
Low productivity agriculture			✓			✓		✗		✓				✓			✗
Lack of targeting in social protection programs resulting in large exposure to shocks and inefficient public spending			✓	✗			✓			✓				✓			✗
Quality deficit in social services			✓		✗			✗		✓				✓			✗
Poor management of natural resources and exposure to climate and disaster risks		✗		✗					✗	✓			✗				✗

Source: World Bank 2014.

Note: H = high; L = large; M = medium; S = small; St = strong; W = weak.

consolidation is achieved, and (ii) it is done in ways that are sustainable and pro-poor. A considerable amount of analytical work supports this conclusion, as well as options for assistance. A related priority is to increase the value for money of public expenditures. In a context of tight fiscal space, notwithstanding vast development spending needs, increasing the value for money of public spending is a key priority with needed focus on more strategic and efficient spending, targeting quality improvements. The recently completed Public Expenditure Review, coupled with the Public Expenditure and Financial Accountability and Public Investment Management Assessment studies, as well as detailed analyses by the World Bank and the International Monetary Fund on public employment and wage bill dynamics, provide a robust evidence basis to do so, and the focus ought to shift from diagnostic to implementation. The elements of the reform package would include, among other things, improvements to the Public Investment Management chains, right-sizing of the civil service, steadfast implementation of the new Public Procurement Law and other improvements to the Public Financial Management framework.

- **Improving the business climate (constraint 4).**

Efforts in this area would have a large impact in the short run—given the untapped potential for private investment, significant informality in the economy and the centrality of jobs creation to the twin goal objectives (via higher aggregate growth and greater and better earning opportunities for those currently at the lower end of the income distribution). While a substantial evidence base exists to document the binding nature of the constraint and areas for improvement, more work could be needed to understand more granularly (i) what elements of the business climate are particularly detrimental to firms' operations, (ii) disincentives to formalization, and (iii) the extent to which outcomes from improvements in the business environment codepend on improving policy stability and the rule of law (including how governance constraints operate to drive a wedge between reforms on paper and their implementation).

- **Addressing external competitiveness constraints (constraint 5).**

While the Kyrgyz Republic has managed to grow by exploiting niche demand for its gold and remittance-fueled internal demand, sustaining and increasing growth will increasingly require accessing external markets. In turn, exploiting that potential would have clear and direct twin goals payoffs by helping to sustain overall growth and driving employment creation in sectors (whether agribusiness, tourism, or industry) that have high labor links. Moreover, there are unexploited opportunities. First, the Eurasian Economic Union (EEU) provides streamlined access to a vast common market: to leverage it fully, the Kyrgyz Republic will need to upgrade its quality infrastructure, and this has been well researched or documented. Second, the Central Asia-South Asia Electricity Transmission and Trade Project provides tremendous opportunity for hydropower exports, which, however, will require, among other things, in-depth reform to the pricing policies for power. Areas where further analysis is needed include strategies to (i) expand the reach of access to markets to leverage the vast markets of China, South Asia, the Islamic Republic of Iran, and Turkey, (ii) build upon the significant growth of services exports in recent year, including in tourism and also in information and communication technology-related services, which are less hampered by physical connectivity constraints, and (iii) leverage regional initiatives like the Belt and Road Initiative to benefit Kyrgyz firms and increase their participation in global value chains.

- **Removing constraints for mining and hydropower development (constraint 7).**

Both mining and hydropower development hold significant potential to boost growth in the short to medium run, while helping to alleviate financing and foreign exchange constraints for the state. Their development, however, would need to go hand in hand, with (i) a strengthening of macroeconomic policy capacity, (ii) governance improvements to ensure that increased resources are adequately managed and that environmental safeguards are followed, and (iii) continued efforts to improve the business environment for diversification to happen beyond extractives.

- **Improving agriculture productivity (constraint 8).**

This would have a significant impact on the twin goals in the short-term, given the

rural nature of poverty in the Kyrgyz Republic and the large productivity gains that could be derived, with commensurate increases in rural incomes and export potential for the country. Moreover, retaining jobs in the agricultural economy would also relieve acute pressure on the urban jobs market and infrastructure. While a significant body of knowledge is available on the most binding policy bottlenecks, and constraints to unlocking the potential for greater exports to the EEU, an additional strand of analysis could focus on strategies for the Kyrgyz Republic to better leverage its proximity to China by developing its food exports there (and crowd in Chinese investment in the rural economy).

- **Improving targeting in social protection programs (constraint 9).**

Addressing inefficiencies in social protection programs could have a large impact and immediate impact on the twin goals and the welfare of the poor (for whom social transfers are often the only secure or stable source of income). Moreover, given significant inefficiencies in the current—mostly categorical—system, reform would also allow to free up significant fiscal space (especially if targeting is also streamlined in other key subsidies programs, whether for health care insurance or access to subsidized utility tariffs). A major uncertainty, however, resides in the extent to which political appetite exists -can be leveraged- for such reforms in spite of the solid evidence base.

