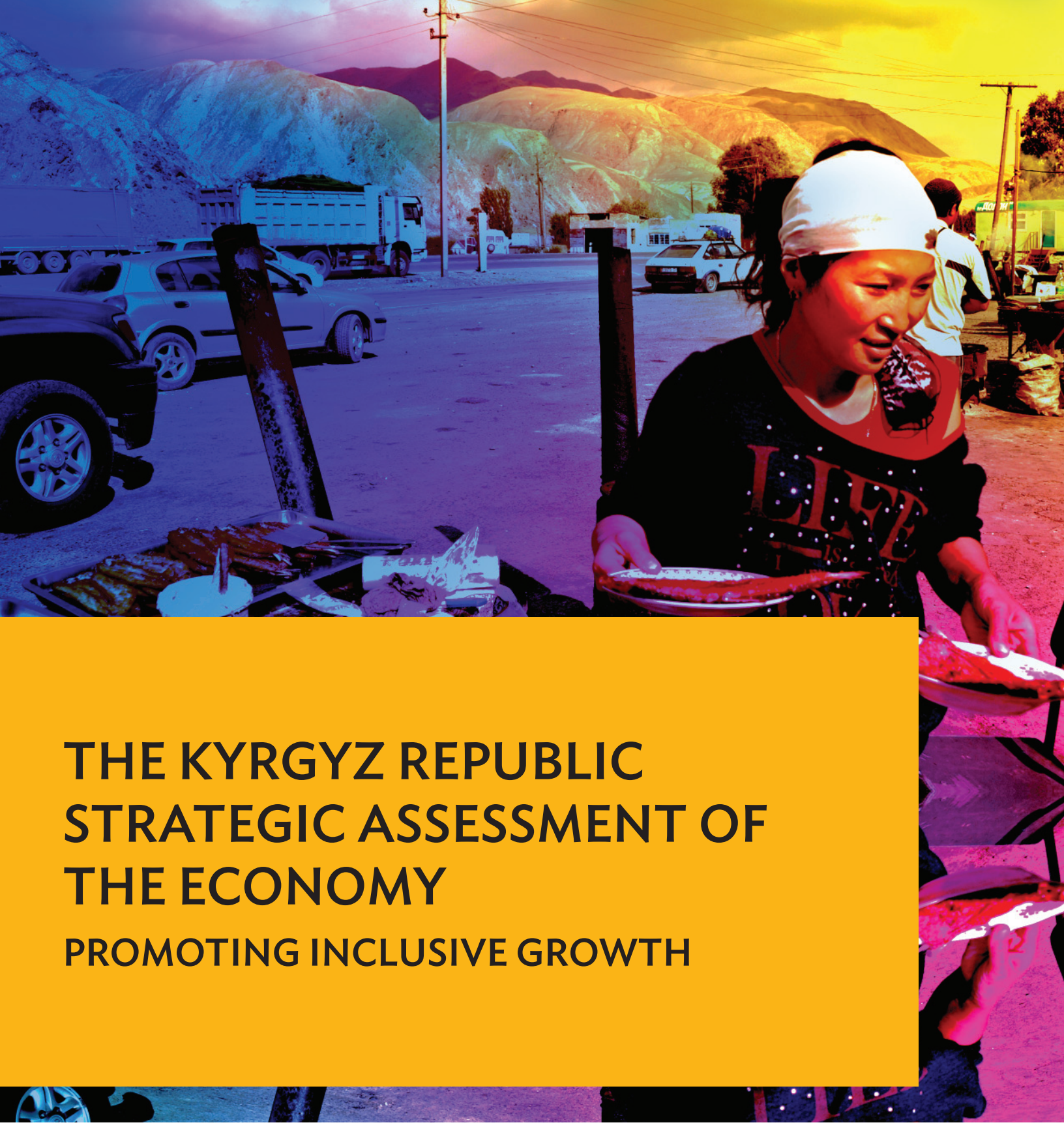


THE KYRGYZ REPUBLIC STRATEGIC ASSESSMENT OF THE ECONOMY

PROMOTING INCLUSIVE GROWTH

ASIAN DEVELOPMENT BANK

ADB

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Abbreviations

ADB	Asian Development Bank
CAREC	Central Asia Regional Economic Cooperation (Program)
DMC	developing member country
FDI	foreign direct investment
GDP	gross domestic product
GRP	gross regional product
ha	hectare
ICOR	incremental capital output ratio
km	kilometer
MFI	microfinance institution
MSB	monthly social benefit
MSBF	minimal standard for budget financing
NSC	National Statistical Committee of the Kyrgyz Republic
NSDS	National Sustainable Development Strategy for 2013–2017
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PRC	People's Republic of China
TFP	total factor productivity
TVET	technical vocational education and training
UMB	unified monthly benefit

Glossary

oblast	province
propiska	residency
raion	district

Acknowledgments

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Executive Summary

The Kyrgyz Republic went through a difficult transition following the breakup of the former Soviet Union. The breakdown of inter-republic trade and payment mechanisms, the withdrawal of subsidies, and a general economic decline caused severe disruptions to the economy. At the same time, however, the Kyrgyz Republic was one of the first former Soviet republics to implement economic reforms and move toward a market-based economy. In 2010, the country adopted a new constitution and became a parliamentary democracy. Openness and commitment to reform have continued, including an ambitious reform program under the present government. Yet there have been many gaps between theory and implementation, and a number of underlying structural issues persist.

Growth has been driven, on the production side, by a rapid expansion of services, particularly in trade and telecommunications. On the demand side, growth has been driven by domestic consumption, which was boosted by high rates of labor migration and workers' remittances. Growth has also been repeatedly disrupted by adverse economic, social, and political events, including unrest in 2010. Largely because of such instability, the average gross domestic product (GDP) growth rate between 2001 and 2012 was 3.9%, the lowest among the countries benchmarked for this report. Growth has also failed to create formal sector employment opportunities, leading to widespread underemployment; hidden unemployment; relatively low rates of labor market participation, particularly among women; and high rates of external migration. Further, heavy dependence on remittances and gold production exposes the economy to significant external risks.

Poverty also rose markedly after the country gained independence, and it took some time for the economic revival to translate into poverty reduction. From 2001 onward, the economic growth benefited the poor. However, poverty reduction stagnated and then reversed between 2008 and 2011, during which numerous adverse events occurred, reaching 38.0% in 2012. In addition, economic disparities between the economic centers of Bishkek and Chui Oblast and other areas have only persisted or increased.

Frustration with slow, unstable economic growth and economic disparities are among the causes of social discontent and political unrest, which are considered the main risks to the economy. Reviving inclusive, stable, and sustainable economic growth is a priority for the Government of the Kyrgyz Republic. This report identifies strategic priority measures to promote inclusive growth by examining the factors constraining the growth of economic opportunities and the "inclusiveness of growth," or the ability of all groups to access these opportunities. It uses the Hausmann, Rodrik, and Velasco (2005) decision-tree approach, which focuses on the constraints to private investment and entrepreneurship, as a starting point.* An adaption of this framework extends the analysis to identify the factors restricting the "inclusiveness of growth."† The analysis is based on close examination of empirical evidence, including benchmarking, and was informed by discussions with stakeholders around the country.

* R. Hausmann, D. Rodrik, and A. Velasco. 2005. *Growth Diagnostics*. John F. Kennedy School of Government, Harvard University, Cambridge, Massachusetts. This approach has already been used in a number of countries, including Egypt, Bolivia, and Mongolia.

† This adaptation was pioneered by the Asian Development Bank (ADB). See for example ADB, International Labour Organization (ILO), and Islamic Development Bank (IDB). 2010. *Indonesia: Critical Development Constraints.* Philippines; and ADB, Department for International Development (DFID) of the United Kingdom, and ILO. 2009. *Nepal: Critical Development Constraints.* Philippines.

Binding Constraints to Growth and Inclusiveness

Uneven Access to Economic Opportunities

The most important constraint to inclusive growth is low and unstable growth, and uneven geographic distribution of economic opportunities. There is a widening disparity between conditions in Bishkek City, the surrounding oblasts of Chui and Issyk-Kul, and the other areas of the country. This means that addressing the constraints to economic growth, which are discussed below, is a precondition for inclusive growth. Uneven distribution has arisen because the constraints to growth identified for the country as a whole apply even more strongly to poorer areas, and act as disincentives to potential entrepreneurs and investors. To reignite growth and poverty reduction, the government needs to ensure that the constraints identified are addressed across the oblasts, not just in the main economic centers, to create attractive environments for private sector investment and entrepreneurship.

The underlying disparities are largely related to differences in available economic opportunities, with the poorest areas having the fewest nonagricultural opportunities. The level of education is a significant determinant of poverty and the extent to which people can take advantage of given economic opportunities. The degree of internal and external migration is also a clear indication that the lack of productive opportunities and their uneven distribution are constraints to inclusiveness. While workers' remittances have played a significant role in reducing poverty, barriers and costs to migration mean that some workers fail to benefit from economic opportunities provided by migration, and reliance on remittances exposes households and the economy to external economic fluctuations and other risks.

Weak Governance and Lack of Rule of Law

The most severely binding constraint to economic growth for the Kyrgyz Republic is a particular cluster of closely related micro risks. Perhaps the most damaging factor for growth has been political instability, demonstrated by two major political upheavals in the last 9 years, with lasting effects on economic growth and poverty reduction. Corruption, poor governance, and lack of respect for, or the inability to enforce, the rule of law and property rights reduce growth and contribute to political and social instability. Various surveys identify this cluster of factors as by far the most significant problem investors and businesses face, and indicate deterioration while benchmark countries have improved.

Although the Kyrgyz Republic has made significant strides in improving the regulatory framework, the size of the implementation gap between laws and practice has limited the positive effect of these measures on investment and growth. However, the Kyrgyz Republic's National Sustainable Development Strategy 2013–2017 (NSDS) puts ensuring rule of law at its center, and sees an improved investment climate as the main means of increasing investment and driving economic growth, including in remote regions.

Limited Access to Finance

A low level of domestic savings and high real interest rates, coupled with a shallow finance sector and inefficient financial intermediation, have limited access to finance and thereby constrained private investment. Further, finance sector issues contribute to the widening gap in investment between the economic centers and other

areas. Investment rates in the poorer oblasts such as Naryn and Talas are significantly lower than the national average. Almost two-thirds of fixed investment took place in Bishkek and Chui and Issyk-Kul oblasts.

The average interest rate that banks charged on their portfolios was very high, at 18.4% in 2013, and evidence suggests that short maturities of bank loans and strict collateral requirements are equally or more important in restricting access to credit. As a result, banks provide only a small fraction of financing for investment, for limited activities, with firms relying on retained earnings and private savings. Entrepreneurs with innovative ideas, or with activities requiring a longer start-up period, often struggle to finance investments. Although the expansion of microfinance institutions, which now provide one-third of credit to the economy, has been rapid and has included rural areas, they have not catalyzed economic growth or significantly reduced regional disparities in investment rates.

Shortage of Skilled Labor and Uneven Access to Quality Education

While wages in the Kyrgyz Republic are lower than in most benchmark countries, relative unit labor costs in the formal sector remain relatively high because of low labor productivity, resulting in a competitiveness gap. One factor in low labor productivity is the concentration of labor in the low-productivity sectors of agriculture and services. Another factor is lack of skills and qualifications of the labor force. There is a significant mismatch between the skills needs of the economy and the outputs of the education system.

Although the Kyrgyz Republic has managed to maintain relatively good access to basic services, there are major shortcomings in access to postsecondary education and in the quality of education. Test scores from national and international standardized tests are low. In addition, both educational attainment and test scores vary significantly between regions, with the most rural and remote areas faring poorly. Overall, unequal access to quality education is the major constraint to inclusiveness, as it prevents individuals and their households from moving out of poverty.

Increasingly Unreliable Electricity Supply

While the Kyrgyz Republic is endowed with significant hydropower resources, the energy sector is characterized by (i) aging assets beyond their economic life, (ii) high commercial and technical losses, (iii) below-cost electric tariffs providing distorted signals compared with market-based coal and gas tariffs, (iv) poor financial performance, and (v) operational constraints imposed by the water–energy nexus and varied hydrology. These issues cause poor energy supply and reduced energy access. Low reliability is a constraint to the private sector, despite the low cost of electricity.

The constraint of unreliable electricity is particularly severe in regions outside of Bishkek, discouraging private entrepreneurs and reducing the productivity of investment. Overall, the low reliability of electricity supply is considered a binding constraint to inclusive growth, particularly in labor-intensive sectors such as manufacturing and food processing. Addressing this problem represents a significant challenge for the government. Combined with tariffs below sustainable levels, high losses make it difficult to mobilize funds for essential rehabilitation and investments.

Way Forward

Unless the binding constraints are removed or alleviated, growth is unlikely to be ignited, even after the other challenges have been addressed. For this reason, the binding constraints must take priority. The removal of the binding constraints takes time, and requires unwavering political commitment to pursue the goal. The development of the NSDS by a multisector council, and its approval by the President, was a very important step toward stabilizing the country's development strategy.

Uneven Access to Economic Opportunities

To reignite growth and poverty reduction, the government must address the identified constraints to economic growth in all oblasts, not just in the wealthier economic centers. The objective should be to create attractive environments for private sector investment and entrepreneurship across the country. In particular, addressing shortcomings in the financial system will help entrepreneurs create economic opportunities and develop small and medium-sized enterprises.

Education and skills are the most important determinants of poverty and access to employment. Helping rural youths find employment by equipping them with marketable skills would be a major contribution to poverty reduction. Reforming the education system as soon as possible, especially technical vocational education and training, would be the most effective way to equip the youth in the Kyrgyz Republic with the necessary skills.

Weak Governance and Lack of Rule of Law

On 30 August 2012, the government approved a program and an action plan for combating corruption. A subsequent presidential decree on "measures to remove the causes of political and systemic corruption in the government structures," approved on 12 November 2013, covers anticorruption measures and other interrelated strategic areas of public sector reform. Thus, the government has set out enough strategies and plans, and the most important measure is to implement them. There are two challenges in managing anticorruption programs. The first is ensuring that the laws in place are enforced uniformly and equally across society. The second is striking the right balance between prosecution and prevention.

The government's strategy and programs could be supported by a well-designed community monitoring program. This would require transparency and the disclosure of budget allocations for the community service units (e.g., schools, hospitals, and public investment projects), as well as increased beneficiary and community participation in project planning and in the allocation of funding. Community members could also have the opportunity to report corruption, but this will have no effect if the identified officials do not face punishment after being found guilty.

High Cost and Inaccessibility of Finance

The government's Microfinance Sector Development Strategy for 2011–2015 set forth key strategic priorities, and these have been included in the NSDS in the interest of developing the regulatory framework for the microfinance sector and of limiting state intervention in financial markets. Expanding the deposit-taking capacity of microfinance institutions would help deepen the finance sector by improving the rural population's access to financial services.

The government has been working to achieve better access to credit information for banks and other financial institutions, which should improve the public's access to credit. A number of measures being discussed will increase access to financing if implemented properly. They include strengthening of the National Bank of the Kyrgyz Republic's independence and its supervisory capability, and to improve and clarify the bank resolution framework, strengthening of the deposit guarantee system, legislative amendments to streamline collateral registration, and an extension of the spectrum of financial products to include those for Islamic finance markets.

Shortage of Skilled Labor

As retaining skilled workers by reducing migration is not feasible in the short run, the focus should be on improving the quality of education and its relevance to the labor market. Indeed, the need to improve the education system has been recognized in government strategies. The Kyrgyz Republic has set forth a number of worthwhile strategies and programs. Here again, implementation is the key.

The Education Development Strategy 2020 includes concrete measures for realizing the government's vision and the NSDS goals listed above. There is a strong emphasis on systemic changes such as improvements in human resources management, modifications of the sector service procurement system, greater administrative and financial autonomy for service providers, more effective strategic management using modern technologies to collect and analyze information, and better monitoring and evaluation.

While the entire education system is in need of an overhaul to tackle fundamental problems, technical vocational education and training require urgent attention. A strong social partnership between the education system and business will be critical, as it would improve the transmission of market signals regarding the skills that are in demand.

Unreliable Power Supply

Winter electricity demand is expected to grow, with the resulting shortages estimated to reach one-third of consumption by 2020, so the urgent need to act cannot be overstated. To avoid a collapse of the system, and to make the electricity supply more reliable within a few years, three measures have to be implemented simultaneously, and quickly: (i) accelerate power sector reform, (ii) prioritize rehabilitation of critical power assets, and (iii) introduce energy-efficiency measures to slow down the increase in power consumption. In addition to the overall improvements in power sector governance, management of the six energy companies needs to be enhanced, if the public is to accept gradual tariff increases to cost-recovery level.

Taking into account the seasonal constraints to the use of hydropower, it is recommended that the projects aimed at building new generating capacity be scrutinized carefully, as the rehabilitation of existing assets may yield higher returns with shorter gestation periods. In the next few years, key power assets need to be rehabilitated, and these should receive resources on a priority basis. Rehabilitating assets is often more cost-efficient based on a calculation of cost for unit of generated electricity. The objective would be to provide uninterrupted and stable power to customers as soon as possible.

The financial sustainability of the system will depend on the pace at which tariff increases are implemented. A link has to be established between the pace of tariff increases and the visibility of service improvements. The tariff policy also has to include measures to protect the poor from the negative impact of tariff increases on their well-being. After all, reliable and uninterrupted power is as much a quality-of-life issue as it is an economic factor affecting investment decisions.

1 Introduction

1.1 Objectives

The Kyrgyz Republic has experienced profound political, economic, and social changes in the 2 decades since its independence, transforming itself from an unassuming Soviet republic into a sovereign country. Yet this transformation, which is still in progress, has not been easy, as it has exacted a significant toll on living standards.

The Kyrgyz Republic grew by an annual average of 3.9% during 2001–2012, despite its multiple challenges. Growth was periodically undermined by political and economic events. The government has growth targets of over 7.0% for 2014, but the factors involved in the country's uneven growth pattern clearly show that political stability and economic diversification are needed to make the country's growth sustainable.

Persistent poverty and economic disparities contributed to past popular unrest and remain the government's greatest challenges.

However, the Kyrgyz Republic is committed to achieving sustainable economic growth and to making that growth inclusive, to improve living standards. This report was undertaken to identify the binding constraints to growth, which are those constraints that must be alleviated or solved before there can be any substantial growth at all. The findings of this report will serve as input during the development of the government's strategy.

In January 2013, the President of the Kyrgyz Republic approved the National Sustainable Development Strategy (NSDS), 2013–2017, which had been developed by an expert group led by the President, and approved by the National Council for Sustainable Development of the Kyrgyz Republic. The strategy, which recognizes persistent poverty and regional disparities as key challenges, aims to achieve successful, stable democracy, along with stable growth in gross domestic product (GDP) and household incomes. It directly addresses the causes of instability by making rule of law, national unity, and the integration of all ethnicities its main goals.

1.2 Methodology

Most of the research for this report was conducted in 2012. It used growth diagnostics as a framework for the research and analysis presented, comprising three elements: (i) growth diagnostics, which informs the analysis of the main reasons for less-than-optimal growth; (ii) diagnostics for inclusiveness, which is based on the view that not only the amount of growth is important, but also the ability to spread the benefits to the whole population, especially the poor; and (iii) benchmarking, which in this report involves comparisons between the performance of the Kyrgyz Republic in various statistics, surveys, and indexes with those of benchmark countries that offer meaningful points of reference.

1.2.1 Growth Diagnostics

The growth diagnostics methodology provides a framework for identifying and analyzing the binding constraints to a country's growth.[1] The Asian Development Bank (ADB) has been applying this framework to country diagnostics through a number of studies used in strategy development and policy design.[2]

The framework starts with a simplified growth model in which an economy grows at a rate at which assets are accumulated. Anything that reduces private investment and entrepreneurship is thus considered to be a constraint to growth. The diagnosis then turns to the basic question of whether investment (and thus growth) is constrained by a particular problem, such as limited access to finance or low returns on investment. The standard decision tree used to pinpoint the underlying factors is shown in **Figure 1**.

In this framework, the level of investment is assumed to be determined by the returns on investment, which are displayed on the left side of the decision tree. Therefore, the underlying focus is not merely capital accumulation, but productivity as well.[3] Even for cases in which low productivity is not fully reflected in investment (if, for example, the government invests its own funds or directs private sector investment), decision-tree analysis will identify the reasons behind the low productivity.

Decision-tree analysis develops and tests hypotheses for the questions posed at each of the lower branches of a decision tree. The tests use different pieces of evidence, as appropriate, but are all based on the principle that if a constraint is to be considered binding, the following conditions must apply:

- The shadow price of the constraint is high (e.g., if access to finance is the constraint, credit is expensive).
- Changes in the constraint produce significant changes in the objective function (e.g., improved access to finance leads to a substantial increase in investment).
- Agents in an economy are attempting to overcome or bypass the constraint (e.g., entrepreneurs are seeking financing from informal sources such as moneylenders).
- Agents less subject to the constraint are more likely to survive and thrive, and vice versa (e.g., households receiving remittances from abroad are more likely to set up successful businesses).

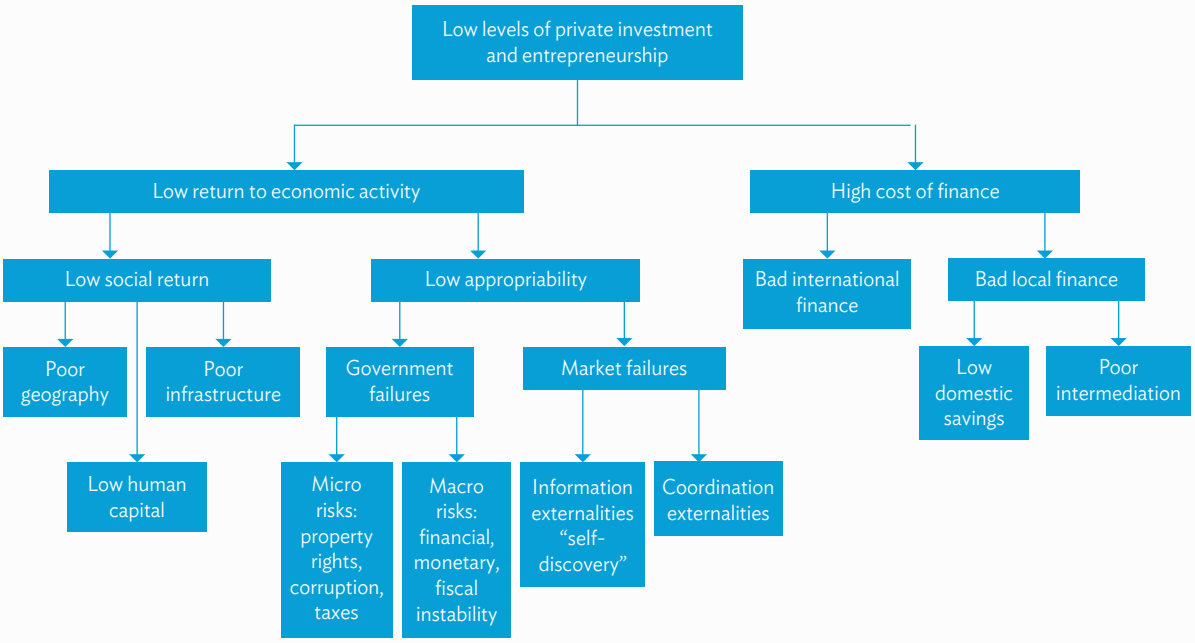
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1 R. Hausmann, D. Rodrik, and A. Velasco. 2005. *Growth Diagnostics.* Cambridge, MA: John F. Kennedy School of Government, Harvard University.

2 In an effort to transform its relationship with its developing member countries (DMCs), and to ensure that its assistance strategies and operations are aligned with the DMCs' own development plans and poverty reduction strategies, ADB revised its *Operations Manual* and *Country Partnership Strategy Guidelines* in February 2007 to make greater use of the DMCs' diagnostic and analytical work. To strengthen the DMCs' capability for diagnosing and analyzing binding constraints to development, a concept paper was prepared for a new regional technical assistance project, which aimed to undertake country-specific diagnostic studies in four DMCs. It was designed to broadly follow the growth diagnostics framework, but also to attempt to diagnose development issues other than constraints to growth, particularly constraints to growth inclusivity and poverty reduction. Under the project, studies were completed for Indonesia, Nepal, Papua New Guinea, and the Philippines. Based on the project's success and on the impact on the DMCs' policy-making processes, a new technical assistance project was approved in 2010 to conduct growth diagnostic studies for other DMCs, including Cambodia, the Maldives, Nepal, and Viet Nam. See ADB. 2007. *Technical Assistance for Strengthening Country Diagnosis and Analysis of Binding Development Constraints in Selected Developing Member Countries.* Manila; and ADB. 2010. *Technical Assistance for Diagnosing Critical Constraints to Growth and Structural Transformation in Selected Developing Member Countries.* Manila.

3 It is theoretically possible for growth to be unrelated to either investment or to the productivity of investment. This occurs if growth is driven by consumption that is financed by unreciprocated transfers from abroad. This scenario is relevant to the Kyrgyz Republic, which receives significant volumes of foreign aid and remittances. However, this strategic assessment concentrates on constraints to domestic growth, under the assumption that a reliance on remittances and foreign assistance to drive growth is undesirable for a number of reasons, among them the fact that it is unsustainable.

Figure 1 Growth Diagnostics Decision Tree



Source: R. Hausmann, D. Rodrik, and A. Velasco. 2005. *Growth Diagnostics.* Cambridge, MA: John F. Kennedy School of Government, Harvard University. p. 22.

The evidence used in the tests includes both price and non-price signals. Shadow prices may not always be directly observable, but they are often indicated by actual or implied market prices. For instance, if poor transport links are a constraint, a high cost of private transport will be evident. Non-price signals are the activities designed to get around binding constraints. These activities are also symptoms of unmet demand. For instance, a thriving informal economy can indicate a high tax burden or excessive regulation.

Decision trees should be viewed largely as frameworks or tools for analysis. It is obvious that branches will actually cross each other because there are often complex interactions between the different potential constraints. Many economic problems cannot be easily classified in mutually exclusive categories. However, a decision tree is helpful in organizing and structuring analysis in its early stages, and it is a useful tool for communicating results.[4]

The growth diagnostics methodology also utilizes matrixes that match constraints to economic growth with symptoms caused by constraints. In a matrix, each column head indicates a constraint and each row shows the associated symptoms. The analysis in this report seeks to identify the binding constraints to growth while bearing in mind the complex interactions and complementarities likely to be at work.

[4] R. Hausmann, B. Klinger, and R. Wagner. 2008. Doing Growth Diagnostics in Practice: A 'Mindbook.' *CID Working Paper Series.* No. 177. Cambridge, MA: Center for International Development, Harvard University. pp. 22–23; A. Dixit. 2007. Evaluating Recipes for Development Success. *The World Bank Research Observer.* 22 (2). pp. 131–157.

1.2.2 Diagnostics for Inclusiveness

Although economic growth can be an important driver of poverty reduction, in some cases, it may have little impact on the poorest groups.[5] In the Kyrgyz Republic, where over one-third of the population lives in poverty, it is important to consider not only economic growth, but also how growth can benefit the entire population, including the poor. ADB has been at the forefront of the application of growth diagnostics to identify critical constraints to inclusive growth.

No final consensus has been reached in the literature on the appropriate definition of "inclusive growth," or on how this concept should be measured and operationalized.[6] This report follows the definition used by Strategy 2020, which defines inclusive growth as

- high, sustainable growth that creates and expands economic opportunities;
- creating broader access to these opportunities to ensure that all members of society can participate and benefit from growth; and
- developing social safety nets to prevent extreme deprivation.[7]

These three pillars can promote inclusive growth if they are supported by good governance and strong institutions. Growth diagnostics concentrate on one of the methods of achieving inclusive growth shown in **Figure 2**, "maximize economic opportunities." Diagnostics for inclusiveness concentrate on the remaining two methods shown in the figure: "ensure minimum economic well-being" and "ensure equal access to economic opportunities."

1.2.3 Benchmarking

The use of other countries as benchmarks, with such indicators as cross-country indexes, plays a key role in the growth diagnostics approach. Following discussions with steering committee members at the inception of this report, it was decided that the following countries would be the main benchmarks (when appropriate, and subject to data availability): those of Central Asia and the South Caucasus, with the exception of Azerbaijan, Kazakhstan, and Turkmenistan (i.e., hydrocarbon exporters); and the Lao People's Democratic Republic, Moldova, and Mongolia (i.e., other landlocked countries).

Apart from these main benchmarks, other countries of the former Soviet Union were sometimes included because of their shared economic history. Depending on the subject discussed, comparisons have also been made with the Kyrgyz Republic's major trading partners and labor migration destinations: the People's Republic of China (PRC), Kazakhstan, and the Russian Federation. Afghanistan and Pakistan, which share some of the characteristics of their northern neighbors in Central Asia, were also used as benchmarks in some cases.

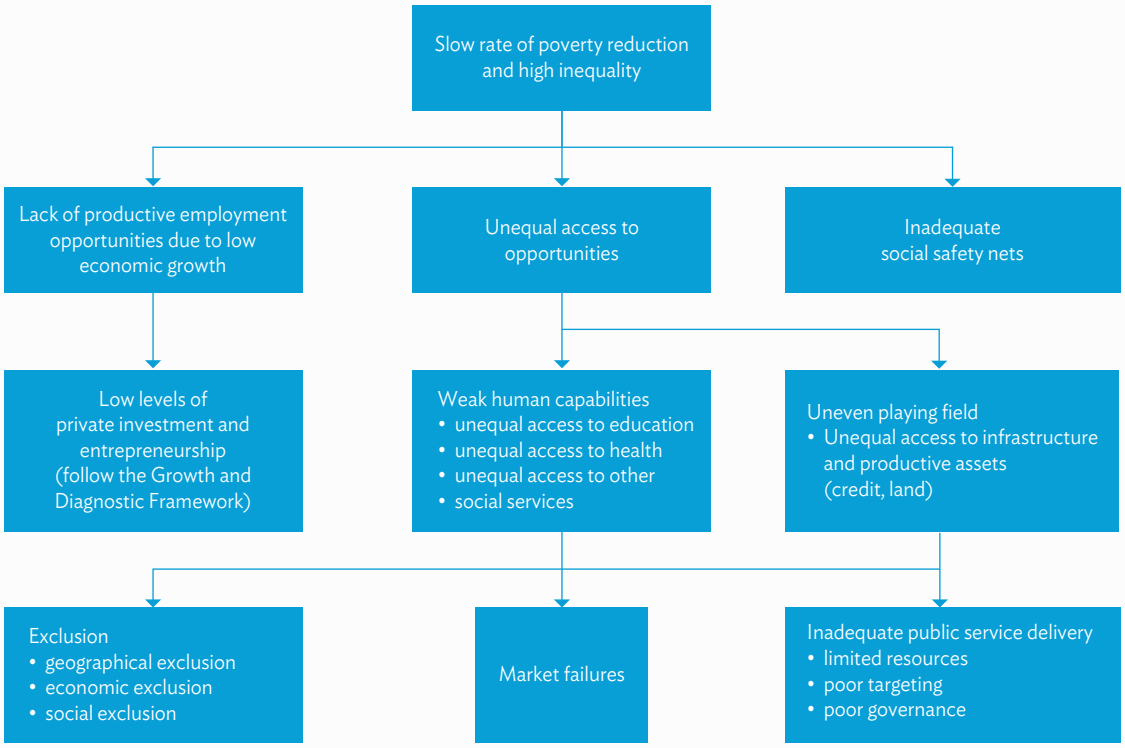
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5 See, for example, M. Ravallion and G. Datt. 2002. Why Has Economic Growth Been More Pro-Poor in Some States of India than Others? *Journal of Development Economics.* 68 (2). pp. 381–400.

6 For information on this debate, see G. Rauniyar and R. Kanbur. 2010. Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective. Manila. Draft; S. Klasen. 2010. Measuring and Monitoring Inclusive Growth: Multiple Definitions, Open Questions, and Some Constructive Proposals. *ADB Sustainable Development Working Paper Series.* No. 12. Manila: Independent Evaluation Department, ADB; I. Ali and J. Zhuang. 2007. Inclusive Growth toward a Prosperous Asia: Policy Implications. *ERD Working Paper Series.* No. 97. Manila: Economics and Research Department, ADB; and I. Ali and H. Hwa Son. 2007. Measuring Inclusive Growth. *Asian Development Review.* 24 (1). pp. 11–31.

7 ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020.* Manila. p. 11.

Figure 2 Inclusive Growth Framework



Source: ADB. 2007. *Philippines: Critical Development Constraints.* Country Diagnostic Series. Manila. p. 61.

1.3 Organization of the Report

Chapter 2 provides an overview of the history of the Kyrgyz Republic's economy since the country's independence, analyzing the episodes of growth and stagnation in light of the political and economic events that helped shape them. It also looks at issues relating to trade, fiscal policy, the informal economy, and employment and migration, and it reviews the progress made in poverty reduction.

Chapter 3 looks at the constraints that have hindered economic growth in the Kyrgyz Republic, grouping them into three overall categories: (i) limited access to finance; (ii) low returns on economic activity due to an unproductive workforce and poor infrastructure; and (iii) low appropriability, which refers to the inability to appropriate all of the benefits of one's investment for oneself.

Chapter 4 looks at the constraints that have hindered the inclusiveness of economic growth such as (i) limited opportunities for employment, (ii) lack of investment, (iii) unequal access to quality education, (iv) unequal access to health care, (v) underdeveloped public infrastructure, and (vi) inadequate social safety net and poverty reduction programs. The discussion pays special attention to the differences among sections of the population based on income, geography, and gender.

Chapter 5 presents the list of those constraints that were identified in chapters 3 and 4 as binding: "micro risks" (i.e., political instability, weak rule of law, and corruption), unreliable electricity supplies, the high cost and inaccessibility of finance, shortage of skilled labor, and uneven access to economic opportunities. As the constraints to both economic growth and inclusiveness are interlinked, they are treated as one group—binding constraints to inclusive growth—rather than divided into separate categories based on growth versus inclusivity. The chapter then discusses each one in turn, reviewing government policies and making policy recommendations.

Finally, Chapter 6, the conclusion, touches on some difficulties that the government has faced or will face when trying to remove or alleviate the binding constraints, and ends by emphasizing that the government risks losing public confidence if it does not translate its stated goals into concrete actions.

2 Overview of the Economy

The Kyrgyz Republic went through a difficult transition after gaining its independence from the former Soviet Union in 1991. The disappearance of trade among the former republics, the breakdown of Soviet payment mechanisms, the withdrawal of subsidies, and a general economic decline in the region all caused severe disruptions in the economy of the Kyrgyz Republic, which was already one of the poorest Soviet republics. Those endowed with hydrocarbon resources were able to resume exporting oil and gas to previous trading partners or to adjust to world markets relatively quickly, but the Kyrgyz Republic saw its agricultural and industrial output decline precipitously, as traditional sources of inputs and markets for outputs disappeared.

The Kyrgyz Republic has also faced additional difficulties as a landlocked country: its location thousands of kilometers (km) away from seaports threatened to erode export competitiveness by imposing high transport costs, thereby diminishing the country's growth potential and increasing its vulnerability to external shocks.[8] The country also had limited natural resources, and urgently needed to replace the subsidies, which the Soviet Union had customarily provided, accounting for an estimated 10% of the GDP.[9]

Policy makers chose to base the country's development strategies on a market economy within a democratic political system. The Kyrgyz Republic quickly became a model country in the eyes of the international community, embarking on a transition toward democracy, with free market orientation and economic liberalization as its stated policy objectives.

The government carried out a number of reforms in the early 1990s, including a plethora of laws and decrees, new institutions, and an ambitious privatization program. By 1994, nearly all services—82% of the assets of trading companies, 40% of assets in industry, and 68% of construction business assets—were registered to private owners. These reforms were not, however, followed by a badly needed restructuring of former state enterprises, because of the rigidity of the financial system, among other factors. There were further shortcomings in the reforms, in part because of the relatively limited capacity of local government officials. In the face of these immense challenges, the disappointing results of some of the reforms, particularly in agriculture, may have discouraged policy makers from following them up with a second wave of reform measures, which were needed to ensure sustainability.

[8] Literature suggests that, anywhere in the world, a coastal location effectively augments a country's economic growth by more than 1.5 percentage points over what it could have expected as a landlocked country. See P. Collier and S. O'Connell. 2007. Opportunities and Choices. In B. Ndulu et al., eds. *Political Economy of Economic Growth in Africa, 1960–2000.* Volume 1. Cambridge, UK: Cambridge University Press.

[9] ADB. 1996. *Country Operational Strategy: Kyrgyz Republic.* Manila. p. 1.

2.1 Political Context of Economic Growth

The political liberalization that accompanied economic liberalization—which had, at first, earned kudos for the administration of President Askar Akayev—soon gave way to corruption and nepotism in all layers of economic and political life. Accusations regarding his family's business dealings in gold and other sectors quickly tarnished Akayev's reputation, domestically and internationally. Following the 1995 elections, which gave Akayev his second term in office, government pressure on the political opposition intensified, and economic reforms stalled.

The initial progressive political steps taken by the government were to "end up in disappointment as the country reversed back towards authoritarianism."[10] Opposition figures faced harassment and imprisonment. Flawed parliamentary elections and widespread corruption sparked a popular uprising in March 2005, which came to be known as the "Tulip Revolution," culminating in Akayev's ouster in a bloodless coup.

Kurmanbek Bakiyev succeeded Akayev as President in the summer of 2005, but political instability and a further erosion of institutions marred the following 5 years under his administration. Initial public support for him vanished after several members of Parliament were assassinated. A continuous rift with Parliament over the Constitution and the balance of power consumed much of the country's political energy. Many felt that corruption, nepotism, and the rule of organized crime worsened rather than improved during 2005–2010, and that the state had become hostage to the presidential clan. The rising fortunes of the Bakiyev family, and increased political repression and violence, were not welcomed by the Kyrgyz people, who had expected visible changes after the Tulip Revolution. An uprising that started in Talas in the spring of 2010 spread to Naryn and Bishkek, with violent clashes that resulted in 86 dead and thousands injured on 7 April 2010. Soon after, Bakiyev fled the country, and an interim government formed by opposition leaders took over.

In May 2010, the interim leadership selected Roza Otunbayeva as acting President, and formed a commission to draft a new constitution, which gave more power to Parliament with a view to changing the balance of power between the legislative and executive branches. However, tensions between ethnic Kyrgyz and Uzbeks in the south, in June 2010, escalated into violent fighting, resulting in many injuries and deaths, and damaging or destroying many houses, businesses, and public buildings.[11] Many refugees fled across the border into Uzbekistan, where they were sheltered in temporary camps.[12] A donor meeting in late July 2010 generated pledges of $1.1 billion in grants and loans over a 3-year period to help the Kyrgyz Republic recover from the violence and restore damaged infrastructure.

The new Constitution, adopted after a referendum on 27 June 2010, provides for power sharing among the President, the Prime Minister, and Parliament. It imposes a single 6-year term limit for the presidency and makes it easier for Parliament to impeach the President. While the President has the right to appoint the military and security heads, as well as high-ranking military officers, the Prime Minister and the government are tasked with

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10 J. Engvall. 2011. *The State as Investment Market: An Analytical Framework for Interpreting Politics and Bureaucracy in Kyrgyzstan.* Uppsala, Sweden: Uppsala University. p. 27.

11 ADB, International Monetary Fund, and the World Bank. 2010. *The Kyrgyz Republic Joint Economic Assessment: Reconciliation, Recovery and Reconstruction.* Washington, DC: International Monetary Fund. This assessment estimates that the conflict caused 2,000 deaths and over 2,500 injuries, as well as substantial population displacement; it also estimates that 1,813–3,450 houses, 248 businesses, and 79 public buildings were either damaged or completely destroyed. Official estimates are a bit lower, but some unofficial estimates suggest an even more severe impact.

12 Almost all cross-border refugees as well as the vast majority of internally displaced persons returned at the end of June.

directing and executing economic policy. The Parliament was enlarged from 90 to 120 members, who are elected for 5-year terms by proportional voting for parties. In its evaluation of the Constitution, the Venice Commission underlined the importance for introducing, for the first time, "a form of parliamentary regime in Central Asia."[13]

Otunbayeva was sworn in as acting President on 3 July 2010. In October 2010, parliamentary elections resulted in a coalition government headed by Almazbek Atambayev as Prime Minister, which included the Ata-Jurt, Respublika, and Social Democratic parties.

The presidential election was held on 30 October 2011, and was won by Atambayev, who received 62.5% of 1.86 million votes. With this election, the country accomplished the first peaceful transfer of presidential power in the Kyrgyz Republic's independent history.

On 1 December 2011, a coalition government was formed, including the Social Democratic, Respublika, Ata-Meken, and Ar-Namys parties. On 23 December 2011, Parliament approved Omurbek Babanov from the Respublika Party as Prime Minister, and a new government was sworn in on 28 December 2011.

On 3 February 2012, the new government launched a 100-day program, Stability and a Dignified Life, which was to end on 1 April 2012. The program included 57 separate tasks, such as decreasing the number of licenses; initiating a phased reduction of the rates and social insurance contributions paid by businesses; temporarily banning inspections by tax authorities of businesses that voluntarily increased their tax payments by 20% (compared with 2011); reducing the number of government employees, while offering a retraining and employment placement program for public officials who leave; and increasing the work quality of government agencies.

The Ata-Meken and Ar-Namys parties left the governing coalition in August 2012, costing the coalition its majority and leading to the dissolution of the government. Prime Minister Babanov resigned, and a new government was formed in September 2012, headed by Prime Minister Jantoro Satybaldiev. This government stayed in power until March 2014, which made it the longest-surviving government since 2005. After the changes in the composition of the coalition, Joomart Otorbaev was appointed Prime Minister in April 2014.

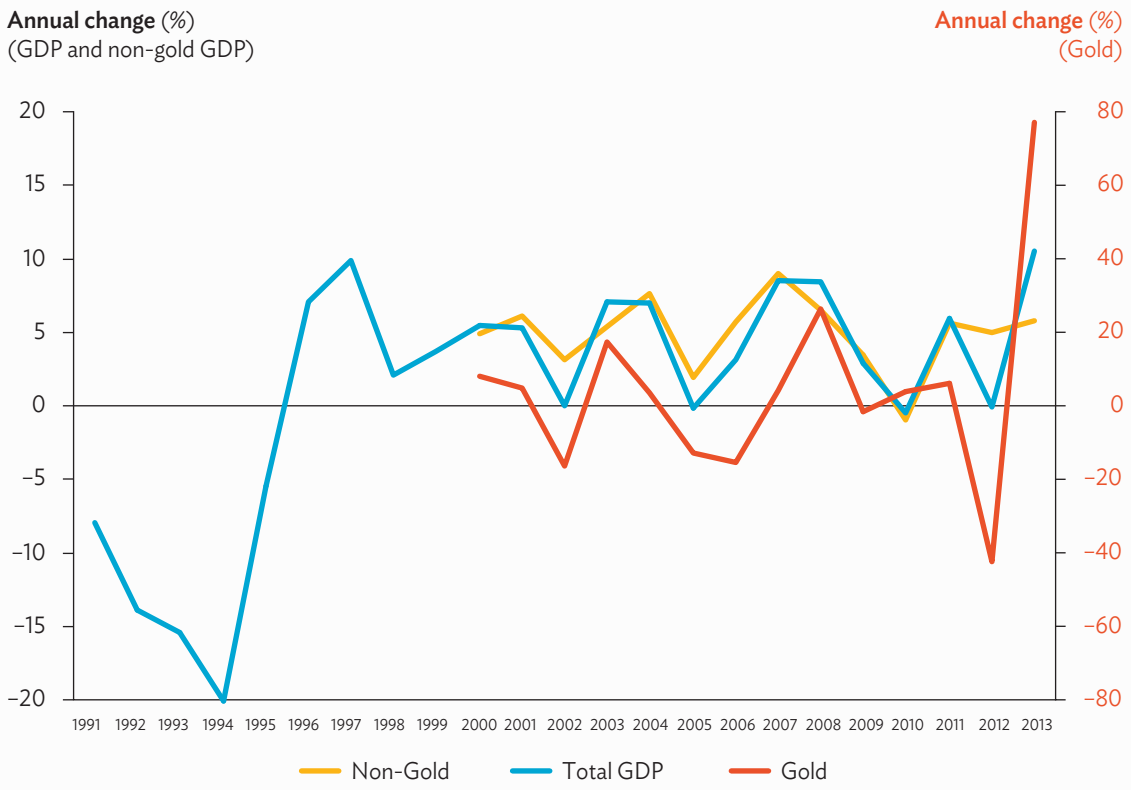
Political uncertainty and the frequent changes of government have unquestionably undermined the country's economic development. To stabilize the policy environment, the President constituted a council composed of the President's Office, Parliament, the judiciary system, and other stakeholders. In January 2013, the council developed and adopted NSDS 2013–2017, which guides government development programs, thereby mitigating the impact of frequent government changes on national development policy.

2.2 Patterns and Sources of Economic Growth

Following the breakup of the Soviet Union, the economy of the Kyrgyz Republic collapsed, with output almost halved. The first sign of recovery occurred in 1996, when the GDP grew by 7.0% (**Figure 3**). The GDP grew

[13] European Commission for Democracy through Law (Venice Commission). 2010. Opinion on the Draft Constitution of the Kyrgyz Republic. Venice. Adopted by the Venice Commission at its 83rd Plenary Session, 4 June 2010.

Figure 3 **Annual Changes in the Growth of Total, Gold, and Non-Gold Gross Domestic Product** (%)



GDP = gross domestic product.

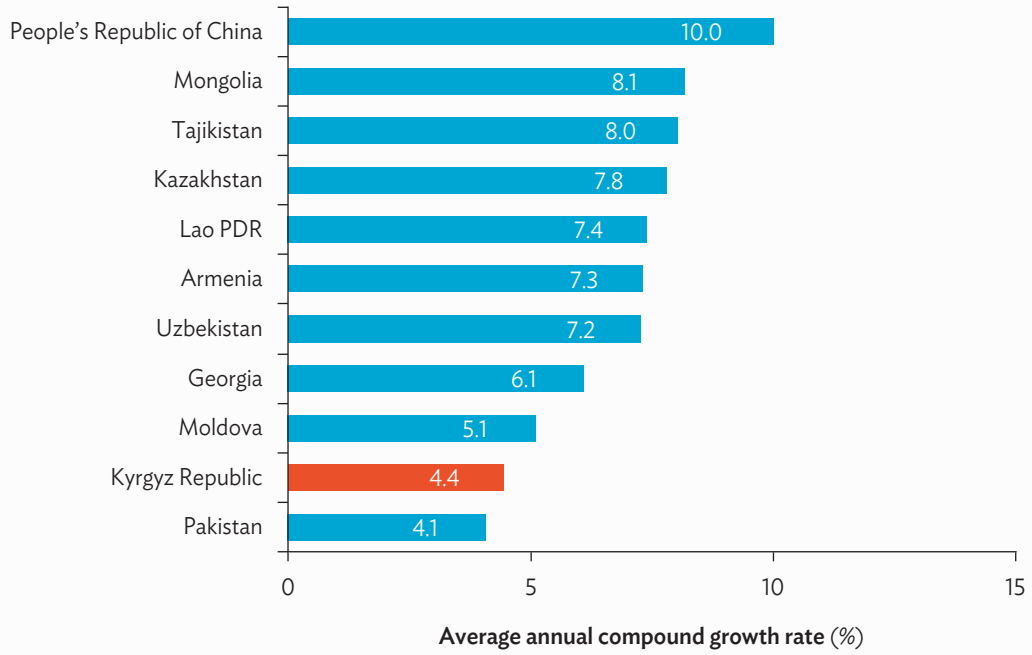
Source: National Statistical Committee of the Kyrgyz Republic.

again in 1997, when the Kumtor gold mine (i.e., the largest gold mine in the Kyrgyz Republic) began operations. The Kyrgyz Republic ended its first decade of independence with just two-thirds of its 1991 GDP. Growth during the next decade was highly variable, affected by the global financial crisis and by the political uprisings described above. During 2001–2013, GDP growth was 7.0% or above in 5 out of 10 years, but negative in 3. As a result, the average GDP growth rate during this period was only 4.4%, one of the lowest among the countries selected as benchmarks for this report (**Figure 4**).

Independence from the former Soviet Union also triggered a significant restructuring of the economy. Between 1992 and 2013, the manufacturing sector shrank, but the services sector more than doubled its share of the GDP (**Figure 5**). What had been a predominantly rural economy in the early 1990s, with some specialized mining and manufacturing, had become an economy specializing in reexporting consumer goods from the PRC to Central Asia and the Russian Federation.

Commercial gold mining, which started in 1997, is concentrated in one large mine, Kumtor, in Issyk-Kul Oblast. It contributed an average of 7% (at factor cost) of GDP between 2001 and 2012 (**Figure 6**). Gold is more important

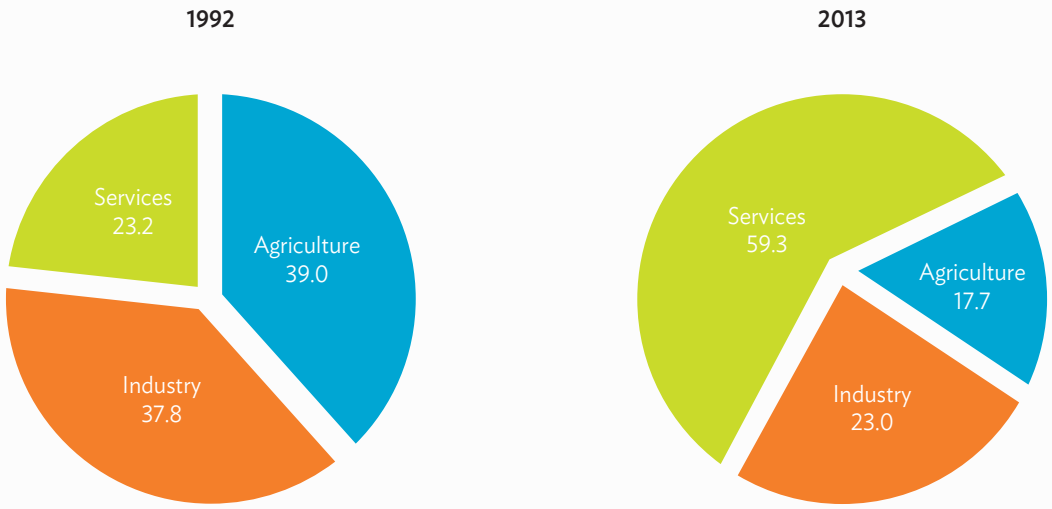
Figure 4 Real Annual Gross Domestic Product Growth, 2001–2013



Lao PDR = Lao People's Democratic Republic.

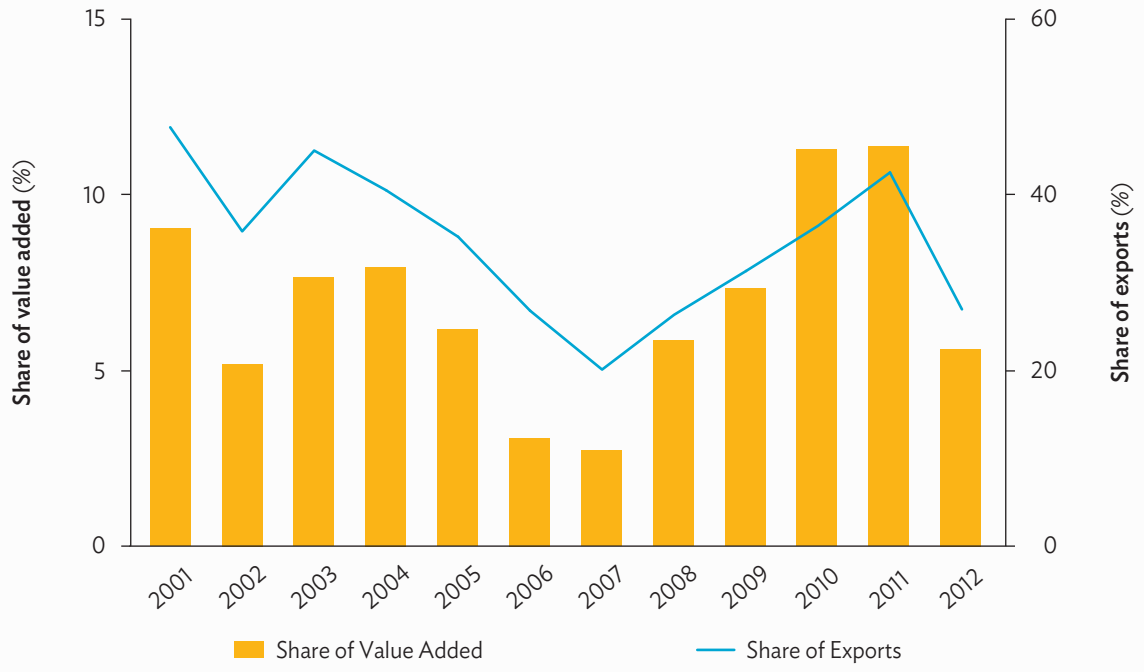
Sources: Author's calculations based on data from the National Statistical Committee of the Kyrgyz Republic and from World Development Indicators of the World Bank.

Figure 5 Major Sectors' Share of Gross Domestic Product (%)



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 6 Role of Gold in the Economy, 2001–2012



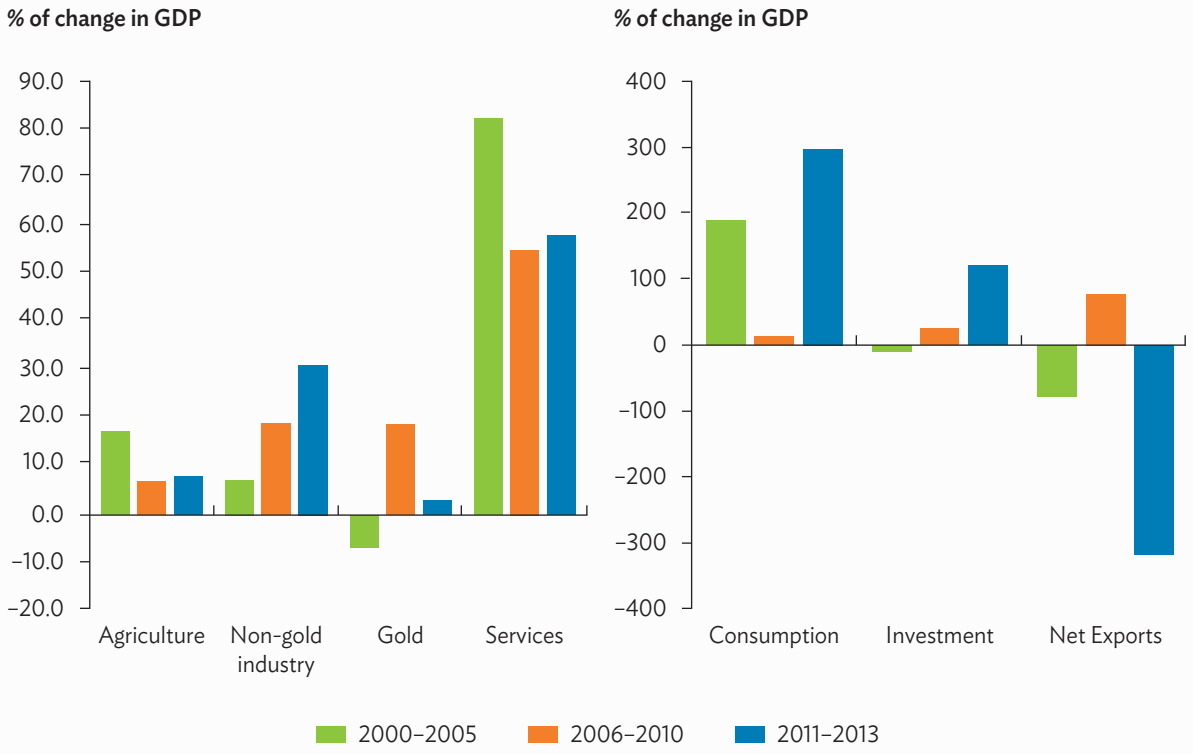
Source: National Statistical Committee of the Kyrgyz Republic.

for external trade than for domestic growth, accounting for an average of 34.6% of exports during 2001–2012, and as much as 43.0% in 2011 because of high gold prices. Production has been highly variable because of geologic and technical factors and external prices. For example, in 2012, geologic factors caused a significant decline in gold production, which resulted in a 0.1% decline of GDP. Gold production has sharpened the peaks and troughs of the country's growth episodes since 2001.