- **Addressing policy uncertainty and weaknesses in the rule of law (constraint 2).**

While this constraint does not formally meet the criteria set out for prioritization, it is nonetheless included among core priorities owing to the magnitude of its effects as “enabler” for virtually all other dimensions of reform. Policy uncertainty and political instability are consistently identified by firms as binding constraints to their operations and it is likely to also be a major deterrent to firm growth and formalization. In addition, because they are particularly relevant to foreign investors, they undermine the potential of the country to leverage foreign expertise and resources to raise aggregate productivity in the economy and access regional and global markets through value chain integration. That said, governance reforms would likely only yield payoffs over the long run (as investor perceptions take time to adjust and can be easily reversed) and may generate significant pushback from vested interests. While there is ample evidence that governance constraints are binding in the Kyrgyz Republic and the World Bank has had substantial technical assistance engagements, more analysis is needed to understand the extent to which they result from capacity constraints, political factors, and/or the presence of vested interests in power.

Other constraints, while important, do not present as strong a case for focus in the short-term, according to the proposed filtering.

- **Making public administration more transparent and accountable (constraint 3), would complement efforts in virtually all other areas (from the business environment to service delivery), although the impact on the twin goals would probably materialize in the medium-term and in a diffused fashion.**

A substantial body of evidence exists to support the notion that corruption/nepotism,

weak accountability, and conflicts of interest are rife in the Kyrgyz Republic, but little has been done by the way of detailed and actionable political economy analysis, specifically focusing on grand corruption and vested interests.

- **Tackling infrastructure bottlenecks, particularly connective (constraint 6).**

This is an area where significant gains could be realized. Not only would investments in connective infrastructure support private investment (and job creation), improve access to markets (and lower the cost of trade), but they would also facilitate the delivery of services and internal labor mobility. The associated efficiency gains would also reduce business costs and reduce the pressure (and reliance) on natural resources. However, given the Kyrgyz Republic's precarious fiscal position, this is an area where an action cannot be taken without imposing difficult arbitrages. Substantial knowledge has been accumulated documenting inefficiencies in the chain of public investment management that can be addressed. In addition, a significant fiscal space is currently used inefficiently to subsidize prices of utility services. However, little has been done analytically to shed light on allocation tradeoffs across various priorities for infrastructure development, or on the emerging tradeoff between equalizing access to quality services across the space (that is, improving access and quality in rural areas) and focusing on the growing challenge of lagging infrastructure in the rapidly growing urban centers of the Kyrgyz Republic. Public-private partnerships (PPPs) are an opportunity to help tackle the infrastructure investment needs, though the government's capacity to engage in large-scale PPPs needs to be fostered, and contingent liability risks carefully assessed.

- **Addressing the quality deficit in social services provision (constraint 10).**

The poor quality of service delivery has a direct impact on the twin goals not only given the inherent merit of providing adequate health and education to citizens but also in promoting the readiness of the growing labor force for productive employment. Moreover, the gains would be exponential given the high levels of access to services enjoyed by Kyrgyz citizens and the wide-reaching social infrastructure already in existence. At the same time, the gains would only materialize over the medium-term and only in as much as demand constraints are adequately addressed. Moreover, the extent of analytical work devoted specifically to understanding constraints to quality service delivery is limited as is an understanding of key drivers of spatial inequities.

- **Promoting sustainable use and management of natural resources and mitigating climate and disaster risks (constraint 11), is important for achieving the twin goals, and more importantly for sustaining them over the long run.**

However, the long run and uncertain nature of the benefits is likely to make this a low priority agenda item for reform, especially in a context of limited fiscal space. Moreover, the evidence base is currently patchy as is the engagement. Examples of the need for additional analysis would include: understanding allocative and technical efficiency gains possible in water, energy, and land management in the short run, and how to ensure the longer-term possibility of sharing these inter-generational benefits in alignment with international commitments. However, an area of clear opportunity includes: energy tariff assessment and financial assessment, with a view of cost recovery; assess-

ment and prioritization of key energy infrastructure necessary to meet current and future demand that could be systematically replicated for the water sector.

- **The outcome of the filtering exercise should be taken as indicative, as a tool to support further strategic discussions, and be updated in light of new evidence.**

Applying a different set of criteria and/or different thresholds would result in a reordering of priorities. Moreover, knowledge gaps—resulting from absent data and/or analysis—are also significant. Therefore, addressing such knowledge gaps, including on political economy drivers of reform, should be seen as an overarching, cross-cutting priority.

Reference

World Bank. 2014. “Systematic Country Diagnostics: An Overview of Current Thinking.” Advisory Group for Systematic Country Diagnostics, World Bank, Washington, DC.

APPENDIXES

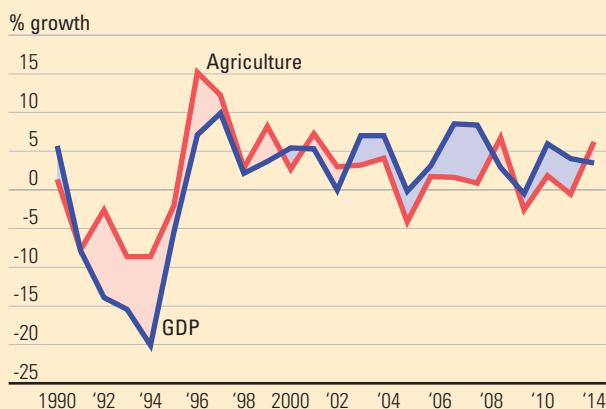
Sector Deep-Dives

Agriculture: Breaking the Low-Productivity Ceiling

The agriculture sector's performance has been characterized by erratic and slow growth and considerable underutilization of the existing potential. The sector's performance can be divided into three periods. First, a period of transition, 1991–95, where agriculture transitioned from a collective farm production system to private ownership of land. This period was characterized by a sharp drop in agriculture value added, as well as an overall decline of GDP. The second period, 1996–2005, was one of low but sustained growth, reaping benefits of private farm ownership and structural adjustments, as well as inflows of investment from international assistance programs. Agriculture performance was largely positive, with an average of 7 percent growth in value added. The third period, 2005–present, was characterized by sporadic growth and underutilization of agriculture potential, potentially due to uncoordinated and inefficient public policies and external shocks, including political and weather-related shocks.¹ It included occasional peak years followed by troughs with average growth of 1 percent.

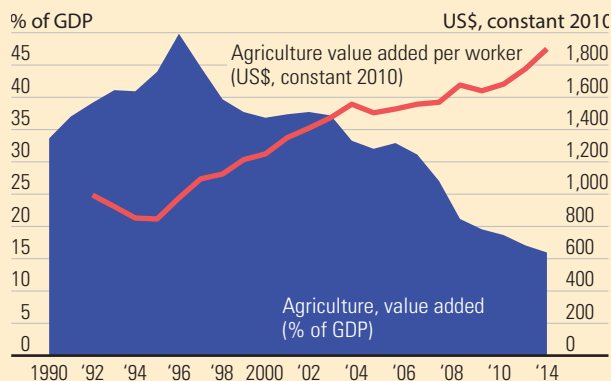
Agriculture's contribution to GDP has been declining, as other sectors of the economy have grown faster. The steepest decline in agriculture's contribution to GDP was in the period of 2005–15, characterized by the stagnation of the agriculture sector and relatively faster development of other sectors of the economy, especially mining. Agriculture value added per worker—labor productivity in agriculture—grew modestly, exceeding productivity in industry which was falling but lagging productivity growth in services. Moreover, this labor productivity growth is largely attributable to rural-urban migration, leading to a decline in overall agricultural labor. At the same time, agricultural production growth (especially productivity-led growth) has been lackluster.

FIGURE A.1
Agricultural Value Added Growth Slowing Relative to GDP Growth



Source: Adapted from World Development Indicators.

FIGURE A.2
Labor Value Added in Agriculture Is Increasing, but Mostly Reflecting Labor Migration to Urban Areas

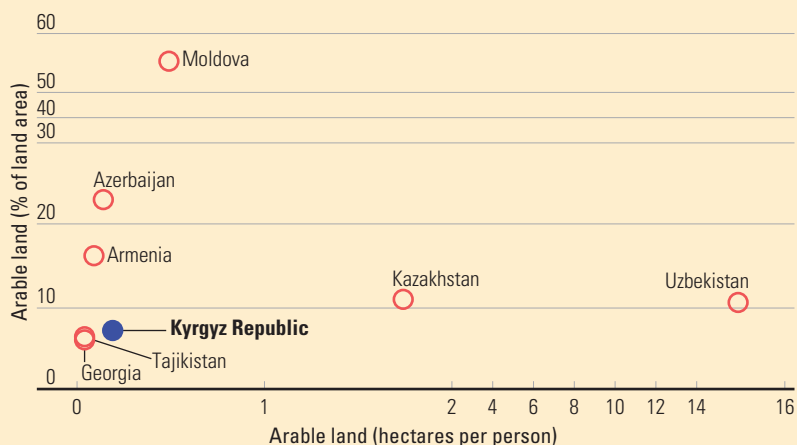


Source: Adapted from World Development Indicators.

Land resources to support agricultural production are sharply limited and vulnerable to land degradation. The country's total territory is around 20 million hectares (199,949 square kilometers), of which 53 percent is agriculture and only 3.4 percent is forest land. Of the agriculture land, only 1.3 million hectares, or 12.3 percent, is arable. The remaining are mountainous pastures and meadows. Per person arable land availability in the Kyrgyz Republic is on par with other countries in the region, but extremely low by global standards (figure A.3). As in the rest of Central Asia, land degradation is a major issue, negatively affecting crop and livestock productivity, agricultural incomes, and rural livelihoods. Kyrgyz agriculture relies heavily on irrigation as a legacy of the Soviet Union period, while the introduction of good practice lags behind. Even irrigated agriculture demonstrates yields far below any reasonable comparators. Such reliance on irrigated agriculture puts considerable pressure on natural resources, which results in increased salinization of arable land and consumes limited government budgetary resources. Roughly one fifth of the arable land in the Kyrgyz Republic is considered degraded at an estimated cost on the order of 11 percent of GDP in 2009.²