There were three distinct periods of growth during 2001–2013. After the 1998 financial crisis in the Russian Federation, macroeconomic balances were reestablished, and growth occurred from 2001 to 2005. It was halted by two events: the Tulip Revolution in 2005 and a serious accident at the Kumtor gold mine in 2006. The second period, which began in 2006 and ended in 2010, was characterized by a rapid expansion of the services sector, particularly in trade (including reexports). The third period, from 2011 to 2013, had large variations in economic activity. Domestic absorption drove growth during the first and third periods—private consumption during the first, and both private consumption and investment during the third—as well as by remittances, and, to a lesser extent, foreign assistance. During all three periods, more than half of the growth came from the expansion of the services sector (**Figure 7**).

In the services sector, transport and communications (**Table 1**) was the fastest-growing subsector partly because of the country's rising volumes of trade, as well as the expansion of mobile telecommunications during 2006–2013. Mobile subscriptions increased from 1.3 million in 2006 to 6.8 million in 2012, covering 96.5% of

Figure 7 Sources of Growth



Source: National Statistical Committee of the Kyrgyz Republic.

Table 1 Service Subsector Growth Rates and Shares of Gross Domestic Product, 2003–2012 (%)

	Real Growth Rate, % (annual average growth rate)	Share of GDP (%)		Contribution to Service Sector Growth (%)
		2003	2012	
Services sector as whole	6.8	40.6	55.6	100.0
Trade	10.8	16.7	18.8	50.1
Transport and communications	15.3	5.9	11.1	32.8
Education	1.3	4.4	6.5	2.1
Public administration	2.0	5.1	5.9	4.0
Real estate	2.4	3.1	4.8	3.8
Public health and social services	(0.3)	1.9	4.0	(0.3)
Communal services	1.5	1.2	2.2	1.2
Hotels and restaurants	14.2	1.6	1.7	5.0
Financial services	7.7	0.7	0.6	1.4

( ) = negative, GDP = gross domestic product.

Source: National Statistical Committee of the Kyrgyz Republic.

households. The rapid growth of mobile telephones ended in 2013 when the subscriptions were estimated at 6.7 million or 121.5 per 100 inhabitants.[14] This subsector was second only to trade in terms of its contribution to overall services sector growth between 2003 and 2013.

The period since 2008 has witnessed continued volatility. The delayed impact of the 2008–2009 global financial crisis slowed growth in the Kyrgyz Republic from 8.4% in 2008 to 2.9% in 2009. The injuries, deaths, and the destruction of property during the 2010 uprising and the resultant weakening of private sector confidence, impacted the economy: the GDP declined by 0.5% in 2010. On-and-off closures of the borders with Kazakhstan and Uzbekistan exacerbated the contractions in external trade, transport services, and tourism—as of 2014, border closures and disruptions continue to affect some oblasts.

The short-term priority for the interim government that took over in October 2010 was to restore security, stability, and economic activity, and, at the same time, develop a medium-term development plan. The economy did begin to recover the following year, registering 6.0% growth in 2011, which reflected the progress made on the political front (both parliamentary and presidential elections took place peacefully), rising workers' remittances, and the base effect. As mentioned, in the first months of 2012, gold production was affected by geologic issues, so the GDP contracted by 0.1%. However, other industries such as construction and services grew robustly, as investor and consumer confidence recovered and significant remittance flows continued. In 2013, growth returned robustly at 10.5%, thanks to the recovery of gold production. The growth in the non-oil sector was also strong, estimated at 5.8%.

Throughout the 2000s, the informal sector played an important role in the Kyrgyz Republic's economy; evidence showed that it also grew significantly.[15] This was partly because of the rapid increase in border trade with the PRC, most of which took place outside official channels.

2.3 External Sector

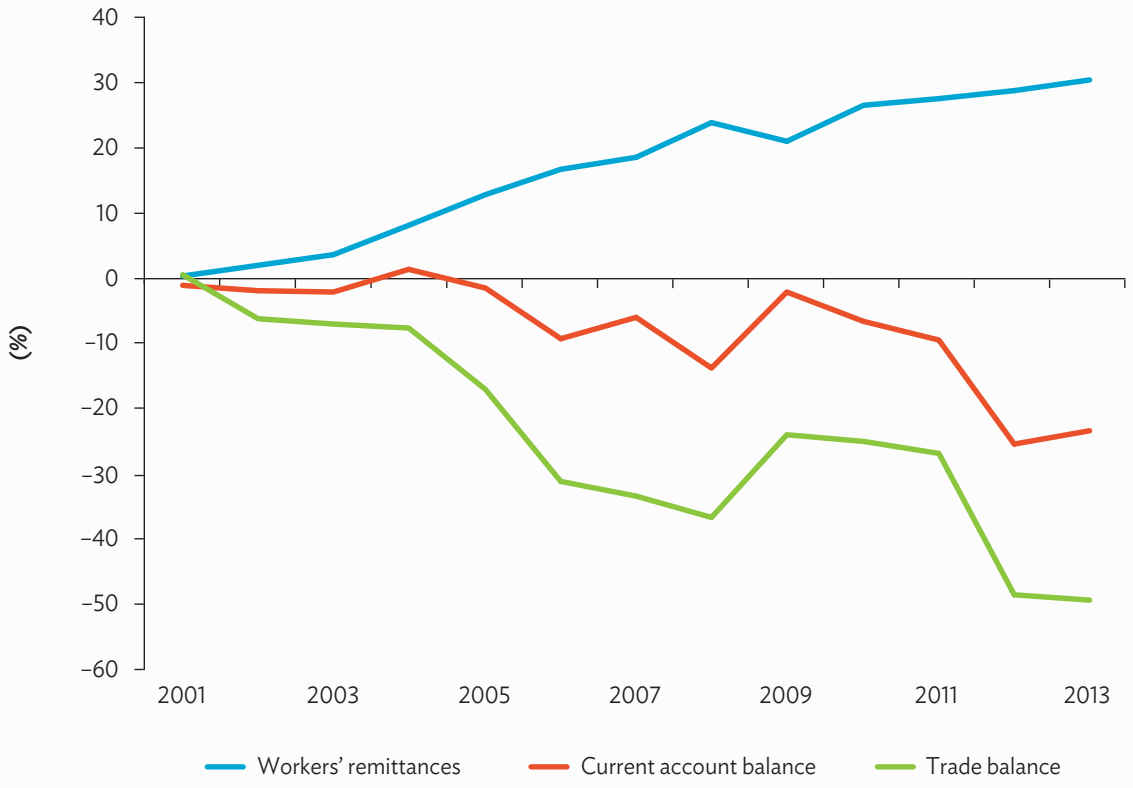
The developments in the 2000s coincided with an expansion of global trade and liquidity, which accelerated labor migration from the Kyrgyz Republic to Kazakhstan and the Russian Federation. In 1998, the Kyrgyz Republic became the first country of the Commonwealth of Independent States to join the World Trade Organization. Trade expanded rapidly following World Trade Organization accession, and the Kyrgyz Republic remains one of the most open economies in the world (as measured by the share of trade in GDP). Recorded exports of goods and services grew by 21.0% per year in current dollars between 2002 and 2009, while import growth was 26.4% per year during the same period. However, government trade data suggest that, despite these significant increases, the structure of imports did not change significantly, as oil and gas still accounted for about 26.5% of total imports. Further, a World Bank study showed that the structure of exports had changed little, if at all, between 2003 and 2008.[16] Workers' remittances, which accounted for 30.5% of GDP in 2013, remained a key source of foreign exchange, and allowed the country to run large trade deficits (**Figure 8**).

[14] International Telecommunication Union. Mobile-Cellular Telephone Subscriptions. http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2014/Mobile_cellular_2000-2013.xls

[15] The informal economy, as defined by the National Statistical Committee of the Kyrgyz Republic, includes illegal activities, legal activities deliberately concealed from the authorities (to avoid taxes), and legal activities conducted by unincorporated enterprises in the household sector, which tend to be unregistered or very small. It was estimated to account for 20.6% of the country's total economy in 2012.

[16] World Bank. 2011. *Trade Expansion through Market Connection: The Central Asian Markets of Kazakhstan, Kyrgyz Republic, and Tajikistan.* Washington, DC.

Figure 8 **Workers' Remittances, Trade and Current Account Balances** (% of gross domestic product)



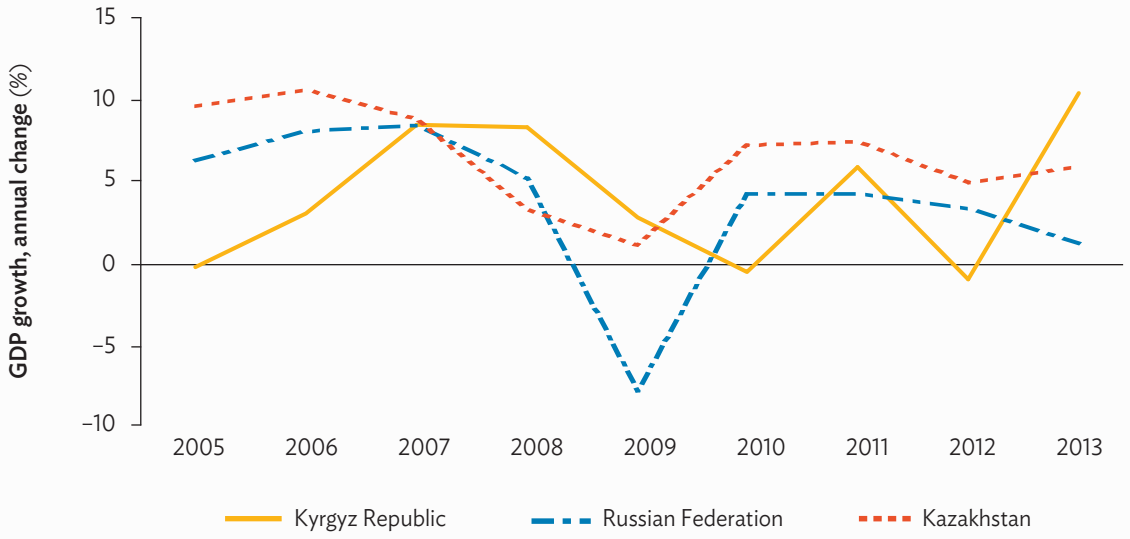
Source: National Bank of the Kyrgyz Republic.

The country's economy depends heavily on external economic developments—particularly in Kazakhstan and the Russian Federation but also increasingly in the PRC—in three ways: remittances, foreign direct investment (FDI), and demand for exports. The exact transmission mechanisms are complex, but the impact of lagging growth rates in Kazakhstan and the Russian Federation on the Kyrgyz Republic's growth rate is clear (**Figure 9**). In addition, the expected accession to the Eurasian Customs Union (Customs Union)[17] has become a significant external factor.

Macroeconomic conditions in the Kyrgyz Republic were relatively stable between 2001 and 2013. The som stabilized in 2002, after having depreciated by almost 50% in 1999 and a further 20% in 2000. Headline inflation fell to the low single digits (**Figure 10**).

[17] The Customs Union and the Common Economic Space (composed of the Russian Federation, the Republic of Belarus, and the Republic of Kazakhstan) were created to remove all customs borders among them and establish a territory of unified customs tariffs, representing a market of 172.9 million people and a combined GDP of $2.4 billion. At the end of 2011, the Eurasian Economic Commission was established to regulate the Customs Union and implement further integration of its members. The three founding members of the Customs Union signed a treaty on 29 May 2014 for the creation of the Eurasian Economic Union (EEU) to start functioning on 1 January 2015 with the expectation that other republics of the former Soviet Union would join the EEU.

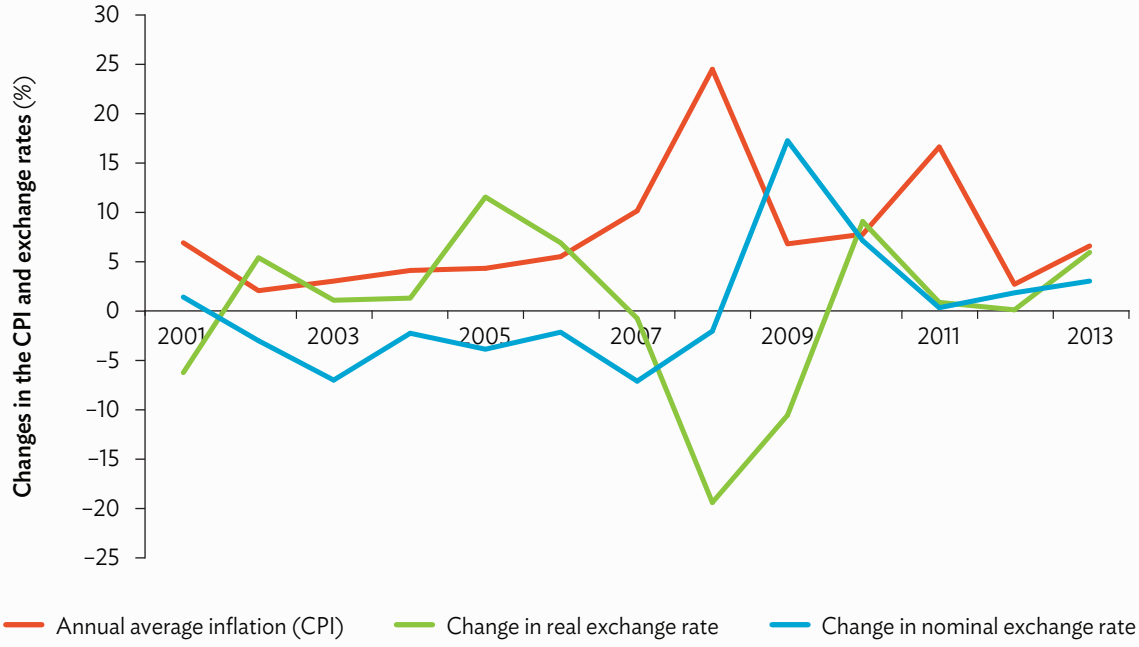
Figure 9 **Gross Domestic Product Growth Episodes, Kyrgyz Republic and Key External Partners, 2005–2013** (annual changes, %)



GDP = gross domestic product.

Sources: National Statistical Committee of the Kyrgyz Republic; World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

Figure 10 **Inflation, Changes in Nominal and Real Exchange Rates, 2001–2013**



CPI = Consumer Price Index.

Source: National Bank of the Kyrgyz Republic.

2.4 Fiscal Situation

The Soviet Union left the Kyrgyz Republic with a physical and social infrastructure that was sustainable only through large expenditures, leading to a budgetary crisis immediately after the country's independence. Thus, a significant effort was made to improve budgetary revenue performance. Tax revenues, as a share of GDP, increased from 15.3% in 2000 to 25.5% in 2012, reflecting the improved tax administration and the expansion of external trade by the mid-2000s. Current expenditure went up from 20.8% in 2000 to 31.8% in 2012, while the government's capital expenditure, financed from both domestic sources and foreign grants and loans, declined during the same period (Table 2).

Although revenue collection performance has improved, financial limitations remain tight. In the absence of a policy for strategic disinvestment and system rationalization, these financial limitations have led to inadequate maintenance, and to a consequent decline of much of the nation's infrastructure. Fiscal adjustments were achieved through across-the-board expenditure cuts. Yet these cuts failed to reflect strategic priorities, so they ended up reducing outlays for the much-needed maintenance of infrastructure such as irrigation networks and energy, transport, education, and health facilities. Coupled with poor pay in the civil service, these cuts reduced the quality of public services, and are widely believed to have played a role in fostering rent-seeking behavior and corruption among public servants.

Table 2 Government Revenues and Expenditures (% of gross domestic product)

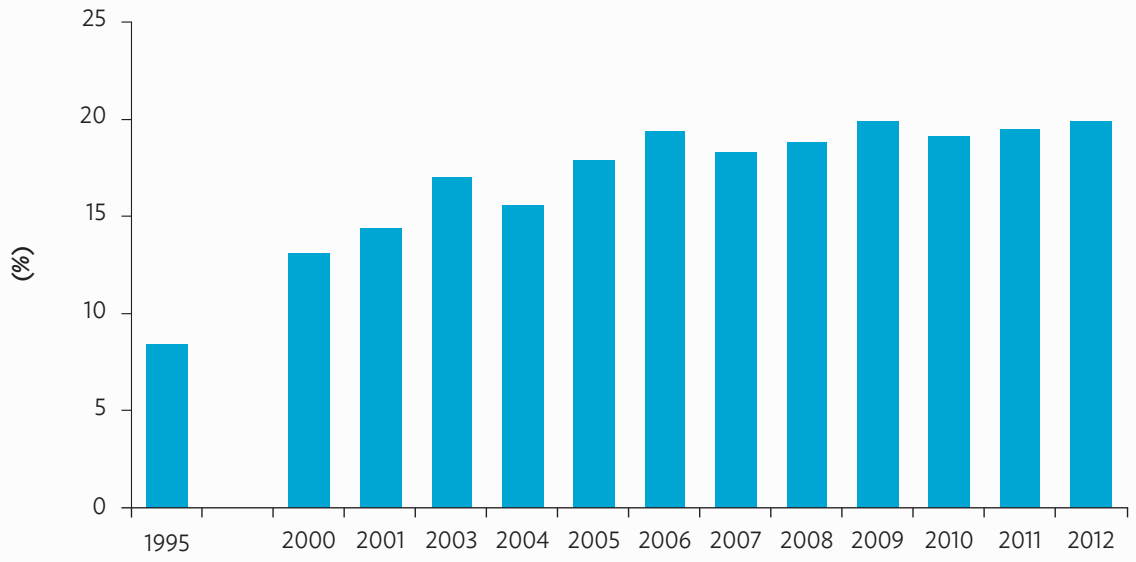
	2000	2010	2011	2012
Total revenue and grants	18.6	30.5	31.8	34.5
Total revenue	17.7	27.7	28.8	31.3
Tax revenue	15.3	22.3	23.1	25.5
Income taxes	2.9	5.9	6.0	6.0
Value-added tax	6.3	6.6	7.1	8.3
Other taxes	6.1	9.8	10.0	11.2
Total expenditure	28.9	36.6	36.3	39.1
Current expenditure	20.8	30.9	30.9	31.8
Capital expenditure	8.1	5.7	5.5	7.7
Domestically financed	1.5	1.5	0.9	1.1
Foreign financed	6.6	4.2	4.6	6.6

Source: International Monetary Fund.

2.5 Informal Economy

Official government statistics estimated the size of the informal economy in the Kyrgyz Republic, excluding agriculture, at 19.9% of the GDP in 2012, more than double the estimate of 8.4% in 1995 (Figure 11). However, this may not capture the full size and importance of the informal economy, as others estimate it as 25%–80% of GDP. In a recent survey of 1,200 businesses, 44% of the respondents said that this shadow economy accounted for more than 50% of the Kyrgyz Republic's economy.[18]

Figure 11 Size of the Informal Economy, Excluding Agriculture (% of gross domestic product)



Source: National Statistical Committee of the Kyrgyz Republic.

The reasons for the informal economy's high share of output include the difficulties of registering and measuring economic activity and the intentional evasion of taxes and laws. Further, informal activity is common in cross-border trade, which constitutes a large share of the Kyrgyz Republic's output. Some estimates suggest that informal trade flows may significantly exceed the value of the Kyrgyz Republic's formal trade flows.[19] As mentioned, informal import and reexport activities mostly involve consumer goods from the PRC.[20] Drug trafficking is also significant, particularly in the south of the country.[21]

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18 Center for International Private Enterprise. 2011. *Priorities and Need for Reform in the Kyrgyz Republic.* Bishkek.

19 The amount of informal trade with the PRC is evidenced by the large discrepancy between official reports of imports from the PRC and the "mirror statistics" reported by the PRC itself.

20 B. Kaminsky and S. Mitra. 2012. *Borderless Bazaars and Regional Integration in Central Asia: Emerging Patterns of Trade and Cross-Border Cooperation.* Washington, DC; R. Mogilevskii. 2012. Trends and Patterns in Foreign Trade of Central Asian Countries. *Institute of Public Policy and Administration Working Paper Series.* No. 1. Bishkek: University of Central Asia Graduate School of Development.

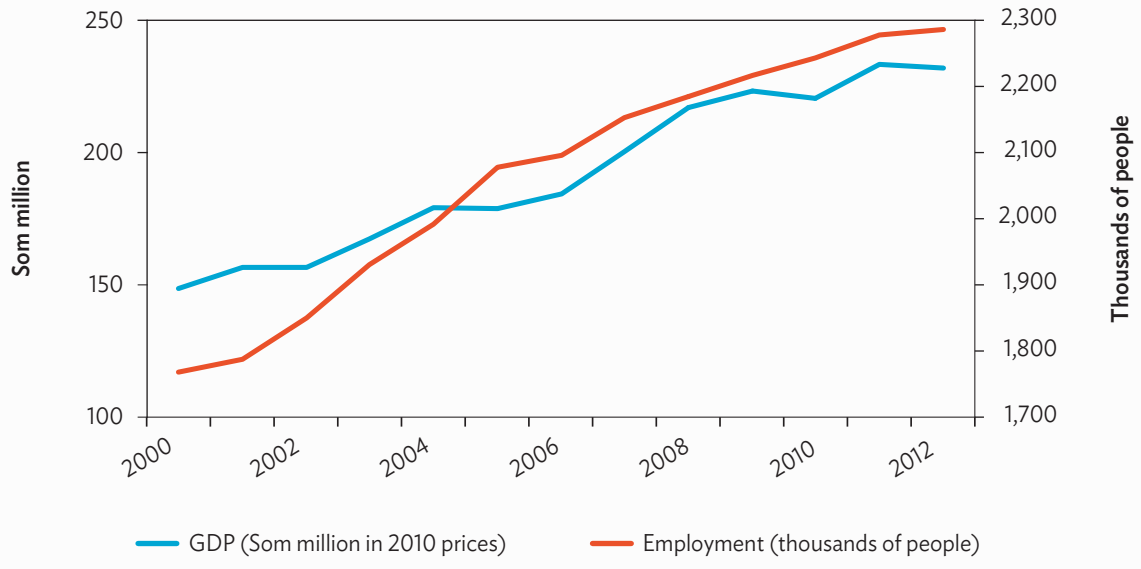
21 United Nations Office on Drugs and Crime. 2010. *The Globalization of Crime: A Transnational Organized Crime Threat Assessment.* Vienna. p. 111. The United Nations Office on Drugs and Crime estimated the value of the Afghan opiate trade through the northern route to be around $13 billion in 2008. Whatever the exact volume of this traffic passing through the Kyrgyz Republic, it constitutes a significant portion of the GDP.

The prominence of informal activities has implications for the economy. Not only do informal firms operate without paying taxes, but informal enterprises often have much lower productivity rates than formal firms. Informal firms prefer to stay small and invisible to avoid the attention of authorities, limiting their ability to adopt new technologies and business practices. Informal sector workers often have low wages, poor working conditions, and little employment protection or benefits. On the other hand, some studies point to the dynamism and innovation of the informal sector, and to its role in providing jobs and reducing poverty. Although informal enterprises do not pay business taxes, they nonetheless contribute to government revenues via other taxes and fees.

2.6 Growth, Employment, and Migration

Growth during the 2000s was not employment friendly (**Figure 16**). The average rate of employment growth, at about 2%, was slower than the growth rate of the GDP, and the elasticity of employment vis-à-vis GDP was estimated at 0.57 for 2001–2012.[22] The cost of creating a job, with regard to investment, increased from Som497,000 during 2001–2005 to Som1.8 million during 2006–2010 (in constant 2010 prices), indicating a pattern of investment that became less labor-intensive in the latter half of the 2000s. During 2011–2013, investment per job declined to about Som1 million.

Figure 12 **Employment and Gross Domestic Product, 2000–2012**

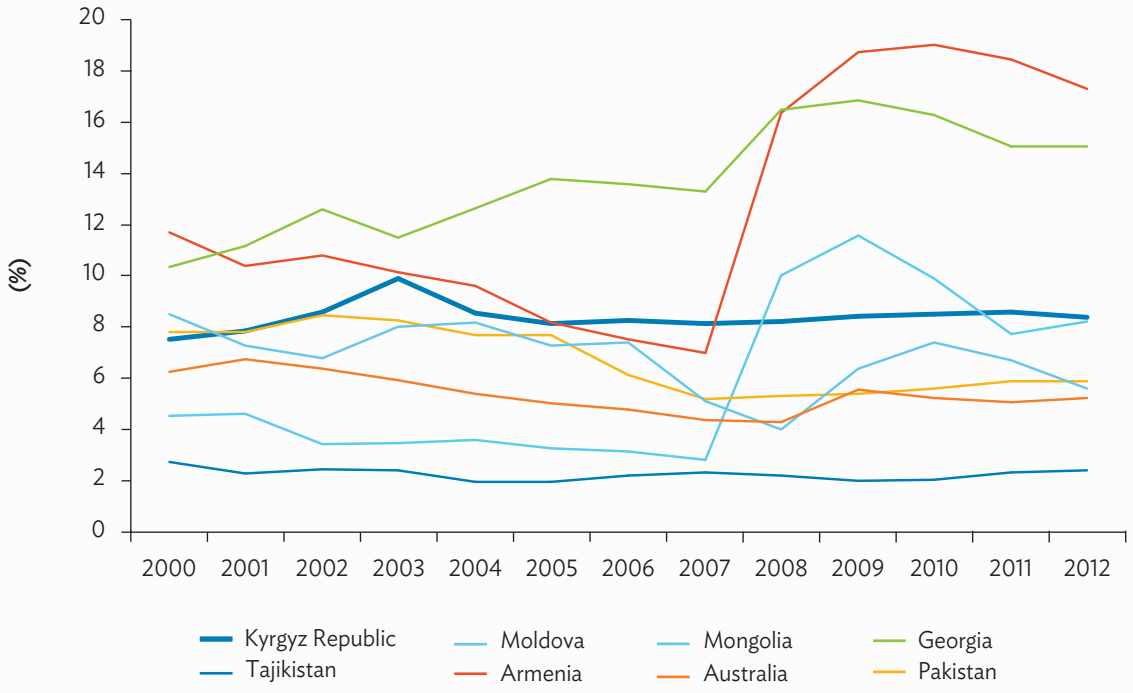


GDP = gross domestic product.

Source: National Statistical Committee of the Kyrgyz Republic.

[22] ADB. 2014. *Key Indicators for Asia and the Pacific 2014: Framework of Inclusive Growth Indicators, Special Supplement.* Manila. For Pakistan, employment elasticity was 0.83 for 2001–2012, 0.29 for Tajikistan, 0.36 for Uzbekistan, –0.09 for Armenia, and –0.08 for Georgia.

Figure 13 **Unemployment Rates, Kyrgyz Republic and Selected Benchmarks**
(% of working-age population)



Sources: ADB. 2013. *Key Indicators for Asia and the Pacific 2013.* Manila; National Statistical Committee of the Kyrgyz Republic.

Despite the slow employment growth, the unemployment rate was steady, at about 8%, from 2000 to 2013. This was higher than the rates in all of the benchmark countries except Georgia (**Figure 13**) but was close to, or even below, the rates in many developed countries. In addition to unemployment, however, underemployment and hidden unemployment have been widespread, and they drive poverty.

The period immediately after the country's independence saw a significant return migration of non-Kyrgyz ethnic workers out of the Kyrgyz Republic. By 2000, 618,000 people had left the country, 378,000 of them nationals of the Russian Federation,[23] reducing the Kyrgyz Republic's human capital.

Since 2000, labor migration—which is often temporary—has been associated mainly with economic incentives, and has involved the ethnic Kyrgyz population and other groups. The most popular destinations for workers from the Kyrgyz Republic are Kazakhstan, the Russian Federation, Turkey, and the United Arab Emirates.

[23] Many of these people were involved in forced or organized migration during the Soviet period, and returned because of economic considerations and ethnic identity.

There are no accurate and accepted data on external migration.[24] Estimates of the number of Kyrgyz Republic nationals working abroad vary widely, between 0.5 million and 1.2 million, and even the highest figure may be an underestimate. The fact that most migrant workers are employed in the gray economies of their host countries makes monitoring difficult.[25] A migration survey of households in 2006 indicated that 187,000 citizens of the Kyrgyz Republic worked abroad—82.9% in Russia and 15.4% in Kazakhstan.[26] Other data, such as official Russian Federation statistics, put the number of Kyrgyz Republic nationals in that country at 363,000 in 2010.[27] Similarly, the number of Kyrgyz Republic workers in Kazakhstan range from 50,000 to 150,000.

Temporary labor migrants from the Kyrgyz Republic to the Russian Federation, like those from other former Soviet republics, generally work in low-skilled occupations. Even professionally trained migrants often perform unskilled labor there. About one-quarter of the Kyrgyz Republic's migrant workers in the Russian Federation are estimated to be employed in construction, 16% in manufacturing, 13% in retail, and the rest in agriculture and services. In 2006, about 30% of these migrants were female—a proportion higher than for migrants from the other Central Asian countries. A different study, financed by ADB, found that 45% of female migrants from the Kyrgyz Republic worked in construction and 30% in trade in 2007.[28]

Internal migration—which has also been significant—occurs mainly from rural areas and smaller cities to Bishkek, Osh City, or Chui Oblast; this has also been a response to economic incentives. Cumulative internal migration data from the National Statistical Committee of the Kyrgyz Republic (NSC) show that inflows into Bishkek and Chui Oblast between 2000 and 2011 amounted to at least 110,000. However, many migrants are not included in the official data, particularly those who move temporarily and do not change their registration. The real number of migrants may therefore be much higher than the data indicate.

Kyrgyz Republic nationals working abroad significantly contribute to the country's economy through the remittances that they send to their families and friends. As **Figure 8** shows, workers' remittances rose steadily between 2001 and 2013, except in 2009, both in absolute terms and as a share of GDP. Although some portion of the remittance is likely saved, remittances boost domestic consumption and investment, thereby contributing to economic growth. One study estimated that, between 1995 and 2005, $1.00 of remittances led to an increase of $2.30 in GDP.[29] Remittances have also contributed to the rapid decrease in poverty since 2001, and have mitigated rises in poverty when the domestic economy was unstable.

However, migration and remittances can also have negative effects. Dependence on remittances makes households, and the economy as a whole, vulnerable to fluctuations in the economies of countries where migrants from the Kyrgyz Republic work. High rates of migration, particularly of skilled workers, can deplete

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24 Kyrgyz nationals do not require visas to enter the Russian Federation or Kazakhstan, and many are not officially registered, making it difficult to keep track of the numbers.

25 O. Chudinovskikh. 2011. Statistics of labor migration in the network MiRPAL (Migration and Remittances Peer-Assisted Learning) Network. Moscow: Moscow State University. Only an estimated 21.4% of migrant workers from the Kyrgyz Republic work legally, with permits, in the Russian Federation.

26 *Ibid.* p. 60.

27 A news item in the *Rossiyskaya Gazette*, 2 August 2011. According to this article, there were 9.9 million guest workers in the Russian Federation, of which 3.6% were Kyrgyz nationals, in 2010. Another source, Russian Border Control statistics, put the number of Kyrgyz nationals entering the Russian Federation at 800,000 in 2010.

28 R. Mogilevsky et al. 2008. Remittances and Poverty in Central Asia and South Caucasus: Country Report on International Migrants' Remittances and Poverty in the Kyrgyz Republic. Consultant's report. Manila: ADB. Draft (TA 6315-REG).

29 S. Aitymbetov. 2006. Emigrant Remittances: Impact on Economic Development of Kyrgyzstan. *Working Paper* No. 31. Bishkek: Economic Policy Institutes Network.

human capital at home and drive up wage rates, making it more difficult to develop the domestic economy. When workers move abroad, their families and communities may also experience negative social and psychosocial consequences. For example, a recent study of the impact of remittances on children's human capital outcomes over time demonstrated negative impacts on some aspects of the children's well-being.[30]

2.7 Trends in Poverty and Inequality

Poverty rose precipitously immediately after the country's independence, and per capita income dropped, as the economy collapsed and transfers from the Soviet Union ended. When the Kyrgyz Republic became independent, its mean per capita income ($1,570) was 54% of that of the former Soviet Union, with one-third of its population living in poverty (32.9% of population below ₽75 [$125 at the 1990 exchange rate] per capita monthly income compared with 11% for the entire former Soviet Union) with about the same Gini coefficient (0.287) as the rest of the former Soviet Union.[31] Changes in statistical methodologies since then have meant that trends must be interpreted with caution. What evidence there is still suggests, however, that the poverty rate continued rising until 2000, when it reached a peak of 62.6%, despite the revival of GDP growth from 1997 onward (**Figure 14**).

Since 2001, economic growth in the Kyrgyz Republic has been inclusive: poor households have participated in and benefited from new economic opportunities. As a result, growth was accompanied by rapid poverty reduction: the portion of the population living at or below the national poverty line dropped from 56.4% in 2001 to 31.7% in 2008;[32] and the poor households' share of national cash income remained more or less constant (**Figure 16**). The rate of poverty reduction during 2001–2008 was above 9% every year.

In 2009, however, the impact of the global financial crisis, particularly on remittances, and the harsh winter of 2008–2009 stalled progress, staying the poverty rate at 31.7%. In 2010, the poverty rate increased with the political and ethnic uprising, and the impact of these events, such as the continued border closures, were still being felt in 2011. The poverty rate, particularly in urban areas, continued to increase, reaching 36.8% in 2011. Combined with high food prices, the poverty rate further went up to 38.0% in 2012. According to preliminary data, it declined slightly to 37.0%, following 10.5% GDP growth in 2013.

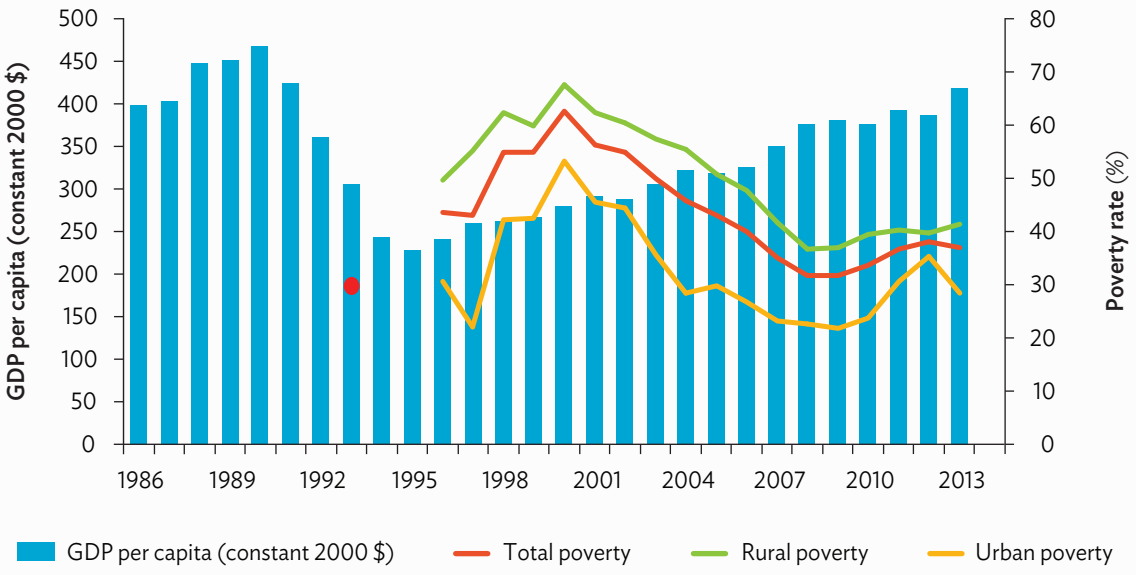
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30 A. Kroeger and K. Anderson. 2011. Remittances and Children's Capabilities: New Evidence from Kyrgyzstan 2005–2008. *CASE Network Studies & Analyses* No. 430. Warsaw: Center for Social and Economic Research. p. 22. This study found that remittances do not "relieve the liquidity constraint in receiving households with respect to human capital investment in children. Migration disrupts the family structure in such a way that particularly girls suffer on educational and nutritional outcomes. Children living in the south or mountainous region of Kyrgyzstan are more affected than children in the north, partly because schools at all levels and health care are less accessible in these regions. Transfer receipt negatively affects nutritional outcomes of younger girls; they are more likely to be malnourished if they live in a transfer receiving household. Older boys have worse health habits in transfer households."

31 R. Pomfret. 1999. Living Standards in Central Asia. Paper prepared for the Special Issue of MOCT-MOST Economic Policy in Transitional Economies. p. 20.

32 This report uses poverty estimates from the NSC, taking further details from various World Bank reports. Poverty is measured using data from the national Kyrgyz Integrated Household Survey. Poor households are those whose total consumption is at or below the poverty line, defined as the cost of "basic needs," i.e., 2,100 calories per person per day, plus an allocation for nonfood consumption. Households below the food poverty line fall under the category of extreme poor. The NSC updates the poverty line annually to reflect price changes, using the national food and nonfood inflation rates. For instance, it revised the poverty basket and the poverty line in 2008 and 2011 to accurately account for high inflation, using price data collected by the Kyrgyz Integrated Household Survey. Although the trends for 2007–2008 and 2010–2011 must be interpreted with some caution, the trend for 2008–2011 is believed to provide an accurate reflection of changes in living standards.

Figure 14 Gross Domestic Product per Capita and Poverty Rates, Kyrgyz Republic, 1986–2013



GDP = gross domestic product.

Sources: National Statistical Committee of the Kyrgyz Republic; World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

Marked differences in living conditions between urban and rural areas existed before and during the Soviet era, and persisted until the late 2000s. In 2001, rural poverty stood at 62.3%, compared with 45.4% in urban areas. In the period up to 2008, poverty fell faster in urban areas, although rural areas also rapidly improved.

The poverty rates by oblast reveals that the overall urban poverty rate was skewed downward by the substantial influence of the lower rate in Bishkek, which is among the most well-off areas in the country (**Table 3**). In most oblasts, the differences between the poverty rates in rural and urban areas are narrowing, and urban poverty rates are actually higher than rural poverty rates in some oblasts. An increase in urban poverty from 2010 to 2011 may be partly explained by the updating of the poverty line to accurately reflect prices. However, it also shows that the urban population, which includes recent rural migrants, remains vulnerable, particularly to price increases and to any reduction in economic opportunities. In 2013, almost one in three urban households lived in poverty. Bishkek City, and the surrounding oblast of Chui constantly have relatively low poverty rates.

In 2012, the Kyrgyz Republic had a larger proportion of households below the national poverty line than all of the benchmark countries (**Figure 15**). These comparisons should be interpreted with caution, however, as the absolute levels of national poverty lines vary depending on the methodologies used. In fact, the extreme poverty rate declined very rapidly from 34.0% in 2002 to 5.3% in 2010, further falling to 2.8% in 2013. About 160,000 people lived in extreme poverty, of which 80% were in rural areas.

Table 3 **Poverty Rates and the Distribution of the Poor** (%)

Province/City	2010			2011			2012			2013	Distribution of the Poor
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural	All	
Batken	33.6	26.6	35.8	35.6	25.4	38.9	34.2	38.7	32.9	53.9	11.8
Jalalabad	44.7	32.7	49.7	45.3	43.5	46.0	55.7	61.7	53.4	46.4	23.9
Issyk-Kul	38.0	26.4	42.7	29.5	29.4	29.6	28.1	22.4	30.4	39.5	8.5
Naryn	53.5	39.3	56.1	49.9	39.7	51.7	39.9	26.9	42.0	43.8	5.6
Osh (incl. city)	41.9	47.0	40.0	44.7	48.1	43.2	62.4	54.8	50.0	43.4	29.8
Talas	42.3	34.3	43.7	50.2	47.8	50.6	39.6	23.6	42.2	23.1	2.6
Chui	21.9	24.2	21.4	28.6	25.2	29.4	16.6	24.0	15.0	23.6	9.4
Bishkek City	7.9	7.9		18.4	18.4		21.4	21.4		20.4	8.7
Total	**33.7**	**23.6**	**39.5**	**36.8**	**30.7**	**40.4**	**38.0**	**35.4**	**39.6**	**37.0**	**100.0**

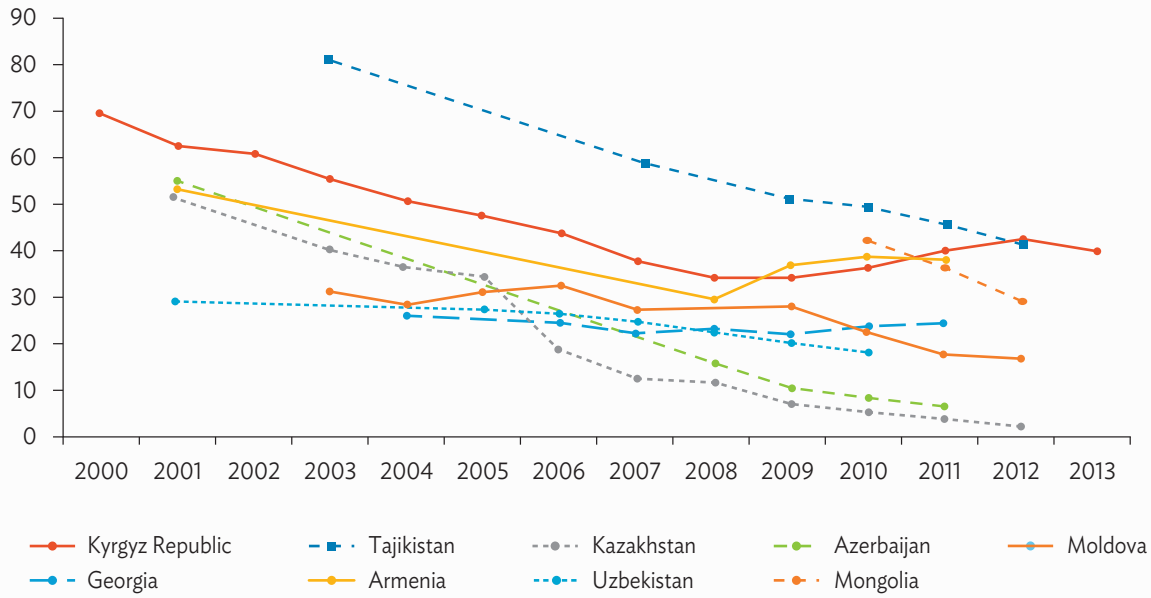
Sources: National Statistical Committee of the Kyrgyz Republic and author's calculations.

Inequality rose during the first years of the country's independence, as the more well-off were able to shield themselves from the worst impacts of the economic collapse, and the share of national cash income earned by the top quintile increased (**Figure 16**). However, the share of cash income going to the bottom quintile stabilized in 1997, while that of the richest began to fall, and that of middle-income groups began to increase. Inequality has continued to decline since 2001, when the share of the bottom 20% began to rise, albeit slowly. The overall improvement in the share of the bottom 20% is quite remarkable, considering that it is more common in developing and transition economies for the richer groups to increase their shares. In addition, Lorenz curves show a substantial decrease in inequality between 1993 and 2001, although followed by a slight increase in inequality by 2009 (**Figure 17**).

Gini coefficients, a commonly accepted measure of inequality, indicate that inequality in the Kyrgyz Republic rose to very high levels immediately after the country's independence but fell back to a more normal level by 1998 (0.36).[33] Inequality generally declined after 2005, dropping from 0.27 in 2007 to 0.22 in 2012 when measured by the consumption Gini coefficient. Income distribution measured by the Gini coefficient based on income improved from 0.446 in 2006 to 0.363 in 2008, but deteriorated again from 0.371 in 2010 to 0.422 in 2012 (**Table 4**).

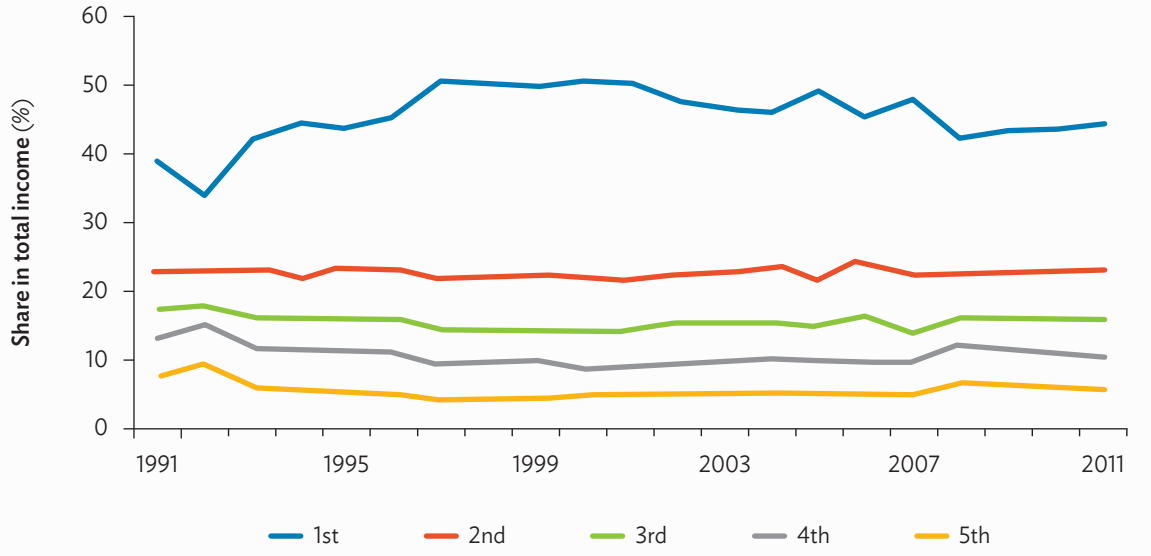
[33] The Gini coefficients for the Kyrgyz Republic recorded in the World Bank's World Development Indicators are higher than those calculated by the NSC and those for some of the benchmark countries. The figures from the World Development Indicators are estimated by combining distributions calculated using household survey data and nominal income averages. The NSC estimates are calculated directly, using household survey data based on consumption, which is considered a more accurate measure of household welfare in countries with a large informal sector, and controlling for regional price differences. They are thus considered to be more accurate than the figures from the World Development Indicators. However, the NSC estimates are not available for years prior to 2005, so estimates from the World Development Indicators are used to get a picture of the trends in earlier years.

Figure 15 Poverty Rates, Kyrgyz Republic and Selected Benchmark Countries, Based on National Poverty Lines, 2000–2013 (%)



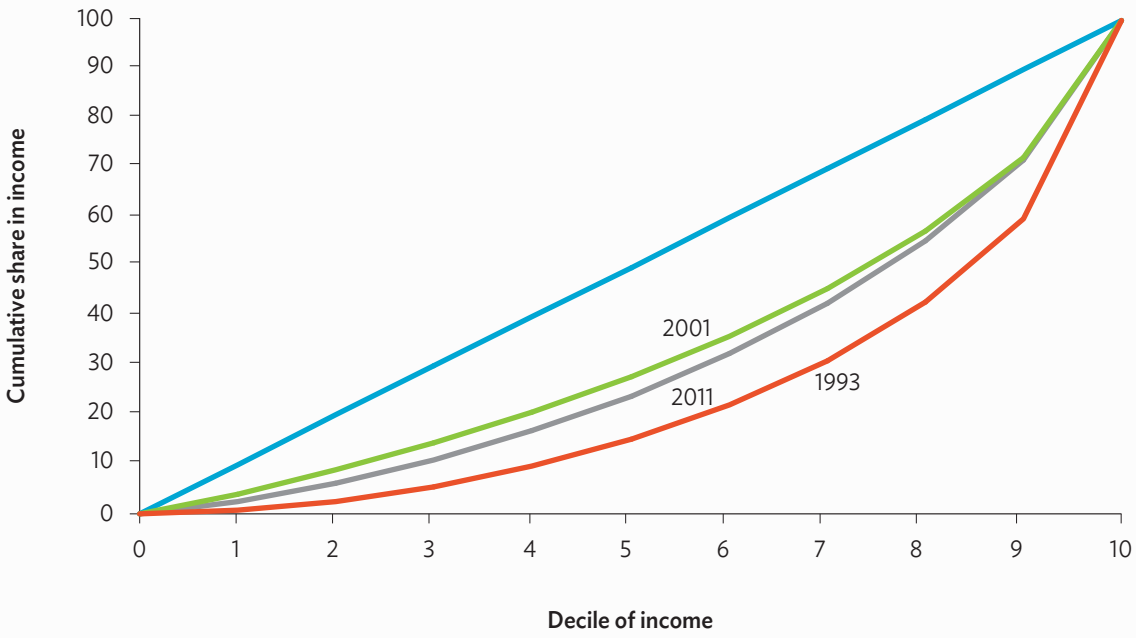
Sources: National Statistical Committee of the Kyrgyz Republic; World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

Figure 16 Shares of National Cash Income by Quintile, Kyrgyz Republic (%)



Sources: National Statistical Committee of the Kyrgyz Republic.

Figure 17 Lorenz Curves, Kyrgyz Republic, 1993, 2001, and 2011



Source: World Bank PovcalNet data.

Table 4 Gini Coefficients, Kyrgyz Republic and Benchmark Countries, 1993–2012

		1993	2002	2005	2006	2007	2008	2009	2010	2011	2012
Kyrgyz Republic	Income-based (NSC)			0.4330	0.4460	0.4220	0.3630	0.3710	0.3710	0.3820	0.4200
	Consumption-based (NSC)										
	Total			0.2710	0.3230	0.2690	0.2520	0.2450	0.2510	0.2270	0.2200
	Urban			0.2730	0.3190	0.2910	0.2480	0.2480	0.2700	0.2450	
	Rural			0.2550	0.3040	0.2350	0.2440	0.2280	0.2300	0.2110	
	WDI	0.5370	0.3170	0.3950	0.3870	0.3340	0.3730	0.3619	0.3651	0.3338	
Benchmarks	Armenia		0.3570	0.3620	0.3280	0.3020	0.3090		0.3130		
	Georgia		0.4030	0.4110	0.4110	0.3940	0.4130	0.4170	0.4210		
	Kazakhstan	0.3270	0.3500		0.3080	0.3090	0.2930	0.2900			
	Lao PDR	0.3040	0.3260				0.3670				
	Moldova	0.3430	0.3690	0.3630	0.3610	0.3530	0.3530	0.3400	0.3300		
	Mongolia		0.3280				0.3650				
	Nepal								0.3280		
	Tajikistan			0.3360		0.3260		0.3080			

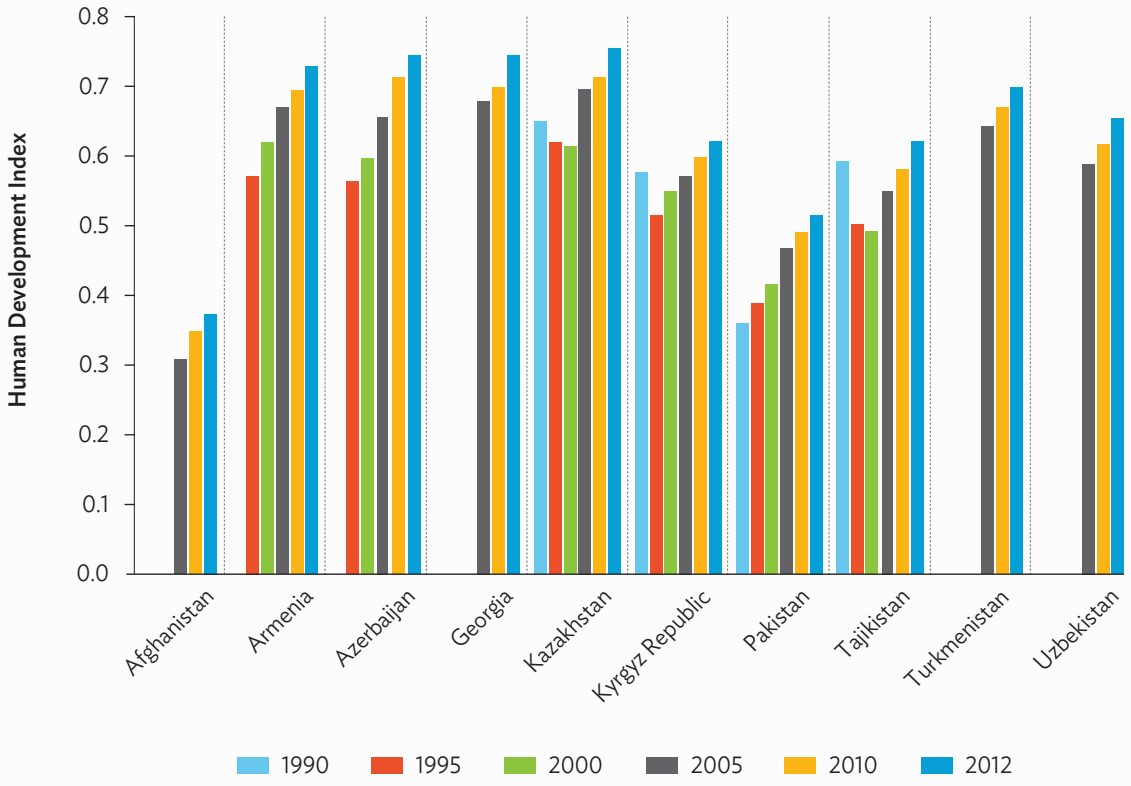
Lao PDR = Lao People's Democratic Republic, NSC = National Statistical Committee of the Kyrgyz Republic, WDI = World Development Indicators.

Sources: NSC; World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

The Gini coefficient for consumption, calculated on the basis of household survey data, indicates a lower level of inequality in the Kyrgyz Republic than in the benchmark countries. As is common in developing countries, especially those with large informal or agriculture sectors, the Gini coefficient for consumption is lower than that for income. For methodological reasons, the consumption Gini coefficient is considered a more accurate reflection of household living standards, and it shows that inequality has been consistently higher in urban than in rural areas.

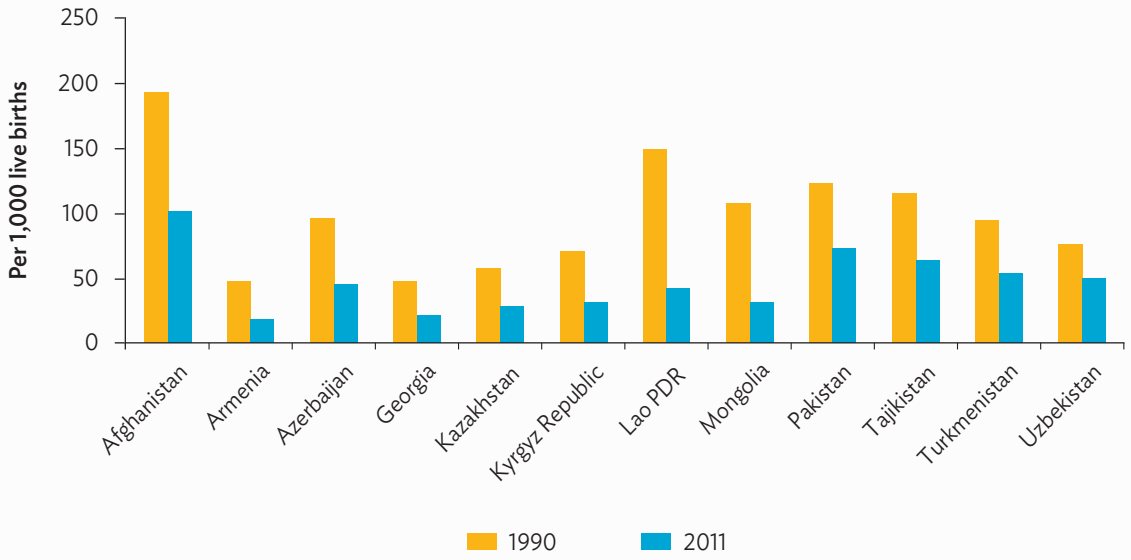
Despite relatively high levels of poverty, the Kyrgyz Republic has managed to provide its population with access to basic services and infrastructure. As a result, the Kyrgyz Republic remains close to the other former Soviet republics in the United Nations Human Development Index (**Figure 18**), and in various non-income dimensions of poverty (**Figure 19**). Given that these countries perform fairly well on these indicators, the Kyrgyz Republic's achievements regarding non-income poverty indicators compare favorably with those of most developing countries, despite the severe financial and capacity constraints that the country faces. However, a decline is evident in some aspects, for example, a lower average years of schooling for youth compared with that of adults in 2010 (**Figure 20**). In addition, many of these indicators fail to capture the quality of basic services.