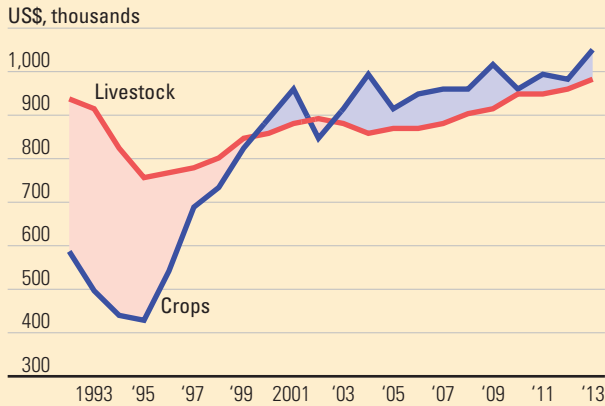
The Kyrgyz Republic is underutilizing its more abundant pasture and grass-

FIGURE A.3
Arable Land among the Lowest in the Region



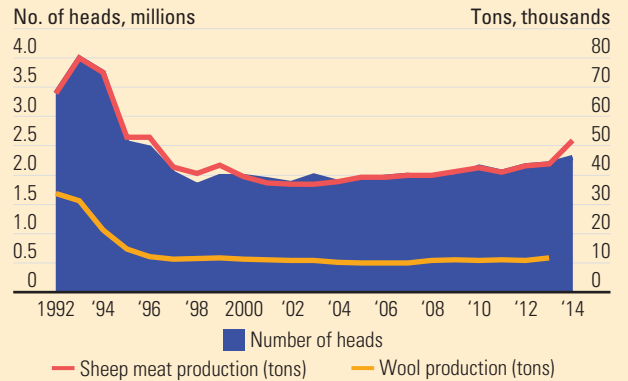
Source: World Development Indicators.

FIGURE A.4
Crops Have Expanded as a Share of Agricultural Output



Source: Adapted from Food and Agriculture Organization Statistical database.

FIGURE A.5
Livestock Production Has Grown Slowly, but Is below the Levels at Independence



Source: Adapted from Food and Agriculture Organization Statistical database.

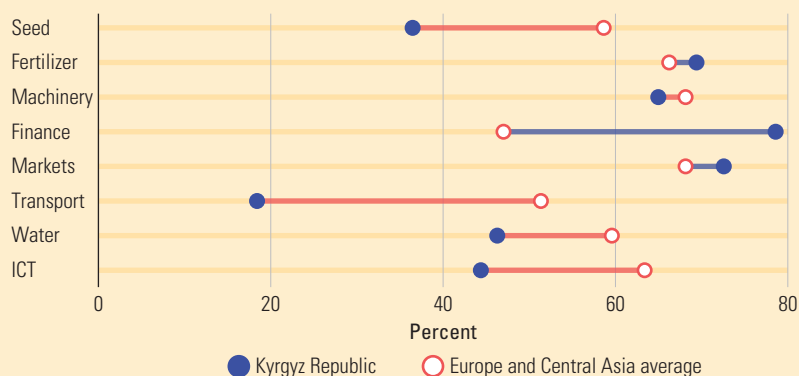
land resources. The country has vast mountain pasture resources, which comprise 46 percent of Kyrgyz territory, or 87 percent of agriculture land (7 times larger than total arable land). Given this land structure, pasture-raised livestock production dominated the gross agricultural output before the transition to a market economy. Following the transition, livestock production collapsed to the levels of subsistence agriculture. Today, crop and livestock production amount to almost equal shares of gross agricultural output. Livestock production significantly contracted during the transition period and shifted from wool-oriented sheep production to meat-oriented sheep production. However, the productivity (kilograms meat per animal) remained relatively constant, indicating that there was no transition to new breeds and farmers converted old wool-producing breeds, or their offspring, to meat production. With the decline of the sheep stock, total sheep meat production bottomed out during 2004–05. Thereafter, livestock production never recovered to the levels prior to the transition.

There is no single factor that would improve competitiveness and help attract new investment into the sector, rather, the issue is with wider investment climate barriers described in this report. The Kyrgyz Republic has a mixed performance record for business environment indicators. A recent World Bank (2017) report, “Enabling the Business of Agriculture 2017,” which ranked 60 countries around the world on various performance indicators for agriculture and agribusiness sector regulations, ranks the Kyrgyz Republic favorably in some indicators (finance, market access, and agriculture machinery regulation), but less favorably in others (especially transport and seed). Such mixed performance points to an unstable policy and political environment, which, combined with limited market potential, low incomes, a difficult geography, and deteriorated infrastructure, reduce the attractiveness of the country to foreign investors and reduce domestic firms’ competitiveness. This is especially important for the agrifood sector performance, as the sector does not attract new investments to benefit from the increasing demand for quality produce and processed food both domestically and from neighboring countries. This is a particularly important missed opportunity for the Kyrgyz Republic given its membership in both the World Trade Organization and the Eurasian Economic Union and proximity to large markets in Eurasia, Asia, and South Asia.

The dairy sector is emblematic of the challenges and opportunities in the agribusiness sector. The demand for Kyrgyz dairy products (in particular, from Kazakhstan) is

significant with new opportunities for export because of the accession of the country to the Eurasian Economic Union. Yet livestock productivity is low, and has been declining from 2,041 kilograms per cow per year of milk in 2009 to 2,023 kilograms in 2012 and 2,013 kilograms in 2013. By comparison, in countries with more developed dairy systems, milk yields reach 5,000 kilograms per cow per year. Many factors contribute to low productivity at the farm level including inadequate animal health management, poorly-equipped laboratories and disease diagnostic services, irregular and incomplete vaccinations, low breed stock (genetic) quality, inadequate feeding, and the low level of investments into production and marketing infrastructure. Some firms have begun to increase investment to address some of these issues, but without national reform to improve animal health and increase investment in quality infrastructure, firms will continue to face barriers to export market access, limiting the return on new investment.