Figure 18 **Human Development Index Values, Kyrgyz Republic and Selected Benchmark Countries**



Source: United Nations Development Programme. Human Development Index. http://hdr.undp.org/en/content/human-development-index-hdi

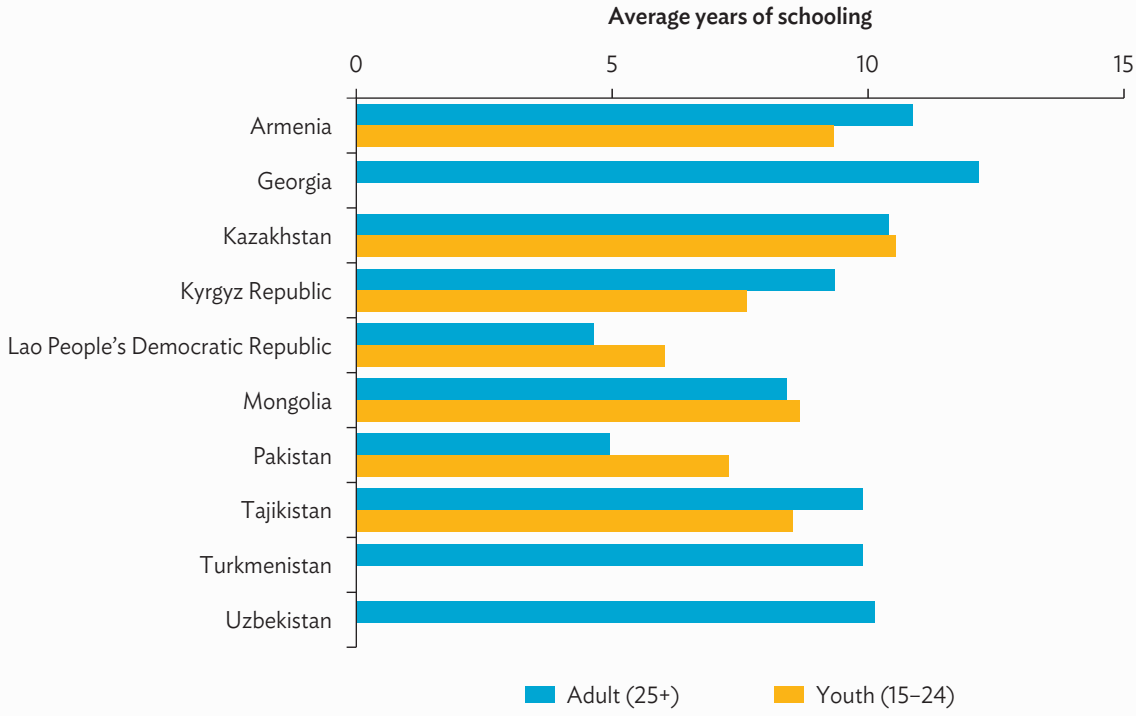
Figure 19 Under-Five Mortality Rate, Kyrgyz Republic and Selected Benchmark Countries, 1990 and 2011



Lao PDR = Lao People's Democratic Republic.

Source: ADB. 2013. *Key Indicators for Asia and the Pacific 2013: Framework of Inclusive Growth Indicators, Special Supplement.* Manila.

Figure 20 Average Years of Schooling, Kyrgyz Republic and Selected Benchmark Countries, 2010



Source: ADB. 2011. *Key Indicators for Asia and the Pacific 2011.* Manila.

3 Critical Constraints to Growth

The Kyrgyz Republic, with a per capita income of only $1,280 in 2013, urgently needs strong, stable economic growth if it is to improve living standards and maintain social and political stability. To achieve this, the country will face multiple challenges and severe financial and capacity constraints. In this context, it is imperative that the government strategically prioritize its investments and reforms, focusing on those that will make the largest contributions to sustainable, inclusive economic growth.

To contribute to this prioritization, the chapter examines the constraints to growth using the Hausmann, Rodrik, and Velasco decision-tree approach. Specifically, it discusses whether the Kyrgyz Republic's investment and growth are being constrained by low access to finance, low social returns on investment, and/or low appropriability of returns.

3.1 Limited Access to Financing

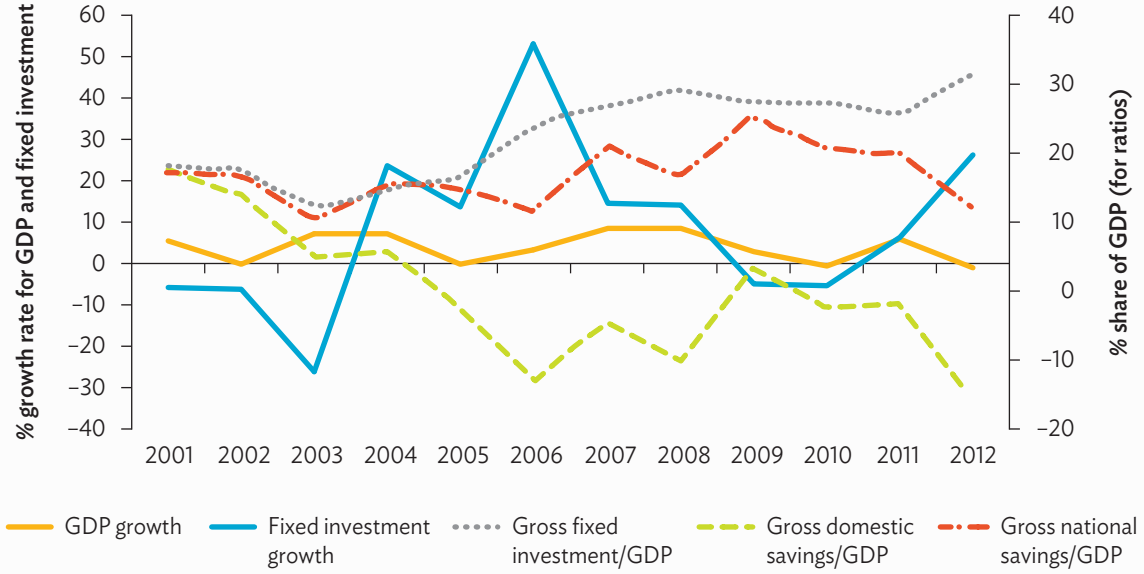
Access to financing is limited in the Kyrgyz Republic, primarily because of the high cost of borrowing, low savings, and a shallow and inefficient financial system. This lack of access to credit is a significant constraint to growth.

3.1.1 Savings and Investment

The Kyrgyz Republic's investment rate declined rapidly beginning in 2000, to as low as 11.8% in 2005, before rising to 28.9% in 2008. It declined gradually from its 2008 level to 25.4% in 2011. Like many low-income countries, the Kyrgyz Republic has had low and even negative savings rates since the onset of significant remittance flows. However, the growth episodes in the economy were not strongly related to the investment rates, partly because factors unrelated to investment, such as changes in the terms of trade and fluctuations in gold production, play important roles in driving growth. In addition, investments in the gold sector can take many years to contribute to production and economic growth. Finally, the weak correlation between investment and growth suggests low efficiency of investment in the Kyrgyz Republic. Both savings and investment rates were significantly below those of the benchmark countries despite some improvement in those rates over the latter half of the 2000s (**Figure 21**).

While there are concerns about the reliability of the statistics and methodology used in estimating national accounts, the available data support the view that returns on investment and the contribution of investment to economic growth have been limited. Growth has been driven instead by consumer spending and imports. The problem of low returns on investment is explicitly considered in the model. Thus, with regard to the Kyrgyz Republic, the model may explain both the weak relationship between investment and growth and the low rate of investment compared with the rates in the benchmark countries (**Figure 22**).

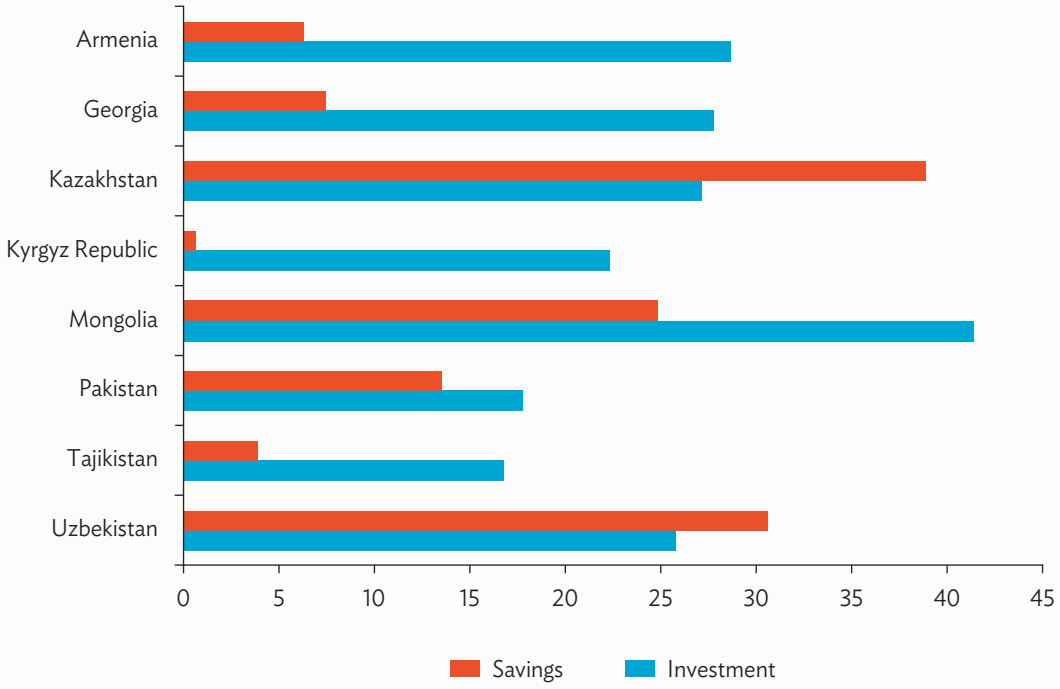
Figure 21 Gross Domestic Product and Investment Growth, Kyrgyz Republic



GDP = gross domestic product.

Source: National Statistical Committee of the Kyrgyz Republic.

Figure 22 **Average Investment and Savings, Kyrgyz Republic and Selected Benchmark Countries, 2000–2012** (% of gross domestic product)



Sources: ADB. 2014. *Key Indicators for Asia and the Pacific 2014: Framework of Inclusive Growth Indicators, Special Supplement.* Manila; National Statistical Committee of the Kyrgyz Republic.

Table 5 Fixed Capital Investment by Sector, 2009–2013 (% of total)

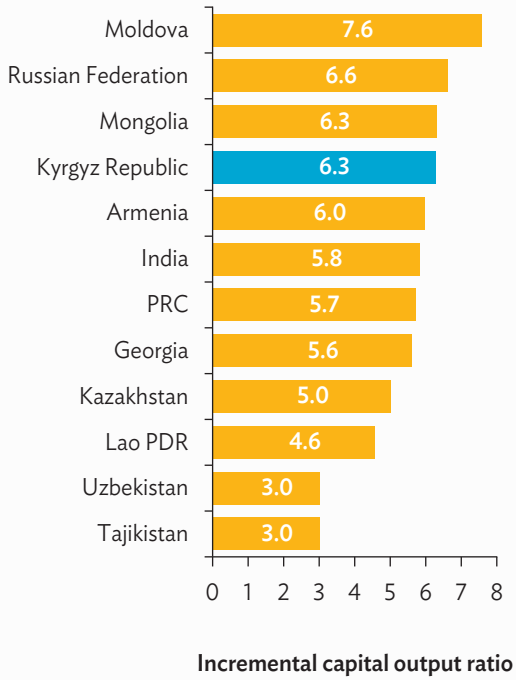
Sector	2009	2010	2011	2012	2013
Agriculture	2.3	1.9	1.5	1.3	1.1
Mining and quarrying	10.8	35.7	32.9	27.6	33.1
Manufacturing	8.4	5.1	4.4	8.4	11.1
Electricity, gas, and water	14.2	11.0	5.4	13.2	9.1
Construction	24.4	20.9	24.2	20.2	20.8
Trade	8.4	5.1	3.1	3.5	3.0
Transport and communications	13.6	16.9	24.3	15.4	13.8
Others	17.8	3.5	4.2	10.3	8.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Statistical Committee of the Kyrgyz Republic.

There was a significant shift in the composition of fixed investment between 2009 and 2010 (Table 5). The share of fixed capital investment spending in mining rose from 10.8% to 35.7% and remained at about a third of the total since then, mainly because of the exploration in recently licensed fields. Before 2009, investment was focused on the services sector, with about one-third going to transport and communications, mostly for roads and cellular communications. The share of agriculture and manufacturing remained small throughout.

Another measure of the efficiency of investment is the incremental capital output ratio (ICOR), which is the ratio of investment to growth, or the inverse of the marginal product of capital. The ICOR can be thought of as a measure of the efficiency with which capital is used. In most countries, the ICOR is about 3.0. The Kyrgyz Republic had an average ICOR of 6.3 between 2003 and 2013, implying that it had to garner a greater amount of investment than most countries to generate the same amount of growth during the last 10 years. In fact, data show that the Kyrgyz Republic's ICOR increased from 3.8 during 2000–2005 to 5.4 during 2006–2011. Thus, the Kyrgyz Republic's ICOR was high compared with those of the benchmarks and other economies in Asia (Figure 23), although it is below that of Mongolia, which has also received substantial investments in natural resources.

Figure 23 Incremental Capital–Output Ratios, Kyrgyz Republic and Selected Benchmark Countries, 2003–2013



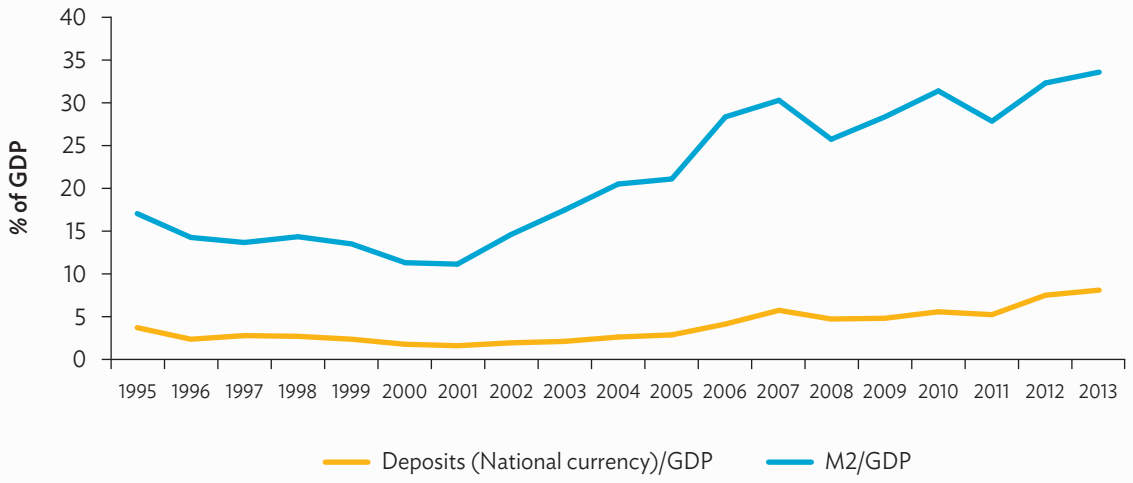
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: Authors' calculations based on data from ADB. 2013. *Key Indicators for Asia and the Pacific 2013.* Manila; World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

3.1.2 Financial System

The very low gross domestic savings rate has been one of the factors in the slow development of financial savings instruments in the Kyrgyz Republic. Even after 20 years of reforms, formal financial intermediation is still in its infancy. The ratio of domestic credit to GDP (including lending by nonbanking institutions) was estimated at 20% in 2013 (**Table 6**), which is low by international standards. Commercial banks dominate the finance sector, with about 80% of assets. There are no significant capital markets, which is also true in the benchmark countries. The insurance industry in the Kyrgyz Republic is also small, and its development has stagnated.

Figure 24 **Bank Deposits and Money Supply, Kyrgyz Republic** (% of gross domestic product)



GDP = gross domestic product, M2 = money supply.

Sources: National Bank of the Kyrgyz Republic and the National Statistical Committee of the Kyrgyz Republic.

The banking system has displayed fragility over recent years, although a major crisis has been averted. The global financial crisis significantly impacted Kazakhstan's banking sector, which had ownership interests in banks in the Kyrgyz Republic. An aggressive expansion of consumer loans and mortgage lending in the Kyrgyz Republic between 2006 and 2008 also contributed to a deterioration of portfolio quality.

Low confidence in the banking system was exacerbated by a banking crisis that was sparked by a run on the banks during the political upheaval in 2010. There was a large outflow of foreign currency deposits. The National Bank of the Kyrgyz Republic temporarily took seven banks under conservatorship, including the largest bank, Asia Universal Bank, which had over 20% of the country's total deposits. To mitigate bank-run risks, the authorities nationalized Asia Universal Bank and split it into two entities: a "good bank" and a "bad bank." The good bank, called Zalkar Bank, had Asia Universal Bank's remaining assets. However, a forensic audit suggested that Asia Universal Bank had been used for large-scale criminal activities, and had likely been insolvent before the 2010 events, indicating significant shortcomings in the oversight by the National Bank of the Kyrgyz Republic. Then, unclear rules and legislation resulted in a prolonged conservatorship for four of the banks, including Zalkar Bank, which was finally sold off in May 2013. There was also litigation by shareholders, so the conservatorship was prolonged pending a court decision.

Outside of the troubled banks, however, the financial system successfully weathered the crisis. The proportion of nonperforming loans improved, falling to 5.5% in 2013, from 15.8% in 2010. Profit on equity has gone up from 1.1% in 2010 to 18.0% in 2013 (Table 6).

Table 6 Key Finance Sector Indicators

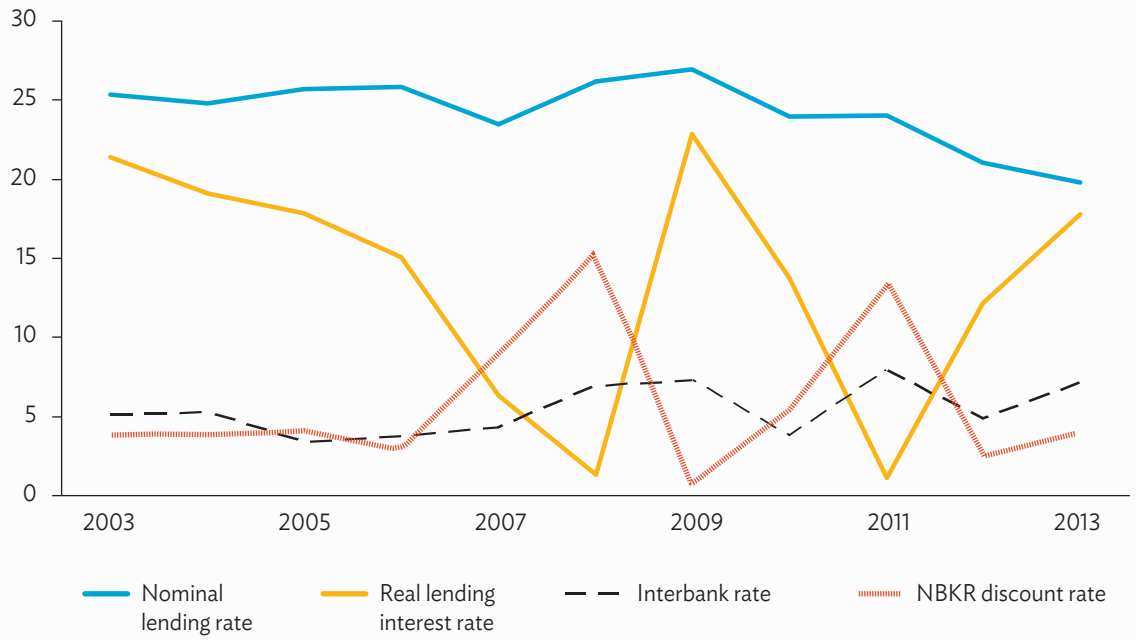
	2003	2005	2007	2009	2010	2011	2012	2013
% of gross domestic product								
Broad money	17.5	21.1	30.3	28.4	31.4	27.8	32.4	33.6
Bank credit	3.5	7.6	14.7	12.5	11.9	10.9	13.1	15.0
Loans by microfinance organizations	2.8	3.2	4.3	6.7	7.6	5.5	5.0	5.3
Nonperforming loans – Total loans (%)	11.2	8.2	3.5	8.2	15.8	10.2	7.2	5.5
Share of foreign exchange-denominated loans	61.1	71.4	62.4	62.1	55.8	55.2	53.7	53.6
Banking sector profitability (%)								
Return on equity	8.8	17.6	27.2	13.6	1.1	17.7	18.5	18.0
Return on assets	1.6	2.3	4.4	2.5	7.1	3.0	3.0	2.8
Net interest margin	4.9	6.3	9.7	8.5	9.1	9.6	8.5	8.1
Spread	4.7	6.0	8.8	7.9	8.7	9.4	8.0	7.7
Other income – Total income	33.4	30.7	18.8	9.0	9.0	7.5	6.2	16.4
Interest rates of commercial banks (%)								
On newly accepted deposits (end of period)	0.8	0.4	1.3	2.2	1.5	1.5	1.6	1.6
On new extended loans (for the period)	21.4	19.3	21.2	23.8	21.9	21.5	20.9	19.7
On loans (end of period)	23.3	23.1	20.1	23.5	21.3	20.3	19.9	18.4
On som-denominated loans	25.2	24.9	21.3	25.3	22.9	22.4	23.0	20.7
On foreign exchange-denominated loans	20.4	18.7	18.1	20.6	19.3	17.8	17.3	16.4

Sources: National Bank of the Kyrgyz Republic and the National Statistical Committee of the Kyrgyz Republic.

Despite the avoidance of a major crisis, bank loans remain costly and difficult to obtain. Nominal lending rates have remained high despite the fluctuations in the real rates, which had resulted from rising inflation in 2008. The average interest rate that banks charged on their portfolios in 2013 was 18.4% (Figure 25), which was high compared with those in most of the benchmark countries (Figure 26). The difference between the spreads the banks charged and the risk premiums diminished.[34] While the bank spreads and risk premiums converged at about 10% in 2011, the risk premiums started to increase again. They stood at 11.2% in 2013 (Figure 27). Considering that collateral requirements are high, these spreads likely reflect the risk premiums for economic sectors or for the country, rather than those for individual borrowers. This conclusion is substantiated by the fact that the lending rate differs significantly by sector. The rates for industry and construction are significantly below average, indicating a lower risk assessment for well-established companies with predictable cash flows (Table 7). The differences by industry suggest that companies pursuing profitable opportunities outside of established sectors will find it difficult to fund investments.

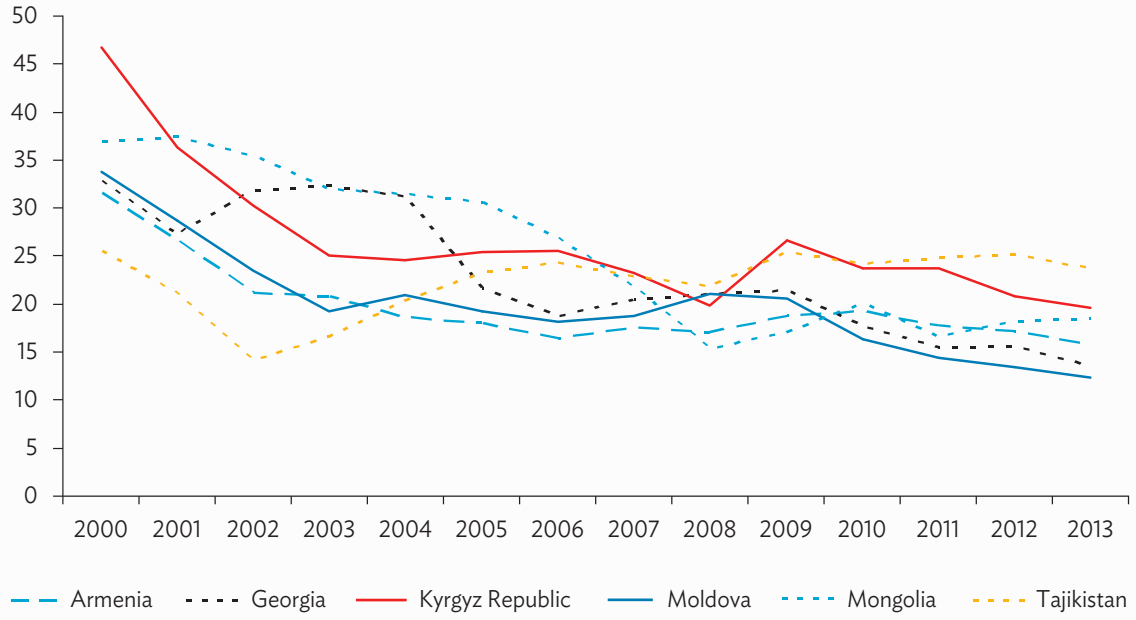
[34] Risk premiums are defined as the difference between the nominal lending rate and the yields for treasuries.

Figure 25 **Lending Rates, Kyrgyz Republic** (%)



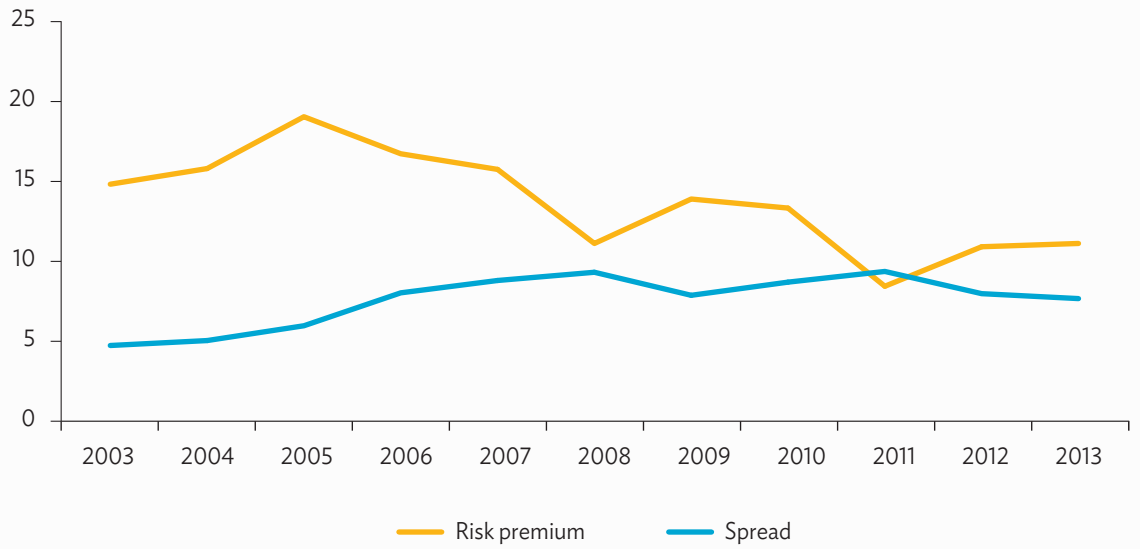
NBKR = National Bank of the Kyrgyz Republic.
Source: National Bank of the Kyrgyz Republic.

Figure 26 **Lending Rates, Kyrgyz Republic and Selected Benchmark Countries** (%)



Source: World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

Figure 27 Risk Premiums and Spreads, Kyrgyz Republic (%)



Source: National Bank of the Kyrgyz Republic.

Table 7 Lending Rates by Sector, Kyrgyz Republic (%)

	For Loans in Foreign Currency					For Loans in National Currency				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Weighted average	**22.0**	**19.8**	**17.9**	**17.4**	**16.3**	**26.2**	**22.4**	**21.9**	**21.7**	**20.2**
Industry	19.1	19.1	16.5	15.9	13.8	28.8	24.6	21.3	21.8	17.3
Agriculture	25.2	20.8	20.7	19.1	17.9	25.8	21.6	20.0	20.1	18.3
Transport and communications	23.8	20.9	21.9	21.4	17.8	30.1	24.8	24.2	23.4	23.4
Trade	22.6	20.1	18.4	17.6	16.5	27.3	22.6	22.1	22.4	21.4
Procurement and processing	18.0	19.7	16.5	20.7	22.0	26.9	21.1	20.8	21.9	24.5
Construction	18.1	19.4	17.6	16.3	13.8	25.0	22.5	21.5	22.5	21.6
Mortgage	19.8	20.0	18.2	17.8	17.3	20.3	20.7	20.0	21.3	21.0
Consumer loans	26.1	23.4	20.6	19.6	18.7	28.2	24.2	25.9	23.6	23.5
Other	20.2	18.6	16.1	16.4	16.3	25.1	23.9	21.6	21.4	19.8

Source: National Bank of the Kyrgyz Republic.

In theory, if limited access to finance is a constraint, then improved access should lead to a substantial increase in investment. However, the statistical relationship between the cost of finance (measured by the real loan interest rate) and investment is not strong; the magnitude of the effect is relatively small, although the coefficient has the expected sign.[35] The possibilities are that (i) the changes in the interest rate have not been large enough to induce a sizeable response, (ii) issues other than cost constrain access to finance, and/or (iii) issues other than access to finance are more important in determining investment.

Therefore, it is important to examine other determinants of access to finance. In addition to high interest rates, bank loans have short maturities, which are unsuitable for financing investment projects with long gestation periods (**Table 8**). In addition, more than half of all bank loans in the Kyrgyz Republic are denominated in foreign currencies, although it is unclear whether this is a sign of poor access to local currency loans or a preference by firms for loans denominated in other currencies (**Table 9**).[36]

Table 8 **Maturity Structure of Bank Credits** (% of total)

Length	2003	2006	2009	2012	2013
0–1 month	5.6	2.0	1.5	1.6	1.6
1–3 months	16.6	6.5	3.6	3.0	1.6
3–6 months	21.7	11.7	6.9	4.3	3.1
6–12 months	29.7	24.3	15.8	13.9	10.7
1 year and more	21.8	52.6	69.1	73.9	79.8
Overdue	4.6	2.9	3.1	3.2	3.3

Source: National Bank of the Kyrgyz Republic.

Perhaps the most serious constraint to access to bank loans, is the strictness of collateral requirements. According to the results of the 2013 World Bank Enterprise Survey, 89% of the firms that received loans had to provide collateral averaging 187% of the loan value, and ranging from an average of 164% for firms in the services sector to an average of 237% in manufacturing. As a result of these shortcomings, banks provide only a small fraction of financing for investment. In the 2013 enterprise survey, only 29.2% of firms surveyed indicated that they had a bank loan or line of credit. Instead, much of the country's investment financing comes from the retained earnings of existing enterprises and from household savings, which together account for 60% of total investment and 88% of private investment. Bank loans are a negligible source of investment financing, amounting to 7.2% of total investment in 2010 and 0.6% in 2013.

The range of activities financed is also limited. More than one-third of bank loans were extended to the trade sector in 2011 (**Figure 28**). Almost half of bank loans were extended to the trade sector in 2013.

[35] Based on an ordinary least squares regression, OLS β = 0.26 (0.043) and adj r^2 = 0.22.

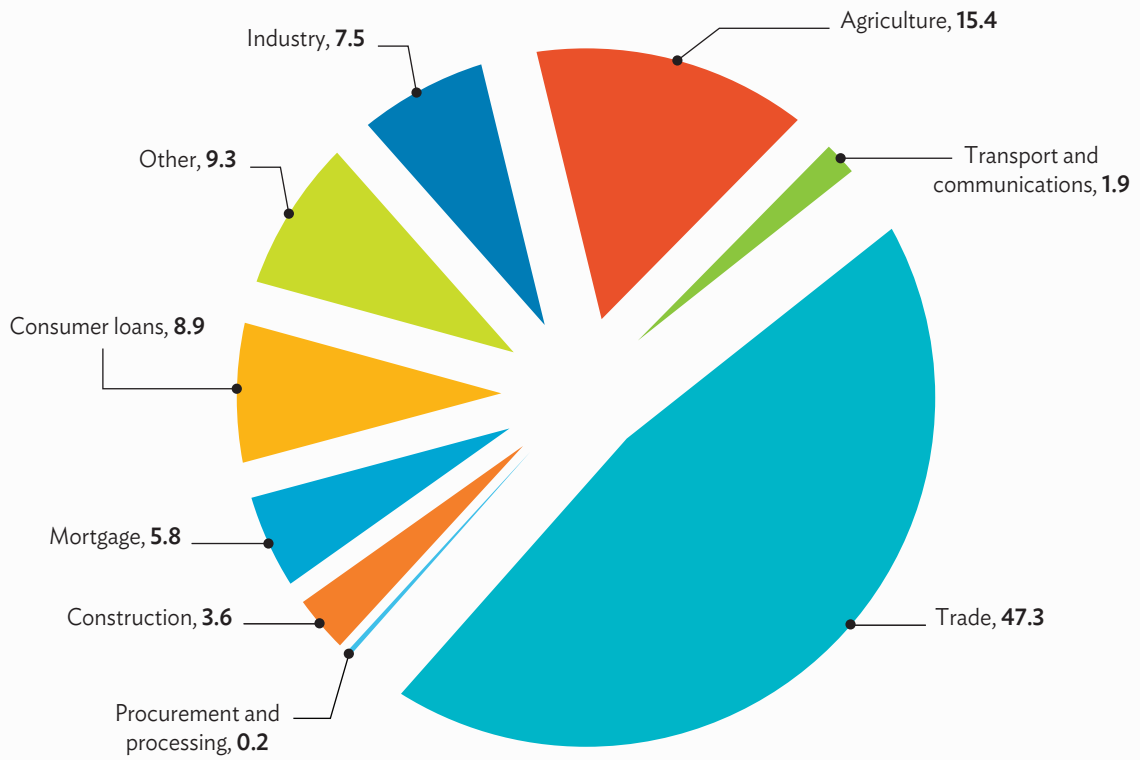
[36] This preference may arise because the expenses and incomes of many firms, particularly those engaged in trade, are denominated in foreign currencies.

Table 9 Sources of Investment Financing in Fixed Capital, Kyrgyz Republic, 2010–2013 (% of total)

Source	2010	2011	2012	2013
Domestic	77.3	73.8	67.0	64.1
National budget	7.4	10.2	4.3	3.4
Local government budget	1.6	1.4	0.9	0.7
Internal funds of enterprises and organizations (retained earnings)	35.7	37.4	40.2	38.2
Bank credit	7.2	0.6	1.2	0.3
Household savings, including charitable aid from Kyrgyz citizens	25.4	24.2	20.4	24.0
Foreign	22.7	26.2	33.0	35.9
Foreign loans	10.9	16.9	24.4	24.0
Foreign direct investment	8.2	5.7	5.3	9.5
Foreign donors and governments	3.6	3.6	3.3	2.4

Source: National Statistical Committee of the Kyrgyz Republic.

Figure 28 Bank Loans by Sector, December 2013 (%)

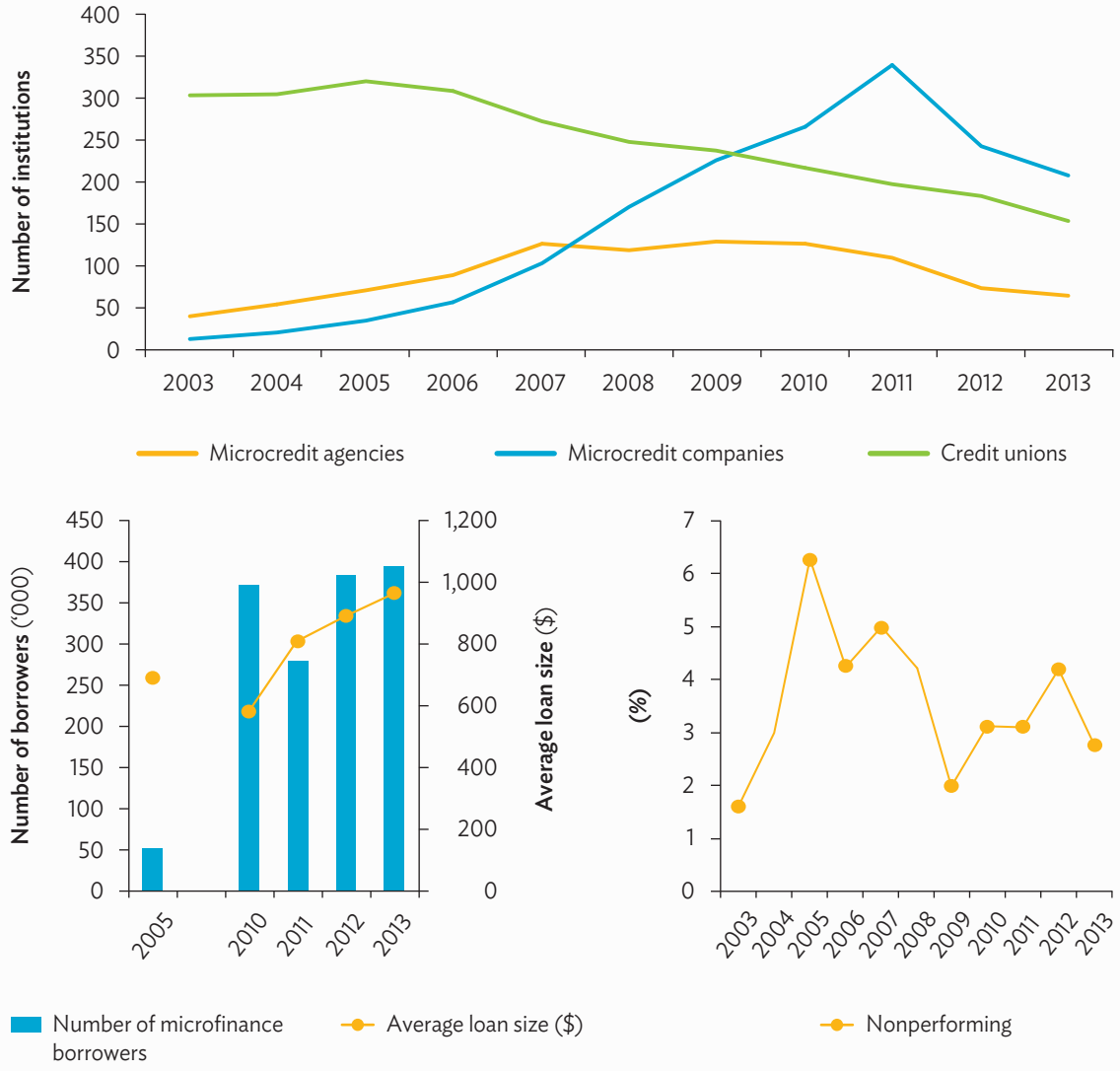


Source: National Bank of the Kyrgyz Republic.

3.1.3 Microfinance and Lending to Rural Areas

The combination of the high cost and inaccessibility of financing for investment has been a particular problem in rural areas. Given the challenges involved in obtaining bank loans, it is unsurprising that more than one-third of the credit in the economy comes from microfinance institutions (MFIs). These institutions experienced remarkable growth during 2000–2010, quadrupling their lending volume and tripling the number of customers (**Figure 29**). By the middle of 2012, microfinance organizations totaled 355 MFIs and 190 credit unions. Following a consolidation in the summer of 2012, their numbers stood at 230 MFIs and 142 credit unions at mid-2014. This sector is highly concentrated, with the largest 11 institutions accounting for 80% of the microfinance loan portfolio. Almost half of the lending goes to agriculture, and more than one-quarter to trade and commerce. In late 2013, over 67.2% of the MFIs' clientele were women.

Figure 29 Microcredit Lending Indicators



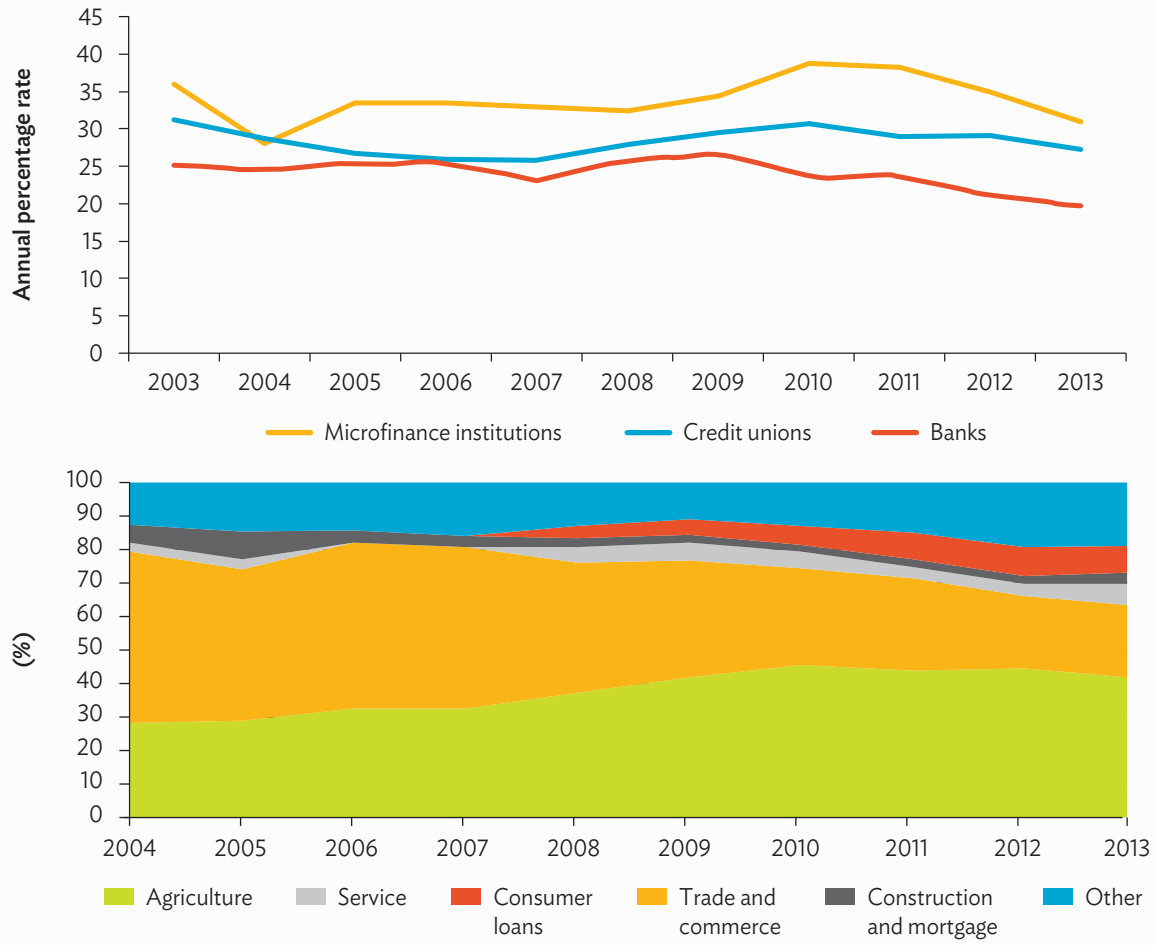
Source: National Bank of the Kyrgyz Republic.

These large institutions are relatively well capitalized and have access to domestic and international markets for wholesale funding. Each institution typically has a branch network that extends into remote rural areas where banks do not operate. The portfolio performance of MFIs looks considerably better than that of the banking sector in the Kyrgyz Republic, with only 2.9% of loans in the nonperforming category at the end of 2013.

Although access to MFIs has been widening, these institutions play only a limited role in facilitating private investment and entrepreneurship because of their small size, the high interest rates, and short maturities of the loans they offer. According to data provided by the Association of Microfinance Institutions, the average size of loans disbursed in December 2011 was $4,633, with an average maturity of 10 months. Large MFIs provide credit for up to 4 years, while small ones sometimes only for a few months.

The average interest rate for MFI loans was slightly above 30.0% in 2005, increasing to 38.3% by December 2011, and declining since then to 30.8% in April–June 2014 (**Figure 30**). Interest rates range from 20% to 60%, mainly subject to the funding cost, purpose of borrowing, and maturity period. Generally, smaller MFIs tend to charge higher rates.

Figure 30 **Microcredit Lending Interest Rates and Sector Distribution**



Source: National Statistical Committee of the Kyrgyz Republic.

Lending in rural areas, especially to farmers, has been particularly problematic. The following factors adversely affect lending to farmers: limited competition among banks; lack of financial information on small firms due to weak accounting standards and practices; limited number of bank branches in rural areas; the mountainous geography of the country; the banks' lack of sector-specific knowledge and ability to appraise agricultural loans; the lack of appropriate financial and risk-management products; unequal taxation of leasing, which hinders the leasing of agricultural equipment; the lower value for banks of real estate collateral in rural areas and limited acceptance of agricultural land as collateral;[37] and the small number of pledge offices around the country, making it costly for borrowers to travel to these offices to register their collateral.[38]

Concessional loans provided by the government through Aiyl Bank and the Savings Settlement Company are intended to compensate for some of the problems in the credit market. Yet, in reality, they fail to reach those who need access the most, and they distort the market because private banks without access to this credit line cannot compete. Farmers without collateral or real estate, or who currently have debts, cannot apply for these concessional loans. In addition, only well-off farmers, who would most likely have access to other sources of credit anyway, are able to pay off their other debts within the requisite period to become eligible.

3.1.4 External Finance: Remittances and Foreign Direct Investment

Poor access to finance would have been a far more serious impediment to investment growth had it not been for remittance flows, which have propped up national savings since 2003. Remittance flows facilitated an increase in the investment rate by about 10 percentage points during 2006–2010, compared with the previous 5-year period, while maintaining high consumption levels and relatively manageable current account deficits (**Figure 31**).

The relationship between the remittances–GDP ratio and the investment rate for 2004–2011 is statistically significant,[39] supporting the view that workers' remittances played a key role in substituting for low domestic savings, given that other flows into the Kyrgyz Republic's economy (e.g., FDI and borrowing) were limited. Following the reasoning in Chapter 2, as well as the arguments of Dani Rodrik,[40] and Paola Giulian and Marta Ruiz-Arranz,[41] the strong relationship between workers' remittances and the investment rate is evidence that lack of access to finance can indeed be considered a constraint to growth. The fact that the relationship

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37 Although, according to the law, land can be used as collateral, finance institutions are reluctant to accept it. In theory, banks may sell land within 1 year through an auction, but agricultural land can be exchanged only for other land plots within the same *aiyl okmotu* (rural district). A bank may sell the land only to rural residents, and may sell shares only to other shareholders in the same plot of land. Besides, if the debt occurred because of a bad harvest or natural disaster, the court may postpone the land sale for up to 1 year, after which time the land is transferred to the state.

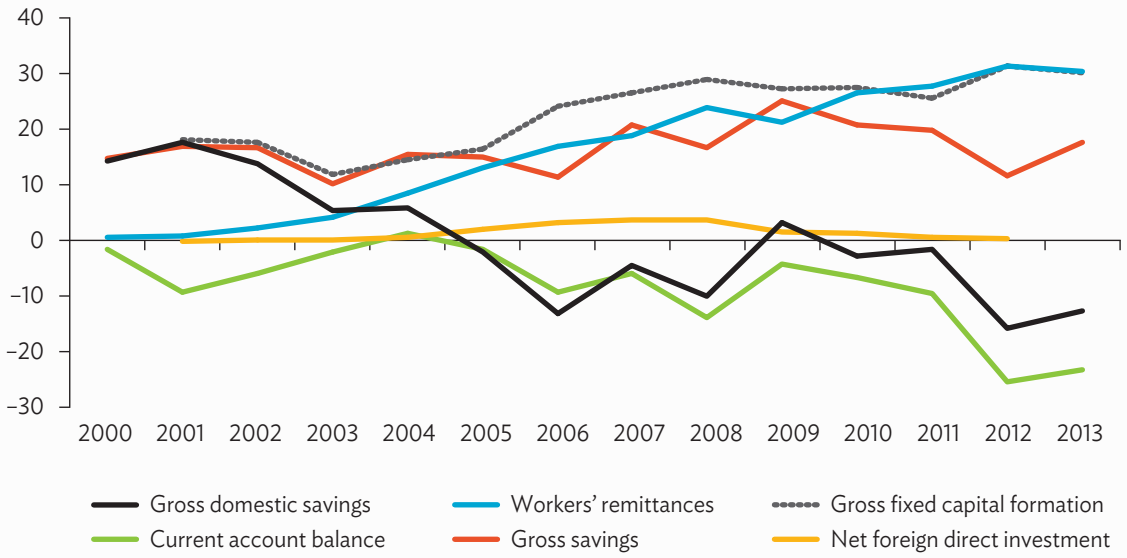
38 World Bank. 2010. *Access to Financial Services Policy Note: Kyrgyz Republic.* Washington, DC.

39 Based on an ordinary least squares regression, $\beta = 0.82$ (0.0031) and adj. $r^2 = 0.84$.

40 D. Rodrik. 2010. Diagnosis before Prescription. *Journal of Economic Perspectives.* 24 (3). pp. 33–44. "For example, in an economy that is constrained by the supply of capital, as in the neoclassical growth model, the cost of capital would be inversely related to investment, and any increase in transfers from abroad (whether in the form of remittances or foreign finance) would ignite a domestic investment boom. Sectors that are the most capital-intensive or most dependent on external finance would be those that are growing the slowest. In an economy constrained by investment demand, on the other hand, as in models of institutions and growth, poor private investment would respond primarily to profitability shocks in goods markets and it would be consumption that responds to foreign capital inflows." Rodrik also points out that "even though the evidence will rarely settle such questions decisively, it is often possible in practice to reduce a long catalog of failures to a considerably shorter list of most severe culprits" (pp. 35–36).

41 P. Giulian and M. Ruiz-Arranz. 2005. Remittances, Financial Development, and Growth. *IMF Working Paper Series.* No. WP05/234. Washington, DC: International Monetary Fund. "Therefore, remittances help alleviate credit constraints to the poor, substituting for financial development, improving the allocation of capital, and therefore accelerating economic growth" (p. 6), and "The findings suggest that there is an investment channel through which remittances can promote growth where the financial sector does not meet the credit needs of the population" (p. 30).

Figure 31 **Remittances, Savings, and Current Account Balance** (% of gross domestic product)



Source: Author's calculations based on data from the National Statistical Committee of the Kyrgyz Republic and the National Bank of the Kyrgyz Republic.

between remittances and investment is much stronger than that between interest rates and investment is, in itself, an indication of the shortcomings of the financial system.

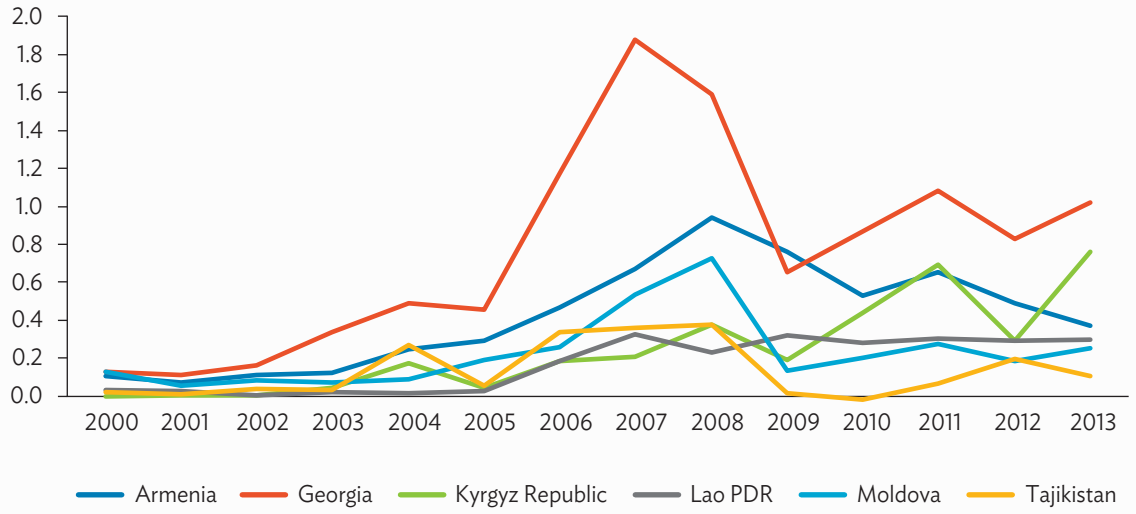
The Kyrgyz Republic's access to international finance has been limited, a problem that it shared with most of the benchmark countries during 2006–2010 (**Figure 32**). Access to private international financing has been only in the form of equity investments, except for some bank loans from Kazakhstan before the global financial crisis. Even then, the contribution of FDI to the Kyrgyz Republic's economy was a fraction of real sector investments, below the amounts in the benchmark countries, except for the Lao PDR, Pakistan, and Uzbekistan until 2007 (**Figure 33**). FDI inflows increased to $694 million in 2011 compared with the pre-crisis annual average of $144 million for 2005–2007. After dipping to $293 million in 2012, FDI inflows climbed to $758 million in 2013, accounting for 39.6% of gross fixed capital formation.

3.1.5 Lack of Access to Finance as a Constraint to Growth

Investment climate surveys conducted by various organizations validate the conclusion that problems of financial intermediation in the Kyrgyz Republic, including the high cost of finance and inadequate access to credit, are constraints to growth. Increased domestic savings, further financial deepening, and the development of the finance sector are therefore prerequisites for future growth.

A nationwide survey of 1,200 businesspeople conducted in 2011 ranked lack of access to finance as the third main obstacle to economic growth. Of those who ranked it as a key problem, 29% complained about high interest rates, 26% said that the lack of government financing was the biggest problem, 20% said it was the excessive collateral requirements, 17% said it was the lack of financial information, and 8% pointed to the lack of

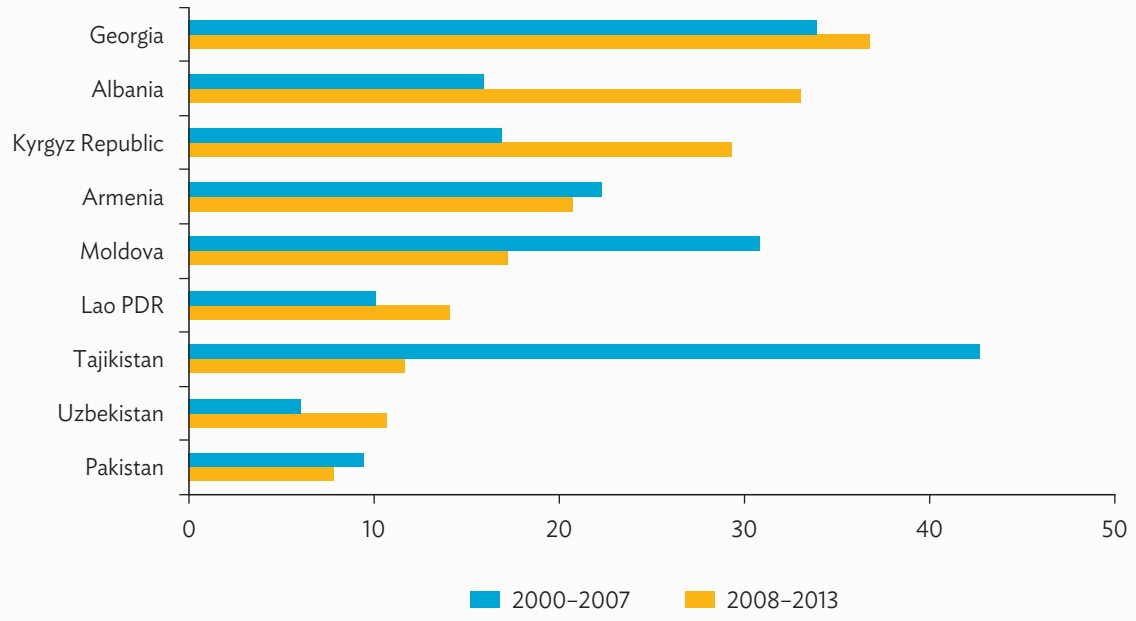
Figure 32 **Net Foreign Direct Investment Inflows, Kyrgyz Republic and Selected Benchmark Countries** ($ billion)



Lao PDR = Lao People's Democratic Republic.

Source: World Bank, World Development Indicators.

Figure 33 **Average Foreign Direct Investment Flows, Kyrgyz Republic and Selected Benchmarks, 2000–2013** (% of gross fixed capital formation)



Lao PDR = Lao People's Democratic Republic.

Sources: World Bank, World Development Indicators; and International Monetary Fund. 2014. World Economic Outlook. October.

financial institutions in their regions.[42] The International Business Council Investment Survey in 2012, covering 50 small, medium-sized, and large companies from over 15 sectors of the economy, also ranked "availability of finance" third among the top problems.[43] This survey in 2014, however, showed that finance factors such as interest rates and procedures for getting a loan ranked below the problems related to governance, property rights, and skilled personnel shortages.[44]

According to the 2008 Business Environment and Enterprise Performance Survey,[45] 21% of surveyed firms identified access to finance as a major obstacle, and 7% as a very severe obstacle. The 2013 Enterprise Survey revealed that 26.4% of firms considered access to finance as a major constraint. Against 17.7% of firms in manufacturing, 30.8% of the firms in services sector considered finance a major constraint. The same survey shows that access to finance was a more important problem for large and medium-sized firms (33.6% and 28.6%, respectively) than for smaller firms (20.6%). Interviews conducted by the ADB mission in Bishkek, Osh City, and five oblasts (Batken, Issyk-Kul, Jalalabad, Naryn, and Talas) with more than 60 stakeholders, also confirmed these observations.

According to the World Bank report, *Doing Business 2012*, the global ranking of the Kyrgyz Republic for ease of getting credit was a surprising 8th out of 183 economies, while Moldova ranked 40th, Kazakhstan 78th, the Russian Federation 98th, and Tajikistan 177th, against the Eastern Europe and Central Asia average rank of 50th.[46] This ranking is based on a composite index of credit information sharing and legal rights of borrowers and lenders, and is focused on procedural issues such as the coverage of credit information. However, this component of the *Doing Business* index may not capture all aspects of business financing in the Kyrgyz Republic, such as the extent to which relevant laws and regulations are actually applied. The country's ranking, however, slipped to 13th in the 2014 report. Interestingly, the Kyrgyz Republic ranked 1st among 144 countries in legal rights in the finance sector, but its ranking for the other seven financial market indicators ranged between 131 and 139.[47]

Because external finance is costly or inaccessible, firms in the Kyrgyz Republic tend to rely on retained earnings. To some extent, the availability of internal funds can relieve the constraint to financing.[48] However, firms take time to accumulate sufficient internal funds to expand or to fund new ideas, and the firm's reliance on internal funds may reduce their willingness to invest in innovations or take risks. Coupled with the evidence that access to credit differs substantially by sector, this reliance on internal funds also has implications for the inclusiveness of economic growth.

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42 Promotank HQA and CIPE. 2011. *Business Community's Priorities for Reform, Kyrgyz Republic.* Bishkek.

43 International Business Council. 2012. *Investment Survey No. 1, 2012.* Bishkek. p. 45.

44 International Business Council. 2014. *Investment Survey No. 1, 2014.* Bishkek. p. 61.

45 The Business Environment and Enterprise Performance Survey is jointly conducted by the World Bank and the European Bank for Reconstruction and Development.

46 World Bank. 2012. *Doing Business 2012.* Washington, DC.

47 World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva. p. 225.

48 S. Johnson, J. McMillan, and C. Woodruff. 2002. Property Rights and Finance. *American Economic Review.* 92 (5). pp. 1335–1356. In this study, which examines property rights in transition countries, the authors argue that funds internal to a firm (i.e., retained earnings) are a cheaper source of finance than bank loans, and should be depleted first if there are to be profitable investments. They point out that "at the low level of institutional development of the countries in our sample, secure property rights are both necessary and sufficient to induce investment by entrepreneurs. The availability of bank loans surely matters for growth, but perhaps only once property rights are perceived to be secure. If property rights are insecure, it is immaterial whether or not finance is available" (p. 1336).

Therefore, limited access to finance is considered one of the constraints to growth in the Kyrgyz Republic. Limited access is partly due to high financial costs and low savings. However, the sizeable excess cash reserves in the banking system support the conclusion that the shallowness and inefficiency of the financial system—which translate into short maturities and high collateral requirements for borrowers—also play a role.[49]

Although the limited access to finance is a constraint to economic growth, further examination of the data indicates that, even when capital is available, low social returns on investment and low appropriability will reduce incentives for private entrepreneurs to invest. This, in turn, will hold back growth.

3.2 Low Returns on Economic Activity

3.2.1 Social Returns on Investment

Social returns (or returns to society) are determined by the availability of human capital, infrastructure, and other public goods to complement private investment. An abundance of these complementary resources will boost the productivity of the factors of production, which, in turn, will increase the incentive for the private sector to invest. An inadequacy of public goods, however, will dampen the productivity of the factors of production and increase the cost of doing business, thereby decreasing the incentive for the private sector to invest.

It is difficult to directly estimate social returns on investment. However, estimates of total factor productivity (TFP) growth can provide some insight. TFP growth refers to growth in output that is not attributable to increases in labor or capital inputs. This growth captures efficiency gains from technological progress such as better production management methods, better customer support, and better distribution channels for delivering goods and services. It also reflects any other factors affecting the efficiency with which inputs are used, such as changes in working hours, hidden employment, labor hoarding,[50] capacity utilization, and changes in resource allocation, as well as changes in the accuracy with which inputs and outputs are measured.[51]

Estimates of the TFP by the Conference Board for a large number of countries show that the Kyrgyz Republic experienced very low (often declining) TFP growth compared with the benchmark countries during 1998–2012[52] (**Table 10**). Because of data quality, methodological issues, and the small sample size, these estimates should be interpreted with extreme caution. However, they are consistent with the Kyrgyz Republic's low and falling social returns on investment.

[49] During 2006–2011, the banking system held an average of 86% higher reserves than required at the National Bank of the Kyrgyz Republic.

[50] Labor hoarding refers to a company keeping employees during economic downturns instead of laying them off. This practice hurts the company's short-term profitability, but it guarantees the retention of talent, and prevents that talent from benefiting competitors.

[51] E. Loukoianova and A. Unigovskaya. 2004. Analysis of Recent Growth in Low-Income CIS Countries. *IMF Working Paper Series.* No. 04/151. Washington, DC: International Monetary Fund.

[52] The Conference Board. 2013. Total Economy Database. http://www.conference-board.org/data/economydatabase/. Törnqvist index values are calculated for consecutive periods; then, these are strung together or "chained." Thus, the core calculation does not refer to a base year.

Table 10 **Total Factor Productivity Growth Estimated as Törnqvist Index** (% difference)

Year	Kyrgyz Republic	Armenia	Georgia	Moldova	Pakistan	Tajikistan	Uzbekistan
1996	2.32		(21.67)	(4.13)	2.74	(22.03)	1.39
1997	4.55		(7.01)	3.57	(3.62)	0.72	4.88
1998	(0.62)	7.79	(0.32)	(5.22)	(1.08)	5.87	3.99
1999	0.21	4.14	(3.09)	2.69	1.22	6.25	4.20
2000	2.69	6.05	(6.34)	2.89	2.71	8.92	3.61
2001	1.97	8.89	(8.70)	7.81	(0.97)	7.49	3.31
2002	(2.69)	19.45	(2.96)	8.52	0.53	9.63	2.67
2003	1.81	10.83	0.24	12.66	0.41	9.73	2.67
2004	3.71	8.15	4.32	9.46	2.29	4.66	5.38
2005	(4.07)	8.35	0.10	7.76	4.81	5.89	4.87
2006	(0.34)	7.38	4.74	7.23	(2.42)	5.30	5.77
2007	2.92	6.45	3.83	2.74	(0.07)	6.34	7.22
2008	3.23	0.01	8.16	6.30	(0.90)	5.62	5.48
2009	(2.12)	(18.51)	1.50	(3.71)	(5.16)	1.54	5.67
2010	(4.68)	(3.45)	(7.48)	8.86	(1.38)	4.59	5.94
2011	1.80	2.89	5.61	4.67	0.38	0.29	5.72
2012	(4.57)	4.15	4.31	(0.33)	0.36	4.83	5.30
Averages							
1996–2005	0.99	9.21	(4.54)	4.60	0.90	3.71	3.70
2006–2012	(0.54)	(0.15)	2.95	3.68	(1.31)	4.07	5.87

( ) = negative.

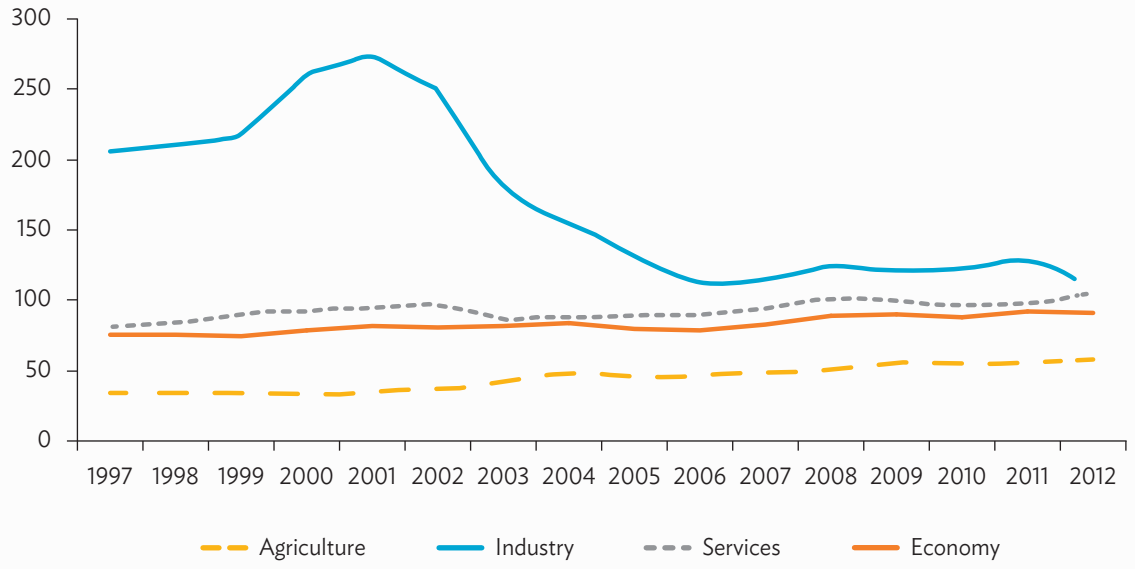
Source: The Conference Board. Total Economy Database. http://www.conference-board.org/data/economydatabase (accessed July 2014).

The following analysis seeks to identify the missing complementary factors or other reasons behind the low returns on economic activity.

3.2.2 Human Capital

Labor productivity, defined as GDP per worker, declined steeply in the Kyrgyz Republic after the country's independence. Productivity bottomed out in 1995, at about 54% of its 1990 level, before beginning to improve very gradually (**Figure 34**). In addition to the collapse in output, the changes in productivity were driven by a reallocation of labor across sectors. In particular, as industry collapsed, workers returned to rural areas. Short on resources, particularly land, the agriculture sector could not increase output enough to compensate for the expanding workforce, so productivity fell sharply. A similar pattern, though less severe, was seen in the services sector. The increase in agricultural productivity after 1995—which accelerated after 2002—was mainly driven by increasing migration away from rural areas, rather than by rising output.

Figure 34 Labor Productivity by Sector, 1997–2012 (Som'000 per worker in 2010 prices)



Source: Author's calculations based on data from the National Statistical Committee of the Kyrgyz Republic.

Labor productivity in industry followed a different course. After declining precipitously during 1991–1995, it recovered in the second half of the 1990s, as the sector rapidly shed labor. This labor shedding continued until 2001, when industrial employment bottomed out as output was stagnating. Despite the fact that significant commercial gold production began in 2001, productivity in industry overall continued to decline until 2006.

This pattern was not unique to the Kyrgyz Republic, as it was also occurring in other countries of the former Soviet Union. However, the Kyrgyz Republic's labor productivity was consistently lower than that of the benchmark countries, except for Tajikistan; the Kyrgyz Republic registered the slowest growth among them between 2000 and 2012, except for Pakistan (**Figure 35**).

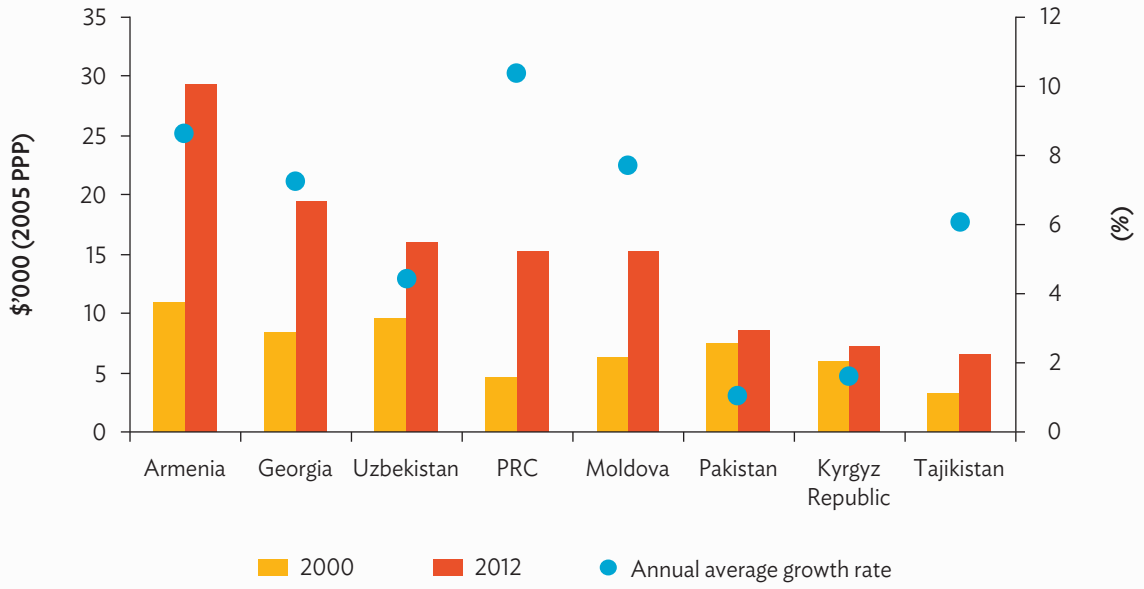
While wages in the Kyrgyz Republic were lower than those in most countries in the region, the low labor productivity meant that the relative unit labor costs in the formal sector remained higher, resulting in a competitive gap for the Kyrgyz Republic (**Table 11**).[53]

This competitive gap has narrowed, mainly because nominal wages in the benchmark countries have been increasing significantly since 2002, while wages in the Kyrgyz Republic have grown more slowly.[54] In 2011, an average worker in the Russian Federation made 4 times as much per month as the average worker in the

[53] One of the measures of a country's competitiveness is its relative unit labor cost expressed in a common currency. A difference in the unit labor costs of competitor countries is defined as a competitive gap in this analysis. This fits in with the findings of World Bank. 2005. *Enhancing the Prospects for Growth and Trade of the Kyrgyz Republic.* Washington, DC.

[54] There was one exception: the gap with Armenia has actually grown, as Armenia has experienced increases in labor productivity that were somewhat faster than its increases in nominal wages.

Figure 35 **Labor Productivity, Kyrgyz Republic and Selected Benchmark Countries**
($'000 at 2005 purchasing power parity)



PPP = purchasing power parity, PRC = People's Republic of China.

Source: World Bank. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators

Table 11 **Relative Unit Costs of Labor, Kyrgyz Republic and Selected Benchmark Countries, 2012**

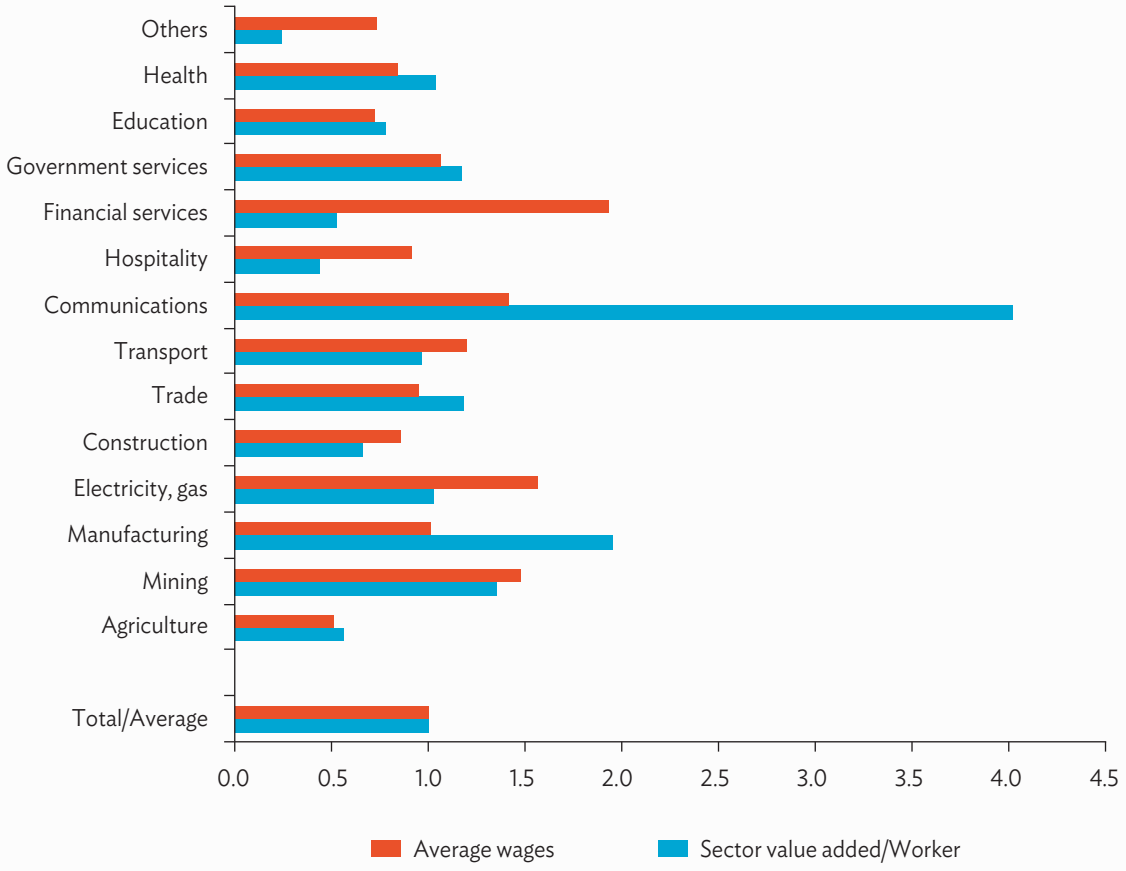
	Nominal Wages ($/month)	Relative Nominal Wage	Relative Labor Productivity	Relative Unit Labor Cost
Armenia	304	1.50	3.93	0.38
China, People's Republic of	479	2.36	1.97	1.20
Georgia	406	2.00	2.53	0.79
Kazakhstan	614	3.03	3.37	0.90
Kyrgyz Republic	203	1.00	1.00	1.00
Moldova	272	1.34	2.02	0.66
Pakistan	228	1.12	1.16	0.97
Russian Federation	806	3.98	2.63	1.51
Tajikistan	156	0.77	0.88	0.88

Sources: International Labour Organization Global Wage Database; World Bank, World Development Indicators; and statistical agencies of the countries in the table.

Kyrgyz Republic. In Kazakhstan, wages were 3 times as high, in Georgia 2 times, and in the PRC 2.4 times. Only Tajikistan had lower monthly wages. The competitiveness gap, however, remains significant.[55]

Various factors lie behind low labor productivity in the Kyrgyz Republic, and one of the most important is the concentration of labor in low-productivity sectors. In the countries belonging to the Commonwealth of Independent States, agriculture and services tend to have lower labor productivity than manufacturing.[56] In the Kyrgyz Republic, the variations in labor productivity across sectors are wide (**Figure 36**). The highest productivity is in the communications sector, followed by the finance sector, where it is 4.2 times and 3.8 times the national average, respectively.

Figure 36 Relative Wages and Labor Productivity by Sector, 2013

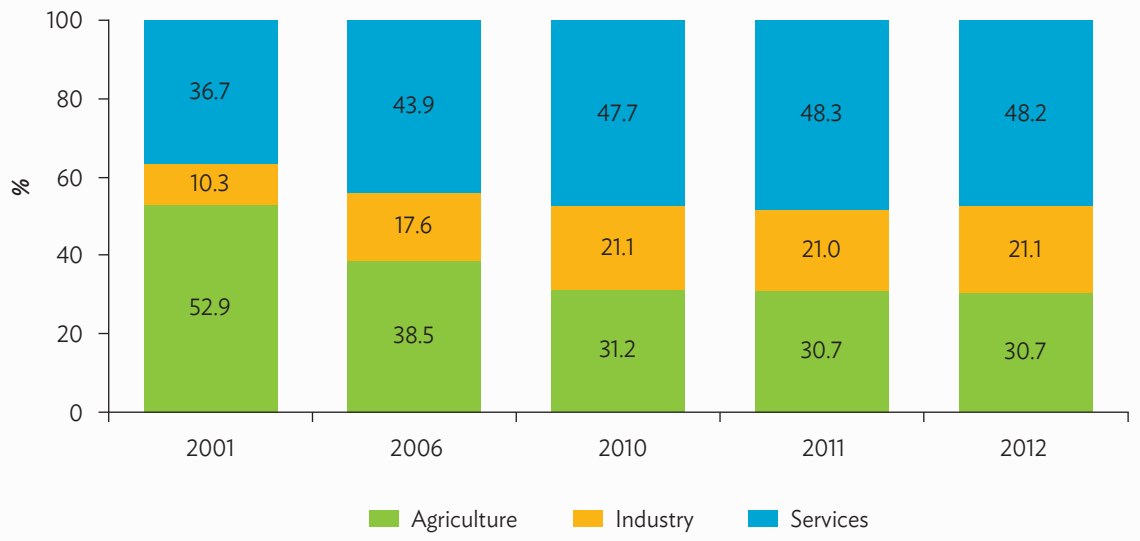


Source: National Statistical Committee of the Kyrgyz Republic.

[55] W. Li, T. Mengistae, and L. C. Xu. 2011. Diagnosing Development Bottlenecks: [People's Republic of] China and India. *Policy Research Working Paper Series.* No. 5641. Washington, DC: World Bank. This comparison of productivity between the PRC and India shows that "[People's Republic of] China's large firm sizes along with better skills are the major factors behind its productivity advantage" (p. 9).

[56] P. Mitra. 2008. *Innovation, Inclusion and Integration: From Transition to Convergence in Eastern Europe and the Former Soviet Union.* Washington, DC: World Bank.

Figure 37 Employment by Sector



Source: National Statistical Committee of the Kyrgyz Republic.

Labor in the Kyrgyz Republic has been shifting away from agriculture, and workers have mainly moved into services, while industry has stagnated. Agriculture provided 45% of the employment in 2001, but its share of employment declined to 31% by 2012. The share of industry declined between 2001 and 2006, but increased marginally between 2006 and 2011 (**Figure 37**).

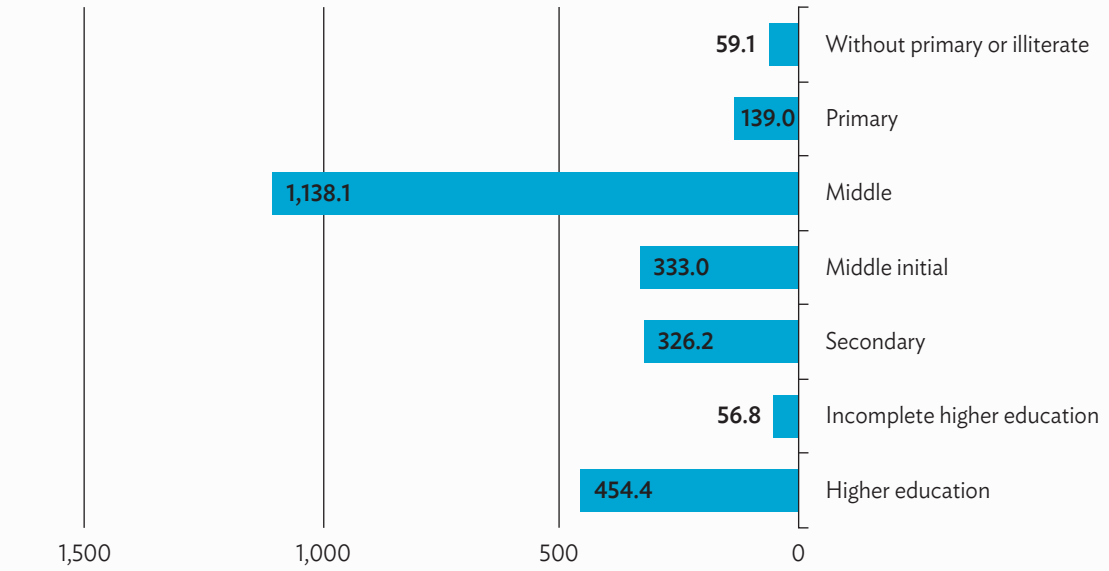
Another factor behind the low labor productivity is the lack of skills and qualifications in the workforce. While more than three-quarters of the Kyrgyz Republic's workforce has a secondary education, only 17% has a tertiary education (**Figure 38**). Although the proportion with a tertiary education is higher than in many developing countries, it is significantly lower than in the Russian Federation (52%), Kazakhstan (50%), and Georgia (30%).

The scarcity of skilled and qualified workers is reflected in the employment and wage data. Unemployment rates for those who have completed vocational schools are the lowest (4.5%), followed by those with a tertiary education (5.2%), compared with the overall unemployment rate of 8.6% (**Figure 39**).[57] Although no Mincerian-type[58] estimates are available for the Kyrgyz Republic, data in 2012 show that the average monthly wage of tertiary education graduates was 2.4 times that of workers with only a primary education, and 2.1 times higher than that of workers with only a secondary education (**Table 12**). In fact, the gaps between wages by level of education are much larger in the Kyrgyz Republic than in Armenia or the Russian Federation. A comparison

[57] While the unemployment rate is 19.4% for those with incomplete higher education, it is likely that this group includes current university and other higher education students who are also active in the labor force. The size of this group, compared with the pool of tertiary education students, supports this hypothesis, but it needs to be verified with the NSC.

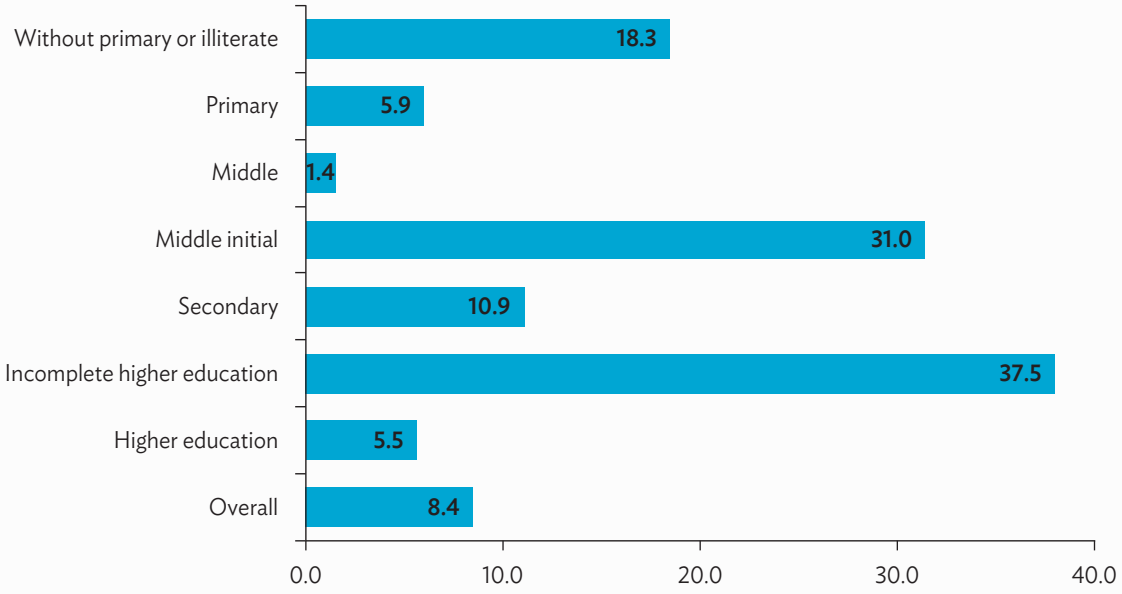
[58] A Mincerian earning equation explains the differences in earning levels by the number of years of schooling, work experience, and by other demographic characteristics. It was first formulated by Jacob Mincer.

Figure 38 Labor Force by Educational Level, 2012 (thousands of workers)



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 39 Unemployment Rates by Education Level, 2012 (%)



Source: National Statistical Committee of the Kyrgyz Republic.

Table 12 Wage Gap by Education Level (wage levels in $)

	Kyrgyz Republic (2010)		Armenia (2011)		United States (2012)		Russian Federation (2011)	
	Wage	Ratio	Wage	Ratio	Wage	Ratio	Wage	Ratio
Primary	63	1.00	183	1.00	1,675	1.00	404	1.00
Secondary	72	1.14	190	1.04	2,931	1.75	479	1.18
Tertiary	151	2.40	259	1.41	5,595	3.34	758	1.87

Sources: National Statistical Committee of the Kyrgyz Republic; National Statistical Service of the Republic of Armenia; the United States Department of Labor, Bureau of Labor Statistics; and the Federal State Statistics Service of the Russian Federation.

with an earlier analysis of Moldova between a secondary and tertiary education[59] indicates a significantly higher wage differential in the Kyrgyz Republic than in Moldova. These large differentials and the lower unemployment rates among vocational school graduates are further evidence that skilled and qualified labor is in short supply, constraining growth.

The poor overall quality of the Kyrgyz Republic's educational system is another factor behind low labor productivity. The system has been suffering from declining standards, as its share of budgetary resources has shrunk over the years. The poor quality of instruction results from several factors, including low qualification standards for teachers, an outdated curriculum, and an inadequate supply of textbooks. Further, the content of the textbooks that are available often do not satisfy curriculum requirements.

According to the results of the Programme for International Student Assessment (PISA), managed by the Organisation for Economic Co-operation and Development (OECD), which tests the knowledge and skills of 15-year-old students in participating countries, the Kyrgyz Republic scored the lowest in all three categories (i.e., reading, mathematics, and science) in 2009, showing little change from the rankings in 2006.

The quality of vocational instruction in the Kyrgyz Republic is also low. The technical vocational education and training (TVET) system is primarily run by a number of state agencies that do not cooperate. Curricula and teaching materials are out of date, a large gap exists between theory and practice, and the infrastructure is poor. Graduates often do not meet employer expectations, and they lack practical experience. Also, the links between the private sector and TVET providers have been weak although there has been some improvement. Employers fail to provide on-the-job training or apprenticeships, and they do not tend to invest in other kinds of skills development. Access to professional training, even for employed workers, is limited.

Discussions with stakeholders and an informal survey conducted for this report highlighted another problem: the incompatibility between the requirements of the labor market and the output of the education and TVET systems. In fact, skills are seriously mismatched in the country, with an oversupply of professionals (and holders of law, economics, and management degrees) and unskilled workers, versus a shortage of university graduates in

[59] V. Bozu, D. Caragia, and L. Gotisan. 2007. Final Analysis of Constraints to Economic Growth: The Republic of Moldova. Chisinau: Millennium Challenge Corporation. http://www.hks.harvard.edu/fs/drodrik/Growth%20diagnostics%20papers/Moldova%20CA_Bozu,Caragia&Gotisan.pdf

scientific, technical, and engineering fields, and of workers qualified for mid-level positions requiring technical and other specific skills.[60] Three key factors have contributed to the mismatch: (i) the exodus of large numbers of migrant workers to Kazakhstan, the Russian Federation, and other countries; (ii) the deterioration in the quality of education; and (iii) the concentration of students in a limited number of fields for which there is little demand in the labor market.

In the 2010–2011 academic year, almost one-third of students were enrolled in law or economics programs, while only 18% were in technical programs and only 1% in agricultural science programs. These numbers are similar to those in the other former Soviet countries. It is not clear why students choose subjects that are not in great demand in the labor market. They may be thinking of the cost or difficulty of various programs of study, or basing their choices on incorrect or outdated perceptions.

The employment data also point to potential issues regarding the age profile of the labor force. More than two-thirds of the employed were over the age of 40 in 2010. If it can be postulated that the technical skills that these workers acquired during the Soviet era were more robust than those of later cohorts, it is likely that the skills shortage will intensify as they retire.[61]

Lack of Human Capital as a Constraint to Growth

The finding that the lack of skilled and qualified labor is a constraint to growth is supported by the perceptions of businesspeople. Investors participating in the International Business Council Investment Survey in 2012 named the availability of qualified personnel as the most important issue and the third most important issue in 2014.[62] The 2013 Business Environment and Enterprise Performance Survey confirmed that the quality of skills and education of the workforce is increasingly becoming an obstacle to doing business in the Kyrgyz Republic.[63]

The small survey that was undertaken as part of this report in 2012 found the following:

- Three-quarters of the firms surveyed faced difficulties in finding skilled workers.
- Among the workers who had left their firms during the prior 12 months, 16% were fired because of incompetence.
- Among the workers who had left during the prior 12 months, 21% left for higher-paying jobs and 30% to migrate abroad.
- On average, there are 13.8 applicants for each vacancy advertised, and 55% of the firms had advertised only once, 25% twice, and 20% three or more times.
- When asked if new hires had the requisite skills for their jobs, 41% of the firms thought that less than half had the requisite skills, 34% thought that more than half had the skills, and 18% thought that none of them had the skills. Only 7% responded that all the new hires had the right skills.

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60 ADB. 2013. *Education Sector Assessment: Kyrgyz Republic.* Manila. This document is linked to the Country Partnership Strategy for the Kyrgyz Republic, 2013–2017.

61 It also means that there will be significant increases in pension liabilities during 2014–2023.

62 International Business Council. 2012. *Investment Survey No. 1, 2012.* Bishkek. p. 45. Interestingly, the same survey revealed that investors consider the "cheap labor availability" in the Kyrgyz Republic to be among one of the least important advantages of the country. Also in International Business Council. 2014. *Investment Survey No. 1, 2014.* Bishkek. p. 61.

63 World Bank. 2014. *Business Environment and Enterprise Performance Survey At-A-Glance 2013: Kyrgyz Republic.* Washington, DC. p. 4. http://www.worldbank.org/content/dam/Worldbank/document/eca/central-asia/BEEPS-At-A-Glance-2013-Kyrgyz-Republic-en.pdf

- Two-thirds of the firms would be willing to pay higher wages (27% on average) to get new workers with the correct skills.
- When asked if most of the universities and TVET schools provided the skills demanded by the market, 7% of the respondents thought that most of them did, 11% thought that some of them did, 66% thought very few of them did, and 16% said that none of them did.[64]

Regarding labor market efficiency, the 2013–2014 Global Competitiveness Report ranked the Kyrgyz Republic 139th on "brain drain" and 141st on the quality of management schools, out of the 144 economies in the sample. In the same survey, the Kyrgyz Republic scored favorably on a number of indicators related to labor market flexibility: cooperation in labor–employer relations, flexibility of wage determination, hiring and firing practices, and redundancy costs. However, these factors are not sufficient to make the Kyrgyz Republic's labor market, with its dwindling skill mix, attractive to investors.[65]

Thus, the shortage of skilled and qualified labor is considered one of the binding constraints to growth of the Kyrgyz Republic's economy, and the situation is becoming worse because migration is draining away skilled workers. The need to address the shortcomings of the educational system is urgent, given the long gestation period for soft investments (e.g., curriculum development and teacher training) and the continued exodus of trained teachers. With the existing rates of migration, investment in education and training will create externalities for the labor-importing countries, which will share the returns on such investment with the Kyrgyz Republic in the short-to-medium term.

3.2.3 Infrastructure

Upon gaining independence, the Kyrgyz Republic's Soviet infrastructure compared relatively well with that of many other developing countries. However, that infrastructure was well beyond the means of a newly independent country to maintain and operate efficiently. Although, in retrospect, the government could have strategically rationalized the infrastructure, systems for efficient operation and maintenance were often not in place. The result was inadequate maintenance and a consequent decline of much of its infrastructure. In 2013, the Kyrgyz Republic ranked in the middle of the benchmark countries, between the PRC and the Russian Federation in infrastructure quality, according to the 2013–2014 *Global Competitiveness Report* (**Figure 40**).[66]

Transport

Much of the Kyrgyz Republic's transport infrastructure is in need of upgrading and rehabilitation.[67] However, the existing infrastructure does provide workable links to neighboring countries and beyond, and has proven capable of handling major increases in traffic flows and international trade volumes, demonstrating the Kyrgyz Republic's potential to be a key link in regional trade networks. For these reasons, the state of the country's transport infrastructure is not viewed as a binding constraint to growth. However, as a small landlocked country

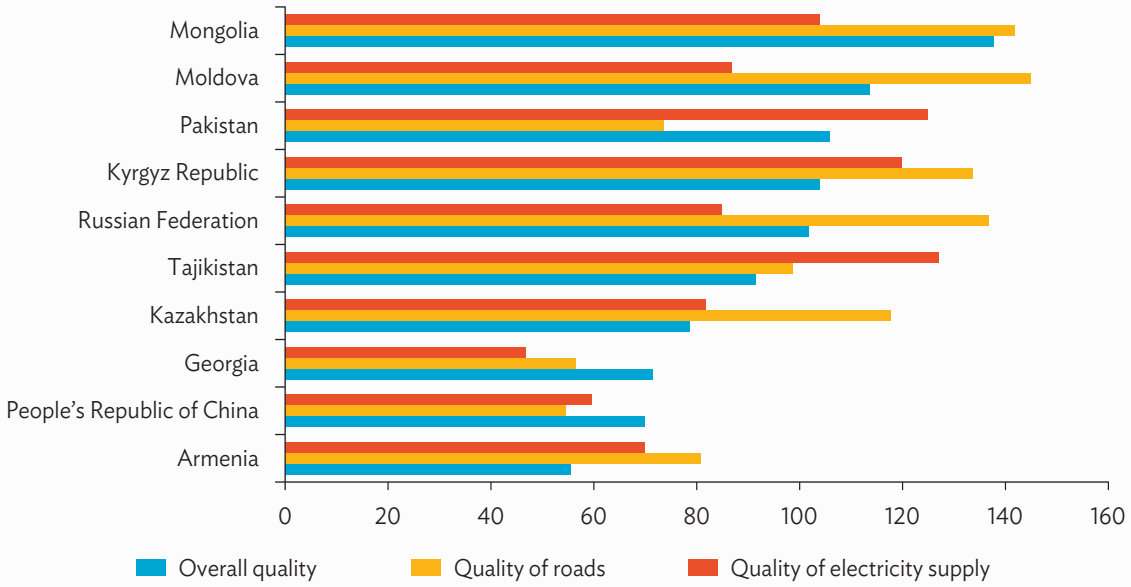
64 The survey covered 29 firms of varying sizes and in different sectors: health (4), retail trade (1), restaurant (1), telecommunications (6), food processing (including a bakery) (3), agroprocessing (1), textiles and/or garments (4), and other industries (including services) (9). Total employment in the surveyed firms was 6,443–1,793 if two large telecommunications firms are excluded. All firms surveyed were in Bishkek or Chui Oblast, except for one located in the city of Karakol. Of the firms surveyed, 80% were domestically owned, with no foreign capital.

65 World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva. pp. 15, 243.

66 World Economic Forum. 2011. *Global Competitiveness Report 2011–2012.* Geneva.

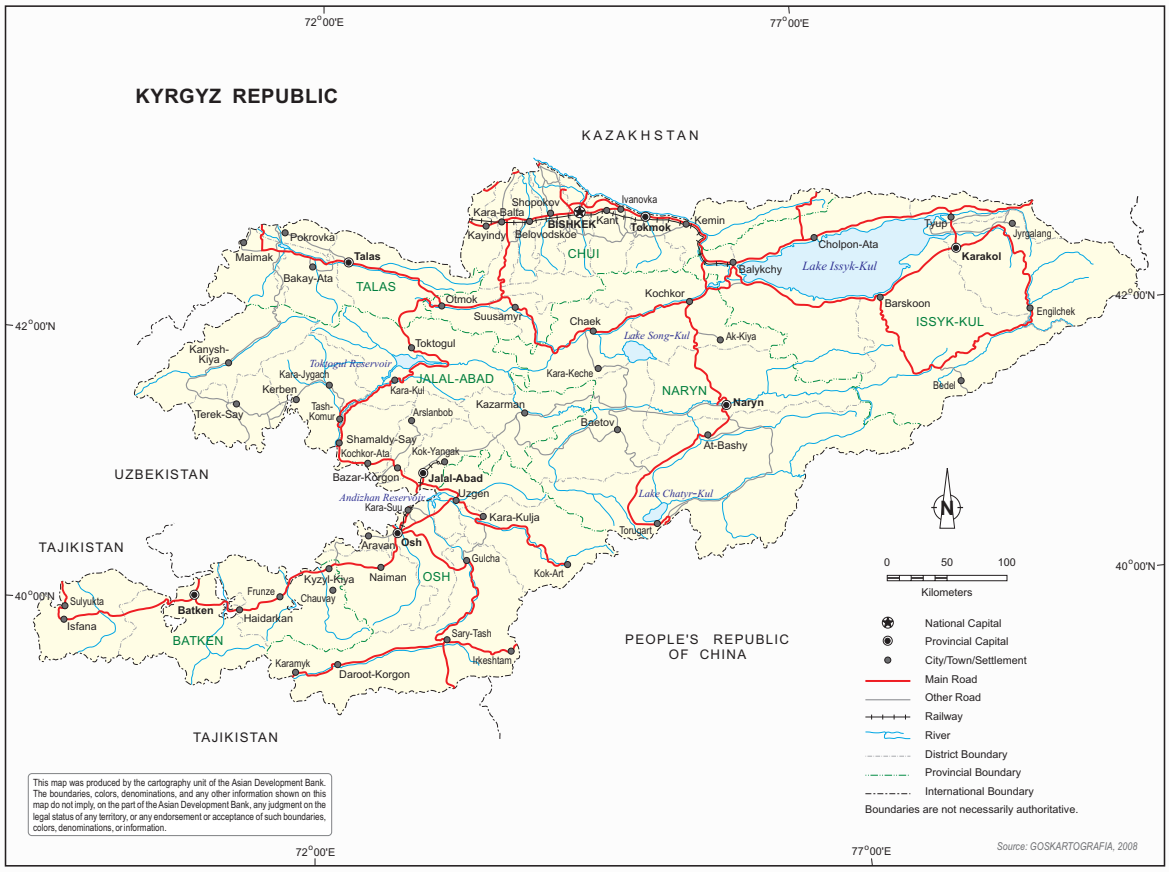
67 This section is based largely on the government's Master Plan on Road and Transport Sector Development, 2010–2025.

Figure 40 Quality of Infrastructure Rankings, Kyrgyz Republic and Selected Benchmarks



Source: World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva.

Map Map of the Road and Rail Networks, Kyrgyz Republic



Source: ADB.

with a small domestic market, the Kyrgyz Republic must regard the improved maintenance of transport links to neighboring countries as a major priority.

Road transport carries the bulk of passenger and internal freight traffic. It is also the most important means of transport for imports, carrying 57% of value. The most important export, gold, is shipped largely by air, but a substantial proportion of gold exports (21%) is transported by road.

The road network comprises 34,000 km of paved and unpaved roads, of which about half is under the jurisdiction of the Ministry of Transport and Communications.[68] International roads, which link the Kyrgyz Republic to all of its neighbors, constitute about 22% of the country's network (**Table 13**), and are in relatively good condition. All major international roads have either been upgraded or are currently being improved by the government with support from donors. So far, 71.8% of all international roads have been paved. Traffic volumes range from 250 to 7,500 vehicles per day, which are well within the current network capacity.

Table 13 Road Types in the Kyrgyz Republic, 2013

Road Type	Length (kilometers)	Paved (%)	Unpaved (%)
International	4,163	71.8	28.2
National	5,678	38.2	61.8
Local	8,969	24.2	75.8
Total	**18,810**	**39.0**	**61.0**

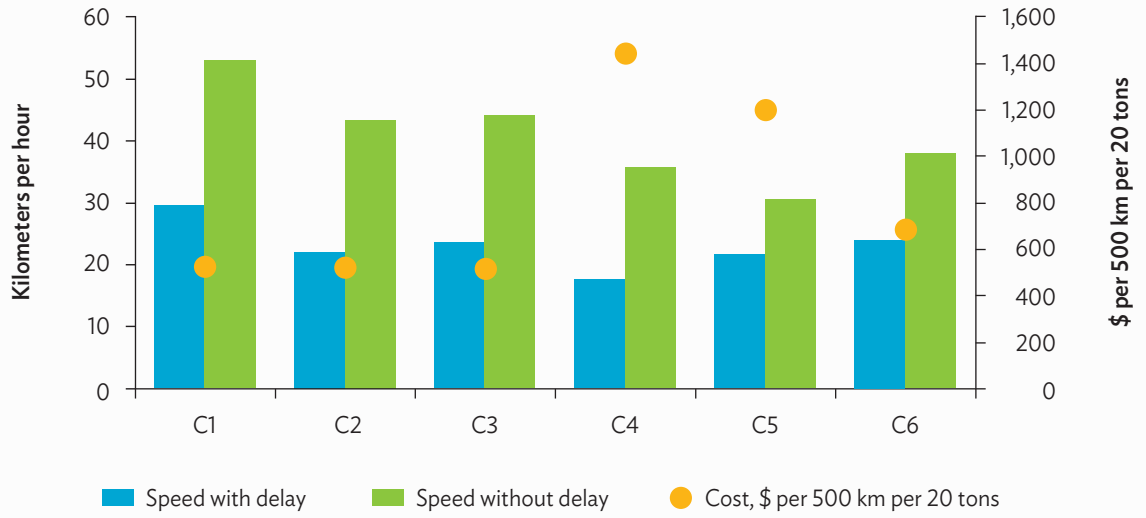
Note: This table covers only those roads maintained by the Ministry of Transport and Communications.
Source: Ministry of Transport and Communications of the Kyrgyz Republic.

Information on the performance of the international corridors is available from the Central Asia Regional Economic Cooperation (CAREC) Program's corridor performance measurement and monitoring system.[69] Four out of the six CAREC corridors pass through the Kyrgyz Republic (corridors 1, 2, 3, and 5). Speeds (excluding delays) on three of these corridors, including stretches inside and outside of the Kyrgyz Republic, average above 40 km per hour (**Figure 41**). Considering that these corridors pass through mountainous and high-altitude areas, this can be judged as a strong performance, indicative of adequate infrastructure.[70] However, when delays at customs clearance or at border-crossing points are taken into account, the actual speeds are much lower, as the delays almost halve the total travel speed for three of the corridors. In addition, the costs of travel are relatively high, especially on Corridor 5. In 2011, it cost over $5,000 for one truck to make a trip of 877 km from Kashi, in the PRC, to Dushanbe, in Tajikistan, passing through the Kyrgyz Republic.

The detailed corridor performance measurement and monitoring data provide further insights into the factors that cause delays and raise costs. In general, the largest delays and costs are incurred at the borders, so these are monitored separately (**Figure 42**).

[68] The remaining 15,190 km of road consists of streets in cities and villages, and roads through agricultural and industrial zones, and are under the jurisdiction of other government agencies.
[69] The survey regularly collects data on travel time and cost. The data are available at http://cfcfa.net/cpmm/information
[70] Corridor 5, which registers the second-slowest speed of the six corridors, passes through a relatively short stretch of Kyrgyz Republic territory. The slow speed of travel is largely due to the geographic challenges along this route.

Figure 41 Speed and Cost of Travel on CAREC Corridors, 2011

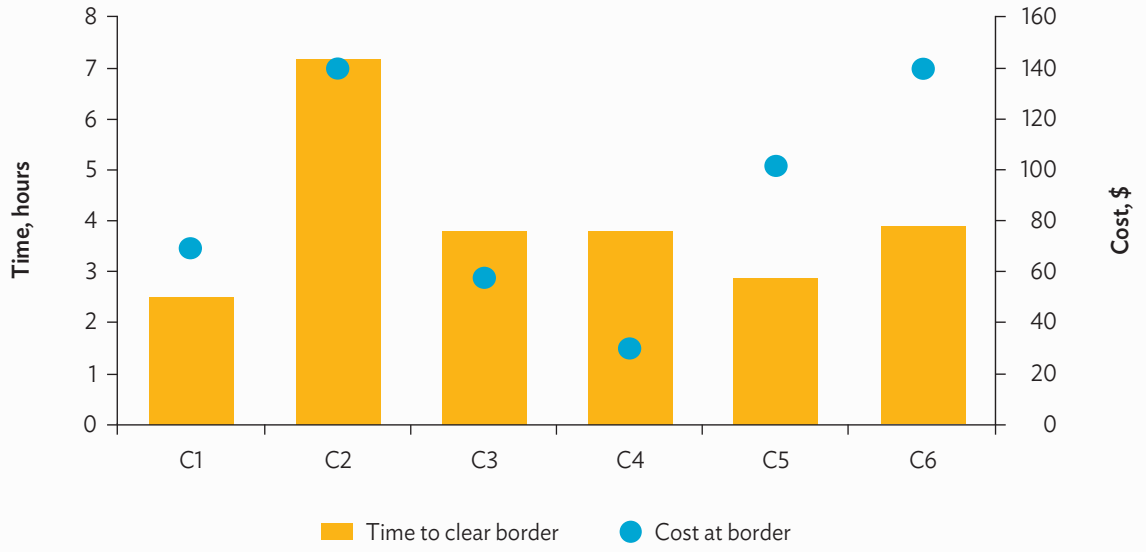


C = corridor, CAREC = Central Asia Regional Economic Cooperation, km = kilometer.

Note: Median values are shown.

Source: CAREC. 2011. *Corridor Performance Measurement and Monitoring Annual Report 2011.* Manila: ADB.

Figure 42 Time and Cost at Borders on CAREC Corridors, 2011

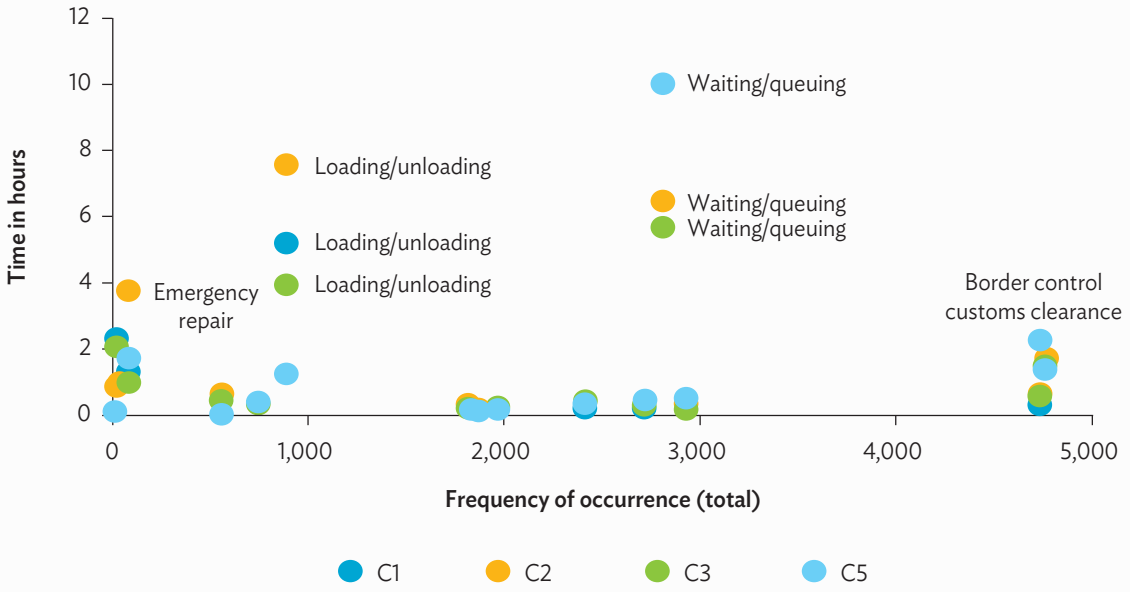


C = corridor, CAREC = Central Asia Regional Economic Cooperation.

Note: Median values are shown.

Source: CAREC. 2011. *Corridor Performance Measurement and Monitoring Annual Report 2011.* Manila: ADB.

Figure 43 Time Spent at Borders on CAREC Corridors, 2011



C = corridor, CAREC = Central Asia Regional Economic Cooperation.

Note: Median values are shown.

Source: CAREC. 2011. *Corridor Performance Measurement and Monitoring Annual Report 2011.* Manila: ADB.

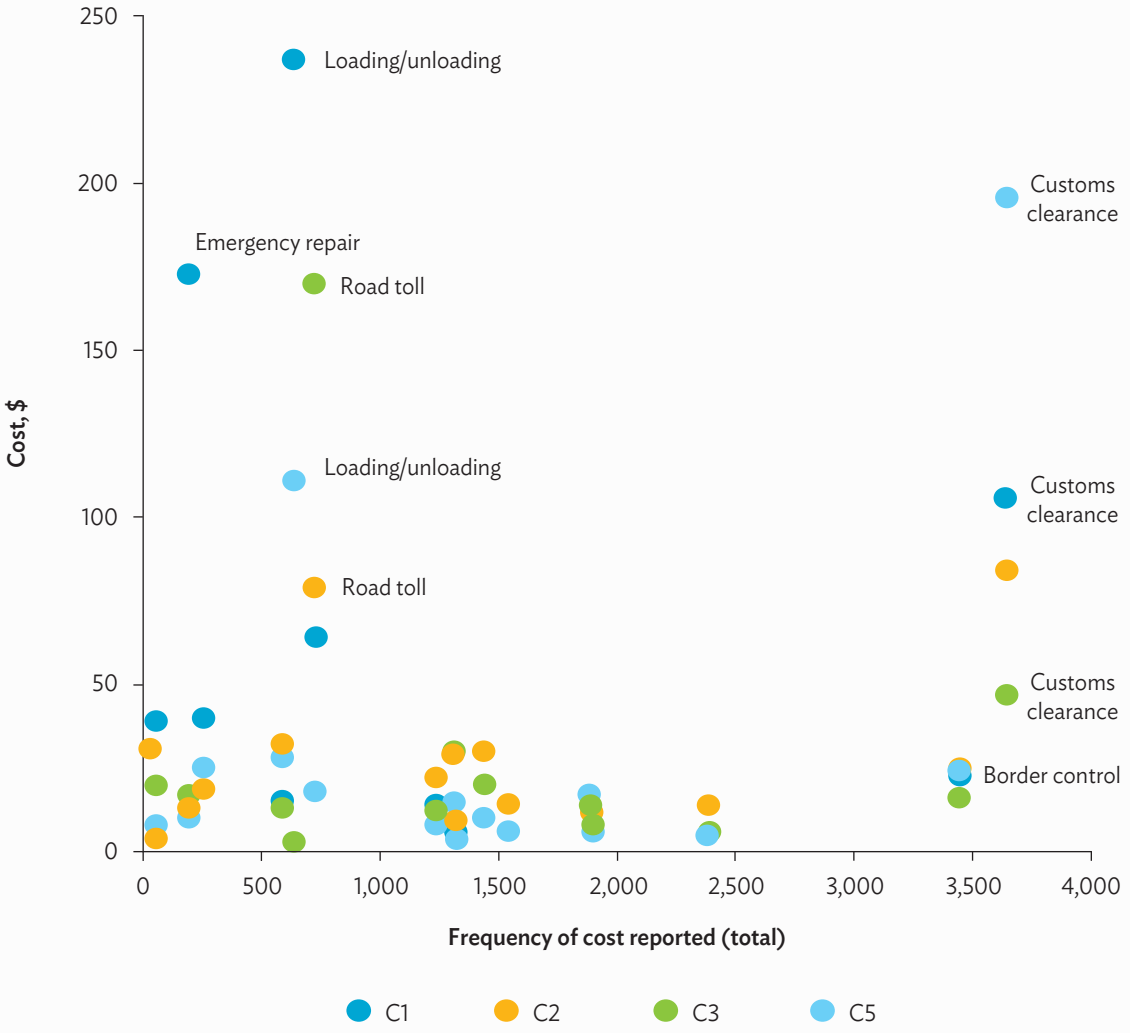
The delays at border-crossing points are mainly due to the time spent loading and unloading, waiting and queuing, and going through border control and customs (Figure 43). Health and quarantine, phytosanitary, veterinary, vehicle, and transport inspections, as well as security checkpoint procedures and other processes are all relatively quick, although the combined impact may be significant. Emergency repairs are time-consuming, but infrequently reported. Customs appears to be the most expensive process at the borders (Figure 44). Unloading and loading can be expensive, as can road tolls, but these are less frequently reported.