FIGURE A.6
The Kyrgyz Republic Lags the Europe and Central Asia Region in Transport, Water, and Seeds, but Surpasses the Regional Average for Finance and Markets



Source: Adapted from World Bank 2017a.

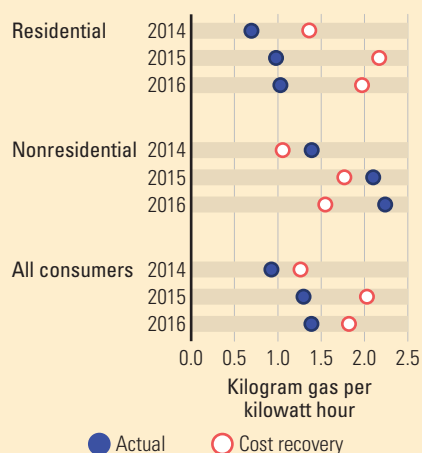
Note: ICT = information and communication technology.

Energy: Huge Hydropower Potential Remains Latent

The Kyrgyz power sector is dominated by hydropower, and is susceptible to variations in hydrology. The installed capacity of the power system is 3,786 megawatts, with hydropower plants (HPPs) accounting for more than 80 percent. The balance is provided by Bishkek combined heat and power (CHP) plant and Osh CHP plant. In terms of gross generation, HPPs produce an average of around 90 percent, out of which the large majority is produced at the Naryn cascade, which has five large HPPs: Toktogul (with a multiyear reservoir), Kurpsai, Tash-Kumyr, Shamaldy-sai, and Utch-Kurgan. The share of generation from HPPs is greatest during summer months due to lower domestic demand and higher output from the Naryn cascade, among other things, due to water release from the Toktogul reservoir to fulfill irrigation agreements with neighboring countries. Winter power generation critically depends on the water level of the Toktogul reservoir. In 2007–09 and in 2014–15, low water levels at the Toktogul reservoir and related decrease in power generation required the country to import more electricity and change the operating regime of the CHP plant in Bishkek.³

Sector revenues fall consistently short of needs and show substantial year-on-year variations. In 2009–12, the financial condition of the power sector showed significant variations because of fluctuations in export revenue. The financial condition of the sector improved over the period because of growth in export revenue, then declined in 2012 largely because revenue from exports dropped by nearly 60 percent from the previous year. There was a financial gap in 2007–09 and in 2012 and a financial surplus in 2010 and 2011 when export revenues were helping mask poor domestic performance. From 2007 to 2012, the sector's actual costs incurred per kilowatt hour of domestic

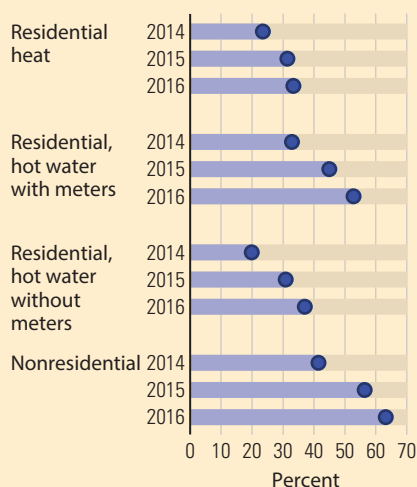
FIGURE B.1
Actual Tariffs Fall Significantly below Cost Recovery for Residential Users



Source: Adapted for World Bank 2017b.

Note: Actual residential tariffs for 2015 and 2016 are a weighted average of the two rates for consumption above and below 700kWh.

FIGURE B.2
Actual vs Share of Cost Recovery Heat and Hot Water Tariffs



Source: Adapted for World Bank 2017b.

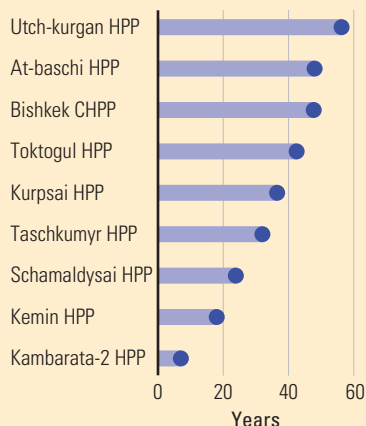
consumption that were, on average, 35 percent higher than the average cash collected from domestic end users. That gap has decreased to 21 percent in 2016. However, there are still large fluctuations from year to year, now driven primarily by import volumes.