Overall, the state of the transport infrastructure is not a binding constraint to international trade. Access to external markets for perishable agricultural products is hampered by delays in border crossings and associated bureaucracy rather than the conditions of the road network or rolling stock. Anecdotal evidence exists of truckloads of strawberries and other fruits and vegetables spoiling before they could cross the border to Kazakhstan where there is a strong demand for fresh produce. The underdeveloped quality control system, including laboratories, also has been a major constraint to increasing trade.

The rapid expansion of foreign trade in recent years indicates that the infrastructure is sufficient at least for the current volumes of international traffic. International roads have the additional benefit of linking all of the oblast centers, and so they play a key role in internal trade flows as well.

In contrast to the international routes, the national and local roads are generally not in good condition. Donor support for road improvement has largely focused on the international roads included in the government's

Figure 44 Cost of Crossing Borders on CAREC Corridors, 2011



C = corridor, CAREC = Central Asia Regional Economic Cooperation.

Note: Median values are shown.

Source: CAREC. 2011. *Corridor Performance Measurement and Monitoring Annual Report 2011.* Manila: ADB.

development programs. National roads provide links to regional centers, but 61.8% of them remain unpaved. Local roads provide access to regional settlements and villages in the rural areas. Of these, 75.8% are unpaved. Traffic volumes on national and local roads remain low. The poor condition of national roads is not considered a binding constraint to growth, but its impact on inclusivity is a constraint.

There are 11 airports in the Kyrgyz Republic, of which 4 (i.e., Issyk-Kul, Karakol, Manas, and Osh) receive regular international flights. For instance, there are 19 international routes and 116 international flights per week from Manas airport. Although airport facilities need upgrading, air traffic volumes have been increasing since the early 2000s, indicating that the state of air transport is not a binding constraint to the country's development.

Railway services operate a very limited domestic and international passenger service, as the vast majority of travelers prefer road or air transport, but the country depends on rail links for the importation of certain commodities. The government's Master Plan on Road and Transport Sector Development, 2010–2025 notes that the importance of rail transport for freight has diminished in recent years. Outgoing volumes have stagnated along the northern rail link and fallen along the southern rail link, and incoming volumes have fallen for both links during 2009–2013, against a backdrop of substantial increases in overall trade volumes. This is partly because of the reorientation of trade toward the PRC, which lacks a rail link. The transport sector master plan also notes that the Kyrgyz Republic's railway assets are generally in poor condition and have reached the end of their effective commercial lives.

The rehabilitation of existing assets or new investments could benefit trade and the economy as a whole. However, given the significant excess capacity at present, and the fact that many exporters have already successfully switched to road transport, the problems with the rail sector are not considered binding constraints to growth. Water transport presents no binding constraints, either, as it accounts for a very small proportion of transport.

Energy

The Kyrgyz Republic's potential hydropower resources are estimated at 150,000 gigawatt-hours. While 90% of domestic electricity is produced by hydropower, the country uses less than 10% of its hydropower potential (**Figure 45**).[71] Electricity consumption has varied significantly over time, closely following the path of hydropower production. This tendency suggests that the economy in general, as well as industry and households, may be strongly affected by fluctuations in the hydropower electricity supply (**Figure 46**).

There are several reasons for the fluctuations in the electricity supply. The production of the main source of power, hydroelectricity, varies significantly from season to season and year to year, depending on the weather conditions. In winter, when demand is high and water releases are limited, the Kyrgyz Republic imports coal, oil, and gas to fuel thermal electricity plants.[72] These imports sustain the power supply, but changes in prices or disputes with trading partners can affect imports. Without rehabilitation, the existing generation capacity cannot meet rapidly increasing peak winter demand, most of which is coming from residential users.

The sector is burdened with an aging infrastructure that is already at the end of its life span and needs major rehabilitation. The average age of generation assets was estimated at 34 years in 2013. Only three of the hydropower plants, which account for 11% of generation, have been in service for less than 20 years. More than half of the transmission substations are older than 30 years, and about one-fifth of transmission lines have been in service for more than 45 years. In 2012, the distribution company that serves Bishkek and its vicinity reported that 85% of their 0.4-kilovolt lines and equipment were in urgent need of repair.[73]

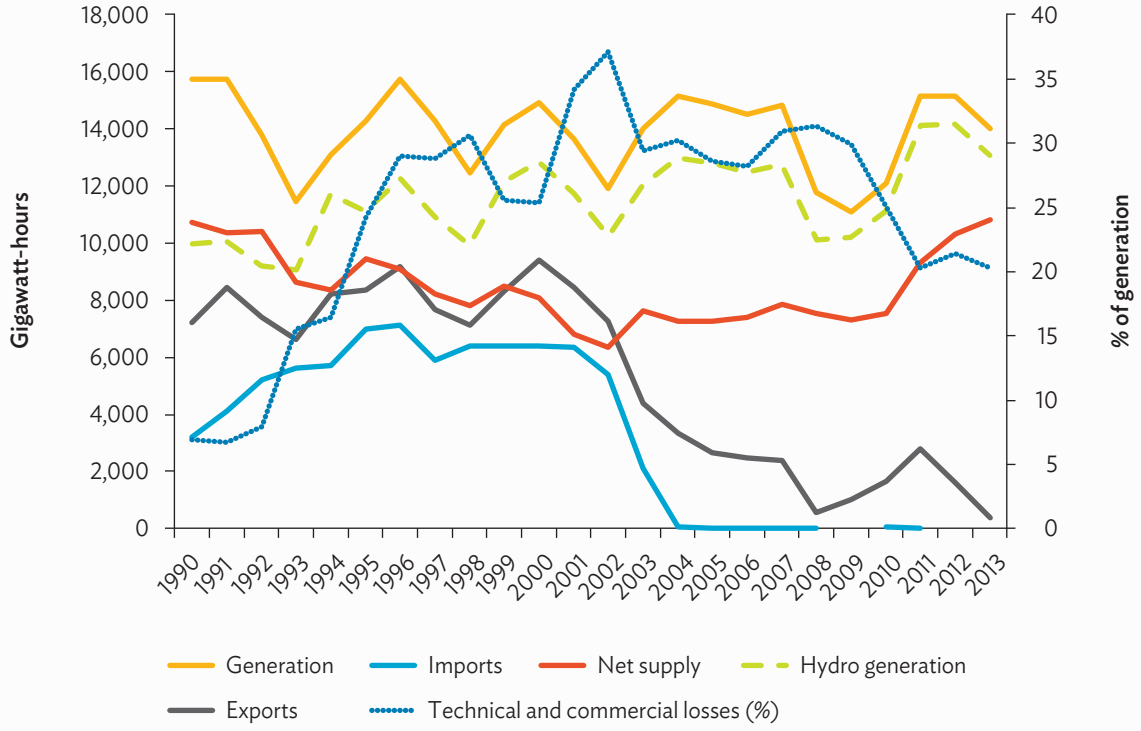
The antiquated equipment contributes to frequent outages, particularly in winter, when the grid is overloaded. In 2008, the country suffered several months of rolling blackouts after the water levels in Toktogul Reservoir

[71] Exports of electricity are limited by annual intergovernmental agreements with neighboring downstream countries concerning the control of Naryn River water resources, specifically, water releases from the Toktogul Reservoir. Electricity exports to neighboring countries take place largely as a result of summer water releases.

[72] ADB. 2013. *Energy Sector Assessment: Kyrgyz Republic.* Manila. This is linked to the *Country Partnership Strategy: Kyrgyz Republic, 2013–2017.*

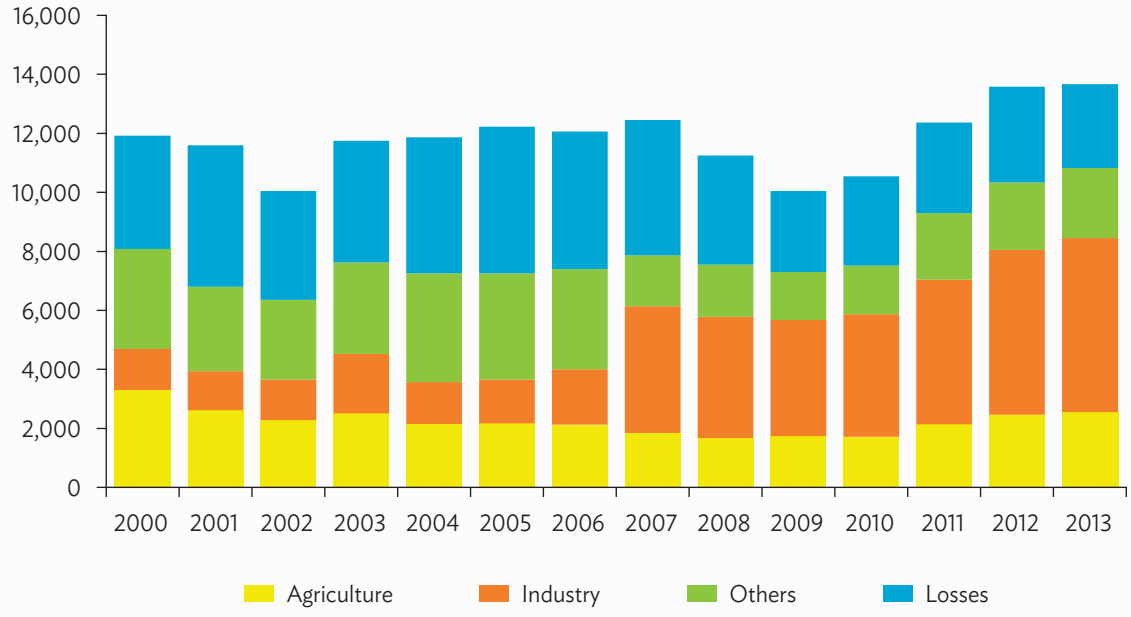
[73] World Bank. 2014. *Power Sector Policy Note for the Kyrgyz Republic.* Washington, DC.

Figure 45 **Production, Consumption, and Losses of Electricity, 1990–2013**



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 46 **Electricity Consumption by End-Use, 2007–2012** (gigawatt-hours)



Source: National Statistical Committee of the Kyrgyz Republic.

dropped to low levels. Another breakdown at Toktogul led to countrywide blackouts in December 2012. Between 2009 and 2012, an average of 43 outages per day was reported by the distribution companies. In addition to blackouts, the service quality was also adversely affected by large voltage and frequency fluctuations, damaging appliances and electrical equipment.

The dilapidated infrastructure and years of undermaintenance have resulted in large technical losses. Together with commercial losses, they accounted for about one-quarter of the net generation. Commercial and technical losses have accounted for almost a third of the supply in the early 2000s, among the highest in the world. They have declined to the 20% range since 2009. Combined with tariffs that are below sustainable levels (and among the lowest in the world), all of these problems make it difficult to mobilize funds for essential rehabilitation and investment.

Tariffs are based on affordability and social considerations, rather than on cost, and the tariff increases that took place in early 2010 were among the factors behind the political unrest that year and led to the overthrow of President Bakiyev. They were then rolled back by the interim government to Som0.7 per kilowatt-hour for residential customers. Industrial customers pay higher tariffs, and as of 1 September 2014, the government increased tariffs for customers who have subscribed to bigger capacity (i.e., three-phase customers). But these tariffs are still considered to be significantly below the level required for the sustainability of the system.[74]

The result is that, although electricity is cheap in the Kyrgyz Republic, its increasing unreliability is a constraint to the private sector. The quality of the Kyrgyz Republic's electricity supply ranks low in the 2013–2014 *Global Competitiveness Report*: 122nd out of 148 economies.[75] *Doing Business 2013* ranked the Kyrgyz Republic 177th out of 185 economies on the ease and cost of getting electricity for businesses. According to that report, it takes 159 days, 7 procedures, and the equivalent of 24 times the per capita gross national income to install one electricity connection.[76] *Doing Business 2013* ranks the Kyrgyz Republic 180th out of 189 economies for "getting electricity."[77]

Enterprises adopt various strategies to get around the challenges posed by an unreliable power supply. Many use generators, and some operate at night, when use is lower so more voltage is available. These strategies help businesses survive, and may explain why electricity supply is not considered a major problem by most businesses consulted in the 2012 International Business Council Survey.[78] However, these strategies are not only costly and inconvenient, they are not conducive to private sector expansion.

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74 Estimated by various studies to be at least Som1.5 per kilowatt-hour.

75 World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva. pp. 5, 243. The report defines "quality" in this context as "electricity supplies that are free from interruptions and shortages so that businesses and factories can work unimpeded."

76 World Bank. 2012. *Doing Business 2012.* Washington, DC. p. 40. The data were collected from the Kyrgyz Republic's power distribution company, Severelectro, and verified by independent professionals. These estimates are based on the costs of a standardized warehouse connection. In the case of the Kyrgyz Republic, the estimates are based on a 3-phase, 4-wire Y, 140-kilovolt ampere (subscribed capacity), 150-meter-long connection from Severelectro, with one electricity meter for a newly constructed warehouse in Bishkek.

77 World Bank. 2013. *Doing Business 2013, Economy Profile: Kyrgyz Republic.* Washington, DC. p. 203.

78 International Business Council. 2012. *Investment Survey No. 1, 2012*. Bishkek.

With regard to the power supply, the informal survey carried out as part of this report found the following:

- Of the firms included in the survey, 85% have been affected by power outages in the years immediately preceding 2012, when the survey was conducted.
- The firms that were affected had experienced an average of 8.7 power outages during the prior month, each lasting an average of 3.2 hours. The frequency and duration of the outages depended on the location of the firm.
- Most of the firms complained about wide voltage fluctuations, with voltage falling as low as 170 volts.
- Of the affected firms, 18% had bought voltage stabilizers and 40% had bought back-up generators and other equipment.
- Of the firms surveyed, 40% declared themselves willing to pay between 25% and 100% more for reliable power supply.

The main hurdle in restoring the reliability of the electricity supply has been the lack of maintenance and rehabilitation of the generation equipment and of the transmission and distribution networks. A recent World Bank report estimated the rehabilitation cost of the existing assets at $865 million, a significantly lower bill than new investments, to add capacity and reduce technical losses.[79]

As a result of these problems, the energy sector's financial performance has been poor and, although commercial losses have diminished, accumulated debt from earlier periods remains. The risk of a collapse of the old equipment is high, and the spare parts are no longer manufactured in the Russian Federation. Such a collapse could have very negative economic consequences for the country, as was demonstrated during the winter of 2008–2009. Power outages and voltage fluctuations affect businesses directly and severely. The energy sector is in need of a serious physical and financial overhaul. This is why the unreliability of the energy supply is considered a binding constraint to growth.

Telecommunications

The state of the telecommunications industry in the Kyrgyz Republic is not considered a major constraint to growth. The country has a reasonably developed cellular network, ranked 46th worldwide in the 2013–2014 *Global Competitiveness Report* for the number of mobile telephone subscriptions (per 100 people).[80] Its coverage rate of 118.6% was higher than that of any other country in Central Asia and the South Caucasus, with the exception of Kazakhstan in 2013. During 2009–2013, the mobile communications sector received large investments and was a major source of growth. The mobile telephony industry had a turnover of about $400 million in 2013. It is still below saturation levels, even without counting the potential further development of data transmission markets.[81] Although this sector is not a constraint to growth, further development of mobile telecommunications, particularly mobile data applications, may make it possible to offer more services such as mobile banking in rural areas.

[79] World Bank. 2014. *Power Sector Policy Note for the Kyrgyz Republic.* Washington, DC.
[80] World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva. p. 243.
[81] International Telecommunication Union. 2011. Mobile-Cellular Telephone Subscriptions. http://www.itu.int/ITU-D/ICTEYE/Indicators/Indicators.aspx#. According to this source, Kazakhstan's coverage was 156% in 2011, and the Russian Federation's 179%.

Agriculture

As discussed, productivity in agriculture is low in output per worker and per hectare (ha). For crop production, the agriculture sector relies on 1.3 million ha of irrigated land, mainly small farms. However, irrigation infrastructure has suffered from a significant lack of maintenance since the country's independence, and the irrigation and drainage systems have deteriorated, especially the on-farm systems managed by water users. Some rehabilitation has been undertaken with support from donors, in 336,300 ha of off-farm systems and 223,651 ha of on-farm systems. Still, almost 90% of off-farm irrigation systems and 85% of on-farm systems have yet to be rehabilitated. There are 478 water user associations, but the water users' lack of knowledge and skills in water management also contribute to the waste of irrigation water and to the poor upkeep of systems. Moreover, irrigation service fee recovery is low, and has remained unchanged over time.

There are a number of other constraints to agriculture. While the Kyrgyz Republic has limited low-lying flat land, higher-altitude areas have a strong potential for livestock production: 9 million ha are already used for pasture-based livestock. There has been degradation of both pasture and farmland, however, and this degradation is a key factor behind the low agricultural productivity. It is too costly for small farms to regularly perform crop rotation, so their farm soil is depleted. The majority of pasture lessors do not require leaseholders to manage the pastures, so overgrazing is a problem. Communal pastures have also been overgrazed, and distant pastures are used only by a few well-off farmers. Pasture committees, which were formed in 2009, are supposed to improve pasture management, but it is too early to tell whether they can handle these problems. Poor standards and availability of veterinary care, and a lack of coordination between the ministries of agriculture and health in addressing zoonotic diseases, also negatively affect livestock, making the export of meat and dairy products particularly difficult.

Finally, as the agriculture sector is made up largely of small farmers, it suffers from many of the constraints to growth that affect other sectors, such as the lack of access to finance, deficient skills, and micro risks.[82]

The poor state of the agricultural infrastructure is nevertheless not a binding constraint to the growth of the Kyrgyz Republic's economy for two reasons: the small size of agriculture relative to other sectors of the economy (17% of GDP at factor cost), and the fact that agricultural problems are largely a reflection of binding constraints that are nonagricultural in nature (i.e., inadequate skills and financing, and poor governance). Even if the necessary improvements were made in agricultural infrastructure, other constraints, ones that are binding, would limit the impact of those improvements on overall economic growth.

3.3 Low Appropriability

Low or uncertain appropriability of returns is a clear disincentive to investment. It can emanate from risks at the micro or macro level, usually arising from government failure or from certain market failures (e.g., information and learning externalities and coordination failures). Macro risks can include fiscal and financial crises; and micro risks can include poor governance, political instability, corruption, weak rule of law, overly burdensome taxation, and poor industrial relations.

[82] Micro risks refer to the risks associated with political or government actions or failings that may have adverse effects on investments.

3.3.1 Macroeconomic Risks

While some volatility of macroeconomic variables—such as GDP, inflation, the real exchange rate, terms of trade, and interest rates—is usually associated with growth, high volatility could diminish the appropriability of returns, and therefore hinder investment, as some firms may reduce or delay their investments in a climate of uncertainty.

During 2000–2013, the least volatile indicators were the real effective exchange rate, nominal exchange rate, tax burden, lending interest rate, and risk premium. External trade indicators, particularly the terms of trade, were the most volatile (**Table 14** and **Figure 47**). Volatility in these indicators is likely to have a significant impact on the Kyrgyz Republic because of the country's heavy reliance on external trade.

Table 14 Volatility of Key Macro Indicators, 2000–2013

Variable/Indicator	Mean	Standard Deviation	Coefficient of Variation
Real GDP (% annual change)	4.48	3.77	0.84
Nominal GDP (% annual change)	15.38	10.43	0.68
Non-gold GDP (% annual change)	4.93	2.47	0.50
Gold value-added (% of GDP)	4.50	26.74	5.95
GDP deflator (% annual change)	138.28	57.20	0.41
Inflation	7.86	6.80	0.86
Investment rate (% of GDP)	22.51	6.26	0.28
Investment (% annual change)	8.97	16.16	1.80
Tax burden (% of GDP)	16.74	2.90	0.17
Budget balance (% of GDP)	(4.50)	2.39	(0.53)
Lending rate (%)	26.99	6.97	0.26
Real lending rate (%)	18.17	9.84	0.54
Broad money (% annual change)	23.64	11.97	0.51
Exchange rate (Som/$)	43.91	3.97	0.09
Real effective exchange rate index	93.92	5.37	0.06
Current account balance	(6.43)	5.30	(0.82)
Exports of goods and nfs (% annual change)	17.46	18.15	1.04
Imports of goods and nfs (% annual change)	9.57	16.31	1.70
Export price index (% annual change)	10.57	10.33	0.98
Import price index (% annual change)	10.66	8.69	0.82
Terms of trade index (% annual change)	(0.11)	4.78	(42.14)

( ) = negative, GDP = gross domestic product, nfs = non-factor service.

Source: Author's calculations based on data from the National Bank of the Kyrgyz Republic and the National Statistical Committee of the Kyrgyz Republic.

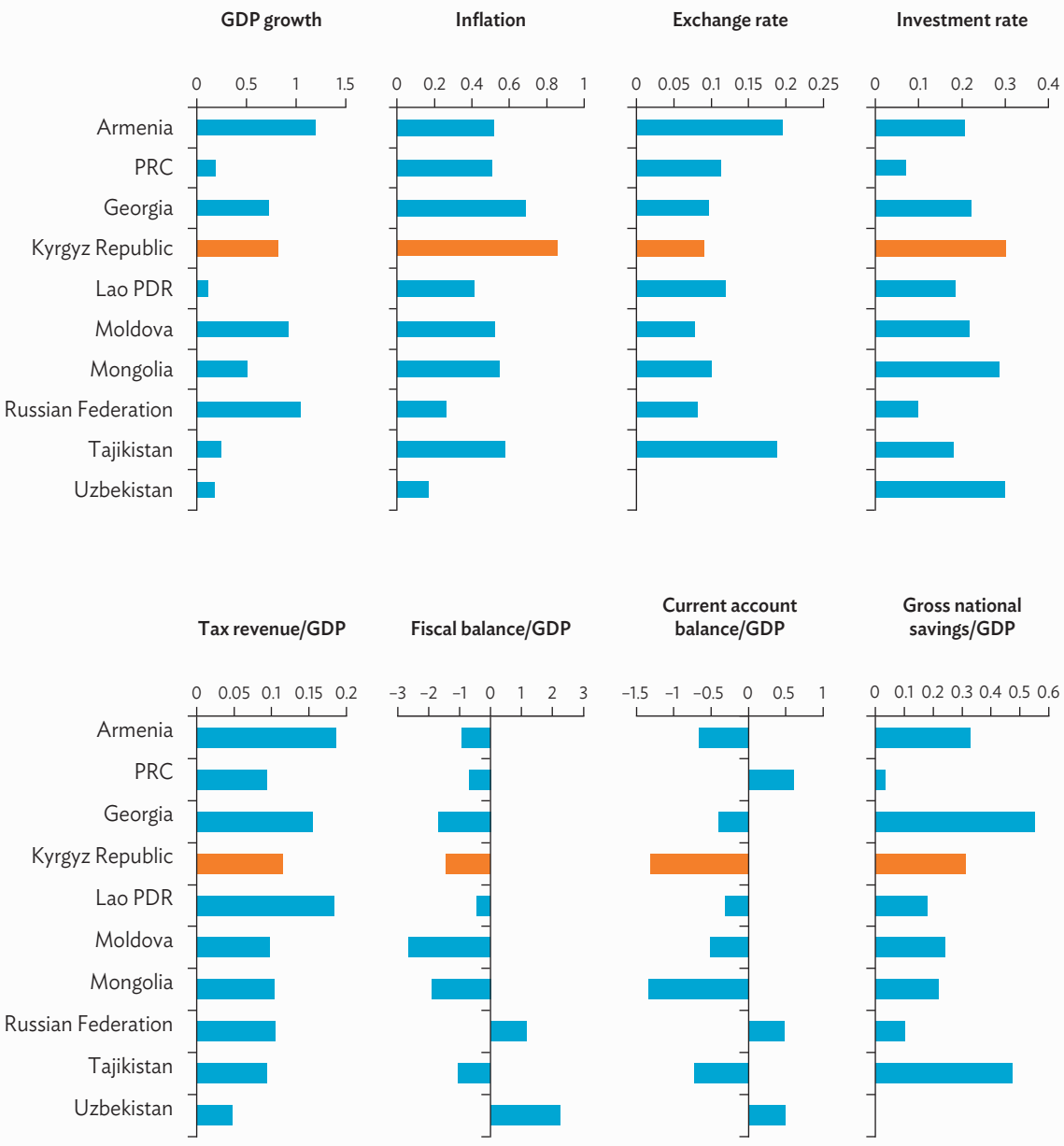
Figure 47 Volatility of Key Macroeconomic Indicators in the Kyrgyz Republic



( ) = negative, GDP = gross domestic product, M2 = money supply, nfs = non-factor service, REER = real effective exchange rate.

Source: Author's calculations based on data from the National Bank of the Kyrgyz Republic and the National Statistical Committee of the Kyrgyz Republic.

Figure 48 Coefficients of Variation for Key Macroeconomic Indicators, Kyrgyz Republic and Selected Benchmark Countries, 2003–2013



( ) = negative, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

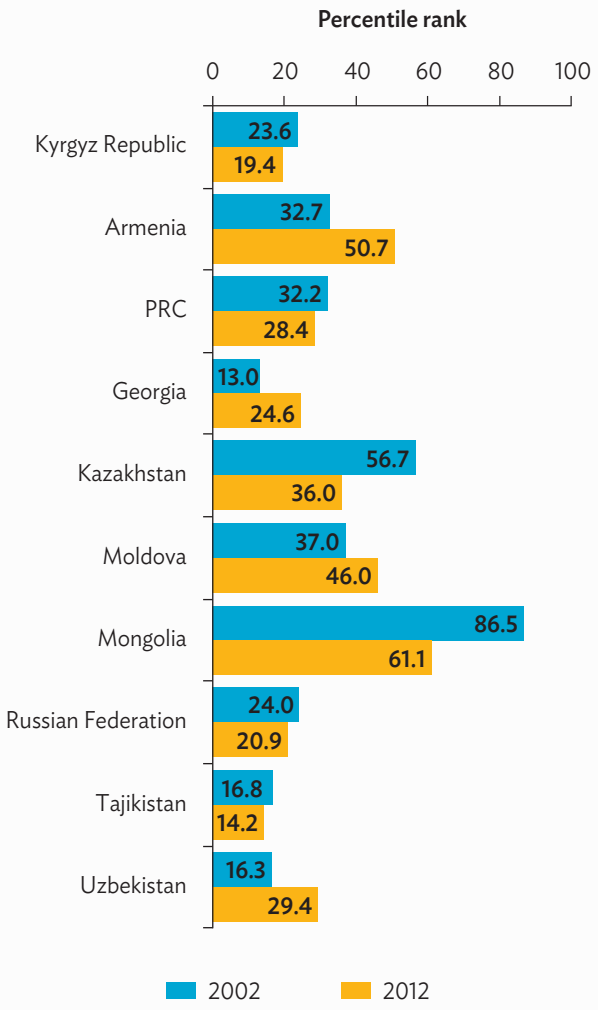
Sources: Author's calculations based on data from the National Bank of the Kyrgyz Republic; the National Statistical Committee of the Kyrgyz Republic; World Bank. 2013. World Development Indicators. http://data.worldbank.org/data-catalog/world-development-indicators; and International Monetary Fund. World Economic Outlook database. http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx

Compared with the benchmark countries, however, volatility, which is measured by the coefficient of variation, does not appear to be excessive in the Kyrgyz Republic (**Figure 48**). Thus, the volatility of the macro aggregates does not appear to be a binding constraint to growth. However, it is important to note the high volatility in the terms of trade and the vulnerability of the economy to external price shocks.

3.3.2 Microeconomic Risks

The political upheavals in 2005 and 2010 were both caused by, among other factors, public dissatisfaction of widespread corruption and political capture. As mentioned, the unrest has had substantial and long-lasting negative effects on economic growth. The Political Stability and Absence of Violence Index, published as part of the World Bank's Worldwide Governance Indicators dataset, placed the Kyrgyz Republic in the lowest quintile for the 8 years between 2003 and 2012 (**Figure 49**).

Figure 49 Political Stability Index, Kyrgyz Republic and Selected Benchmarks



PRC = People's Republic of China.

Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.

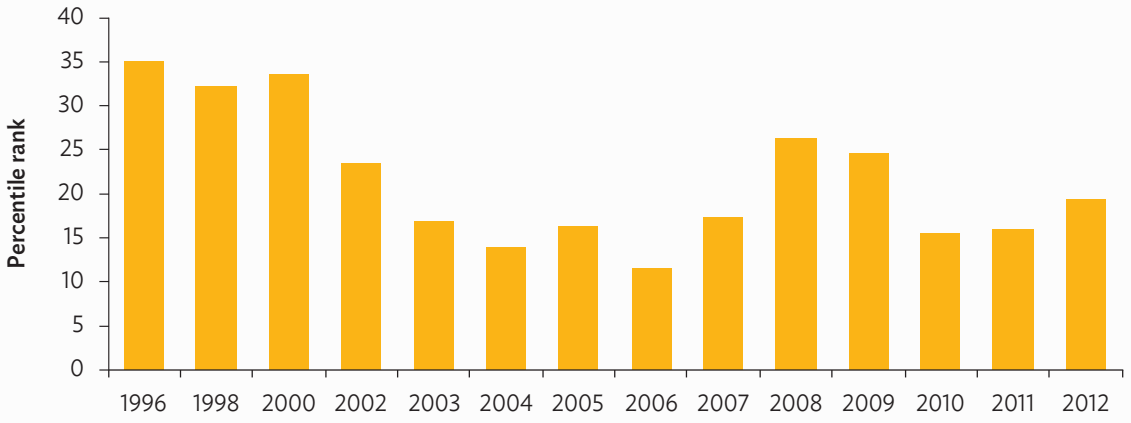
Sources: World Bank. 2013. Worldwide Governance Indicators. http://info.worldbank.org/governance/wgi/index.aspx#reports

While various surveys identified political and government instability as by far the most significant problems investors and businesses faced in the Kyrgyz Republic during 2010–2013, these were replaced by corruption as the biggest hurdle in later surveys (**Figure 50**). While the *Global Competitiveness Report* ranks government and policy instability as two separate factors,[83] they are combined in **Figure 51** because government instability has been one of the major reasons for policy instability in the Kyrgyz Republic. In this context, the issues of predictability of rules, laws, and regulations, which rank as serious considerations in the International Business Council Survey,[84] should also be considered closely related to instability.

[83] World Economic Forum. 2011. *Global Competitiveness Report 2011–2012.* Geneva. p. 230; World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva. p. 242.

[84] International Business Council. 2012. *Investment Survey No. 1, 2012.* Bishkek. p. 45; International Business Council. 2013. *Investment Survey No. 2, 2013.* Bishkek. p. 45.

Figure 50 Political Stability Index of the Kyrgyz Republic



Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.
Sources: World Bank. 2013. Worldwide Governance Indicators. http://info.worldbank.org/governance/wgi/index.aspx#reports

In the same cluster of micro risks, weak rule of law has been identified as an important constraint. According to the 2013 Business Environment and Enterprise Performance Survey, corruption remains the second worst obstacle. The percentage of firms seeing it as an obstacle increased between 2008 and 2013.

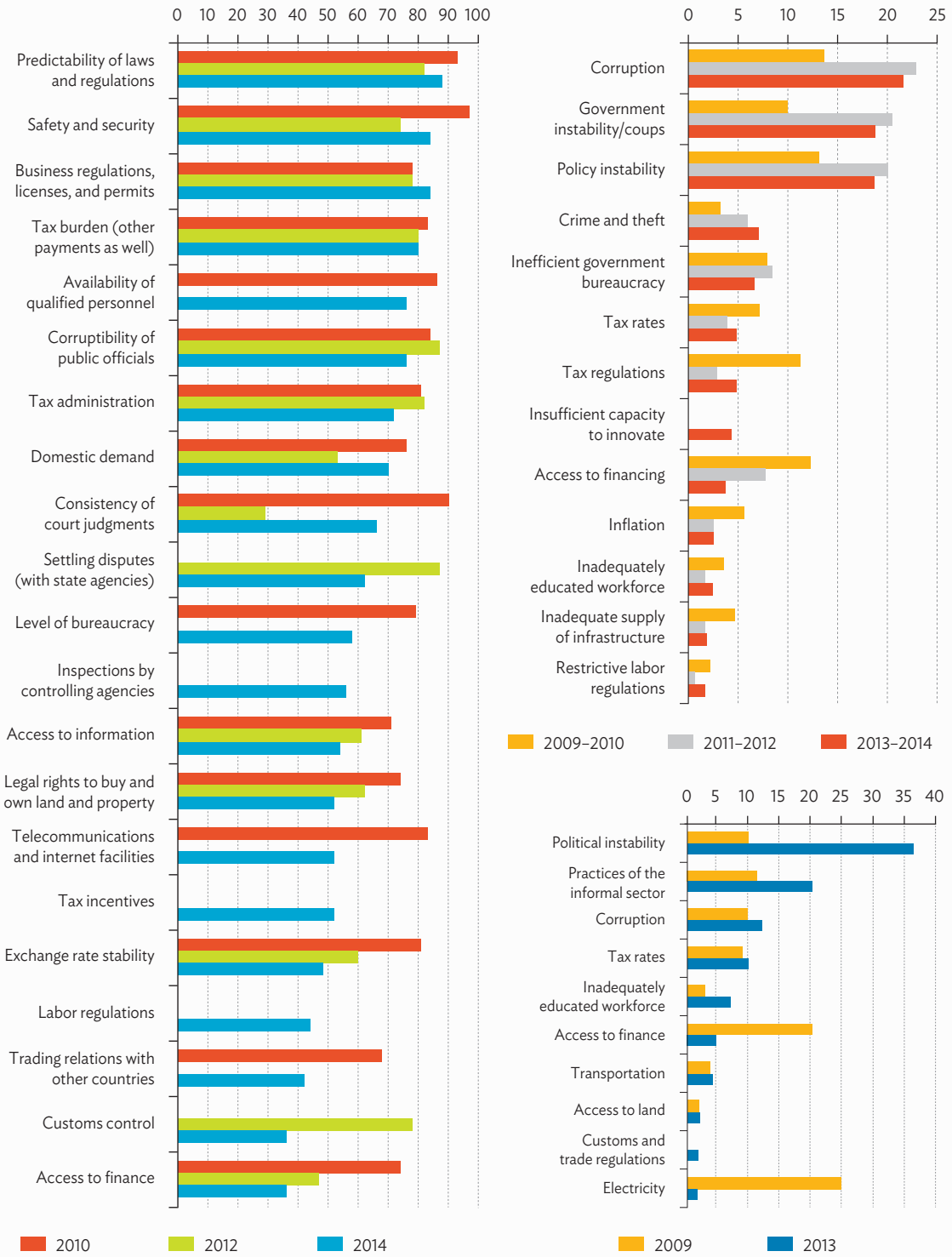
The Kyrgyz Republic's ranking deteriorated significantly between 2000 and 2009, before improving slightly between 2010 and 2013 (**Figure 52**), while some of the former Soviet benchmark countries recorded visible improvements. **Figure 53** compares the evolution of the rule of law index rating for the Kyrgyz Republic with those of the benchmark countries of the former Soviet Union and of Mongolia.

Weak enforcement of property rights has resulted in hostile takeovers and cases in which private investors without political protection are forced to sell their businesses at very low prices to the politically connected. Other challenges to property rights include the lack of judicial independence and the inability of the judicial system to resolve commercial disputes in a fair, quick, and cost-effective manner.

In addition to the lack of consistency of court judgments, which the International Business Council Survey identified as a high-ranking issue in 2012,[85] the inefficiency of the judicial system has eroded public trust in it. In a survey of court users, over 30% of the respondents indicated that the judiciary was a problem in doing business.[86] In the same survey, 35% of court users indicated that they were ready to bribe the judge if necessary.[87] The case analysis found that 59% of the cases had procedural problems, over 31% had institutional problems, and over 28% of the cases revealed competence issues, which led to the conclusion that "some judges do not

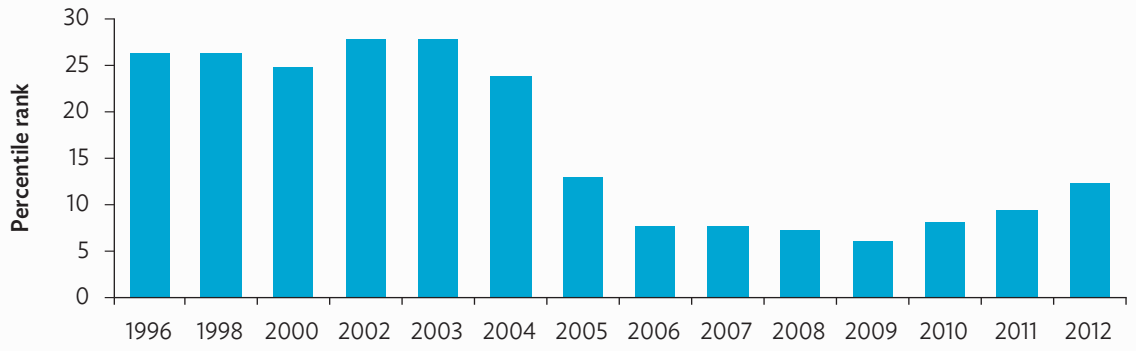
[85] International Business Council. 2012. *Investment Survey No. 1, 2012*. Bishkek. p. 45.
[86] World Bank and Swiss Cooperation Office in the Kyrgyz Republic. 2009. *Kyrgyz Republic Judicial System Diagnostic: Measuring Progress and Identifying Needs*. Report No. 61906-KG. Washington, DC: World Bank. p. viii.
[87] *Ibid.,* p. 6.

Figure 51 Problems Faced by Investors and Businesses (% of respondents citing problem areas)



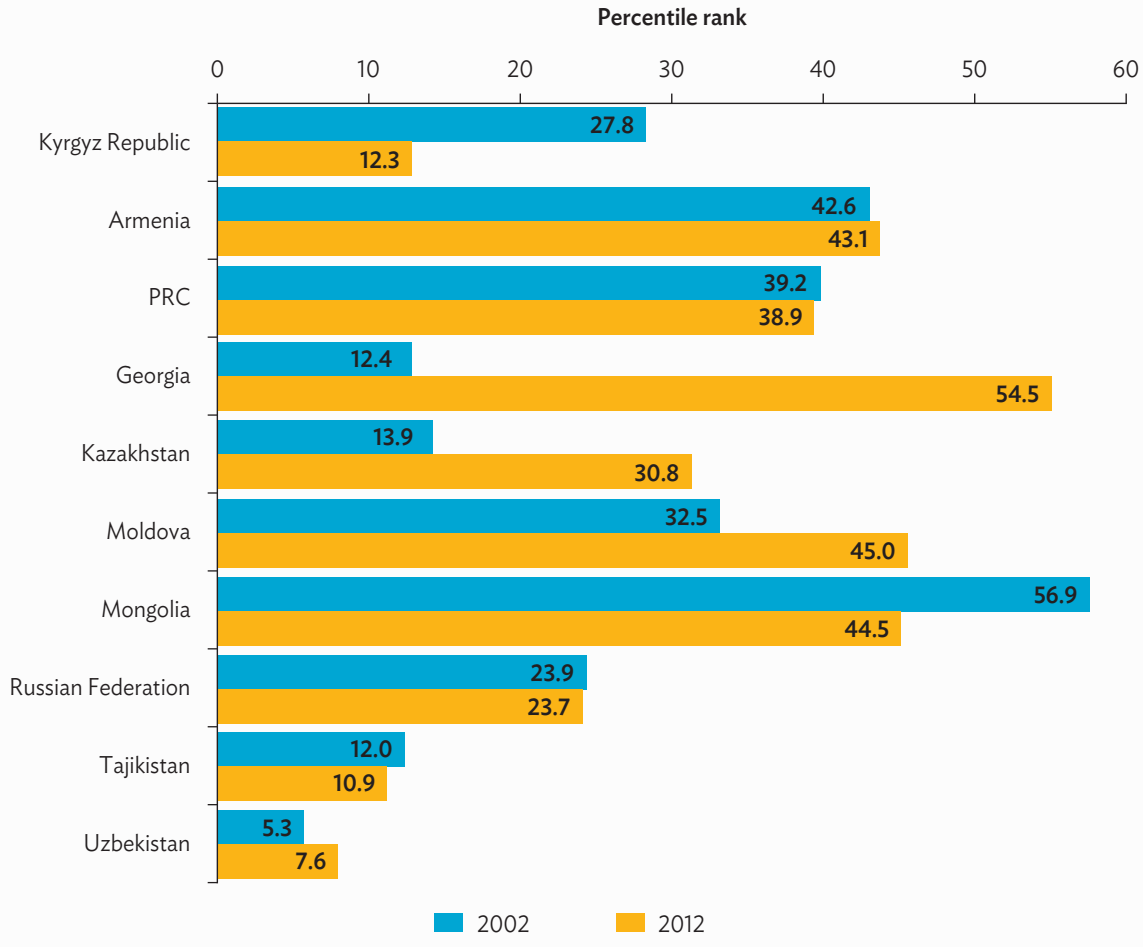
Sources: World Economic Forum. 2009. *Global Competitiveness Report 2009–2010.* Geneva; World Economic Forum. 2011. *Global Competitiveness Report 2011–2012.* Geneva; World Economic Forum. 2013. *Global Competitiveness Report 2013–2014.* Geneva; International Business Council. 2010. *Investment Survey, No. 2, 2010.* Bishkek; International Business Council. 2012. *Investment Survey, No. 1, 2012.* Bishkek; International Business Council. 2014. *Investment Survey No. 1, 2014. Bishkek*; World Bank. 2009. Enterprise Survey: Kyrgyz Republic. Washington, DC: World Bank. http://www.enterprisesurveys.org/Data

Figure 52 Rule of Law Index of the Kyrgyz Republic



Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.
Source: World Bank. 2013. Worldwide Governance Indicators, 2013. http://info.worldbank.org/governance/wgi/index.aspx#reports

Figure 53 Rule of Law Index, Kyrgyz Republic and Selected Benchmarks



PRC = People's Republic of China.
Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.
Source: World Bank. 2013. Worldwide Governance Indicators, 2013. http://info.worldbank.org/governance/wgi/index.aspx#reports

have adequate knowledge of the norms of material and procedural law, they are overloaded with cases or they do not have the time to provide a detailed account of the court decision."[88]

Doing Business 2013 ranked the Kyrgyz Republic 47th out of 185 economies on the ease of enforcing contracts. On average, 260 days are needed to resolve a contract dispute, and resolution costs 29% of the claim.[89] The Kyrgyz Republic is behind the Russian Federation (11th), Moldova (26th), Kazakhstan (28th), and Tajikistan (43rd) for this indicator.[90]

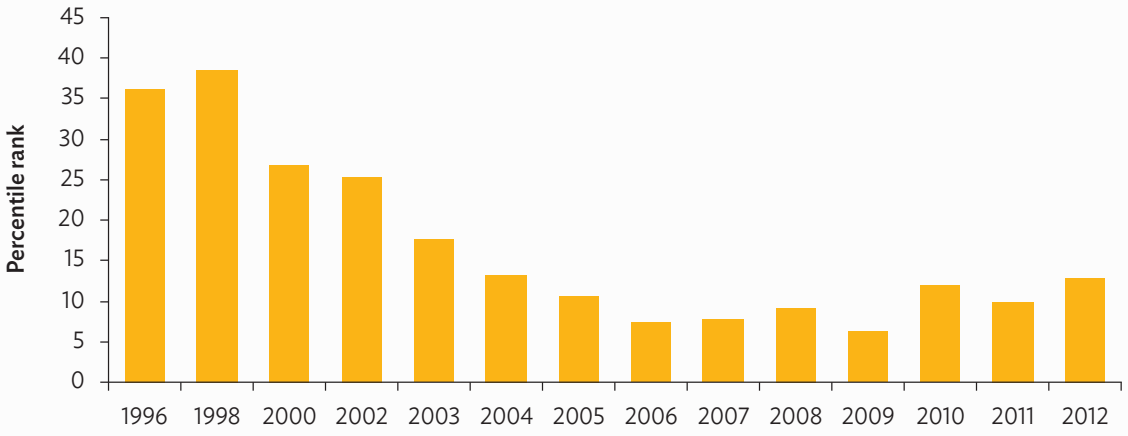
However, the growing number of disputes with foreign investors, particularly in mining, has made the enforcement of contracts a paramount source of apprehension for potential investors. Notwithstanding the merits of concerns about contracts negotiated with previous administrations, the expectation that every new incoming parliament or administration will call for a review of all contracts is a detriment to the country's ability to interest credible investors in developing the country's significant mining resources. In particular, the Kumtor gold mine concession was renegotiated twice during 2001–2010; in 2011, a parliamentary commission was set up to review it yet again. Contract review procedures appear to have been politicized, which could impose significant costs on the economy.

Interference and rent extraction by government officials, particularly those connected to law enforcement agencies, are reportedly widespread, and are one of the factors behind the large size of the gray economy. A long list of corrupt practices—such as rigged privatizations; embezzlement of state funds; rent seeking; manipulation of state regulatory, legislative, and decision-making functions; and bribery and extortion at implementation—have kept foreign investors away in the past, and have forced domestic investors to stay under the radar. These problems have not disappeared. The Kyrgyz Republic ranked 150th out of 177 countries and territories in Transparency International's Corruption Perception Index of 2013; this was a slight improvement over 2012, when it ranked 154th out of 174.[91] The corruption control index of the World Bank's Worldwide Governance Indicators shows similar results (**Figure 54**), with the Kyrgyz Republic's ranking worsening between 2002 and 2012. The benchmark countries also saw their rankings deteriorate during that time, with the exception of Georgia, but the Kyrgyz Republic's deterioration was much more pronounced (**Figure 55**). According to the 2013 Business Environment and Enterprise Performance Survey, corruption remains the second worst obstacle. The percentage of firms seeing it as an obstacle increased between 2008 and 2013.

One serious consequence of the country's political instability has been delays in implementing mining projects, which are important sources of budget revenues and foreign exchange earnings. Regardless of the justification, the frequent renegotiations of concession agreements undermine the confidence of foreign investors. In particular, the Kumtor gold mine concession was renegotiated twice during 2001–2010; and, in 2011, a parliamentary commission was set up to review it yet again.

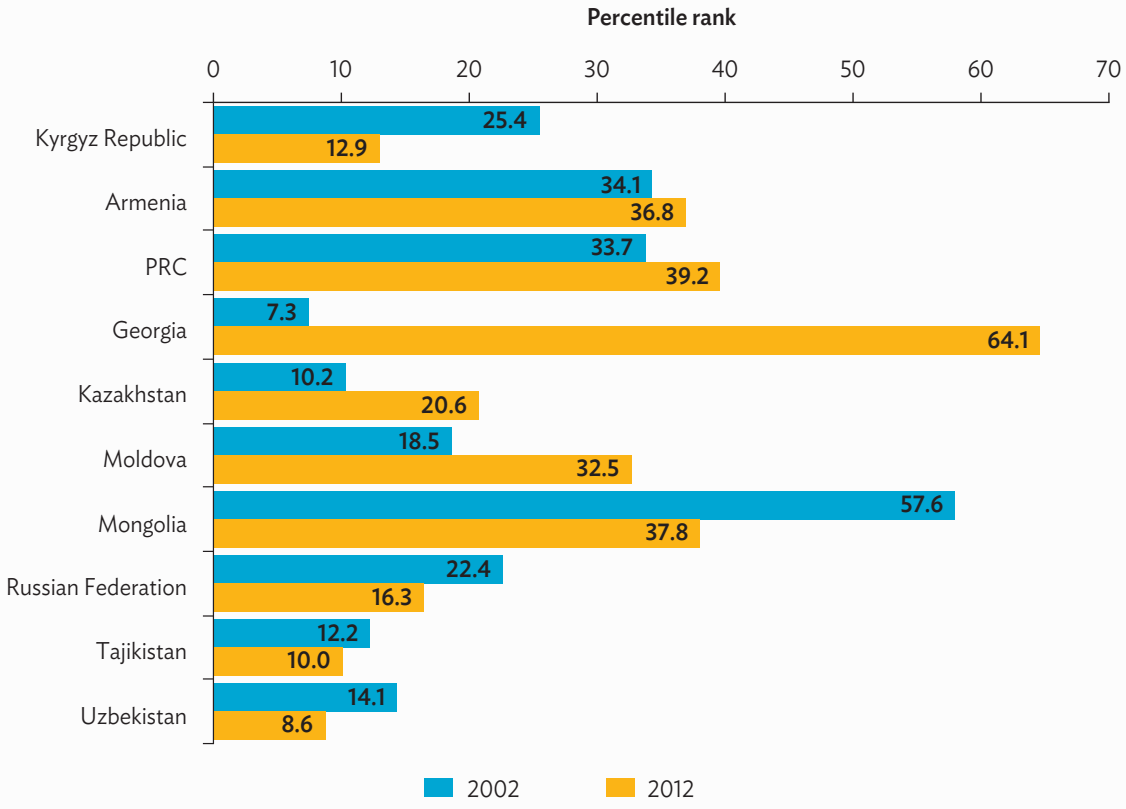
88 *Ibid.,* pp. x, 15.
89 World Bank. 2013. *Doing Business 2013: Smarter Regulations for Small and Medium-Sized Enterprises.* 10 ed. Washington, DC. p. 175.
90 *Ibid.,* pp. 173, 182, 190, and 199.
91 Transparency International and Ernst & Young. 2013. *Transparency International Corruptions Perceptions Index 2013.* Berlin: Transparency International. p. 5; Transparency International and Ernst & Young. 2011. *Transparency International Corruptions Perceptions Index 2011.* Berlin: Transparency International. p. 4.

Figure 54 Control of Corruption Index of the Kyrgyz Republic



Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.
Source: World Bank. 2013. Worldwide Governance Indicators, 2013. http://info.worldbank.org/governance/wgi/index.aspx#reports

Figure 55 Control of Corruption Index, Kyrgyz Republic and Selected Benchmark Countries



PRC = People's Republic of China.
Note: The values indicate the percentile rank of a country among all countries in the database, with 0 as the lowest rank and 100 as the highest.
Source: World Bank. 2013. Worldwide Governance Indicators, 2013. http://info.worldbank.org/governance/wgi/index.aspx#reports

Another impact of corruption and political capture is the creation of obstacles to setting up new businesses. Entry by new entrepreneurs can be actively restricted by incumbents, or exit may be forced. There is significant anecdotal evidence that entrepreneurship, particularly in larger businesses, is restricted to those with good political connections or to current holders of political power.

There is a large body of evidence supporting the view that, in the Kyrgyz Republic, corruption has an adverse effect on productivity, growth, and the investment climate.[92] In the 2013 Business Environment and Enterprise Performance Survey, 61% of responding firms considered corruption to be a major or severe constraint.[93] The 2008 survey revealed that the percentage of firms identifying corruption as a constraint increased with firm size: 72.3% of firms employing more than 100 workers, compared with 50.8% of firms employing 5–19 workers. The fact that many firms in the Kyrgyz Republic remain small or informal can be considered a strategy for dealing directly with corruption-related problems. The differences between domestic (55.8%) and foreign-owned (74.6%) companies, exporting (79.4%) and non-exporting (56.8%) companies, and firms with female (75.6%) and male (54.2%) top managers were also stark.[94]

The constraints of corruption and lack of rule of law are not related fully, or even mainly, to the lack of an appropriate legal framework, but rather to the size of the implementation gap between laws and practice. A 2011 World Bank study argued that

> *there is a very weak, insignificant, and positive relationship between 'in law' anti-corruption indicators and actual bribe frequency. Firms located in countries with stronger anti-corruption laws and rules on the books pay bribes slightly more often, on average, than in other countries. The most likely interpretation of this result is not that these rules are irrelevant to anti-corruption efforts, or that they are measured poorly .... More likely, countries experiencing more severe corruption problems are the ones that are most motivated to enact more stringent anti-corruption legislation in an attempt to address the issue, often under pressure from donor organizations or the [European Union].*[95]

A comparison of the Global Integrity Index "in law" score with the "in practice" score of the strength of anticorruption legislation shows a significant implementation gap. In the 2008 report on the Kyrgyz Republic, the actual implementation score was 42 (very weak) against the legal framework score of 87 (strong).[96] This gap partly explains why numerous anticorruption drives launched by previous administrations have had only limited impact. There have also been differences in the perception and experience of corruption. According to an EBRD study, about two-thirds of the respondents indicated that they themselves experienced corruption; and only 40% indicated that people like themselves usually or always have to provide unofficial payments or gifts for public services, implying that corruption might be more widespread than it appears (**Figure 56**).

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92 Another serious effect of corruption is the added burden on trade. In addition to the official payments (i.e., certification, export duties, and customs fees), unofficial payments reduce the competitiveness of the Kyrgyz Republic's exports, not only because of the additional cost, but because of the time taken to deal with these payments. This is particularly serious for agricultural products with limited shelf lives. An exporter of fresh produce from the south told the ADB team preparing this report that he was asked to pay Som20,000 in bribes (in addition to Som2,000 in fees) to allow his truckload of strawberries to be exported to Kazakhstan.

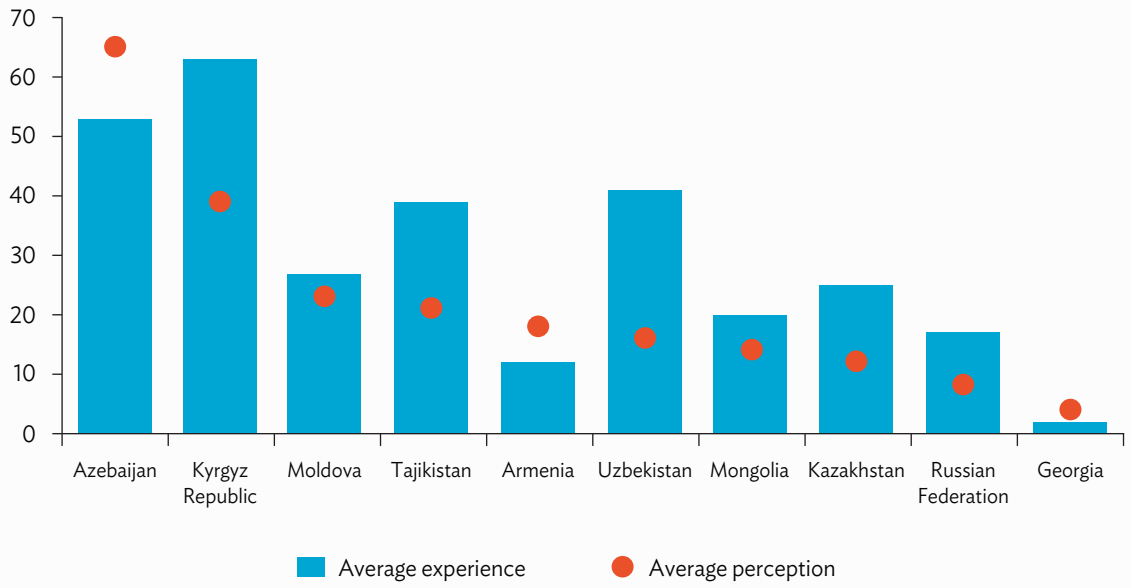
93 World Bank. 2013. *BEEPS At-A-Glance 2013: Kyrgyz Republic*. http://www.worldbank.org/content/dam/Worldbank/document/eca/central-asia/BEEPS-At-A-Glance-2013-Kyrgyz-Republic-en.pdf

94 Underlying data for this discussion are found in the enterprises surveys for the Kyrgyz Republic conducted in 2008 and 2009 at http://www.enterprisesurveys.org/

95 World Bank. 2011. *Trends in Corruption and Regulatory Burden in Eastern Europe and Central Asia.* Washington, DC. p. 33.

96 Global Integrity. *The Global Integrity Report: 2008.* https://www.globalintegrity.org/global/the-global-integrity-report-2008/kyrgyz-republic/

Figure 56 **Perception versus Experience of Corruption, Kyrgyz Republic and Selected Benchmark Countries** (% of respondents)



Note: Average perception refers to the proportion of respondents who said that people like themselves usually or always have to provide unofficial payments or gifts averaged across all public services covered by the survey. Average experience refers to the proportion of respondents who said that they or a member of their household had made at least one unofficial payment or gift in the prior 12 months averaged across all public services covered by the survey.

Source: European Bank for Reconstruction and Development. 2011. Life in Transition Survey II. London. p. 39.

In March 2011, the Kyrgyz Republic was accepted by the Extractive Industries Transparency Initiative Board as a compliant country. Yet the discussion above forms a sufficient basis for the conclusion that corruption and the related elements in this cluster constitute the most binding constraint to growth in the Kyrgyz Republic.

Other micro risks include high tax rates and tax administration issues. As the country has a narrow tax base, the rates are relatively high for those who do pay. The International Business Council survey in 2012 listed high taxes as 8th among the country's top 10 problems, another in 2013 listed it as 5th,[97] and the 2011–2012 *Global Competitiveness Report* gave the Kyrgyz Republic a middling ranking (82nd) for the "extent and effect of taxation."[98] Despite some tax reductions in 2009, the average tax rate that businesses pay on paper is higher than in many of the benchmark countries (**Table 15**).

[97] International Business Council. 2012. *Investment Survey No. 1, 2012.* Bishkek. p. 45; International Business Council. 2013. *Investment Survey No. 2, 2013.* Bishkek. p. 45.

[98] World Economic Forum. 2011. *Global Competitiveness Report 2011–2012.* Geneva. p. 321. The total tax rate refers to the amount of taxes and mandatory contributions payable by a business in its second year of operation, expressed as a share of commercial profits (World Bank. 2012. *Doing Business 2012.* Washington, DC. p. 107). According to this report, the total tax rate in the Kyrgyz Republic is 69%. Income taxes and profit taxes are a flat 10%, and the Social Fund tax is 17.25% of business payrolls. Employees pay an additional 10% of their wages, of which 8% goes to the general fund and 2% to the employee's personal account. In 2009, the value-added tax was reduced from 20% to 12%. The government also introduced a cascading sales tax, ranging from 1% to 3%, depending upon value of the sale.

Even though taxes are reported to be an issue for businesses and investors, they cannot be considered a binding constraint. Although taxes have risen as a percentage of GDP since 2000 (Figure 57), the tax burden overall remains fairly low. Taxes on income (personal and corporate) account for less than 6% of GDP (Figure 58), but they are collected from a very narrow base.

A large proportion of tax revenues come from the value-added tax, excise tax, and, to a lesser extent, from customs duties. As discussed, these increase the costs of foreign trade, but informal payments, along with other barriers to trade, are more significant constraints. However, there has been a shift in the last few years toward collecting more direct taxes.

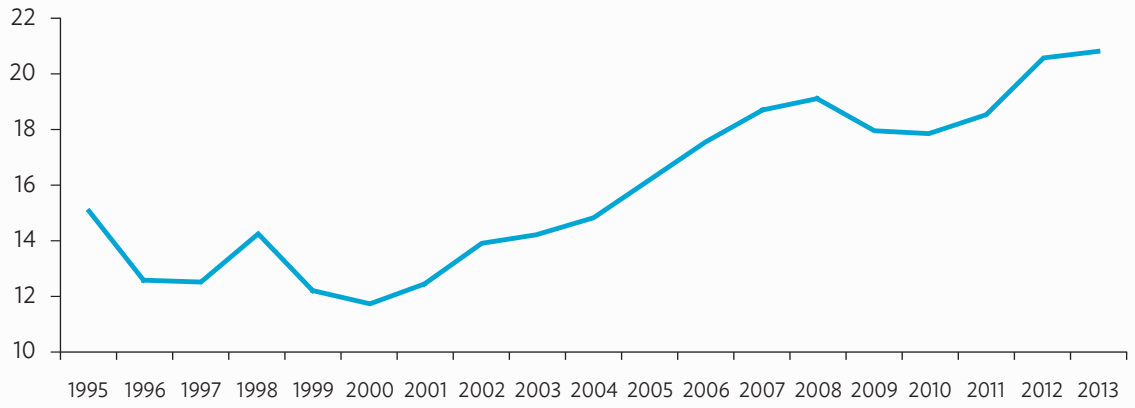
Table 15 Business Tax Rates, Kyrgyz Republic and Selected Benchmark Countries (% of profits)

Country	%
Tajikistan	84.5
Kyrgyz Republic	**69.0**
China, People's Republic of	63.5
Russian Federation	46.9
Armenia	40.9
Pakistan	35.3
Moldova	31.3
Kazakhstan	28.6
Mongolia	24.6
Georgia	16.5

Source: World Economic Forum. 2011. *Global Competitiveness Report 2012–2013: Insight Report.* Geneva.

Despite the issues discussed above, the Kyrgyz Republic has made significant strides in improving its investment climate. When it comes to starting a business, registering property, and dealing with construction permits, it ranks well above the benchmark countries, as documented in the *Doing Business* reports. In the Economic Freedom of the World Index, prepared by the Fraser Institute, the Kyrgyz Republic ranked 88th out of 144 countries and territories in 2010, only five places below Italy and ahead of the Russian Federation (95th) and Ukraine (122nd), but behind Kazakhstan (70th) and Turkey (75th).[99]

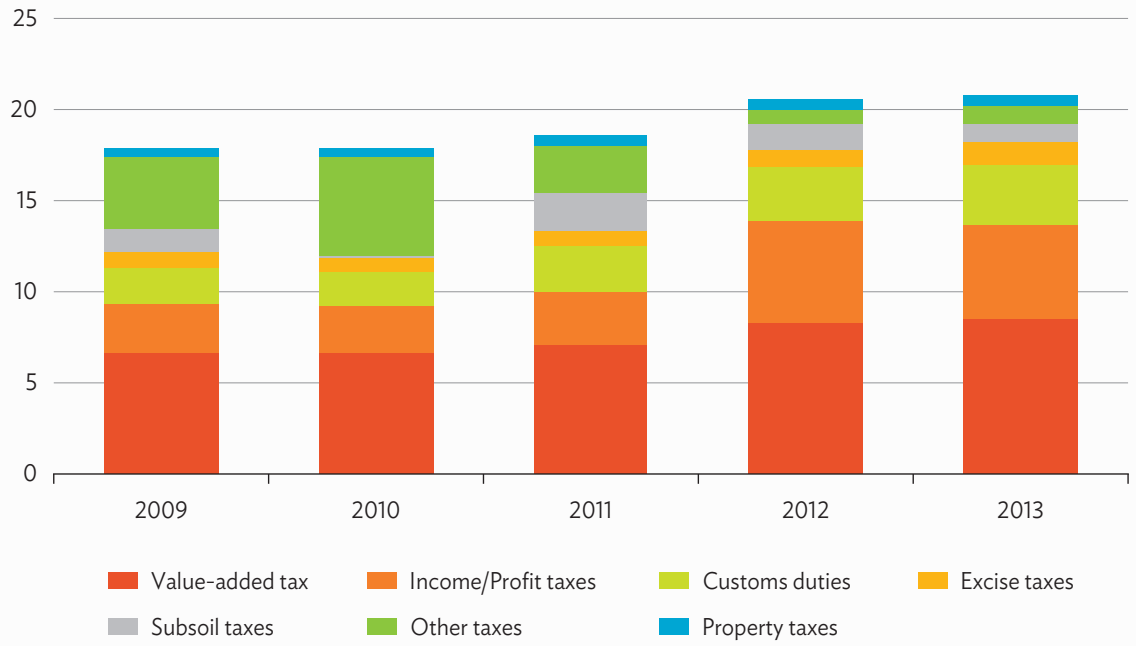
Figure 57 Tax Revenues (% of gross domestic product)



Source: National Statistical Committee of the Kyrgyz Republic.

[99] J. Gwartney, R. Lawson, and J. Hall, with S.L. Baier, C. Bjørnskov, M. Clance, A.M. Crisp, A. Dreher, G.P. Dwyer, N.J. Foss, and K. Gehring. 2012. *Economic Freedom of the World: 2012 Annual Report.* Fraser Institute.

Figure 58 **Composition of Tax Revenues** (% of gross domestic product)



Sources: Ministry of Finance of the Kyrgyz Republic and National Statistical Committee of the Kyrgyz Republic.

3.3.3 Market Failures

Market failures exist when there is no effective market for factors that are needed for efficient production. The markets that are particularly likely to suffer from failures are those involving information, skills, and coordination with other companies.[100]

An information externality is a breakdown in the market for information, which often occurs when an untested product or production process is introduced. The introduction of the product or process generates information about whether it is successful, and how it could be more effectively developed and marketed. This information often benefits third parties as well as the innovator. However, these third parties do not reward the innovator for the benefits that they derive and, in the case of failure, the innovator bears the cost.

Learning externalities frequently occur because the benefits of training workers spill over to other firms when the workers subsequently switch employers or migrate. A coordination failure occurs when a firm's linkages to upstream and downstream industries are not well developed, so it cannot coordinate with other firms to ensure access to necessary inputs.

[100] These factors are difficult to measure, and it is also difficult to exclude others from benefiting from them. This is why market failures are likely to arise.

Mechanisms to mitigate these failures are often put in place by governments or, less commonly, by private sector groups. Without such mechanisms, these kinds of market failure reduce productivity and, therefore, investment.

Although information externalities are, by nature, difficult to observe, their presence is suggested by certain symptoms such as low diversity and sophistication of export products. During 2007–2010, the top five commodity groups exported by the Kyrgyz Republic, as defined by the International Trade Centre, were (i) pearls, precious stones, metals, and coins; (ii) mineral fuels, oils, and distillation products; (iii) articles of apparel and accessories, not knit or crochet; (iii) edible vegetables and certain roots and tubers; (iv) edible fruit, nuts, citrus peels, and melons; and (v) other commodities. These categories (including gold exports) represented almost 77% of the Kyrgyz Republic's total exports in 2009.

Manufactured exports are mostly from low-technology sectors. In 2007–2010, high-technology products averaged only 2.8% of total manufactured exports, below that of Georgia (4%), Moldova (5.6%), and the Russian Federation (7.9%) during the same period, and significantly below the PRC (26.8%). In the 2013–2014 *Global Competitiveness Report*, the Kyrgyz Republic ranked 145th out of 148 countries in the innovation category and 138th in capacity for innovation (Table 16).

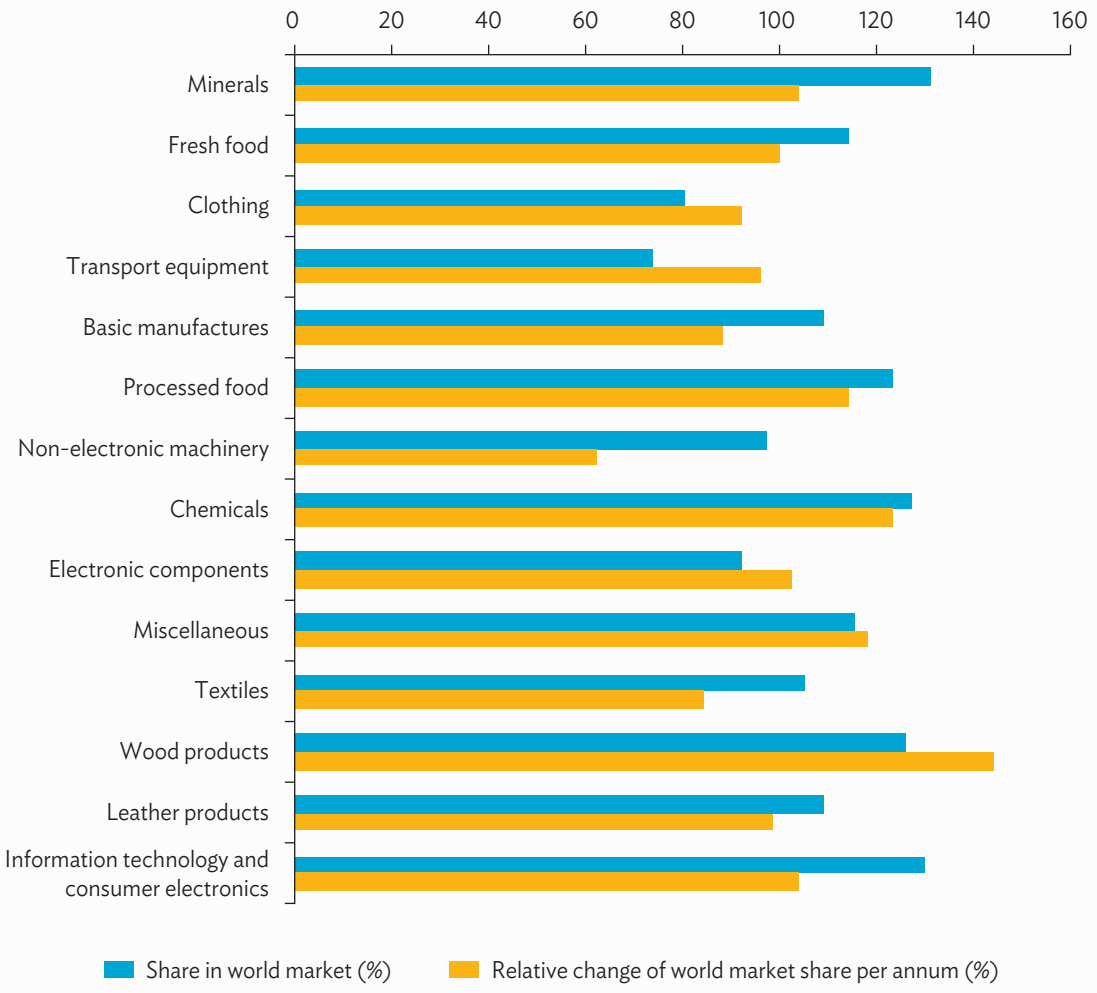
Table 16 Technological Readiness and Innovation, Kyrgyz Republic and Selected Benchmarks

Category	Kyrgyz Republic	Armenia	PRC	Georgia	Kazakhstan	Lao PDR	Moldova	Mongolia	Russian Federation
Availability of latest technologies	138	97	105	100	88	112	116	90	124
Firm-level technology absorption	139	98	71	117	78	90	124	79	126
FDI and technology transfer	137	50	78	101	93	43	109	67	125
Technological adoption	142	84	86	106	85	88	118	76	127
ICT use	108	67	79	55	51	118	48	61	43
Capacity for innovation	138	77	30	118	74	46	134	107	64
Quality of scientific research institutions	139	106	41	124	102	74	132	99	65
Company spending on R&D	144	109	22	128	77	33	142	100	69
University–industry collaboration in R&D	142	107	33	132	79	83	129	114	64
Government procurement of advanced tech products	144	111	13	62	58	44	139	106	108
Availability of scientists and engineers	146	74	44	126	98	135	131	70	90
PCT patents applications/million pop.	94	58	36	62	67	126	81	106	43

FDI = foreign direct investment, ICT = information and communication technology, Lao PDR = Lao People's Democratic Republic, PCT = Patent Cooperation Treaty, PRC = People's Republic of China, R&D = research and development.

Source: World Economic Forum. 2013. *Global Competitiveness Report 2013–2014: Insight Report.* Geneva.

Figure 59 **Export Performance Indexes, 2012** (relative rankings)



Source: International Trade Centre. Trade Competitiveness Map. http://legacy.intracen.org/appli1/tradecom/TPIC.aspx?RP=417&YR=2012

On the other hand, it should be noted that the Kyrgyz Republic, unlike other Central Asian countries, has been able to break into manufacturing products for export, mainly textiles and garments. These industries have exploited infrastructure and linkages built up by the informal reexport trade, suggesting that the informal sector is not completely lacking in dynamism. While the constraints to technological and export innovation are important, and their relaxation would enhance productivity and growth, the points made above indicate that they are not insuperable constraints, and are therefore not binding (Figure 59).

Information failures can have particularly severe impact on the agriculture sector, as knowledge of prices and demand, both current and forecast, is essential for farmers when planning production, especially given that the outputs are time sensitive. In the Kyrgyz Republic, no national system exists for providing forecast

information on domestic and regional demand for agricultural products. Instead, farmers respond to either government promises to procure certain crops or to reports of increased demand for agricultural and processed commodities, usually from abroad. However, the government often fails to fulfill its promises, and closures of borders and other restrictions on agricultural exports are common. Both of these occurrences can lead to overproduction. Overall, it is clear that uncertainty and the lack of information pose challenges for farmers and for agro-processing.

There has, however, been some innovation and transformation in the agriculture sector, with producers moving away from cotton and toward foodstuff. Thus, the export pattern of agricultural products has changed dramatically since 2003, in favor of fruit and vegetables (to the Russian Federation) and milk and dairy products (to Kazakhstan). Likewise, the share of cotton fiber exports in total agricultural exports dropped from 46% in 2003 to 8% in 2009, and the area devoted to cotton cultivation decreased from 40,500 ha to 26,700 ha. Some oblasts have successfully switched to producing particular crops that are in demand in neighboring countries. For example, Talas Oblast exports beans to Turkey and other markets via Kazakhstan.

Overall, lack of innovation is not a major constraint to agriculture. Rather, the main challenges are (i) uncertainty about policies, availability of inputs, and external markets; (ii) increased competition (e.g., from potato exporters in Belarus, after the formation of the Customs Union by Belarus, Kazakhstan, and the Russian Federation); and (iii) border closures (e.g., by Kazakhstan to Kyrgyz Republic's livestock and dairy products numerous times, citing zoonotic disease outbreaks in the Kyrgyz Republic).

Table 17 Logistics Performance Index, Kyrgyz Republic and Selected Benchmark Countries, 2014

Country	Overall Logistics Performance Index	Overall Rank	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking and Tracing	Timeliness
China, People's Republic of	3.53	28	38	23	22	35	29	36
Kazakhstan	2.70	88	121	106	100	83	81	69
Russian Federation	2.69	90	133	77	102	80	79	84
Armenia	2.67	92	75	107	90	79	114	98
Moldova	2.65	94	98	85	52	118	131	109
Tajikistan	2.53	114	115	108	92	113	119	133
Georgia	2.51	116	131	100	138	119	102	87
Uzbekistan	2.39	129	157	148	145	122	77	88
Lao PDR	2.39	131	100	128	120	129	146	137
Mongolia	2.36	135	132	120	110	126	149	147
Kyrgyz Republic	2.21	149	145	147	127	151	145	155

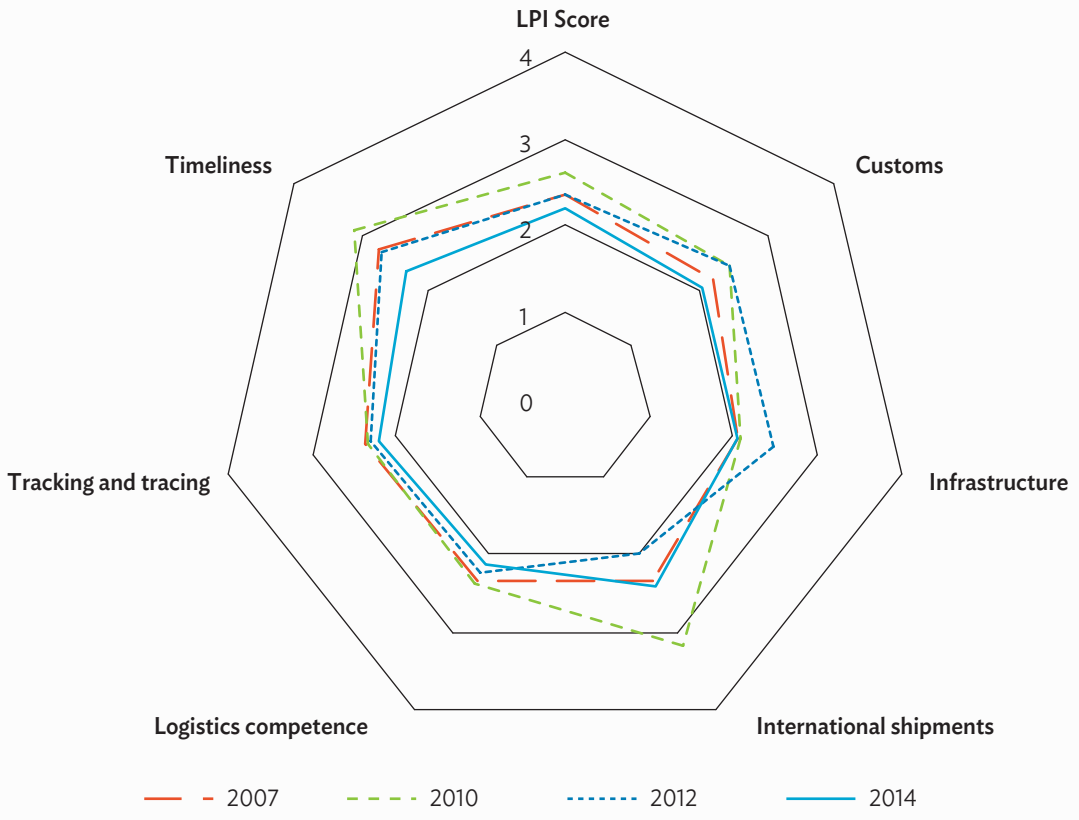
Lao PDR = Lao People's Democratic Republic.

Note: On a scale from 1 to 5, the higher the score, the better the performance.

Source: International Bank of Reconstruction and Development. 2014. *The Logistics Performance Index.* Washington, DC.

For a country that is so heavily dependent on external trade, coordination between exporters and traders or logistics service providers is particularly important. Despite the shortcomings outlined previously regarding the time spent loading and unloading at borders, the Kyrgyz Republic scored relatively well in the Logistics Performance Index (**Table 17** and **Figure 60**).[101] Although these scores deteriorated between 2010 and 2014, they are particularly significant for a landlocked country, where the reliability and predictability of the supply chain matter. Strong supply chains have helped the Kyrgyz Republic forge a role as a key link in regional trade networks, particularly in the reexport of goods from the PRC to neighboring countries. These trade links have even helped the country move into light manufacturing, particularly garments. However, specific shortcomings such as the lack of cold-storage facilities, refrigerated trucks, and facilities for packaging and standardization, are constraints to the development of agriculture, particularly the food-processing export industries.

Figure 60 Logistics Performance Index, Kyrgyz Republic, 2007–2014



Note: On a scale from 1 to 5, the higher the score, the better the performance.

Source: International Bank of Reconstruction and Development. 2014. *The Logistics Performance Index.* Washington, DC.

[101] The Logistics Performance Index, jointly prepared by the World Bank and Turku School of Economics, in Finland, is based on a worldwide survey of operators on the ground (global freight forwarders and express carriers), providing feedback on the logistics "friendliness" of the countries in which they operate and with which they trade.

4 Constraints to Inclusivity

As noted in Chapter 3, poverty rose precipitously as the economy collapsed in the 1990s. Significant progress in reducing poverty began in 2000, and continued for 8 years, with the proportion of the population living at or below the national poverty line falling from 56.4% in 2001 to 31.7% in 2008. However, in the wake of the global financial crisis, political unrest, and the rising prices of basic commodities, the poverty rate stagnated in 2008 and 2009, and then rose in 2010. The economy rebounded in 2011, with GDP growing by 6.0%, but poverty continued to rise to 36.8%. The poverty rate further rose to 38.0% in 2012 and only slightly declined to 37% in 2013, despite strong economic growth. Inequality rose during the first years of independence, as the more well-off were able to shield themselves from the worst impacts of economic collapse, but during the 2000s, inequality generally declined.

Many households live very close to the poverty line, so the potential for reducing poverty rapidly is strong. On the other hand, if such policies fail, the risks of further increases in poverty rates and regional disparities are high. If not mitigated, these risks could again threaten social and political stability. This chapter identifies constraints to the inclusiveness of growth.

4.1 Limited and Uneven Opportunities

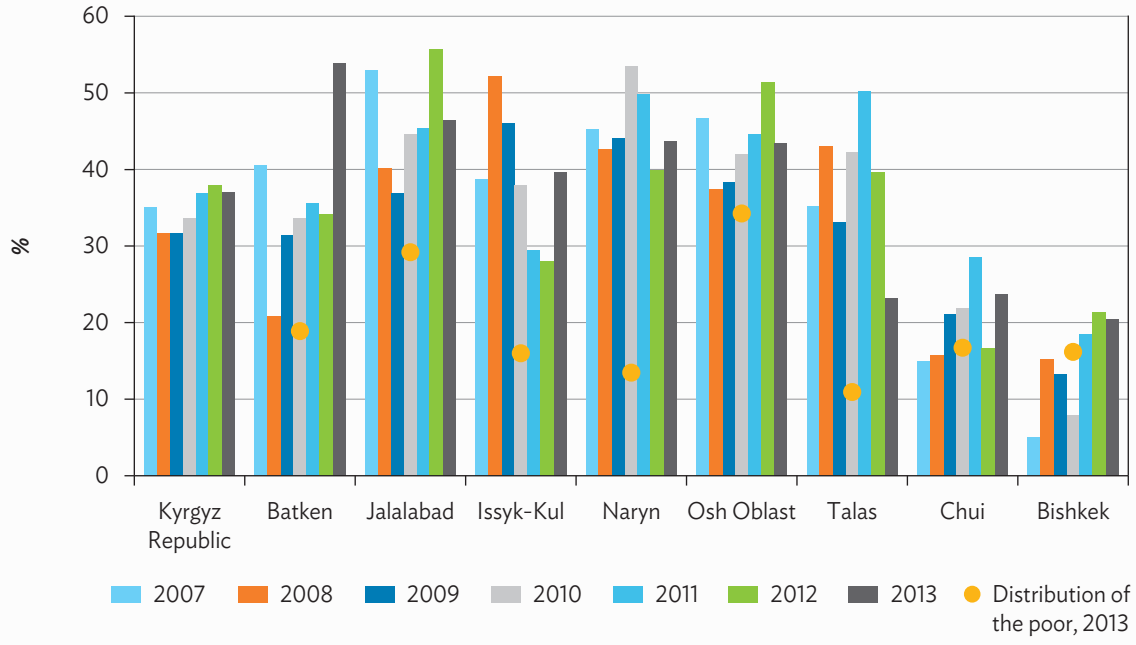
4.1.1 Inadequate and Uneven Access to Economic Opportunities

The limited availability of opportunities for employment and income generation, and the uneven geographic distribution of these opportunities, comprise a major constraint to inclusive growth. The importance of both internal and international migration for Kyrgyz Republic households, and for the economy, underlines this diagnosis. While migration has made it possible for some workers to find employment, barriers to migration have made it difficult for others to benefit from economic opportunities elsewhere in the country or abroad. For those who do migrate, there are substantial costs—to them, their families, and for the country. Therefore, the Kyrgyz Republic needs to create more and better domestic employment opportunities, and to spread them more evenly among the regions.

The binding constraints discussed in Chapter 3 have curtailed economic growth in the Kyrgyz Republic. In addition, growth during 2001–2013 generated only limited job opportunities. It is therefore essential that the binding constraints be removed as a first step toward achieving inclusive growth. However, for growth to be genuinely inclusive, it will have to generate employment and livelihood opportunities in many sectors, rather than relying on capital- or natural resources-intensive industries, such as gold mining.

The uneven geographic distribution of economic opportunities is reflected in the varied poverty rates across regions. As discussed in Chapter 3, there are wide disparities between Bishkek City, Chui Oblast, and Issyk-Kul Oblast, and the rest of the country. Bishkek City, Chui Oblast, and Issyk-Kul Oblast demonstrated a relatively low poverty rate in 2010–2012. However, there was a rapid increase in the poverty incidence in Bishkek from the low 7.9% observed in 2010 to 18.4% in 2011 and to 21.4% in 2012. Inflation is considered a reason, but, further analysis is needed to identify the causes of the rapid increase. Poverty rates of Batken Oblast and Talas Oblast have been volatile. The reasons for volatility also need further analysis (**Figure 61**). Osh and Jalalabad are the most populous oblasts, and are together home to more than 50% of the country's poor.

Figure 61 **Poverty Rates and Distribution of the Poor, by Oblast, 2007–2012**

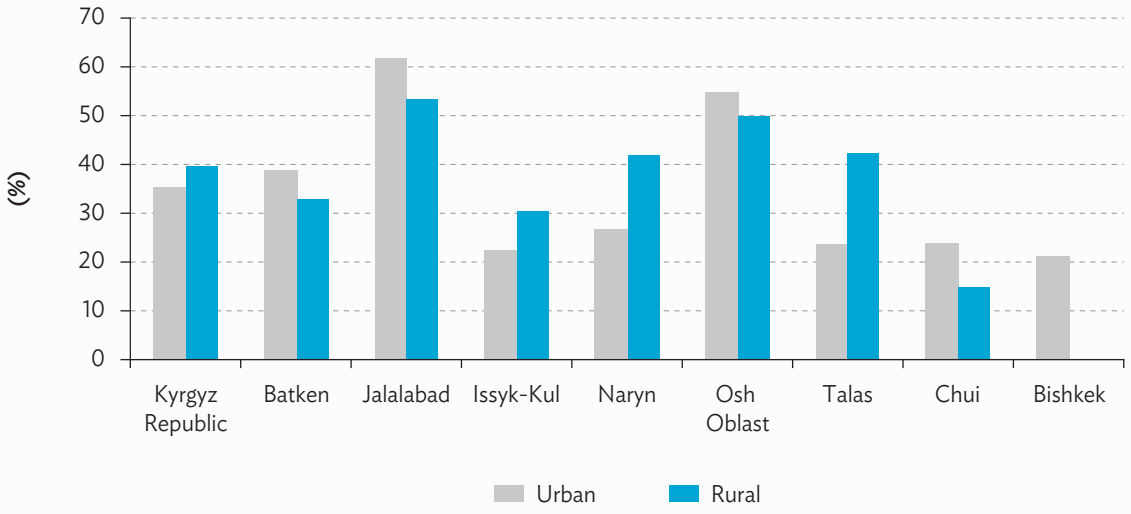


Source: National Statistical Committee of the Kyrgyz Republic.

Further, regional disparities are partly reflective of the rural–urban split, with the highest poverty rates in the most rural and remote oblasts and high-altitude areas. Within oblasts, the urban areas are not significantly better off than the rural hinterlands (**Figure 62**). Urban poverty rates are close to, or higher than, rural poverty rates within a number of oblasts. This finding has been confirmed by raion-level data used in a recent World Bank study. In 2012, differences between rural and urban areas within regions were significant only in Batken, Chui, and Jalalabad oblasts.[102]

[102] A. Atamanov. 2013. *Regional Welfare Disparities in the Kyrgyz Republic.* Washington, DC: World Bank.

Figure 62 **Rural and Urban Poverty Rates, by Oblast, 2012** (%)



Source: National Statistical Committee of the Kyrgyz Republic.

A poverty-mapping exercise conducted in 2013 by the NSC, in cooperation with the World Bank, underlined the regional disparities. Mapping poverty rates at the raion (rather than oblast) level revealed some interesting patterns, including the fact that raions bordering neighboring countries, particularly Kazakhstan and the PRC, have significantly lower poverty rates than raions located in the center of the country.[103]

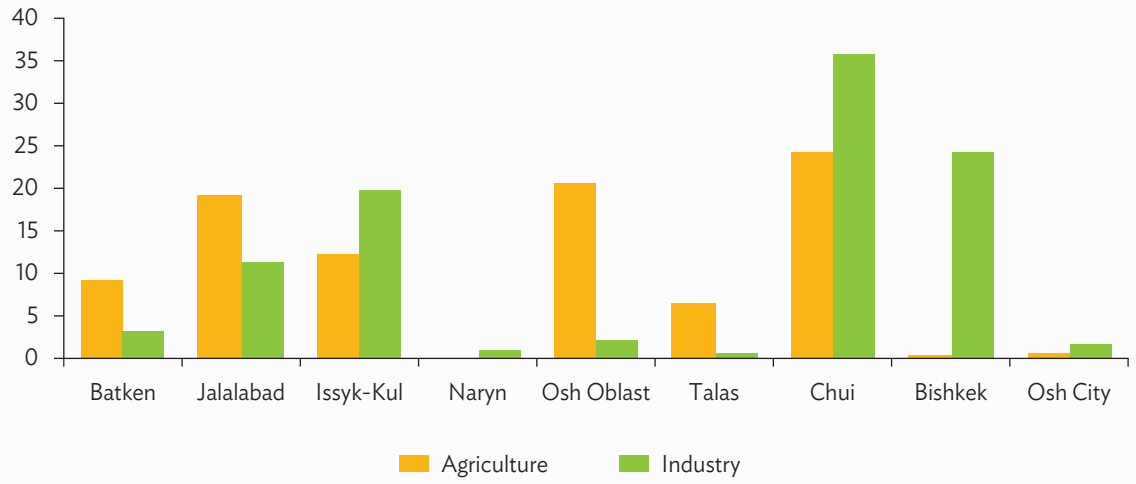
The impact of remittances on poverty has been very pronounced for Batken, Jalalabad, and Osh oblasts. Had it not been for remittance inflows, poverty incidence would have been 66% in Batken, 56% in Jalalabad, and 60% in Osh in 2012, while the overall poverty rate in the Kyrgyz Republic would have been 6.5% higher, highlighting the vulnerability of poverty rates to remittance flows.

Although some of the fluctuations in poverty rates, particularly the rises in Osh and Jalalabad oblasts during 2010–2011, can be traced to the impacts of the 2010 events or to other region-specific factors,[104] the underlying disparities are largely related to structural differences among the regional economies. The two major cities, Bishkek and Osh, are dominated by the services sector, which accounts for more than 80% of their gross regional products (**Figure 63**). Agriculture dominates the remote northern oblasts of Naryn and Talas, as well as the southern oblasts of Batken, Jalalabad, and Osh. It also dominates the economy of Chui Oblast, which boasts of productive cultivated land and nonagricultural economic opportunities. Industry has the largest share in Issyk-Kul Oblast, which is home of the Kumtor gold mine.

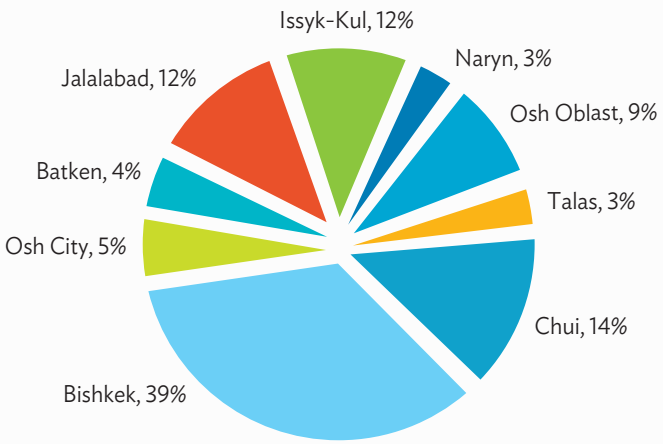
[103] M. Mahadevan, N. Yoshida, and L. Praslova. 2013. Poverty Mapping in the Kyrgyz Republic: Methodology and Key Findings. *Poverty Reduction and Economic Management Unit Working Paper.* World Bank: Washington, DC.

[104] For example, consultations in Talas Oblast in December 2012 revealed that the rise in poverty in 2011 was partly related to the impacts of the Customs Union of Belarus, Kazakhstan, and the Russian Federation, which increased competition for agricultural goods, particularly potatoes, in the nearby Kazakh markets, to the detriment of the incomes of farmers in the Kyrgyz Republic.

Figure 63 **Breakdown of Value Added by Sectors and Regions, 2012** (% of total)



Regional shares of GDP (%)



GDP = gross domestic product.

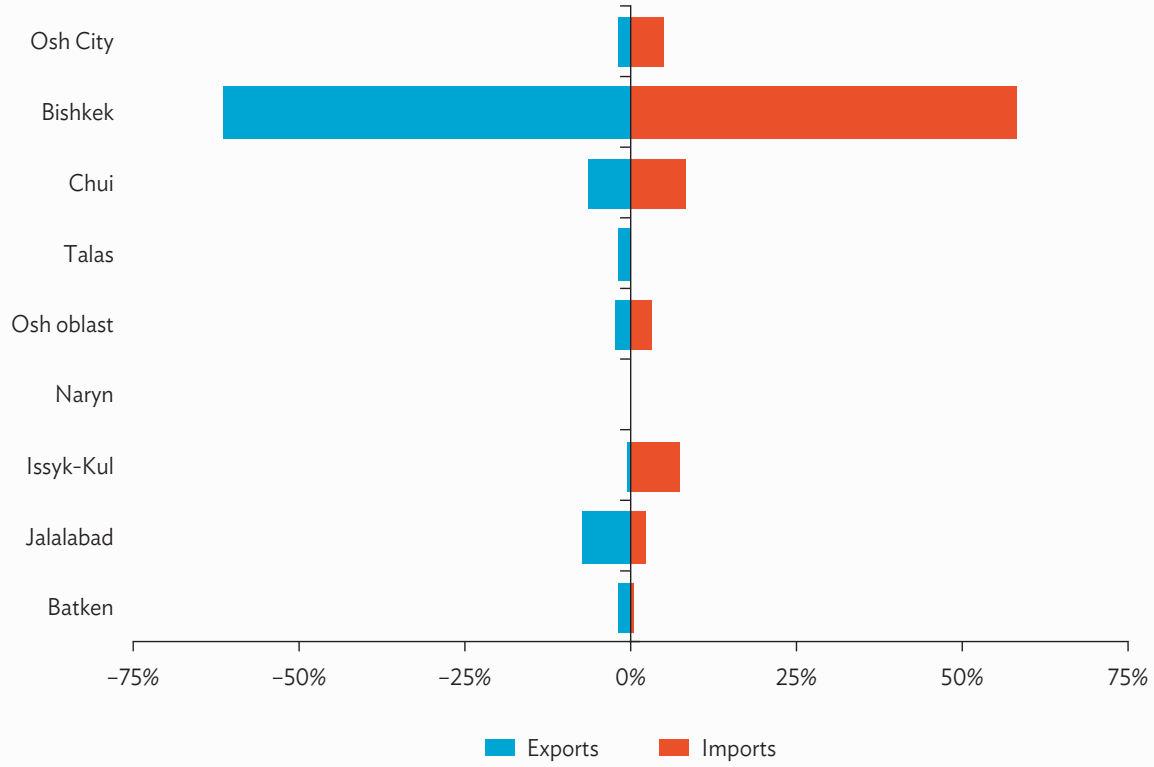
Source: National Statistical Committee of the Kyrgyz Republic.

Trade, particularly the reexport of goods from the PRC to other countries in the region, has created many economic opportunities since 2006. However, most of the jobs are either in Bishkek, which hosts Dordoi Market and which accounted for 59.3% of registered imports and 79.0% of exports in 2011 (**Figure 64**), or in Osh, the location of Kara Suu Market.[105] A World Bank study estimated that in 2008, Dordoi Market directly employed about 55,000 workers and created an additional 100,000–150,000 jobs in auxiliary services.[106]

[105] Export figures may not reflect the full picture of trade, as some goods are traded unofficially. For this reason, the importance of Osh in trade may be understated, as it seems likely that a high proportion of trade is carried out unofficially or on a small scale, and thus not recorded in customs data. Also, imports and exports are recorded based on the location where they undergo customs procedures, rather than at the border or at the point where they are actually traded. It is possible, for example, that some of the goods registered in Bishkek are subsequently distributed from another oblast.

[106] B. Kaminski and S. Mitra. 2012. *Borderless Bazaars and Regional Integration in Central Asia: Emerging Patterns of Trade and Cross-Border Cooperation.* Washington, DC: World Bank.

Figure 64 Regional Exports and Imports as a Percentage of Total Exports and Imports, 2012



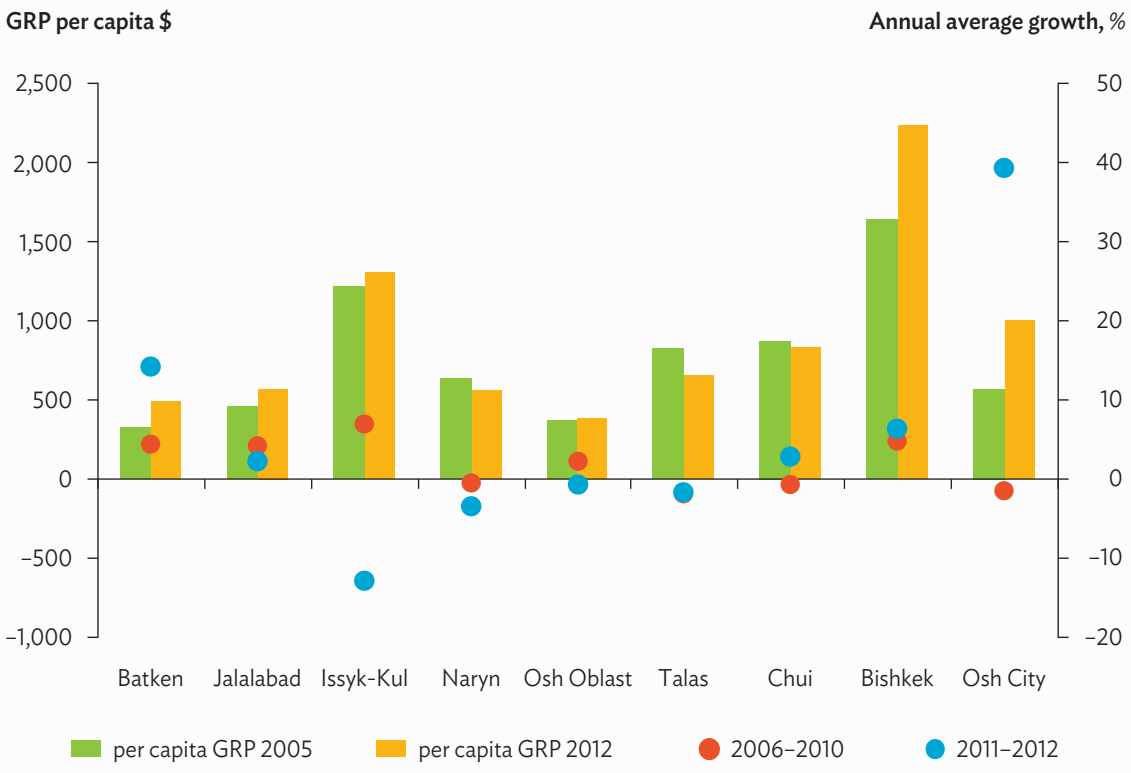
Source: National Statistical Committee of the Kyrgyz Republic.

The closure of the border with Uzbekistan in 2010 significantly disrupted trade. As a result, the southern oblasts' share of external trade declined from 12.4% in 2004 to 9.0% in 2011. Activity at Dordoi Market was reported to have decreased sharply in 2011 as well, primarily because of Kazakhstan's implementation of the rules of the Customs Union of Belarus, Kazakhstan, and the Russian Federation.

Because of the differing regional economic structures, the most attractive economic opportunities, particularly in the formal sector, are in Bishkek City and Chui Oblast, both of which have the country's highest gross regional products (GRPs). Mining and tourism are providing opportunities in Issyk-Kul Oblast, but other regions face a dismal lack of economic opportunities. In 2012, per capita GRP in Bishkek was 4.5 times higher than that in Batken, the poorest oblast in terms of per capita GRP (**Figure 65**). Thus, rather than improving over time, the inequality of income among oblasts had increased. During 2000–2010, Issyk-Kul and Chui oblasts saw higher-than-average growth rates, largely the result of growth in mining and tourism. In most of the poorer oblasts, GRP declined or grew only slowly.

Even within the agriculture sector, there are stark differences in productivity among the regions. The Chui valley has a relatively large endowment of low-lying, flat agricultural land suitable for irrigated agriculture (particularly grain production), and livestock. Thus, Chui Oblast produced over 3 times as much grain in 2011

Figure 65 **Per Capita Gross Regional Products and Average Annual Growth Rates, 2005–2012**
(in 2010 prices)



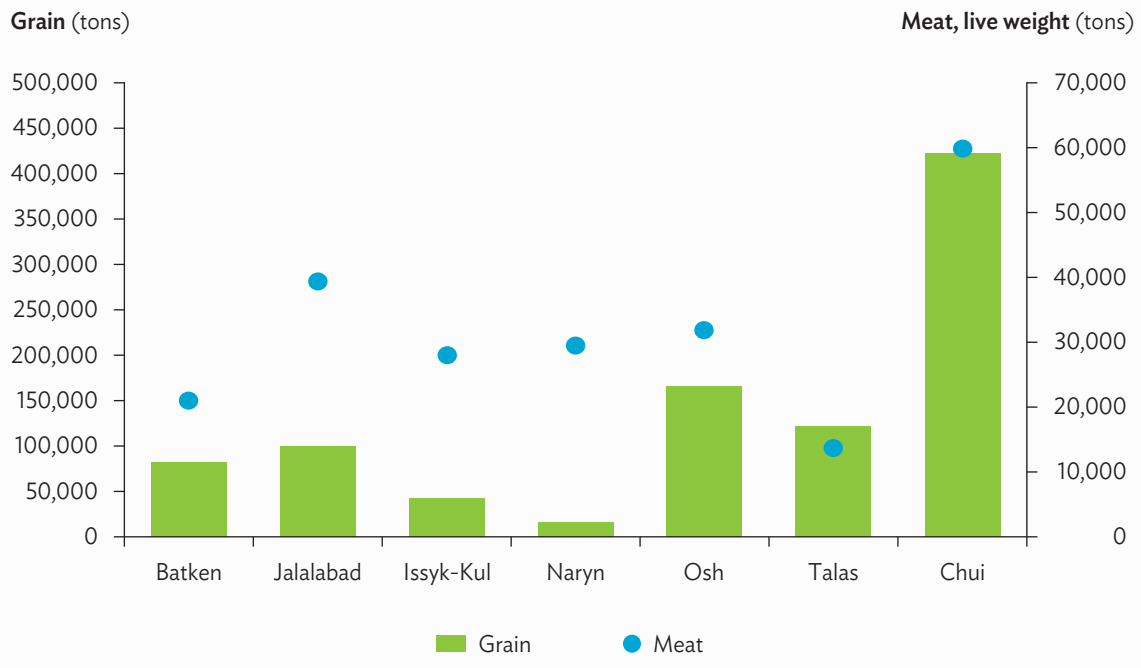
GRP = gross regional product.

Source: National Statistical Committee of the Kyrgyz Republic.

as the next-largest producer, Talas Oblast; and over 1.5 times as much meat as any other oblast (**Figure 66**). Moreover, in Chui Oblast and Bishkek, the availability of jobs outside of agriculture actually increases agricultural productivity by removing surplus labor from farming. Chui Oblast boasts the highest per farmer productivity, which was Som208,000 in 2010. Batken, Jalalabad, Osh, and Talas oblasts also have some low-lying land, in the Fergana and Talas valleys, and these oblasts produce significant quantities of grain. However, as Batken, Jalalabad, and Osh oblasts are densely populated, agricultural productivity remains relatively low. Issyk-Kul and Naryn oblasts have little land suitable for irrigated agriculture, but they have pastures suitable for livestock. Naryn has the lowest productivity per farmer, at Som58,000 in 2010 (**Figure 67**).[107]

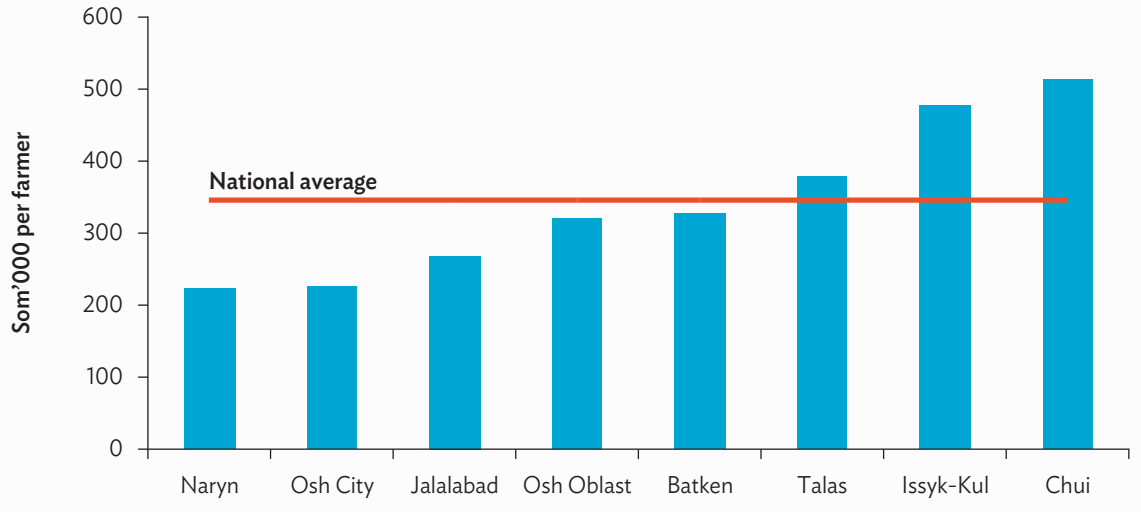
[107] Per farmer value added was Som2.2million in Bishkek, where there were reported to be 97 farming units in 2010. These are likely to be commercial farms, as opposed to the individual farmers typical of the poorer oblasts.

Figure 66 Agricultural Production by Oblast, 2013



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 67 Agricultural Value Added per Peasant Farmer or Farm Entrepreneur, 2012



Note: Bishkek is excluded because the number of peasant farmers there is too small for an estimate to be considered accurate.

Source: Authors' calculations based on data from the National Statistical Committee of the Kyrgyz Republic.

4.1.2 Labor Market Structure

Labor market statistics in the Kyrgyz Republic also reflect the uneven distribution of opportunities and differing economic structures among regions. Unemployment is lower in rural than in urban areas, and labor force participation is slightly higher in rural areas, mainly because the agriculture sector has flexibly absorbed labor as necessary. However, underemployment is widespread there, with 31% of rural working-age men and 54% of rural working-age women employed for fewer than 25 hours per week (Table 18).

Table 18 Key Labor Market Characteristics, Rural and Urban Areas, 2012 *(%)*

Characteristic	No. of Hours	Men	Women	Urban	Rural
Weekly hours of employment	<30	25.5	26.5	7.1	41.7
	31–40	52.1	45.0	59.9	43.7
	>41	21.7	17.2	32.6	13.5
Average working hours		35.8	32.6	41.7	30.7

	Urban		Rural	
	Men	Women	Men	Women
Unemployment rate	9.0	10.2	7.1	9.1
Labor force participation	73.0	52.0	78.0	53.0
Employment rate	66.0	46.0	73.0	48.0

Source: National Statistical Committee of the Kyrgyz Republic.

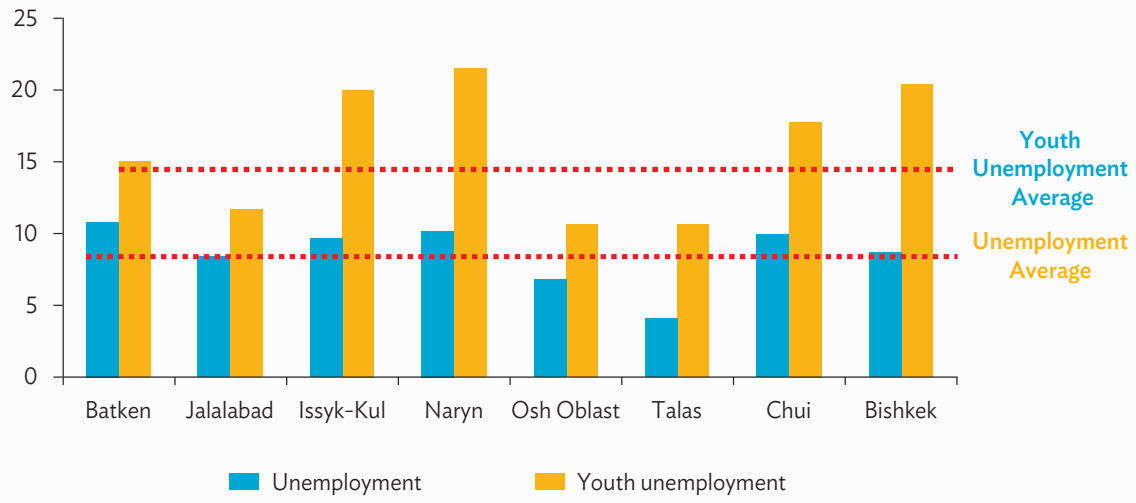
Women face particular difficulties in the labor market. In 2010, the unemployment rate was 9.9% for women, compared with 7.7% for men; and only 52.3% of working-age women described themselves as active labor market participants, as opposed to 76.6% of men.[108] In 2013, the labor force participation rate for women (aged 15–64 years) was at 51.8%, still much lower than that for men, which was 77.3%.[109] These statistics indicate that the Kyrgyz Republic has significant unexploited potential—a constraint both to economic growth and to inclusiveness.

The higher unemployment rate among youth (14.1%, compared with 8.6% for the entire working-age population, in 2010) could have particularly damaging implications for social stability.[110] It varies significantly by region, and tends to be higher in poorer oblasts. In 2010, youth unemployment was highest in Batken Oblast reaching 27.1% (Figure 68).

[108] NSC. 2011. *Women and Men of the Kyrgyz Republic 2006–2010.* Bishkek. Note that this rate does exceed the regional average. The data referred to here are from 2010.
[109] NSC. 2011. *Women and Men of the Kyrgyz Republic 2006–2010.* Bishkek.
[110] Youth is defined as the working population aged 15–28.

It is also high, at 19.1%, in Bishkek, which hosts the largest migration inflows. Almost half (45%) of unemployed youth live in urban areas, some of them as migrants. If they have no family support, migrant youth may be particularly vulnerable to falling into poverty.

Figure 68 Unemployment and Youth Unemployment Rates, by Oblast, 2010



Source: National Statistical Committee of the Kyrgyz Republic.

Analysis of household-level data shows a direct link between poverty and labor market indicators. In urban areas, there is a strong correlation between poverty and employment status, with the poor disproportionately likely to be unemployed. In rural areas, where employment status is not strongly related to poverty, underemployment is the key determinant, with the poor working significantly fewer hours (Table 19). This is most likely related in part to the seasonality of agriculture in areas where there are few off-farm opportunities.

Table 19 Labor Market Indicators, by Poverty Status and Quintile, 2010

		Urban		Rural	
Indicator		Non-Poor	Poor	Non-Poor	Poor
Unemployment rate		10	16	7	8
Labor force participation		63	57	65	66
Employment rate		57	48	60	61
	No. of Hours	Richest Quintile	Poorest Quintile	Richest Quintile	Poorest Quintile
Weekly hours of employment	<25	5	7	32	42
	25–39	5	12	12	13
	>39	90	81	56	45

Source: World Bank. 2012. *The Kyrgyz Republic: Profile and Dynamics of Poverty and Inequality, 2010.* Washington, DC.

Differences in the structure of employment also play a role in regional variations in poverty rates.[111] Workers in urban areas have far better access to off-farm jobs, in industry and services. In rural areas, 46% of workers are employed in agriculture, compared with just 3% of urban workers (**Figure 69**). The most agrarian oblasts are Talas, where 61% of primary employment is in agriculture; Naryn, where the rate is 55%; and Issyk-Kul, where the rate is 50%. The heavy reliance of rural and remote areas on agriculture almost inevitably leads to seasonal underemployment.