The sector continues to incur a substantial revenue shortfall as end-user tariffs remain below cost-recovery levels.⁴ In 2016, tariff losses amounted to som 3.3 billion (0.77 percent of GDP).⁵ Technical/nontechnical losses were som 1.2 billion (0.27 percent of GDP). Reducing technical/nontechnical losses could help reduce the revenue shortfall, but the biggest area needing improvement are the below cost-recovery tariffs. While sector finances have improved, weighted end-user tariffs remained below cost-recovery level mainly due to the low residential tariff for consumption levels below 700 kilowatt hours (accounting for 81 percent of residential consumption and 52 percent of total end-user consumption). Nonresidential customers were above the short-term cost-recovery level and have paid for the improvement of sector finances. In addition, while heat and hot water tariffs were significantly increased since 2014, they remain far below cost-recovery levels. Significant ‘quasi-fiscal’ or contingent subsidies (for example, underspending on maintenance and capital improvement, accumulation of account payable) implicitly subsidize the energy sector. As a result, household expenditure on energy services is lower than in other countries in Europe and Central Asia, with electricity comprising 2.5 percent of expenditure, district heating 3.5 percent, and hot water 2.5 percent. However, affordability is a real concern for the poorest consumers, especially as social assistance programs are not well-targeted to help ensure affordability of electricity and heat for the poorest.

On the supply side, old and undermaintained assets put energy supply reliability and quality at risk. While sizeable investments have been made (with the support of international financial institutions and other development partners) to rehabilitate some of the most dilapidated sector assets, about 45 percent of available generation capacity in the power sector is beyond its useful service life (see figure B.3). Old and dilapidated transmission and distribution assets exacerbate the risk of network failures; for instance, in 2016, SeverElectro, the largest power distribution company, reported that about 40 percent of the 928 kilometers of underground cables in Bishkek urgently need replacement. Similarly, most of district heating (DH) assets were commissioned 20 to 50 years ago and are in poor condition due to insufficient investments in maintenance and rehabilitation. As a result, generation assets (heat-only-boilers and CHPs) operate at 20 to 50 percent of their installed capacity and heat losses often exceed 25 percent of the heat generated. In addition, supply-side inefficiencies add to the high level of energy losses, which—despite sizeable progress in the last 8 years—remain high compared to other countries (see figure B.4), with around 18 percent of generation in the power sector (2016) and more than one third in the DH system in Bishkek.

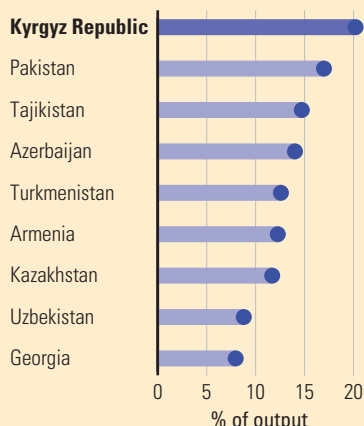
On the demand side, the Kyrgyz Republic ranks among the 15 most energy intensive countries worldwide. Its energy intensity (measured as energy use per \$1,000 GDP) increased in 2010–14 from 181 to 204 kilogram of oil equivalent per \$1,000 of GDP, and was about 23 percent higher than the Europe and Central Asia average in 2014 (figure B.5). The high energy intensity not only accentuates the recurrent energy shortages the country is facing, it also hampers the productivity and competitiveness of Kyrgyz companies.

FIGURE B.3
Power Generation Assets Average a High Age



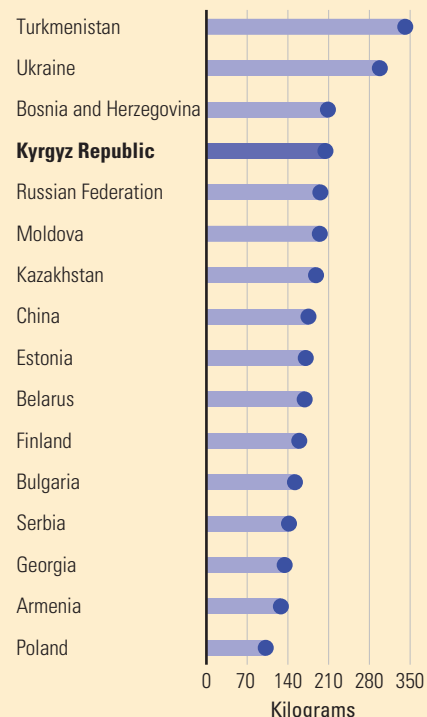
Source: Adapted from World Bank 2017b.
Note: HPP = hydropower plant; CHPP = combined heat and power plant.

FIGURE B.4
Regional Electricity Transmission and Distribution Losses (2013) Are High



Source: Adapted from World Bank 2017b.

FIGURE B.5
The Kyrgyz Republic Is One of the Most Energy Intensive, Kilograms of Oil Equivalent per \$1,000 of GDP, 2014



Source: Adapted from the World Development Indicators.

The widening imbalance between supply and demand coupled with chronic under-investment in repairs and maintenance, causes local businesses and the population suffer from poor service reliability and quality, especially during winter months. The largest HPP (Toktogul) experienced breakdowns in two subsequent winters (2015 and 2016) due to cable line breaks. In addition, power distribution companies reported an average of 43 outages per day between 2009 and 2012. About 35 percent of firms in the Kyrgyz Republic identified electricity as a major constraint for doing business, and reported average losses due to electrical outages to equal 4 percent of annual sales (compared to an average of 2.9 percent in Europe and Central Asia) according to the World Bank Enterprise Survey (2013).⁶ Given the cold climate and high reliance of the population on electricity for heating purposes, unreliable power supply also impacts the well-being of Kyrgyz citizens, especially the poor who have less access to affordable back-up options. In addition, more than half of the respondents in a 2013 survey indicated problems with voltage fluctuations, or low voltage, and close to one-fifth reported damage to electrical appliances because of poor supply quality.

Given the fiscal constraints facing the country, it is essential that the private sector play a stronger role in the sector. This will require a mix of priority policy and development actions needed to address the sector challenges and constraints. Specific priority actions include the following:

- **Continued progress on implementation of tariff reforms:** Closing the cost-recovery gap of tariffs will be critical to continue improving the financial viability of the sector as well as to ensure that sector companies have sufficient funds to invest in supply-side improvements and consumers have the incentive to use energy more efficiently. Tariff reforms involve the consistent implementation of electricity and heat tariff revisions in-line with the medium-term tariff policy and the development and implementation of a new medium-term tariff policy (2018–21). Besides the continued progress on implementation of tariff increases for end users, a specific option that

should be considered is the reduction of the consumption threshold for electricity that defines the lowest tariff category (currently set at 700 kilowatt hours). To ensure that a basic level of heat consumption remains affordable to poor households, it will also be important to improve the targeting of the social assistance program.

- **Prioritization of investments and rehabilitation of sector assets:** While progress has been made in mobilizing financing for the rehabilitation of existing sector assets, demand is growing and additional investments will be needed to meet winter peak demand. Such investments must be carefully prioritized, on a least cost basis, and include rehabilitation, as well as new generation, transmission, and distribution infrastructure.
- **Expanding efforts to improve sector governance and accountability:** Another priority area is to continue improving governance and internal controls of energy companies to enhance accountability, transparency, and data reliability. This could include efforts on integrating better management information systems that provide real-time and reliable corporate and commercial information and help to ensure that business operations are efficient, traceable, and transparent. Business process reengineering should accompany implementation of improved information management systems at company level. Other priority areas to improve governance, accountability, and transparency of the sector include: improving the current settlement scheme to ensure that distribution companies have incentives to reduce losses, enhance financial discipline, and duly implement commercial contract; strengthening the position of the energy regulator as an independent entity and avoiding political interference; and enhancing the enabling environment to attract more private sector investments in the sector.

Mining: A New Pipeline of Projects is Needed

The Kyrgyz Republic is richly endowed with minerals, including precious metals, rare earths, uranium, and so on, yet with little new investment. The Kyrgyz Republic has a long history of mining. Prior to the collapse of the Soviet Union, the Kyrgyz Republic was its sole producer of antimony. It also produced nearly 64 percent of rare earth products and 15 percent of uranium. When the markets opened up in the early 1990s, a number of foreign investors began their own exploration. There are over 150 known mineral deposits that are currently in production or exploration. Most of these were identified during the Soviet Union times and the vast majority of exploration in the last 25 years has been on known deposits (brownfields) and not on new areas (greenfields). No significant investment was made in mining since Kumtor in the early 1990s.

Extractives is already a major contributor to export earnings, but heavily dependent on a single commodity and a single operation. Extractives represented over 54 percent of industrial output in 2014, 8.4 percent of GDP, some 17 percent of government revenues, and provided over 16,000 jobs in the country. The flagship Kumtor gold mine alone represented 6.8 percent of the GDP of the Kyrgyz Republic in 2014, and 22.5 percent of its aggregate industrial output. Its 2015 turnover was \$625 million (for 520,000 ounces of gold), and it contributed \$123 million to government revenues. Kumtor's indicators attest not just to the economic importance of minerals in the Kyrgyz Republic, but also to the vulnerability of the country because of having so much economic output in a single mine. In addition, the heavy reliance on one mine and one commodity has meant that the sector's benefits are less than what they could be and highly localized.

The expected life of Kumtor is estimated to be around 5 to 10 years, raising a significant fiscal risk to the country. Replacing the revenue contribution of Kumtor, as well as the employment and export volume, will be challenging, particularly given the size of the Kumtor operation. In addition, mining, as a sector, has a long lead time that can stretch beyond a decade for new deposits to be explored, for financing to be raised for production, and for the infrastructure to be built before extraction can begin. Thus, potential mines to fill the revenue gap that will be created when Kumtor's reserves are exhausted should already be in exploration stage if not already having proven reserves. However, given the commodity cycle downturn and the perception of extreme governance risks in the Kyrgyz Republic for mining firms, early-stage investment in exploration is not present at any significant level, making a new large-scale extraction operation unlikely in the next decade. The problem is further compounded by the lack of a cadaster for the registration of claims. Exploration licenses are often tendered or auctioned out with insufficient data, a requirement to pay bonuses for exploration and development purposes (implying relatively large preliminary cash outflows for a risky business), compulsory fees for acquisition of license information package, and other requirements that constrain the country's attractiveness for exploration, especially by junior companies which form the backbone of mineral development in the western world.