Rural workers are far less likely than those in urban areas to be employed by a firm or institution (**Figure 70**). Over half describe themselves as self-employed, as an unpaid family member, or as employed on their own subsidiary plot. However, just under 20% of workers in urban areas are self-employed, often in the informal sector. In both urban and rural areas, the self-employed are more likely to be poor than those in wage employment. In urban areas, 26% of the bottom quintile are self-employed, compared with 14% of the top quintile. In rural areas, the figure is 34% of the bottom quintile, compared with 24% in the top quintile. For a number of reasons, individual entrepreneurs and small business owners tend to be badly affected by economic fluctuations, including external shocks. This also means that even informal sector workers who are above the poverty line are still vulnerable to poverty.

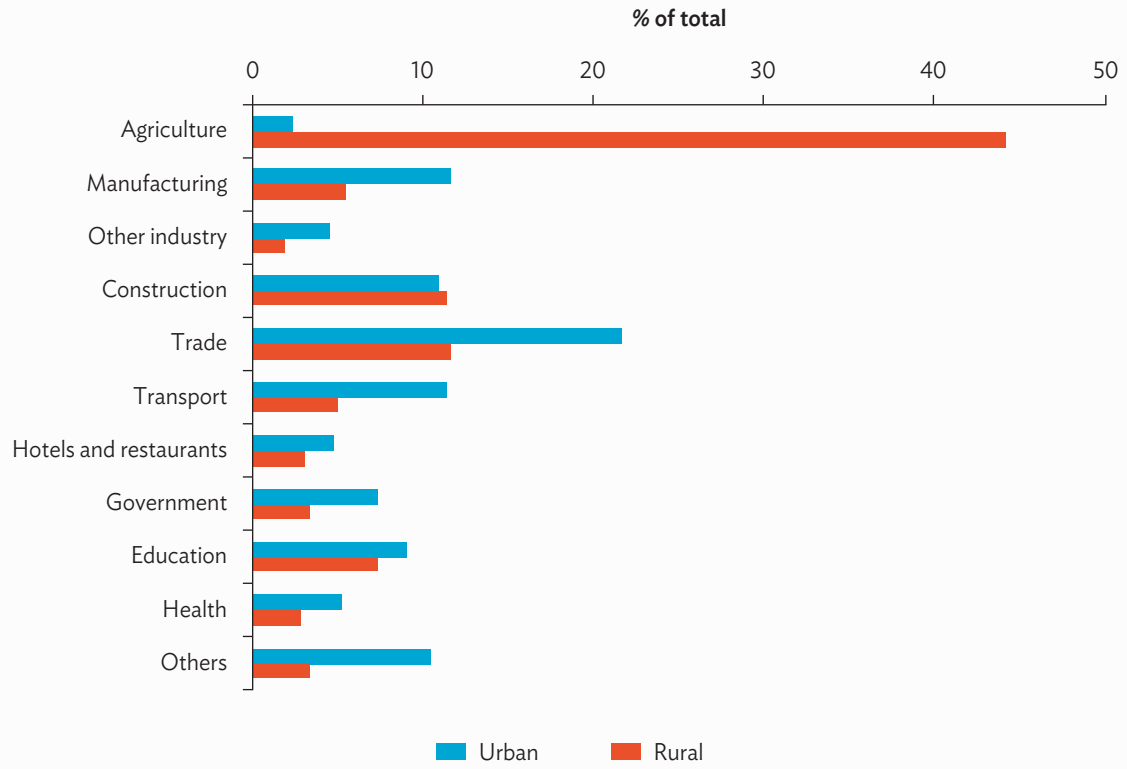
Moreover, rural wages are lower than urban wages in all but one major industry: mining. Unless they migrate, rural workers have little opportunity to access the highest-wage sectors, as these make up only a small proportion of employment in rural areas. For example, construction is relatively well paid, but this industry is accessible to rural workers largely through migration. Excluding migrants, only 6.8% of the rural labor force is employed in construction. In addition, wages in agriculture are significantly lower than in most other sectors. The most common off-farm opportunities in rural areas are in public services. Public sector workers are remunerated as badly, or even worse, than agricultural workers, although they may receive nonwage benefits that are not fully reported.

The gender pay gap has narrowed in the recent years, from 67.3% in 2007 to 74.3% in 2012. There are significant variations across sectors. The largest gap is in the transport sector, in which the average wages of women are only 69.9% of men (**Figure 71**).

Wage differentials among the regions are also notable. In 2013, average nominal wages in Osh Oblast were only 48% of the average nominal wages in Bishkek. Even after making adjustments for the cost of living, regional wage differentials were significant. Salary differentials between the budget institutions and others (private sector) were the largest in Jalalabad and Talas oblasts and the smallest in the Issyk-Kul Oblast, followed by Chui Oblast and Bishkek (**Figure 72**).

[111] World Bank. 2005. *Enhancing the Prospects for Growth and Trade of the Kyrgyz Republic.* Washington, DC.

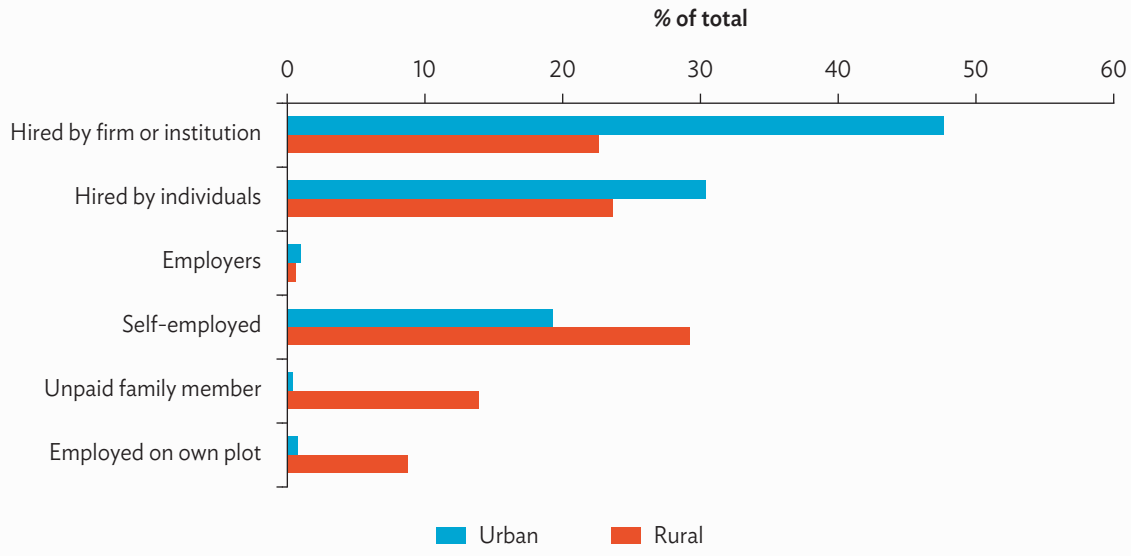
Figure 69 Structure of Employment, Rural and Urban Areas, 2012[a]



[a] This includes migrant workers.

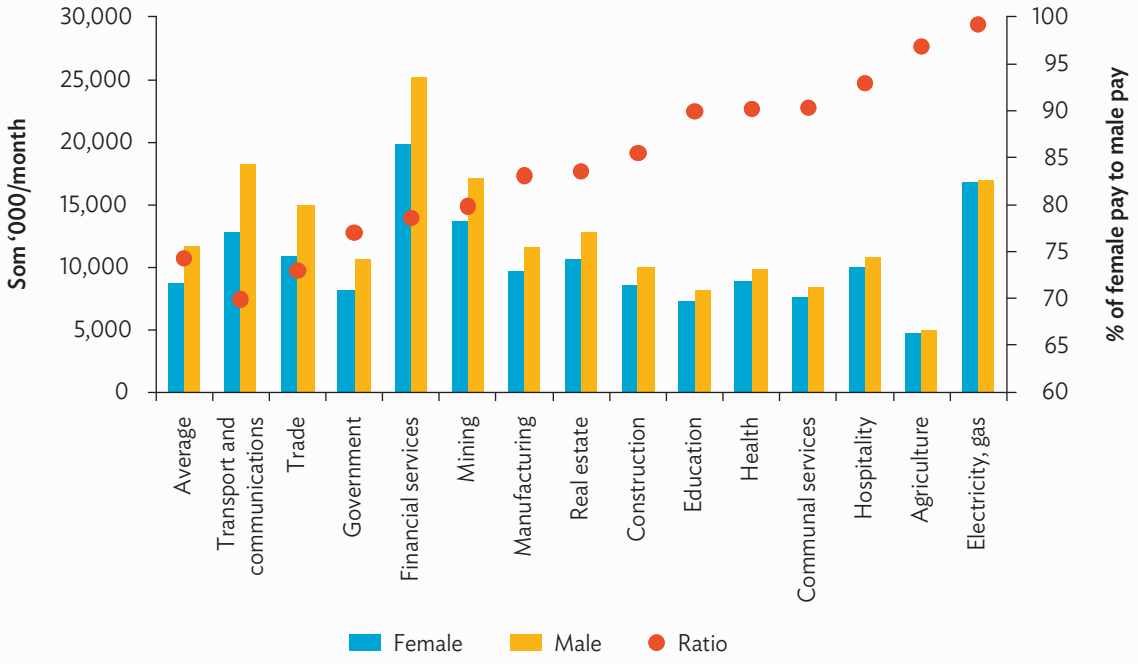
Source: National Statistical Committee of the Kyrgyz Republic.

Figure 70 Employment Status, Urban and Rural, 2012



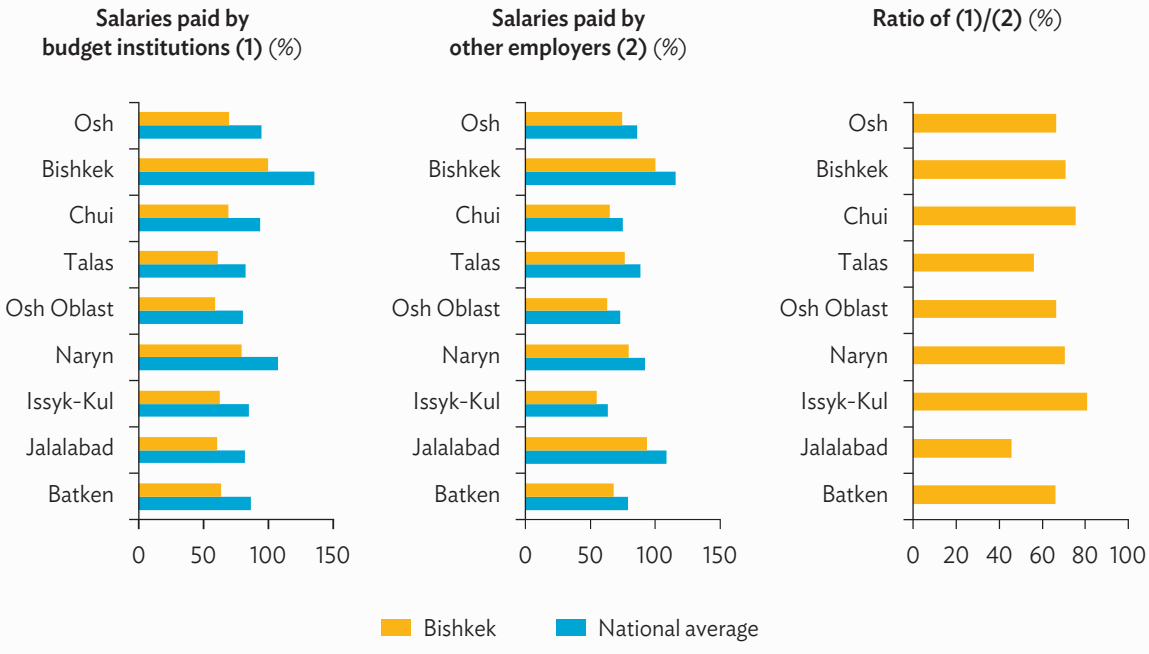
Source: National Statistical Committee of the Kyrgyz Republic.

Figure 71 Gender Pay Gap by Sector, 2012



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 72 Wage Differentials by Oblast, 2013[a] (% of averages)



[a] January–November 2013.

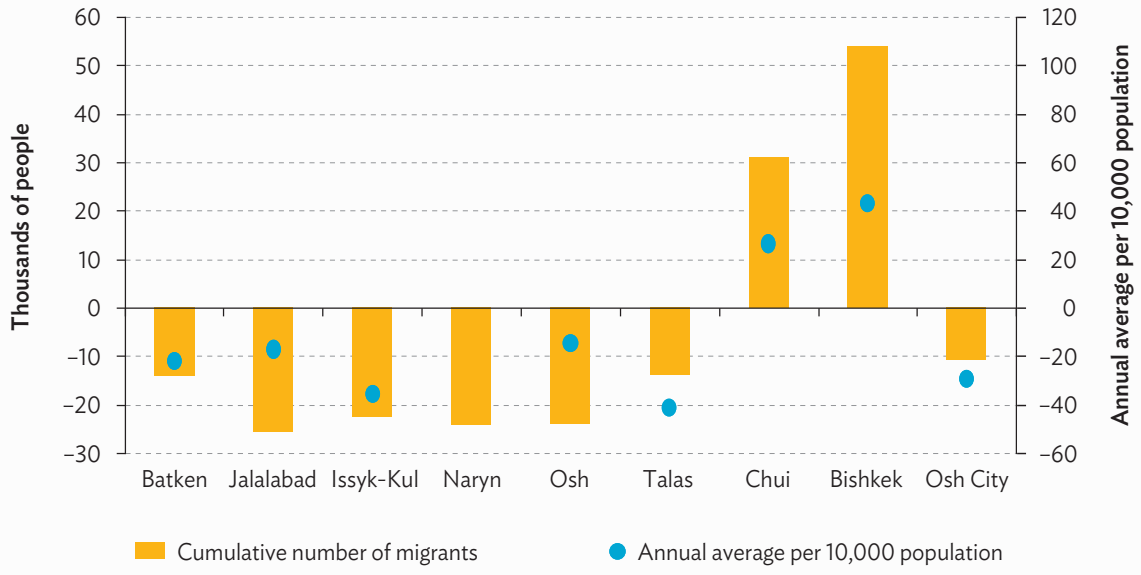
Source: National Statistical Committee of the Kyrgyz Republic.

4.1.3 Migration

The substantial migration from the Kyrgyz Republic, and from rural areas to cities within the country, is a response to the lack of opportunities at home. Yet the majority of migrants end up working in relatively unskilled jobs and for low wages, even when they have academic or professional credentials.[112] Many are employed in the informal sector.[113]

As mentioned in Chapter 3, cumulative internal migration data show that net inflows to Bishkek and Chui Oblast between 2000 and 2013 amounted to about 85,000 people, but informal estimates of internal migrants actually range up to 1 million people (**Figure 73**).[114] External migration often takes place in two stages: workers first move to Bishkek, Chui Oblast, or Osh City, and depart later for foreign destinations.

Figure 73 **Cumulative Registered Migration, by Oblast, 2000–2013** (thousands of people and annual average per 10,000 population)



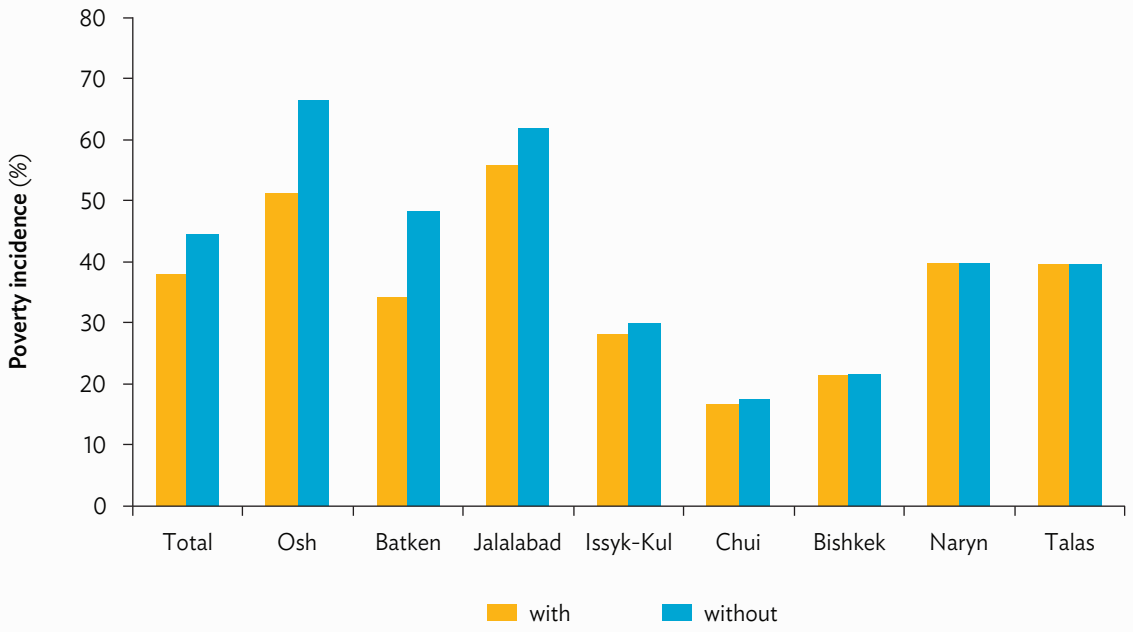
Source: National Statistical Committee of the Kyrgyz Republic.

[112] In the late 2000s, the average labor compensation in the Russian Federation for migrants from the Kyrgyz Republic with secondary vocational training was only 7% higher than that for migrants with secondary school diplomas. Even professionally trained migrants often perform unskilled labor in the Russian Federation.

[113] O. Chudinovskikh. 2011. Statistics of labor migration in the network MiRPAL (Migration and Remittances Peer-Assisted Learning) Network. Moscow: Moscow State University. Only an estimated 21.4% of migrants from the Kyrgyz Republic who are working in the Russian Federation have legal permits to work there.

[114] Official data have shown that migration out of Osh City was as high as 2.3% in 2010, compared with 0.6% out of Talas and 0.2% out of Naryn. However, as is the case with international migration, data on recorded internal migration capture only part of the story. For instance, the rate and pattern of internal and external migration in 2010 were significantly affected by the ethnic clashes that took place in the south.

Figure 74 **Poverty Rates With and Without Migrant Remittances, 2012** (%)



Source: National Statistical Committee of the Kyrgyz Republic.

Migration is an important route out of poverty for many workers and their households (**Figure 74**). Workers' remittances have played a particularly important role in reducing poverty rates in the southern oblasts of Batken, Jalalabad, and Osh.[115]

Although citizens of the Kyrgyz Republic can move freely within the country there are certain barriers to internal migration. For example, surveys show that only 0.5% of internal migrants in Bishkek have changed their official *propiska* (registration),[116] which dictates where a person can vote and access public services such as health care and education.

Given that remittances from abroad have enabled many families to escape poverty, this means that those unable to migrate fall even further behind, thereby exacerbating existing inequalities. In addition, reliance on remittances exposes households and the economy to external economic fluctuations and other risks. The outflow of skilled and unskilled workers also makes it difficult to develop the domestic economy, and imposes undeniable social and psychological costs on migrants, their families, and communities.[117]

[115] Excluding remittances from consumption, which can overstate their impact on poverty because households may save rather than spend remittances. Nonetheless, the importance of remittances to household livelihoods is clearly significant.

[116] A. Alymkulova and B. Dosaliev. 2010. Gender and Livelihoods of Migration: Kyrgyzstan 2009. Draft.

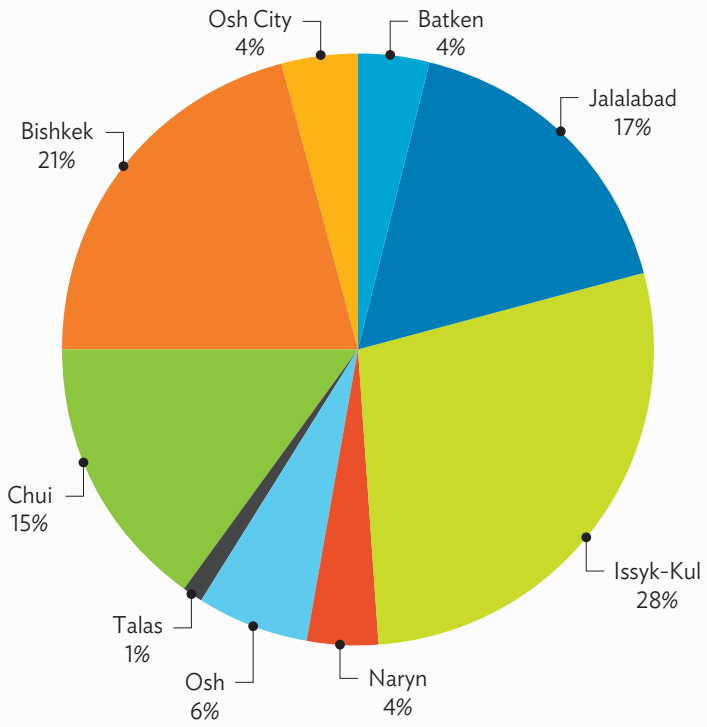
[117] For empirical evidence, see A. Kroeger and K. H. Anderson. 2012. Remittances and Children's Capabilities: New Evidence from Kyrgyzstan, 2005–2008. *IZA Discussion Paper Series.* No. 6293. Institute for the Study of Labor [IZA]: Bonn. http://EconPapers.repec.org/RePEc:iza:izadps:dp6293

4.2 Lack of Investment

4.2.1 Uneven Investment Rates across Regions

Regional differences in economic opportunities are strongly related to the varying investment rates in the regions. In 2011, more than half of the fixed investment took place in Bishkek City and Issyk-Kul Oblast (Figure 75). Per capita investment was far lower in the poorer oblasts (Figure 76).[118]

Figure 75 Investment in Fixed Capital, by Oblast, 2012 (% of total)

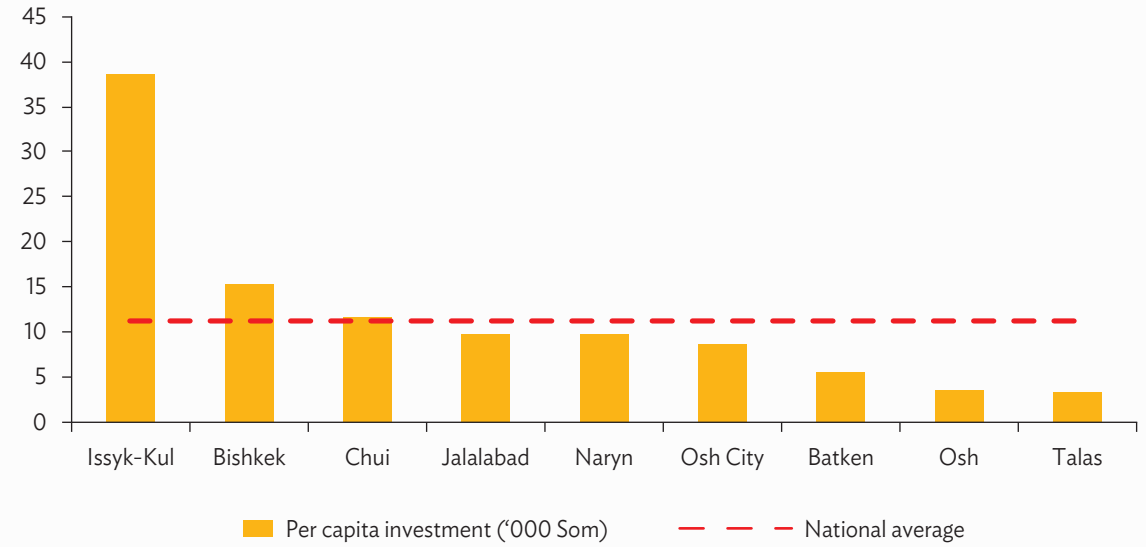


Source: National Statistical Committee of the Kyrgyz Republic.

Public investment (including donor-funded projects) has reached the poorer as well as the better-off oblasts (Figure 77). In particular, efforts to reconstruct Osh City after the events of 2010 explain the higher share of public investment spending that year. However, resources from national and local budgets finance only a fraction of total investment (about 5% in 2012, excluding Osh City), so the regions must rely largely on attracting private sector or foreign investment.

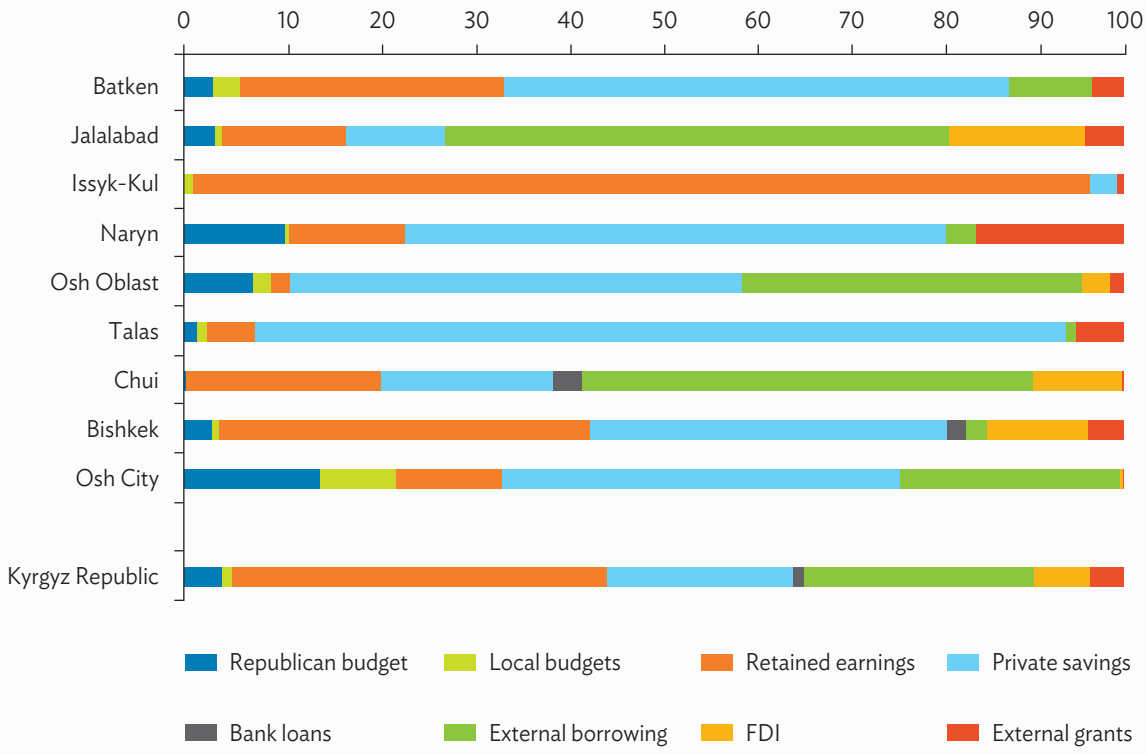
[118] With the exception of investments in the Kambarata 2 project, which increased investment levels in Jalalabad Oblast in 2008 and 2009, the regional distribution of investment was similar in earlier years.

Figure 76 **Per Capita Investment, by Oblast, 2012** (Som'000)



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 77 **Sources of Investment Financing, by Oblast, 2012** (% of total fixed capital investment)



FDI = foreign direct investment.

Source: National Statistical Committee of the Kyrgyz Republic.

4.2.2 Uneven Access to Finance

As discussed in Chapter 3, bank financing for investment is almost nonexistent. Retained earnings finance 40% of business investments, and private savings 25%. Rural areas face particular challenges concerning access to finance.

About 86% of deposits in commercial banks originate in Bishkek, which receives 57% of all bank loans. Even with the flow of funds from Bishkek to the rest of the country, lending levels in other regions are significantly lower than their shares of the GDP or the relative sizes of their populations (**Figure 82**). While the ratio of bank deposits to the GRP was estimated at 51.0% for Bishkek in 2013, it was less than 5.0% for the other regions except Osh City and Osh Oblast (8.6%), compared with 23.0% for the country. Similarly, the bank loans–GRP ratios varied between 8% and 18% for oblasts other than Bishkek (25%), compared with 17% for the country. These regional variations highlight the level of underbanking outside of Bishkek.

In contrast to bank lending, the regional distribution of microfinance lending is in line with the regional breakdown of populations and GRPs. The Kyrgyz Republic saw a very rapid increase in the number of MFIs and borrowers. Overall, the number of accounts increased tenfold to 370,000 between 2000 and 2010. While the rate of growth has slowed down since 2010, the number of accounts totaled 513,494 at the end of 2013. MFIs have a relatively even regional distribution of their activities, compared with that of commercial banks (**Figure 78**).

The fastest growth in the number of microfinance accounts has been noted in the Chui and Jalalabad oblasts. In 2011, Talas had the highest penetration ratio, with 15% of its inhabitants as active borrowers.[119] However, microfinance loans are small by definition, and the interest rates tend to be very high, as discussed in Chapter 3.[120] It is frequently reported that microfinance loans in the poorer oblasts have been primarily used to finance consumption, and in some cases are borrowed against future remittance flows. In 2011, Osh City had the highest rate of loans overdue by 30 days or more (3.3%), reflecting to a large extent the impacts of the 2010 conflicts followed by Bishkek (2.7%). Poorer oblasts, such as Batken (0.6%), had much lower rates.

During the focus group discussions held as part of this report, high outstanding debt to MFIs surfaced as a common concern for businesses and households. A joint 2011 study by the Microfinance Centre and the Interchurch Organization for Development Cooperation showed that, in the Kyrgyz Republic, the average loan size per borrower at disbursement was 1.6 times the country's average annual salary.[121]

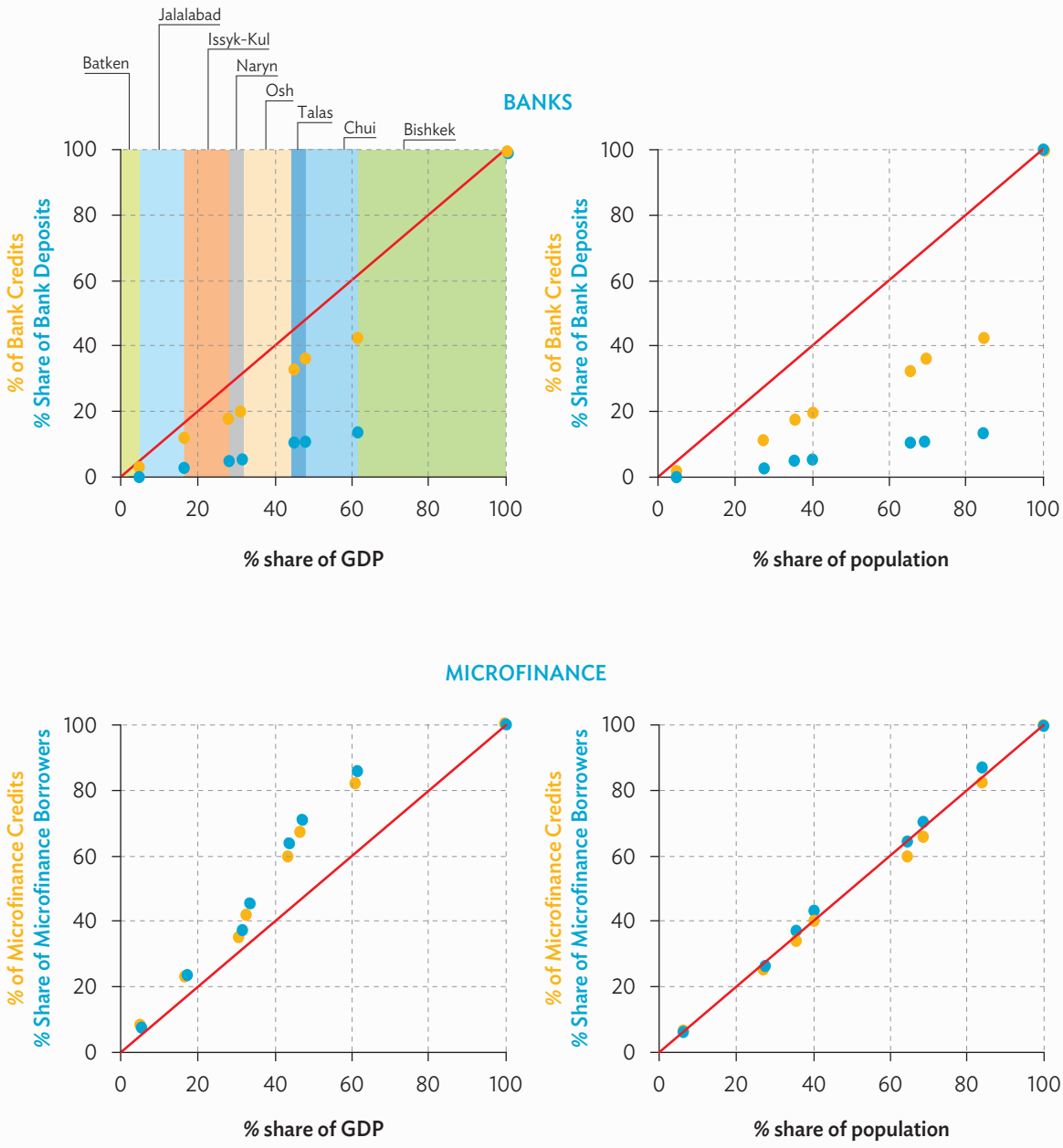
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119 The Microfinance Centre and the Interchurch Organization for Development Cooperation. 2011. *Research on the Level of Indebtedness and Repayment Performance of Individual Borrowers in Kyrgyzstan*. Bishkek. http://www.mfc.org.pl/sites/mfc.org.pl/files/Indebtedness%20report%20Kyrgyzstan_ENG.pdf

120 According to data provided by the Association of Microfinance Institutions, the average size of loans disbursed in December 2011 was $4,633, with an average maturity of 10 months. The average interest rate for microfinance loans was 38.3%, but annual percentage rates of up to 60.0% have been reported.

121 The Microfinance Centre and the Interchurch Organization for Development Cooperation. 2011. *Research on the Level of Indebtedness and Repayment Performance of Individual Borrowers in Kyrgyzstan*. Bishkek. p. 11. http://www.mfc.org.pl/sites/mfc.org.pl/files/Indebtedness%20report%20Kyrgyzstan_ENG.pdf

Figure 78 **Regional Distributions of Bank and Microfinance Lending Compared with Population and Gross Domestic Product, 2013** (cumulative %)



GDP = gross domestic product.

Note: The data for Osh includes both Osh Oblast and Osh City.

Sources: National Statistical Committee of the Kyrgyz Republic and the National Bank of the Kyrgyz Republic.

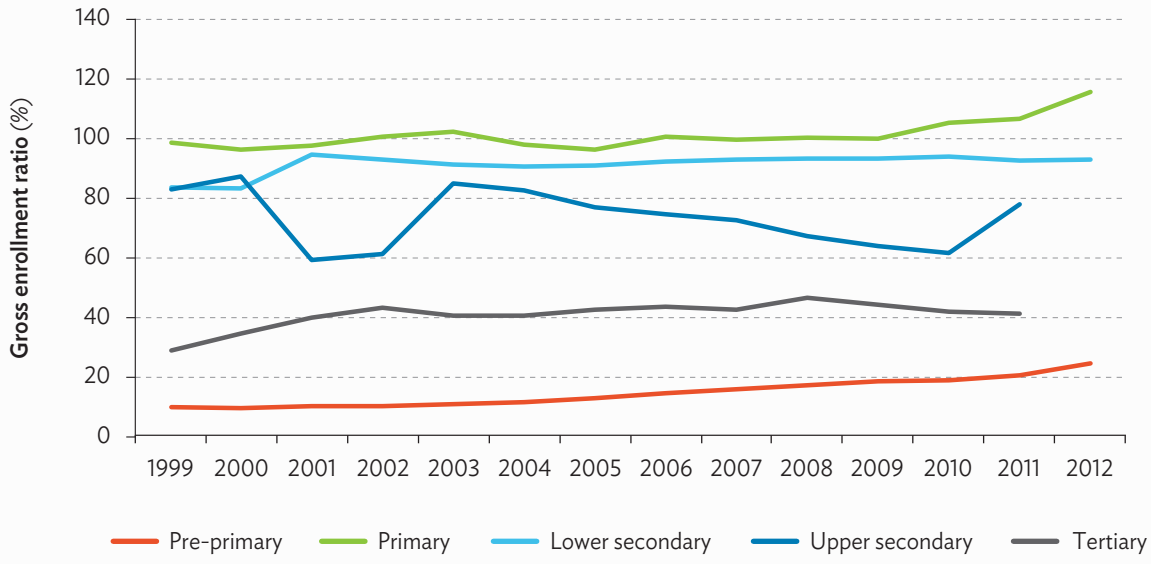
4.3 Unequal Access to Quality Education

The Kyrgyz Republic has managed to maintain relatively good access to basic services, reaching almost all of the population, in the face of substantial financial and capacity challenges. There are substantial shortcomings in service provision, however, particularly in the quality of education.

As discussed in Chapter 3, wages and employment rates vary by education level. Wages tend to increase as the education level rises; while unemployment is lowest among vocational school graduates and the second-lowest among those with university or other higher-education degrees (**Figure 39**).

School enrollment rates dropped immediately after the country's independence. By focusing on primary and lower secondary education, the Kyrgyz Republic has been able to continue providing basic education to nearly all students,[122] with gross enrollment rates close to 100% (**Figure 79**). The average number of years of schooling has increased, from 11.5 in 1999 to 12.5 in 2009.[123] In fact, on various indicators for educational performance, including average years of schooling, the Kyrgyz Republic is ranked close to most of the benchmark countries, and performs significantly better than most low-income countries.[124]

Figure 79 **Gross Enrollment Ratios, 1999–2012** (%)



Source: World Bank. Education Statistics. http://datatopics.worldbank.org/education/

[122] Basic education refers to primary school and lower secondary school, covering grades 1–9.
[123] ADB. 2011. *Key Indicators for Asia and the Pacific 2011, Special Supplement*. Manila.
[124] The education index is composed of the mean years of schooling for adults aged 25 and over and the expected years of schooling for children of school-entering age.

The gender gap in basic education is small, and in favor of girls. Enrollment in tertiary education is much higher for females than for males, while enrollment ratios for primary and secondary education are the same for the two genders. For girls, the average years of schooling was 12.9 in 2009, compared with 12.1 years for boys.

There are some notable shortcomings, however. Enrollment rates drop off sharply after the compulsory stage of education, with gross enrollment in upper secondary at 50.2% for boys and 56.7% for girls during the 2013–2014 school year, according to the NSC. The enrollment rate for this level of education is declining for both genders, having fallen from 58.2% for boys and 66.5% for girls in the 2006–2007 school year. Further, although the average enrollment rates in basic education are high, and gender disparities small, girls from extremely poor or rural families are less likely to enroll than boys. Such gender disparities in enrollment may be a sign of financial barriers to education. Access to early childhood education has been difficult as well, with lower enrollment ratios in rural than in urban areas. Evidence suggests that early childhood education can have a strong impact on future student outcomes, so these disparities could have significant consequences.

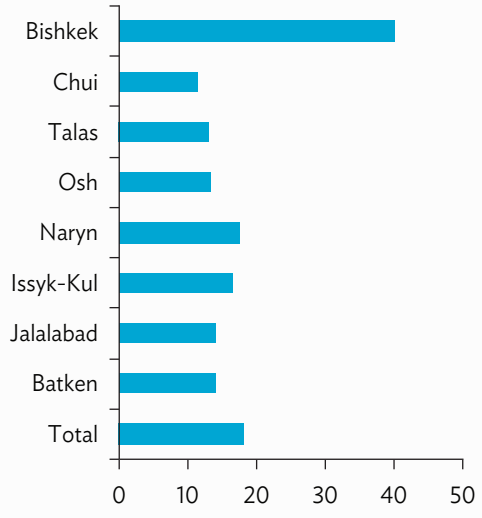
The TVET system operates in almost all raions, and is therefore relatively widely accessible. However, enrollment has declined compared with Soviet era levels. In the 2009–2010 school year, only 29,495 students enrolled in primary vocational schools, compared with a peak enrollment of about 90,000 students during the Soviet era.[125] During the same school year, the number of graduates of primary vocational schools (both long-term and short-term courses) was 26,194. Enrollment at the secondary vocational schools increased to 83,300 in 2012–2013 from a low of 26,000 in 2000–2001, and 16,400 students graduated from the secondary vocational schools. Industrial technology and agriculture courses account for only less than 25% of total enrollment.

There were 231,600 students in higher education in the 2012–2013 school year, but the annual throughput of 41,700 suggests a low graduation rate. The state provides scholarships to about 12% of higher education students, so most have to pay fees.

There are also substantial disparities in education outcomes between Bishkek and the rest of the country. Workers in Bishkek are more than twice likely to have higher education than those outside Bishkek (**Figure 80**). This contributes to the lowering of GRPs in the poorer oblasts and reflects the limited economic opportunities available to workers there.

These inequalities in educational outcomes have direct implications for household incomes and the ability of households to escape poverty. The relationship between the level of education attained by the head of household and the level of poverty is clearly seen in **Figure 81**.

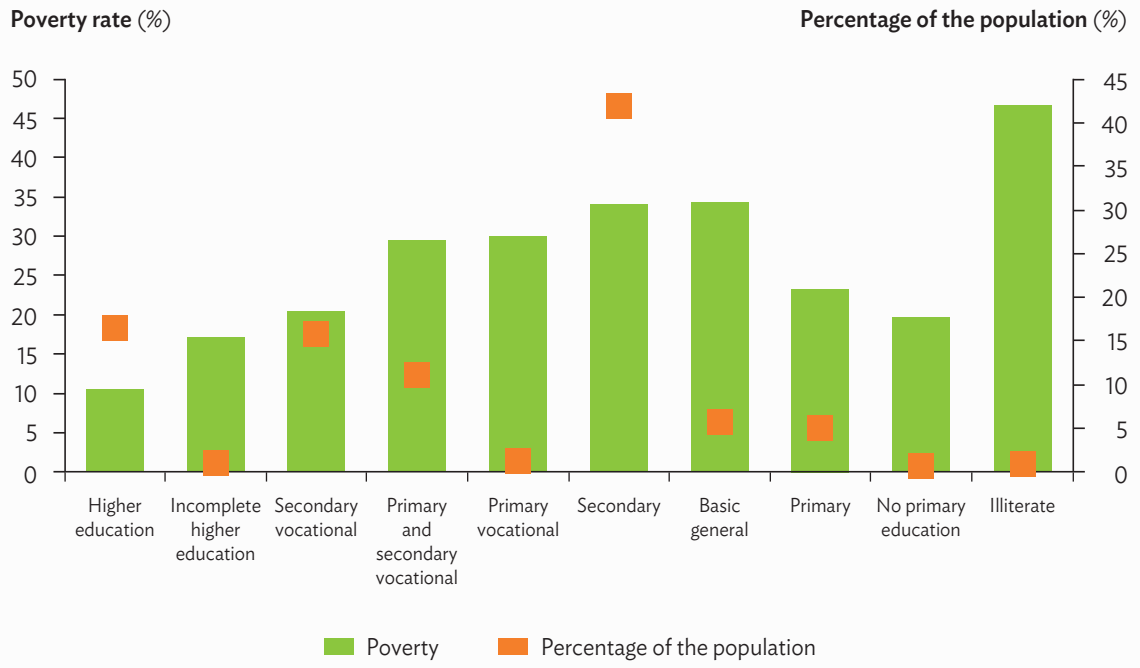
Figure 80 **Economically Active Population with Higher Education, 2012** *(%)*



Source: National Statistical Committee of the Kyrgyz Republic.

[125] The State Agency for Vocational Education, Government of the Kyrgyz Republic.

Figure 81 Poverty Rates and Population Distributions by Education Level of Household Head, 2011



Source: National Statistical Committee of the Kyrgyz Republic.

The largest group of households, accounting for 42% of the population, had household heads with a secondary education. The poverty rate among these households was 34% in 2011. In contrast, only 11% of people living in households with a university-educated head (16% of the population) were poor.[126]

A World Bank study conducted in 2013 confirmed the importance of education in having access to economic opportunities, and the role of different education levels in explaining regional disparities.[127] The study used decomposition analysis to examine the gap in living standards among various regions of the country.[128] About half of the gap between Bishkek and Chui Oblast and the other oblasts can be explained by the fact that households in these two wealthy areas have advantages in demographics, education, and employment.[129] These variables fully explain the differences between rural and urban areas within oblasts where they are

[126] The relationship between poverty and education for households with only primary or no education appears nonlinear. However, these results may be related to the small size of these groups. Fewer than 2% of household heads have no education, and just 5% have only a primary school education.

[127] A. Atamanov. 2013. *Regional Welfare Disparities in the Kyrgyz Republic.* Washington, DC: World Bank.

[128] The analysis decomposed the log of the ratio of welfare between the areas in question into components associated with household characteristics and the returns to those characteristics.

[129] The demographic variables included were the number of household members by age group; and the gender, age, and marital status of the head of household. The employment variables were the share of household members employed locally and abroad, a dummy for the head of household having full-time employment, and dummies for the primary occupation of the head of household. The level of education of the head of household was categorized into four groups: higher, secondary vocational, basic vocational, and secondary and below.

significant. Apart from demographic factors, education variables have the most explanatory power of all the variables analyzed.

The levels of academic achievement are variable, but generally low. In 2006 and 2009, the Kyrgyz Republic received the lowest average score among the participating countries in the PISA tests under the OECD, although the score was not far from those of the benchmark countries in the region (**Table 20**). The National Sample-Based Achievement Test also found that a significant proportion of students in the Kyrgyz Republic fell short of the relevant national standards, but there was some improvement between 2007 and 2009.[130]

Table 20 Results from the Programme for International Student Assessment Tests 2009, Kyrgyz Republic and Available Benchmarks

	Reading	Mathematics	Science
Shanghai (PRC)	556	600	575
Russian Federation	459	468	478
Kazakhstan	390	405	400
Azerbaijan	362	431	373
Kyrgyz Republic	314	331	330

PRC = People's Republic of China.

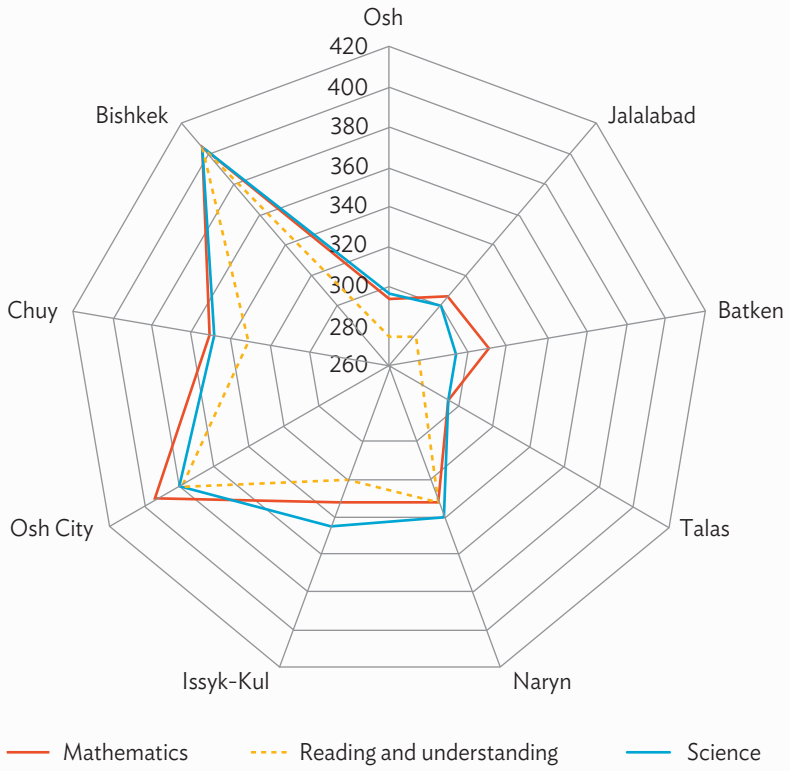
Source: Organisation for Economic Co-operation and Development. PISA 2009 Database. http://www.oecd.org/pisa/pisaproducts/pisa2009keyfindings.htm

Both the PISA and National Sample-Based Achievement Test results show serious disparities in achievement among regions. The average PISA scores of students in Bishkek were above the average scores for Kazakhstan, which also participated in PISA. Those in Osh City were relatively high (**Figure 82**), but the scores in the more remote, predominantly rural oblasts lagged far behind.

Education expenditures are one determinant of both access and quality, and they declined significantly as a share of the public expenditure, from 23% in 1995 to about 15% in 2010 (**Figure 83**), although the 2010 percentage is still higher than in most benchmark countries. Because the Kyrgyz Republic's per capita GDP is low, however, education expenditures are small in absolute terms. This affects school quality in a number of ways such as (i) low teacher salaries, which make it difficult to recruit, train, and motivate teachers; (ii) lack of textbooks and other teaching materials; and (iii) low quality of school buildings and other infrastructure. The efficiency of expenditures on education also affects school quality, and appears to have been decreasing over time.[131]

[130] United Nations Children's Fund. 2011. *Public Expenditure Review, Kyrgyz Republic, 2007–2010.* Bishkek.
[131] *Ibid.*

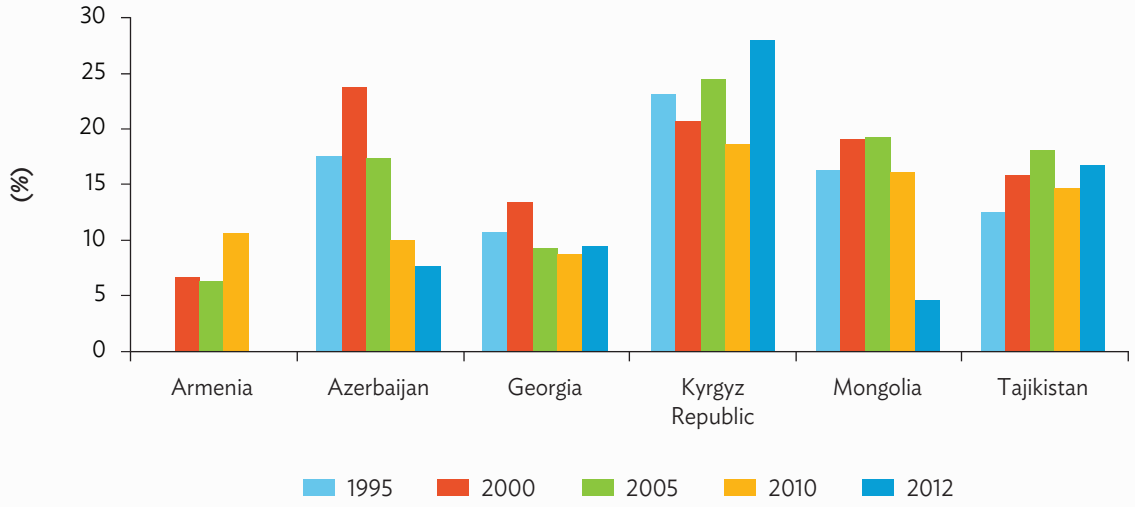
Figure 82 **Programme for International Student Assessment Results, by Oblast, 2009**



Note: PISA scores are scaled so that the OECD average in each domain (mathematics, reading, and science) is 500 and the standard deviation is 100.

Source: Centre for Educational Assessment and Teaching Methods, reproduced from United Nations Children's Fund. 2011. *Public Expenditure Review, Kyrgyz Republic, 2007–2010.* Bishkek. p. 93.

Figure 83 **Government Expenditure on Education, Kyrgyz Republic and Selected Benchmarks, 1995–2012** (% of total government expenditure)



Source: ADB. 2013. *Key Indicators for Asia and the Pacific 2013: Framework of Inclusive Growth Indicators, Special Supplement.* Manila.

The system for educational funding is partly responsible for the variations in quality.[132] The Public Expenditure Review under the United Nations Children's Fund concluded the following:[133]

- Local budgets are only able to finance one-third of the expenses of educational facilities.
- Current financing practice is not equitable in expenditure per capita by region. In 2010, financing for the southern oblasts (Batken, Jalalabad, and Osh) amounted to just under 80% of the minimal standard for budget financing (MSBF). In the northern oblasts (Issyk-Kul, Naryn, and Talas), funding amounted to 80%–90% of the MSBF; in Osh City and Chui Oblast, it was 90%–100% of the MSBF; and only in Bishkek was financing higher (by 18%) than the MSBF.
- Although there are many determinants of student achievement, these variations in funding are strongly related to student outcomes, as measured by the PISA results (**Figure 84**).[134]

Households use their own funds to make up for the shortfall in government expenditures, an indication that they do value education and are willing to invest in it. However, poorer households are unable to fully compensate for low government expenditures. More well-off households add more of their own funds to education, both as a share of household income and in absolute terms (**Figure 85**). Households from poorer oblasts spend less on education, in both absolute and relative terms, than households in Bishkek (**Figure 86**). Rural households spend about 60% of the amount spent by their urban counterparts in absolute terms.[135]

Although access to basic education is almost universal, poorer children are less likely to benefit from preschool education, and are more likely to drop out after completing the compulsory grades, and less likely to attend university. The wealthiest households and those in urban areas can access high-quality schools and institutions of higher learning, which are often located in Bishkek or abroad, as they can use their own funds to compensate for inadequate government spending. Poorer households lack these options. Thus, despite the government's significant efforts to improve its educational system, the evidence strongly suggests that access to quality education and higher-level vocational education is unequal, and that this is a binding constraint to inclusive growth.

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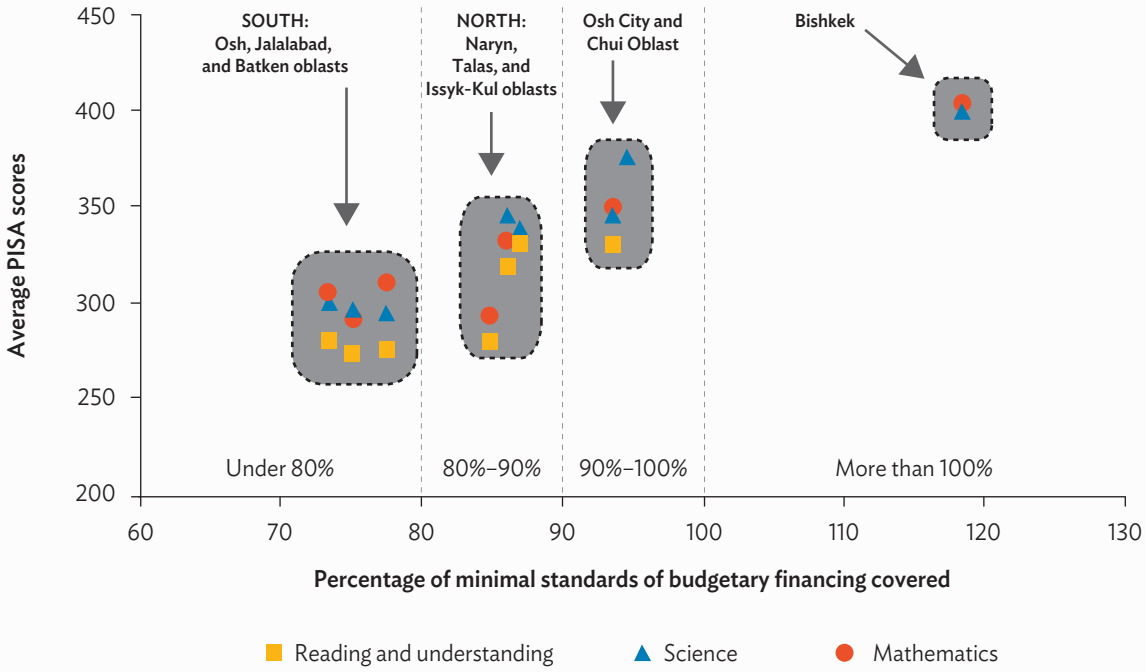
132 R. Mogilevsky. 2011. Public Expenditures on Education and Health Before and During the Global Financial Crisis. *CASE Network Reports.* No. 97. Warsaw: Center for Social and Economic Research.