The Kyrgyz Republic is still transitioning from the Soviet Union era in terms of its legal, regulatory, and institutional management of the mining sector, with high uncertainty and frequent changes making it difficult to attract investment. The country ranks consistently unfavorably in the industry benchmark—the Fraser Institute's annual survey of mining firms—both in terms of taxation (bottom 10 in the world in 2015) and in uncertainty regarding the administration, interpretation, and enforcement of existing regulations (bottom five in 2015).⁷ The fluid political environment, repeated disputes and arbitrages with investors, the lack of new geoscientific mapping for three decades, and secrecy around geological information and its unavailability in digital format significantly increase country and geological risks with negative implications for investments. The system of taxation evolves frequently making predictability and stability an issue. In addition to customary taxes and duties, the Kyrgyz Republic makes deductions for infrastructure development and maintenance, and levies a special income tax on gold. The state may take shares in mining projects or introduce other nontax payments by special laws. A listing of all required payments [33 in the latest Extractives Industry Transparency Initiative (EITI) report] suggests that the tax system for subsoil use is both complex and difficult to administrate.

The human, institutional capacity, and budget of mining institutions are also low. Existing training programs use obsolete materials and methodological approaches, and, consequently, the inflow of new well-trained earth science specialists is impeded. The lack of human and institutional capacity means that public institutions are finding it challenging to provide services to the private sector (such as geological surveys and cadastres) and monitoring and implementing the laws and regulations. Human capital development is particularly important for the development of links and possible value addition. The Kyrgyz Russian Slavic University, with support of the Canadian government, initiated a mineral skills development program that may begin to address the large needs.

Environmental management is stipulated in the natural resource and environmental legislation of the Kyrgyz Republic, which reportedly lack regulations for implementation. It appears that the current environmental protection system is limited mainly to environmental pollution payments for emissions and discharges. The civil, criminal, and administrative responsibilities for causing harm to ecosystems are not clearly established. Rehabilitation is provided for, but it is unclear whether there are financial surety mechanisms for proper closure. Incentives for good environmental practices appear to be embryonic.

Local economic development is negotiated as part of contracting, and on a case by case basis, and, while appreciable contributions are made by Kumtor, it is still to be clarified whether these and other similar contributions are deployed in an efficient manner aligning short, medium, and long-term socioeconomic needs, including for creating nonmining jobs. There are, however, repeated reports of social conflicts between communities and exploration and mining companies and they may be fueled by (i) environmental impacts of the activities, (ii) distrust generated by dissatisfaction with the level of hiring of locals and the reality or perception of inequity in benefits sharing, (iii) distrust of government bodies based on a sense of a lack of transparency and governance around licensing, and (iv) political and commercial interests interfering with mining. This suggests that the EITI process in the Kyrgyz Republic (since 2004 and with 10 produced reports) must still be adjusted to inform and help surface issues to be tackled by relevant stakeholders. It also suggests that the delivery and effectiveness of the social package paid to communities as part of mineral titling may need reassessment.

Attracting new investment into the mining sector, promoting greater downstream links, and increasing the value addition within the sector will require holistic reforms to policy, legal, regulatory, and institutional constraints in the sector. Some priorities include:

- **Ending repeated disputes with Kumtor by negotiating in an informed way, and implementing the agreed terms and in so doing create more stability and visibility, which could have significant impacts on Kumtor's current mine life, but also in terms of incentivizing it to explore further and translate its resources into reserves.**
- **Updating and aligning the subsoil law and regulations related to the globally accepted practices, including on licensing, transparency, appropriate stability, and guarantees to obtain an exploitation license after a successful discovery.** Bonus payments for little known deposits and for exploration discourage investment inflows and warrant revisiting.
- **Modernize geoscientific mapping in the country, and making new and existing information available (for free, or at a marginal cost) to reduce exploration risks and attract junior exploration companies to the country.**
- **Institutional restructuring and streamlining to avoid overlaps and enforce separation of licensing from monitoring and control functions, as well as the capacities strengthening to enable proper enforcement of laws and regulations.**
- **Creating a framework for how the national government, local government, and firms work together with local communities to ensure clear roles and responsibilities of each stakeholder group.**

- **Streamlining the tax system, optimizing the number of payments, and reasonably stabilizing the fiscal framework will help investors.** Along with this it will be critical to drive the compliance of payments, and avoid the all too usual overemphasis on policies as opposed to administrative capacities and processes to drive appropriate payments.
- **Strengthening sectoral environmental regulations and procedures, including for and environmental impact assessment, mitigation measures, and so on.** Creating conditions for social and environmental sustainability including through financial surety mechanisms for closure and capacities for compliance.

Notes

1. Broka and others (2016).
2. Mirzabaev and others (2016).
3. Historically, the CHP plants were mostly operated to meet heating needs in winter and produced electricity as a by-product. In recent years, however, CHPs ran at full capacity throughout the year in an attempt to preserve the water level in the Toktogul reservoir.
4. Cost recovery refers to annual cash requirements only, including debt service on capital expenditure, but excluding depreciation and other noncash items; it may also not capture needed expenditures on operational expenditure and capital expenditure.
5. Tariff losses are the extent to which tariffs are below cost-recovery levels, assuming 100 percent collections and no technical or nontechnical losses (World Bank 2017).
6. <http://www.enterprisesurveys.org/data/exploreeconomies/2013/kyrgyz-republic>.
7. Jackson and Green (2015).

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