133 United Nations Children's Fund. 2011. *Public Expenditure Review, Kyrgyz Republic, 2007–2010.* Bishkek. Education is financed by both the national and local budgets. While local budgets finance preschool, primary, and general secondary education, the national budget funds professional and university education. The national budget also contributes to the financing of preschool and elementary through secondary education by funding grants, textbook preparation, and the publication of other educational materials, as well as by channeling donor funds through its public investment program.

134 The assessment by OECD and the World Bank highlighted that "significant per-student spending variations underlie the disparity in the quality of education—particularly between urban and rural areas, and between Bishkek and the southern regions. The disparity is partly a reflection of the varying levels of local tax revenues and household incomes; there is no adequate compensatory financing mechanism to help equalize the quality of education across the system. There are also urban–rural gaps in the qualification skills of teachers and supply of learning resources—the differences result in disparities in learning achievements."

135 This is according to data from the NSC.

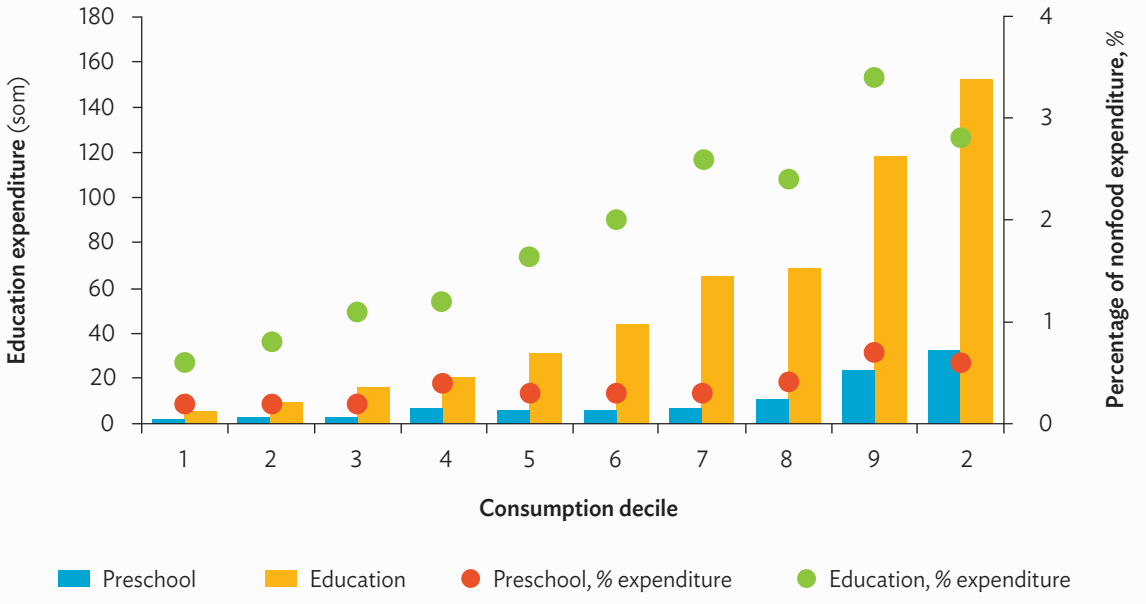
Figure 84 Programme for International Student Assessment Results and Percentages of Minimal Standard for Budget Financing Covered, by Oblast, 2009



PISA = Programme for International Student Assessment.

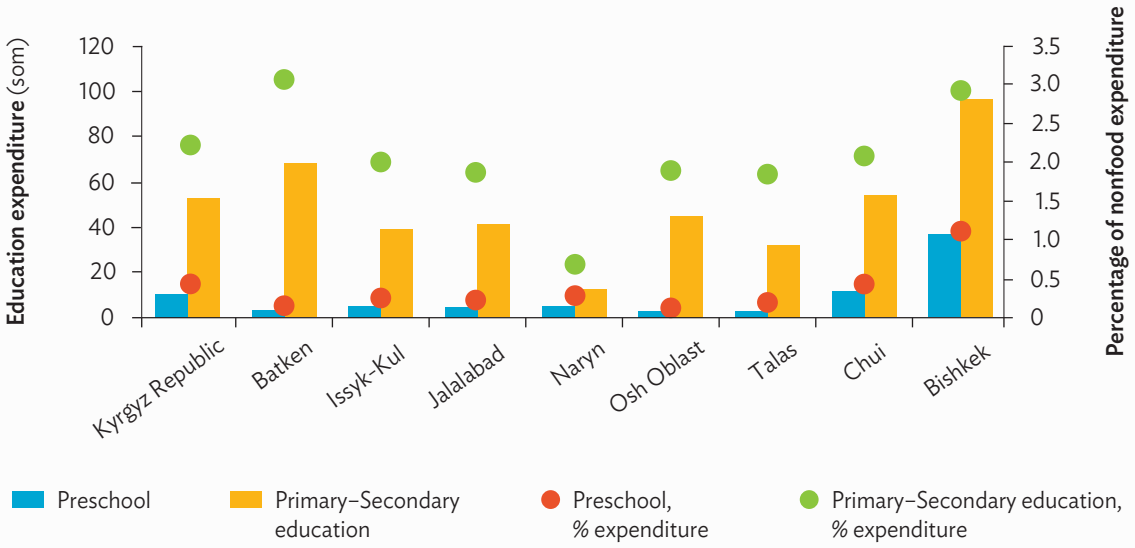
Source: Centre for Educational Assessment and Teaching Methods, reproduced from United Nations Children's Fund. 2011. *Public Expenditure Review, Kyrgyz Republic, 2007–2010.* Bishkek. p. 94.

Figure 85 Household Expenditure on Education, by Consumption Decile, 2011



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 86 Household Expenditure on Education, by Oblast, 2011



Source: National Statistical Committee of the Kyrgyz Republic.

4.4 Access to Health Services

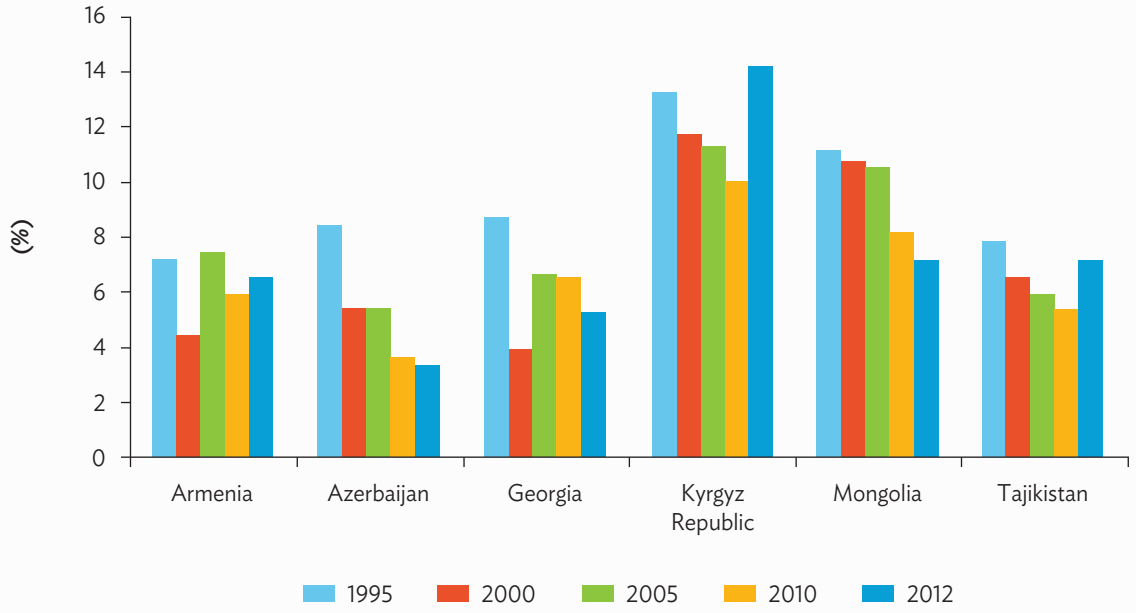
As shown in Chapter 3, the Kyrgyz Republic's performance on common health indicators (e.g., under-five child mortality rate and life expectancy) is close to those of other former Soviet republics and regional benchmarks, which tend to compare well with the performances of developing countries overall. According to the 2012 Kyrgyz Republic Demographic and Health Survey, the infant mortality and under-five mortality rates significantly declined since the 1990s. The infant mortality rate dropped from 61 for 1992–1997 (as reported in the 1997 Kyrgyz Republic Demographic and Health Survey) to 27 for 2008–2012, and the under-five mortality rate declined from 72 to 31 for the same periods.[136]

Unequal access to health services is a significant constraint to inclusiveness in the Kyrgyz Republic. There have been challenges to overcome and, since the country's independence, the health sector has undergone major reforms and structural changes under the Manas (1996–2006) and Manas Taalimi (2006–2010) programs.[137] The share of GDP spent on health care is relatively high compared with the expenditures of the benchmark countries (**Figure 87**). As with education, however, per capita expenditure is relatively low in absolute terms.

[136] NSC, Ministry of Health of the Kyrgyz Republic, and ICF International. 2013. *Kyrgyz Republic Demographic and Health Survey 2012.* Bishkek and Calverton, Maryland. pp. 139, 141–142. http://dhsprogram.com/pubs/pdf/FR283/FR283.pdf; Research Institute of Obstetrics and Pediatrics (Kyrgyz Republic), Ministry of Health of the Kyrgyz Republic, and Macro International Inc. 1998. *Kyrgyz Republic Demographic and Health Survey 1997.* Calverton, Maryland. p. 94. http://dhsprogram.com/pubs/pdf/FR91/FR91.pdf

[137] A. Ibraimova et al. 2011. Kyrgyzstan Health System Review 2011. *Health Systems in Transition.* 13 (3). Copenhagen: World Health Organization. According to this report, there has been a significant reduction in hospital care in favor of family medicine and primary health care, based on a combination of family group practices, family medicine centers, and general practice centers. In small villages and remote areas with populations between 500 and 2,000 people, primary health care is provided by *feldsher* (midwives).

Figure 87 **Expenditure on Health as a Share of Government Expenditure, 1995–2012**



Source: ADB. 2013. *Key Indicators for Asia and the Pacific 2013: Framework of Inclusive Growth Indicators, Special Supplement.* Manila.

Multiple factors underlie health outcomes, including lifestyle, dietary choices, and environmental factors. In addition, because of changes in the reporting methodology, it is difficult to draw strong conclusions about progress during the 2000s.[138] Changes in maternal mortality rate[139] may have been partly caused by the improvements in the reporting methodology.[140]

Infant mortality rates show some variations by oblast (**Figure 88**). According to the NSC, infant mortality rates appear to be higher in urban areas than in rural areas. The 2012 Kyrgyz Republic Demographic and Health Survey, however, shows that infant mortality was higher in rural areas than in urban areas, while the under-five child mortality rates were the same: 33 deaths per 1,000 live births for both areas. There is little difference in the percentage of institutional deliveries: in every oblast, more than 98% of deliveries took place at health facilities, regardless of the woman's socioeconomic status or whether she came from a rural or urban area.[141]

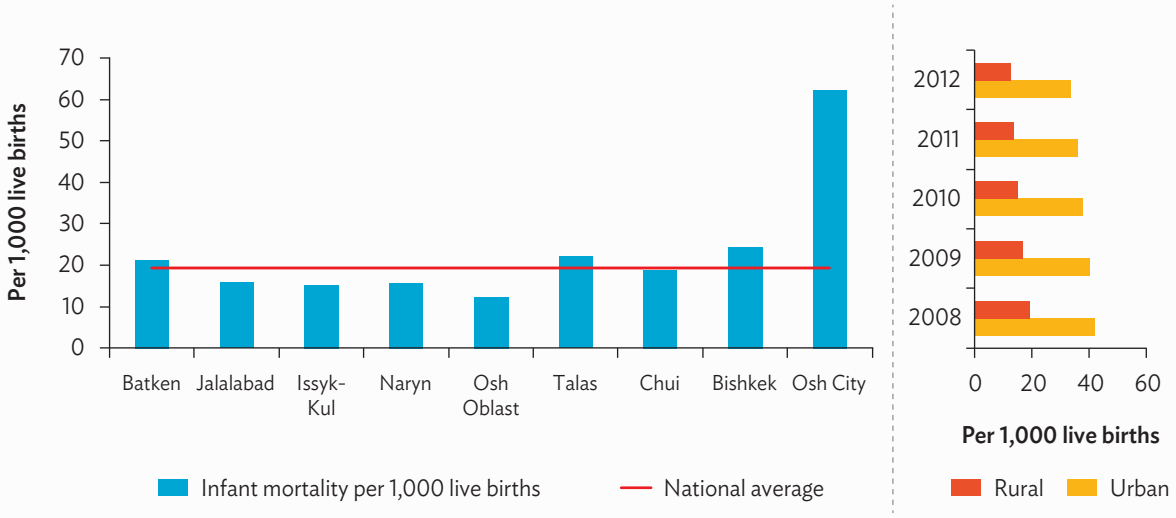
[138] Data from the Multiple Indicator Cluster Surveys, conducted by the United Nations Children's Fund, and from the government indicate some increases in maternal, infant, and child mortality between 2004 and 2010 due to a change in the definition of "live birth" in 2004. Government data (NSC) based on official registrations of births and deaths indicate that maternal, child, and infant mortality fell slightly between 2007 and 2011.

[139] Maternal mortality refers to the number of deaths of women per year (per 100,000 live births) due to complications during pregnancy, childbirth, or within 42 days of the termination of a pregnancy, excluding accidental or incidental causes during this period that are unrelated to pregnancy or childbirth.

[140] A. Chattoe-Brown. 2011. *Annual Review of DFID's Support to the Kyrgyz Republic Health SWAp.* London: Human Development Resource Centre, Department for International Development of the United Kingdom. p. 6.

[141] NSC, Ministry of Health of the Kyrgyz Republic, and ICF International. 2013. *Kyrgyz Republic Demographic and Health Survey 2012.* Bishkek and Calverton, Maryland. pp. 143. http://dhsprogram.com/pubs/pdf/FR283/FR283.pdf

Figure 88 Infant Mortality Rate by Oblast and Settlement, 2008–2013[a]



[a] By oblast, series covers January–October 2013 data.

Source: National Statistical Committee of the Kyrgyz Republic.

A number of indicators vary across the country. For example, the average figures for the availability of health care professionals mask significant regional variation (**Figure 89**). Urban areas are better staffed than rural ones, particularly in the remote regions.[142] Most resources for health care come from the central government budget and donor financing, while the co-payment system and the mandatory health insurance fund also covers some expenditures. Health care spending is a significant item in the city budget of Bishkek (16%–17% of total expenditures in 2007–2008). No other local authorities spend significant amounts on health.

Moreover, the burden of health care spending on household budgets is relatively low. On average, expenditure on health care makes up just 1.6% of household nonfood, and constitutes a lower share for poorer households (**Figure 90**). The absolute amount spent on health rises by decile, but not as steeply as education expenditures, and the variation among oblasts is also relatively small (**Figure 91**).[143]

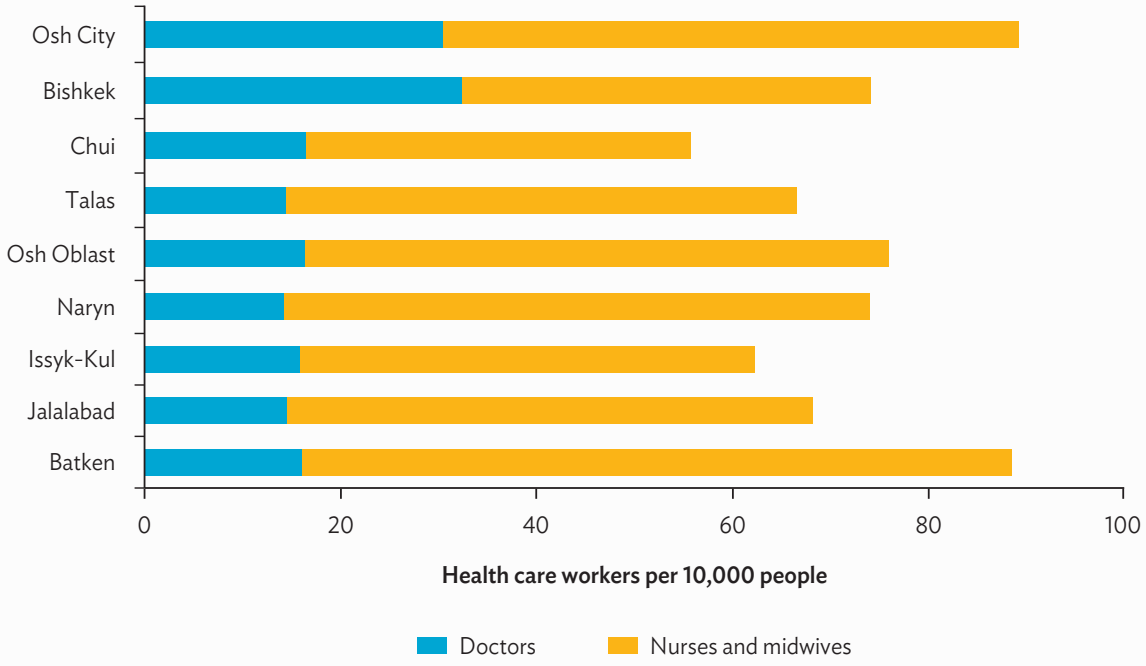
According to data from the NSC (**Table 21**), the poor were less likely than the nonpoor to report illnesses—only 25% reported a need for medical treatment in 2010, compared with 37% of the nonpoor. Further, the poor were slightly less likely to seek treatment when they needed it.[144] Only 8% of all those who had experienced ill health cited cost (for a visit to a doctor's office or drugs) as a reason for not seeking medical treatment; in fact, this

[142] A. Chattoe-Brown. 2011. *Annual Review of DFID's Support to the Kyrgyz Republic Health SWAp.* London: Human Development Resource Centre, Department for International Development of the United Kingdom. According to this report, regional inequality in the provision of emergency services is particularly marked: "Oblast deviation from the national average of served emergency calls per population ranged from –92% to +40%. By 2007, this variation declined slightly, ranging from –29% to +75%. Among the underserved oblasts, a slight improvement was noted in Naryn and Issyk-Kul oblasts."

[143] The high absolute amounts reported in the highest decile (Figure 90) and in Naryn Oblast (Figure 91) were probably caused by outlying values for one or two households.

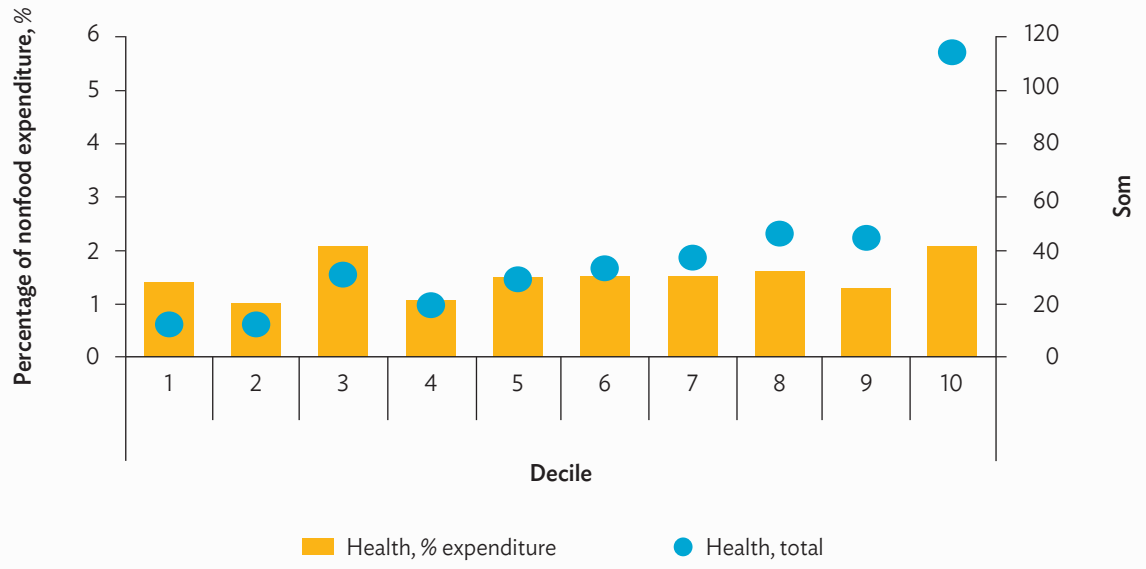
[144] The difference may reflect lower awareness among the poor and rural communities about health needs.

Figure 89 Number of Health Care Workers, by Oblast, 2010



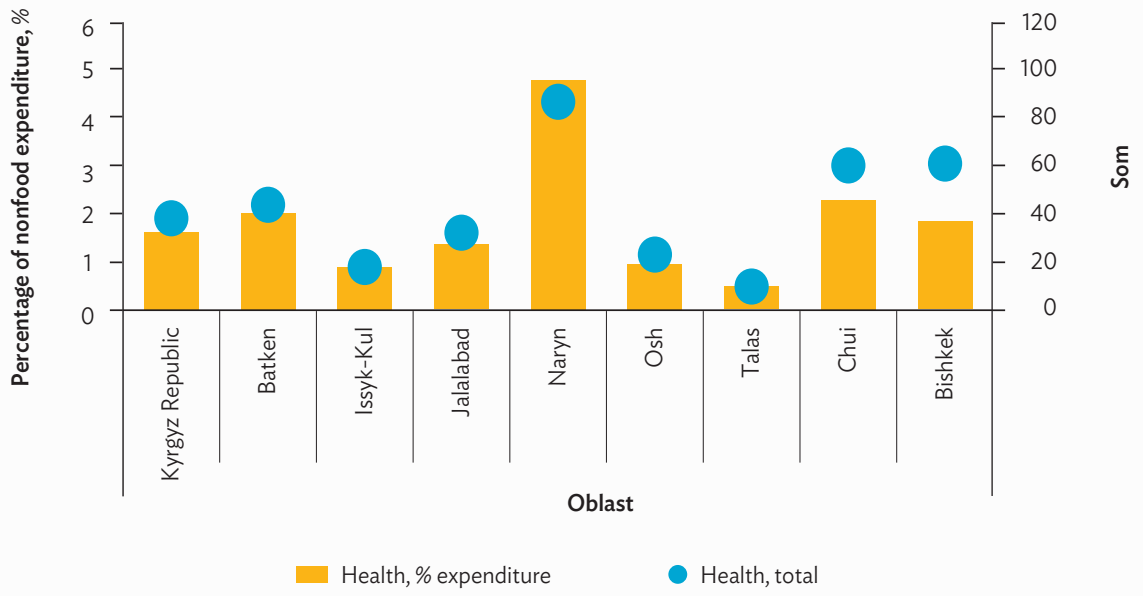
Source: National Statistical Committee of the Kyrgyz Republic.

Figure 90 Average Household Expenditure on Health, by Consumption Decile, 2011



Source: National Statistical Committee of the Kyrgyz Republic.

Figure 91 Average Household Expenditure on Health, by Oblast, 2011



Source: National Statistical Committee of the Kyrgyz Republic.

Table 21 Demand and Access to Health Services, by Poverty Status and Location, 2010 (%)

	Nonpoor	Poor	Urban	Rural	Kyrgyz Republic
Needed health services in 2010	37	25	41	28	33
Did not use health services when needed	40	45	36	46	42
Reasons for not using health services					
Self-medicated	86	87	89	84	86
Believed that the problem would go away	4	6	6	3	5
Too expensive to pay for a visit	2	5	1	4	3
Too expensive to pay for drugs	7	2	3	7	5
Other	2	1	1	1	1

Source: World Bank calculations based data from the 2010 Kyrgyz Integrated Household Survey. http://catalog.ihsn.org/index.php/catalog/3141

response was more common among the nonpoor than among poor households.[145] Cost considerations were also more common among rural households.

Although the Kyrgyz Republic compares well with other developing countries on some health outcomes, further progress in reducing infant, child, and maternal mortality is especially needed for achieving the related Millennium Development Goals. While there are challenges in improving health service quality and in maintaining health professionals in remote areas, access to health services does not seem to be a binding constraint to inclusiveness.

4.5 Access to Public Infrastructure

4.5.1 Transport[146]

Major international roads pass through the Kyrgyz Republic, including all seven oblasts; 72% of the international road network is now paved, with ongoing improvements on the remaining stretches. Bishkek and the Chui River valley have benefited from the better road access, but other areas, particularly Osh and Jalalabad, have also benefited from the opportunities for trade that have opened up with this transport infrastructure development. The fact that raions located near international borders have fared better in poverty and economic indicators suggests that the people of the Kyrgyz Republic, including rural residents, have benefited from transport connectivity to neighboring countries.[147]

As mentioned in Chapter 3, much of the country's network of national and local roads is not in good condition. These roads, in fact, require extensive upgrading and rehabilitation. Urban households or large firms seldom use these roads but rural communities rely on them. The need to upgrade the national and local roads presents a particular challenge to the government because of the low population density in rural areas.

The added transport time and cost because of the poor conditions of national and local roads reduce economic opportunities in rural and remote areas. Access to markets and services are particularly important for inclusive growth. A recent World Bank study combines census, household survey, and geographic data to measure the access of villages, towns, and cities in the Kyrgyz Republic to markets.[148] The analysis reveals substantial inequality in market accessibility.[149] The highest access to markets is found in Bishkek and Chui Oblast. Osh City also has relatively good market access. However, the regions outside of these economic centers, particularly remote and mountainous areas, have less market access. There is substantial overlap between lack of market access and poverty levels, although the correlation is not perfect. Clearly, improvements in internal connectivity would improve market access, which could help spur growth in remote areas.

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145 Most reported that they either self-medicated or that they believed the problem would go away on its own.

146 This section is based largely on a draft of the government's Master Plan on Road and Transport Sector Development, 2010–2025.

147 M. Mahadevan, N. Yoshida, and L. Praslova. 2013. *Poverty Mapping in the Kyrgyz Republic: Methodology and Key Findings.* Poverty Reduction and Economic Management Unit Working Paper. World Bank: Washington, DC.

148 B. Blankespoor. 2013. Market Accessibility and Regional Maps: Kyrgyz Republic. *Poverty Reduction and Economic Management Unit, Europe and Central Asia Region Working Paper Series.* Washington, DC: World Bank.

149 Although this study focused on access to markets, access to services is usually closely correlated.

However, the World Bank study points out that market access is not only determined by access to infrastructure, but also by access to populated areas that have spending potential. In the case of the Kyrgyz Republic, variations in population density play an equally important role in determining the levels of market access across regions. This means that connective infrastructure can only be part of the solution to regional disparities. Continued population mobility, in which residents of remote regions are allowed to seek economic opportunities in the more densely populated areas, will be needed to make inclusive growth possible.

4.5.2 Communications

In 1990, only 50 people in every 1,000 had a landline connection in the Kyrgyz Republic, and access differed dramatically between rural and urban areas (Table 22). The number of landline connections increased only slightly between 1990 and 2011—70 people in every 1,000 now have one—and the gap between rural and urban areas has remained. However, the advent of mobile communications technology means that this disparity is no longer a major constraint. Although the available data are not sufficient for gauging whether differences in access persist between rural and urban areas,[150] the high coverage rates strongly suggest that lack of access to communications, and thus to information, is no longer a major constraint to inclusive growth.

Table 22 Landline Connections and Cell Phones, 1990–2012 (per 1,000 people)

		1990	2000	2005	2011	2012
Landlines	Urban	103	134	151	164	162
	Rural	19	22	25	21	19
Cellphone subscribers				105	1,131	1,215

Source: National Statistical Committee of the Kyrgyz Republic.

Table 23 Business Access to Information and Communication Technology, 2007–2013
(% of enterprises)

	2007	2008	2009	2010	2011	2012	2013
Personal computer	94.7	96.5	96.9	95.6	95.5	95.8	96.5
E-mail	26.6	28.7	32.2	28.5	30.7	33.2	32.4
Internet	30.0	32.8	38.0	34.3	38.6	43.8	46.0
Own internet (ADSL) connection	10.4	12.3	14.7	12.5	13.7	14.0	28.9
Own website	8.6	9.2	10.9	8.9	9.4	10.3	9.4
Website in Kyrgyz language	1.5	1.5	1.6	1.4	1.5	1.8	2.2

Source: National Statistical Committee of the Kyrgyz Republic.

[150] It is relatively common for individuals to have more than one cell phone. Separate data for rural and urban areas are not available because people do not necessarily sign up for subscriptions in their areas of residence.

Access to information and communication technology, including the internet, has also expanded dramatically. While no information is available for households or individuals, enterprise-level data clearly show that access is widespread. Almost all businesses have computers, and 39% use the internet, including 14% through their own internet connections. Over 9% of businesses have their own websites (Table 23).

4.5.3 Water Supply and Sanitation

Access to safe water and adequate sanitation is essential for positive health outcomes. Lack of access is considered an aspect of non-income poverty, as it can also have an economic impact on households. This is especially true for women: instead of spending hours a day collecting water, they could use that time for economic activities. While access to safe water improved between 1996 and 2011, and in 2012 included 93.0% of the population, only 24.7% had access to piped water. The division between those with piped water and those without reflects the usual urban–rural disparities: in urban areas, 52.0% of households have access to piped water, compared with only 9.9% of rural households. The rate of access to safe water varies significantly from oblast to oblast. While Bishkek and Chui have 100% access, Batken has the lowest rate, at 70% (Table 24).[151]

Table 24 Access to Water and Sanitation by Oblasts, 2012
(% of the population)

Oblast	Safe Drinking Water Source	Adequate Sanitation
Batken	70	4
Jalalabad	97	12
Issyk-Kul	99	19
Naryn	88	6
Osh	88	8
Talas	98	8
Chui	100	46
Bishkek	100	85
Kyrgyz Republic	93	27

Source: National Statistical Committee of the Kyrgyz Republic.

Almost no progress has been made in expanding access to improved sanitation; indeed, the situation deteriorated between 2000 and 2011. In 2012, 27% of the population had access to improved sanitation, with significant differences between urban and rural areas. In urban areas, sanitation services are provided by specialized utility companies, whereas in rural areas, they are mostly provided by the communities themselves.

The present access to safe drinking water is still high according to NSC data. If nothing is done about deteriorating water supply systems, this will become a major constraint to inclusiveness. The quality of sanitation also needs to be improved urgently.

4.5.4 Electricity Supply

Many households suffer from power outages, which are a binding constraint to economic growth.

Access to reliable electricity supplies is unequal. In rural areas, 31.9% of households experienced power outages at least once a month in 2013, whereas in urban areas only 12.1% reported such frequent outages. Regional differences were also significant, even within urban and rural populations. In Bishkek, 23.1% of households

[151] Government of Kyrgyz Republic. 2012. *Medium Term Development Program of the Kyrgyz Republic for 2012–2014.* Bishkek.

reported that they had never experienced a power outage, and only 3.5% said that they had experienced outages once a month or more. The urban areas of Issyk-Kul, Naryn, and Osh oblasts were also affected relatively infrequently by outages, but significant numbers of households in urban Batken, Chui, Jalalabad, and Talas reported outages every month. Similarly, the rural areas of Chui, Issyk-Kul, and Naryn appeared to be the worst off, yet the situation in rural Talas was better in some ways than in the urban areas of that oblast (Table 25).

Table 25 Frequency of Power Outages, Rural and Urban Areas, 2013 (% of households)

	Urban				Rural			
	Never	Several times a year	Once a month	More than once a month	Never	Several times a year	Once a month	More than once a month
Kyrgyz Republic	23.1	65.5	8.6	3.5	6.3	57.2	26.4	5.5
Batken	22.2	59.3	18.5	1.3	25.8	53.1	21.1	—
Jalalabad	8.0	69.0	13.1	7.9	1.6	56.5	17.1	5.2
Issyk-Kul	22.8	69.5	5.6	2.9	11.3	33.6	45.8	6.0
Naryn	4.3	91.3	4.3	1.8	2.8	72.1	24.0	—
Osh Oblast	24.7	73.9	1.4	1.6	2.8	57.7	29.8	9.7
Talas	0.4	74.3	19.1	4.1	21.1	60.5	18.4	—
Chui	7.4	73.3	18.5	2.8	2.4	64.0	27.3	4.9
Bishkek	35.8	54.0	7.4	3.5	—	—	—	—
Osh City	—	98.8	0.8	0.4	—	—	—	—

— = not available.

Source: National Statistical Committee of the Kyrgyz Republic.

Unreliable electricity supply was identified in Chapter 3 as a binding constraint to growth. Private sector companies need access to reliable electricity to flourish and increase productivity. Given that the aging assets and lack of investment in upgrading the assets affect all populations despite some variations, unreliable electricity supply may not be a major constraint to inclusivity at present.

4.6 Inadequate Social Safety Net and Poverty Reduction Programs

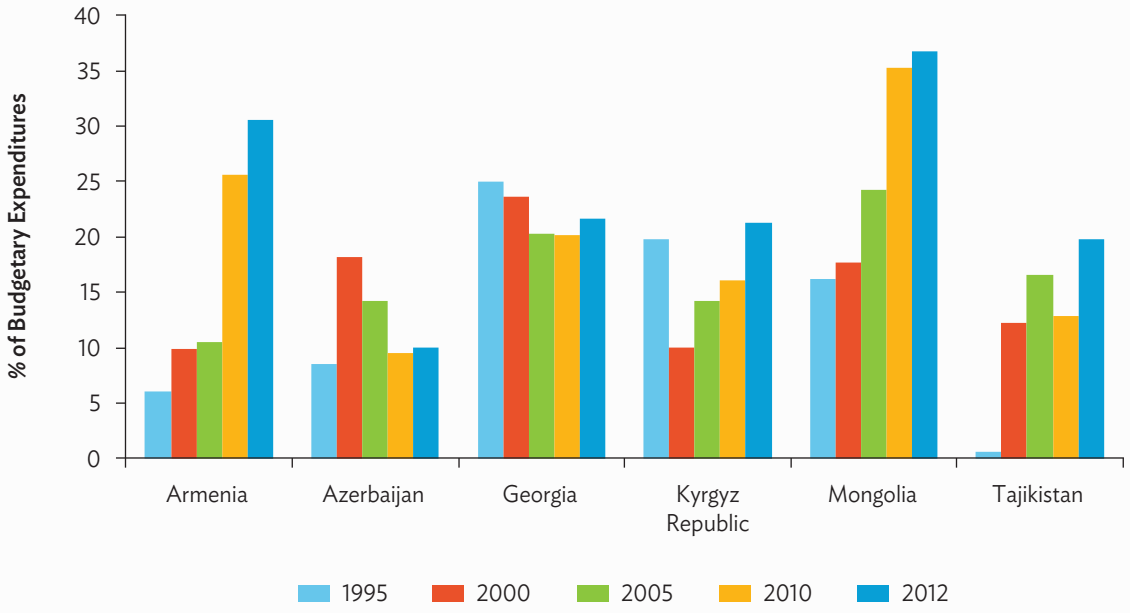
The provision of an adequate social safety net is considered one of the key drivers of inclusive growth.[152] The Kyrgyz Republic's expenditures on social security and welfare, as a percentage of total government expenditure, is lower than the expenditures of three of the benchmark countries: Armenia, Georgia, and

[152] I. Ali and J. Zhuang. 2007. Inclusive Growth toward a Prosperous Asia: Policy Implications. *ERD Working Paper Series.* No. 97. Manila: ADB. Social safety net programs help mitigate the effects of transitory livelihood shocks such as ill health, macroeconomic crisis, industrial structuring, and natural disasters, and they meet the minimum needs of the chronically poor.

Mongolia (**Figure 92**). However, two of these countries were part of the former Soviet Union, and such states tend to devote substantial resources to social protection. The Kyrgyz Republic devotes considerably more resources to social protection than any non-former Soviet republic for which data are available.

The system in the Kyrgyz Republic comprises social insurance (contributory), which includes pensions covering about 10% of the population and accounting for 80% of social protection spending,[153] and social assistance (noncontributory) benefits, the largest of which are the monthly social benefit (MSB) and the unified monthly benefit (UMB). Both benefits are targeted at poor households with children, the disabled, and other vulnerable members of society.[154] In 2011, the cost of these two social assistance programs totaled about Som2.8 billion, or 1% of the GDP, compared with the percentages of GDP in Armenia (1.50%), Georgia (1.80%), Moldova (2.10%), and Tajikistan (0.55%) spent on equivalent programs.[155]

Figure 92 Expenditure on Social Security and Welfare, Kyrgyz Republic and Available Benchmarks, 1995–2012



Source: ADB. 2013. *Key Indicators for Asia and the Pacific 2012.* Manila.

153 Pensions are supported by the Social Fund, which collects contributions mainly from employers and employees operating in the formal economy, and which is subsidized by the government. In 2011, Social Fund expenditures accounted for 8.7% of GDP, while net outflows from the government budget to the Social Fund accounted for 3.9% of GDP. The expenditures of the Social Fund are expected to rise as a percentage of GDP in 2012 and 2013.

154 The MSB is a cash benefit paid to defined categories of individuals unable to work (e.g., people with disabilities, families with disabled children, orphans, mothers with many children, and elderly people without pensions). Approximately 1.3% of the population received the MSB in 2011, which was set at Som2,112 a month at the beginning of that year. The UMB is a means-tested cash benefit for individuals from the poorest families with children when they are unable to support themselves. An estimated 123,000 families with 371,000 children (about 7% of the population) received up to Som370 per month in 2011, according to data from the Ministry of Social Development.

155 The data regarding the benchmark countries mentioned here refer to percentages in 2009.

The World Bank carried out a comprehensive review of the social safety net system of the Kyrgyz Republic in 2009, using detailed household data. Although the system has changed somewhat since then, the conclusions are still valid. The review found the targeting accuracy to be relatively good. Errors of inclusion for the UMB were small, with about 75% of the beneficiaries belonging to the poorest 40% of the population, and 38% of benefits going to the poorest quintile. The MSB, although not means-tested, was also relatively well targeted, as the groups it served were disproportionately likely to be poor. The main challenges for both the UMB and MSB were the low levels of benefits and the limited number of recipients. These problems resulted in a significant degree of exclusion, and limited the programs' impact on poverty. The UMB reached only 28.2% of the poorest quintile, while the MSB reached 12.7%, and the UMB covered 7.2% of its recipients' total consumption, while the MSB covered 7.6%. The impacts on the poverty gap were 11.6% for the UMB and 6.3% for the MSB.[156]

Pensions are not specifically targeted at the poor, and the bottom quintile captured only 28.5% of benefits; their wider coverage means that they reach 55.5% of the poorest households. The larger sizes of the transfers enable pensions to cover up to 25% of consumption for recipient households. As a result, their impact on the poverty gap is much larger, at 47.8%, than either of the targeted benefit programs.

Table 26 Revised Social Protection Index and Indexes of Depth and Breadth

Country	Social Protection Index[a]	Depth[b]	Breadth[c]
Armenia	0.145	0.312	0.465
Azerbaijan	0.174	0.290	0.601
Kazakhstan	0.156	0.346	0.450
Kyrgyz Republic	0.211	0.274	0.768
Lao People's Democratic Republic	0.019	0.114	0.171
Mongolia	0.285	0.368	0.774
Pakistan	0.046	0.769	0.059
Tajikistan	0.021	0.050	0.423
Uzbekistan	0.235	0.389	0.604

[a] Each score in this column signifies a country's total social protection expenditures averaged over all potential beneficiaries, the result indicating the proportion of per capita poverty line expenditures allocated for social protection.

[b] Depth refers to the amount of help each beneficiary gets on average. The scores in this column represent total expenditures–total beneficiaries.

[c] Breadth refers to the proportion of the needy population receiving help. The scores in this column represent total beneficiaries–total reference population.

Source: ADB. 2012. *The Revised Social Protection Index: Methodology and Handbook.* Manila. pp. 9–11.

[156] World Bank. 2009. *Social Safety Net in the Kyrgyz Republic: Capitalizing on Achievements and Addressing New Challenges.* Washington, DC. pp. 9–11. Since this World Bank report was published, the value of some benefits may have increased, along with the value of pensions, so the situation may have improved somewhat.

The revised Social Protection Index of ADB has also rated the Kyrgyz Republic's social safety net system favorably (**Table 26**).[157] According to the indicator for overall performance of the social protection system, the Kyrgyz Republic ranks 3rd out of 25 ADB developing member countries (DMCs). The disaggregated ADB data reveal the same pattern as that identified by the World Bank: the Kyrgyz Republic ranks first among DMCs in the breadth of the social protection system, but has only a middling ranking in depth. In other words, the system reaches a large proportion of people in need, but the transfers cover only a small portion of their needs.

Overall, social safety net programs in the Kyrgyz Republic shield vulnerable households from temporary fluctuations in income. The system has been maintained even in times of crisis, thanks in part to the donor community's timely intervention. However, largely because of the low level of benefits it provides, the social safety net system has proven incapable of protecting the population from large, community- or country-wide shocks such as the political and ethnic unrest of 2010. As a result, poverty rates rose significantly following the 2010 events, and continued to rise in 2011. The social safety net system cannot provide a sufficient buffer in the face of large disruptions to livelihoods, especially those affecting whole communities. A significantly larger impact on poverty could only be achieved with far greater financial resources.

Given that the Kyrgyz Republic's social protection program already claims a substantial share of the total government expenditure, and compares favorably with other developing countries, the inadequacy of the social protection system is not a binding constraint to inclusive growth.

[157] The index can be interpreted as the social protection expenditures per potential beneficiary or as a percentage of per capita poverty line expenditures.

5 Policy Options

This report identifies binding constraints to achieving economic growth that would not only be stable and sustainable, but would also alleviate poverty, which still inflicts more than one-third of households despite the impressive drop during the first decade of the 21st century.[158] Micro risks—political instability, weak rule of law, and corruption—are the most serious constraints to growth. Other constraints include an unreliable electricity supply, the high cost and inaccessibility of finance, and a shortage of skilled labor due to the low quality of education and training. The uneven regional distribution of economic opportunities seriously affects inclusivity of growth. Skill shortages and the high cost of finance are especially acute in remote oblasts. Addressing these key constraints will likely accelerate growth, but making such growth inclusive will require that people be given more equitable access to economic opportunities. The population, especially young people in remote oblasts and the poor and vulnerable, must be provided with greater access to quality training and education that will make them employable. Improving access to affordable finance, not only in the better-off regions of Bishkek, Chui, and Issyk-Kul, but also in the country's remote oblasts, will help distribute economic opportunities more evenly across geographic areas.[159]

The constraints to both economic growth and inclusiveness are interlinked. Therefore, this chapter will treat them as one group, without dividing them into separate categories based on growth versus inclusivity.

5.1 Micro Risks—Weak Rule of Law, Corruption, and Political Instability

The main constraint to economic growth emerging from this report is the cluster of micro risks, especially weak rule of law, political and policy instability, and corruption.

While there are several definitions of rule of law, the broad definition should, at a minimum, include (i) subordination of the state to the law to prevent arbitrariness, (ii) equality before the law, (iii) predictable and efficient justice, (iv) the state's full respect for human rights, and (v) law and order. The emphasis on each of these components will vary from country to country, reflecting specific political and cultural characteristics. Caution should be exercised to ensure that strengthening one of these elements does not weaken the others.

[158] ADB. 2012. *Technical Assistance to the Kyrgyz Republic for Support for Strategic Assessment of the Kyrgyz Economy to Promote Inclusive Economic Growth.* Manila.

[159] Another requirement for inclusive growth is social protection. Although the targeting needs to be improved, the Kyrgyz Republic's social protection system compares favorably with those of many similar countries in the percentage of GDP spent. A much greater impact on poverty would require increases in social protection payments that are beyond the country's current means. Other development partners, including the World Bank and European Commission, are supporting the social protection sector.

For example, there have been several instances in which an excessive emphasis on law and order impinged on the state's respect for human rights. Another important caveat is that the gap between rule of law rhetoric and reality needs to be minimized.

This report has identified political and policy stability as micro risks that reduce the appropriability of returns. Clearly, political stability should not be understood as an environment in which public discontent is suppressed under authoritarian rule, and in which hope for change is squelched. The citizens of the Kyrgyz Republic showed during the 2000s that such a regime would not be workable. Instead, political stability should be defined as predictability of governance, political competition that works, and the capacity for political change without disruption. This stability should apply not only to the business environment, but also to the political sphere. Winning the public's confidence in the political system will require a track record, which is unlikely to be achieved overnight.

Of the micro risks that have emerged as binding constraints to growth, corruption is the most important. The pervasiveness and inclusiveness of administrative corruption in the Kyrgyz Republic make anticorruption efforts very difficult. The systemic nature of corruption in the Kyrgyz Republic is rooted in the weakness of the country's political institutions, which either slipped into irrelevancy during the transition from the Soviet era or emerged with the market economy and are thus too new to have an impact. In the early days of the transition, the disappearance of the Soviet state allowed a great amount of manipulation during the transfer of state property and the stripping of assets. This was not a case of a violation of the law, but of a total absence of law.[160] In this legal vacuum, the emergence of limitless opportunities to accumulate wealth has enabled patron–client relations to flourish, while making it extremely difficult to institute property rights and the rule of law. Because of these weaknesses, it was easy to succumb to state capture, and this was observed to have happened in the Kyrgyz Republic in the not-so-distant past.

Today, many people depend on income derived from bribery and corruption to sustain their livelihoods or to support family members. As for government officials, the dismal levels of public sector salaries will naturally influence their cost–benefit calculations when deciding whether to accept bribes. Moreover, the probability of officials being corrupt increases if they believe that the amount of corruption in the government and civil service is high.[161]

Because corruption is a widespread phenomenon that has penetrated into the fabric of society, resistance to anticorruption programs is likely to be strong. Public revulsion against corruption, which was an important factor in the political upheavals of 2005 and 2010, is more likely to be directed at high-level corruption and state capture, rather than at "day-to-day" corruption. The weaning of the public from what is now considered acceptable behavior will thus require strong political will, and must be regarded by the public as genuine, rather than just an exercise in public relations.[162]

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160 R. Legvold. 2009. Corruption, the Criminalized State, and Post-Soviet Transitions. In R. Rotberg, ed. *Corruption, Global Security, and World Order.* Baltimore: Brookings Institution Press.

161 P. Bardhan. 1997. Corruption and Development: A Review of Issues. *Journal of Economic Literature,* 35 (September): 1320–1346.

162 Anticorruption objectives and programs had also been included in the strategies of prior administrations. Since they generally turned out to be little more than lip service, there has been a substantial loss of credibility in the eyes of the public. This makes it all the more imperative that the outcomes of the NSDS and other government reforms be visible and sustainable.

Cognizant of these problems, the Kyrgyz Republic made governance reform the centerpiece of its NSDS 2013–2017. Among the measures proposed as part of the anticorruption section of the strategy are (i) a continuation of improvements in legislation and of fundamental reforms of the judicial system; (ii) radical reform of the law enforcement system, including the prosecutors' offices and the police; (iii) a systematic review of existing legislation to detect incentives for corruption; (iv) anticorruption campaigns and education programs; (v) detection and eradication of corruption schemes or of arrangements that breed or are associated with corruption; (vi) improvement of human resources policy, enforcing the selection of senior management based on their professional and ethical qualities; and (vii) cooperation with civil organizations in fighting corruption.[163]

The government also approved on 30 August 2012 a program and an action plan on combating corruption. A subsequent presidential decree on "measures to remove the causes of political and systemic corruption in the government structures," approved on 12 November 2013, covers anticorruption and other interrelated strategic areas of public sector reform. The decree includes such key measures as (i) combating political corruption by eliminating the dependence of state decisions on narrow group interests; (ii) addressing imperfections in the electoral system; (iii) identifying and dismantling corruption schemes through analysis; (iv) making changes in the functions and powers of state bodies; (iv) fostering cooperation between Parliament and the government in altering or amending the legal and regulatory framework concerning corruption; (v) ensuring that the procedures for the nomination, election, or appointment for government offices shall be defined by the Constitution; (vi) improving the accountability of representative bodies and their officials if they have made illegal decisions that resulted in damage to the economy and national interests of the Kyrgyz Republic; and (vii) building public awareness of and intolerance toward corruption.

Concrete actions taken during 2012–2014 include

- amending several articles of the criminal code to bring Kyrgyz Republic law in line with the United Nations Convention against Corruption;
- establishing in 2012 the State Service for Combating Economic Crimes, which was created by reducing and reforming the former Financial Police;
- launching a dedicated website by the prosecutor general's office through which citizens can file complaints;
- opening of 1,180 cases in 2012 against officials arrested for corruption, and of 1,085 such cases in 2013;
- further simplifying the tax system (with electronic filing and simplified forms), establishing a central database, establishing call centers, and installing one-stop-shops with no-contact windows in at least 10 tax offices outside the main cities; and
- reducing the number of permits and licenses required by businesses from 347 to 98 types of activities.

There have also been proposals for, or ongoing implementation of, several measures that will help address corruption, such as reforming public procurement; introducing e-procurement; creating databases for civil servants in the national and local governments; introducing obligatory declarations of spending for the acquisition of property, including property abroad, for the members of Parliament and local councils; and finalizing and adopting a new code of ethics for civil servants at all levels of government, which would reflect fundamental professional and ethical standards and requirements, including those concerning corruption.

[163] National Council for Sustainable Development of the Kyrgyz Republic, Government of the Kyrgyz Republic. 2013. *National Sustainable Development Strategy for the Kyrgyz Republic: For the Period of 2013–2017.* Bishkek. pp. 14–15.

While the government has reiterated its commitment to fight corruption on many occasions, public perceptions regarding corruption has yet to improve. A number of corruption cases have been opened, but they have generally been low profile, often involving opposition politicians and resulting in only a small number of convictions. Nonetheless, a few high-level cases have sent a message to the public that nobody is above the law. Most of these investigations have dealt with state capture cases,[164] and have had only a limited impact on the most visible aspect of corruption: the administrative corruption that the public has been facing daily.

There are two challenges in managing anticorruption programs. The first is ensuring that the laws in place are enforced uniformly and equally across society. The literature is replete with examples of strong laws that fail to eliminate corruption because these are inadequately enforced. The notion that punishment is inevitable after guilt is proven—regardless of one's social, political, or economic position—needs to be established in a credible fashion. The second is striking the right balance between prosecution and prevention. There are examples of countries in which an overemphasis on prosecution compromised the sustainability of their anticorruption agencies.

The government can learn, and has been learning, to some extent, from the lessons of countries where anticorruption policies have had success, such as Georgia. The lessons include the following: (i) the government should establish credibility early on by making significant changes in public service bureaucracies in which the prevalence of bribery had been high and the quality of service clearly low;[165] (ii) to ensure sustainability, institutional reforms have to be an integral part of anticorruption programs; (iii) the use of technology in the administration of public services could supplement policy and institutional reforms; and (iv) there should be community monitoring of the implementation of anticorruption measures.

A number of countries have adopted e-government applications, including e-procurement, which minimize face-to-face contact between the public and government officials, thereby reducing opportunities for bribery (as well as improving turnaround time). Another method employed by several countries is the use of one-stop-shops for issuing permits and documents and for resolving citizens' issues.[166] A number of other measures have been applied elsewhere as part of multipronged approaches to addressing corruption arising from state capture: (i) increasing the accountability of politicians and public servants through disclosures of conflicts of interest, and (ii) establishing rules on ethics to regulate the receipt of gifts and services.

The government's strategy and programs could be supported by a well-designed community-level monitoring program. This would require transparency and the disclosure of budget allocations for the community-level service units (e.g., schools, hospitals, and public investment projects), as well as increased beneficiary and community participation in project planning and in the allocation of funding. Community members could also have the opportunity to report corruption, but this will have no effect if the identified officials do not face punishment after being found guilty.

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164 J. Hellman and D. Kaufmann. 2001. Confronting the Challenge of State Capture in Transition Economies. *Finance & Development*. September. https://www.imf.org/external/ pubs/ft./find/2001/09/hellman.htm. This International Monetary Fund publication defines state capture as "the efforts of firms to shape the laws, policies, and regulations of the state to their own advantage by providing illicit private gains to public officials."

165 World Bank. 2011. *Fighting Corruption in Public Services: Chronicling Georgia's Reforms.* Washington, DC.

166 *Ibid., p.* 56.

A workshop discussion held in Bishkek on 7 May 2012 where two proposals were put forward formalized the hitherto informal payments for services as user fees; and increased the salaries of public sector officials, possibly from the additional revenues to be mobilized through user fees and service charges. A paper by Anders Sundell argues that Sweden was able to root out petty corruption by formalizing bribery and converting such payments into user fees.[167]

Further, an OECD monitoring report presented in Bishkek, in May 2012, spelled out the areas in which further progress has to be made in the Kyrgyz Republic in light of its experience in countries of the former Soviet Union.[168] The report concluded that

> *it seems to be a moment of significant changes and major transition. However, at present, there is no designated body in charge of preventive anti-corruption policies, as required by Article 6 of the [United Nations] Convention against Corruption. Meanwhile, some institutional decisions have been made and it is now a matter of getting the substance in line with international standards, as well as ensuring effective implementation of the foreseen reforms.*[169]

Given the depth and breadth of corruption in the Kyrgyz Republic, it is important to move forward on all aspects at the same time, and to set realistic targets that can be monitored. The three areas discussed here—rule of law, political and policy stability, and corruption—are interrelated, and they form the backbone of state rhetoric and practice in the pursuit of better governance

5.2 Unreliable Power Supply

Despite the Kyrgyz Republic's vast endowment of hydropower, the country's electricity supply is unreliable: power outages, interruptions, and fluctuations in voltage are common occurrences. Although electricity tariffs are among the cheapest in the world, the fickleness of the power supply is one of the top concerns of businesses, and a binding constraint to growth. The entire generation, transmission, and distribution system is in need of serious physical rehabilitation. Given the age of the equipment, and the unavailability of most spare parts, a system collapse is more a matter of "when" than "if." A strong political reluctance to increase tariffs has kept them at far below cost-recovery levels. The system is also marked by bad management, corruption, underinvestment, and poor service quality, and the power sector lacks an effective regulatory framework. In a way, it is a microcosm of the broader problems of governance confronting the country.

Since the country's independence, numerous studies have been carried out to find ways to reform the system. The unbundling of the single energy utility into six companies (a generation company, a transmission company,

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167 A. Sundell. 2012. LEGALIZE IT: An Argument for Formalizing Petty Corruption when State Capacity Is Low. *Working Paper Series.* No. 2012:2. Gothenburg, Sweden: Quality of the Government Institute, Department of Political Science, University of Gothenburg.

168 OECD. 2012. Second Round of Monitoring: Kyrgyz Republic. OECD Anti-Corruption Network for Eastern Europe and Central Asia Monitoring Report. Paris. The government's anticorruption agenda includes many items that must be completed as part of the Istanbul Anti-Corruption Action Plan to which the Kyrgyz Republic is a signatory. The Istanbul Action Plan is an initiative of the Anti-Corruption Network for Eastern Europe and Central Asia, encompassing eight former Soviet states: Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, the Russian Federation, Tajikistan, and Ukraine.

169 OECD. 2012. Second Round of Monitoring: Kyrgyz Republic. OECD Anti-Corruption Network for Eastern Europe and Central Asia Monitoring Report. Paris. p. 18.

and four distribution companies) was one attempt to improve management, but problems persisted, and a number of nontransparent privatization efforts have probably worsened the situation.

The winter electricity demand is expected to grow, with the resulting shortages estimated to reach one-third of consumption by 2020, so the urgent need to act cannot be overstated. To avoid a collapse of the system, and to make the electricity supply more reliable within several years, three measures have to be implemented simultaneously and quickly: (i) accelerated power sector reform, (ii) prioritized rehabilitation of critical power assets, and (iii) the introduction of energy-efficiency measures to slow down the increase in power consumption.

The NSDS states that the energy sector is a priority. There are 17 large-scale projects that are either working to increase energy supplies or are in the project pipeline, all of them at least partially supported by development partners. In addition, both the government's Action Plan for Reforming the Energy Sector for 2013–2014 and the NSDS aim to (i) strengthen the state regulation of the power sector, (ii) improve the management of energy companies and increase the transparency of corporate activities, (iii) gradually raise tariffs, and (iv) increase production to provide a more reliable supply of domestic electricity and higher electricity exports.

Establishing an independent regulator is critical to improving the transparency of the sector. The planned independent payment settlement center will improve the transparency of financial vertical flows in the sector, thereby ensuring that the sector's cash flow is distributed in a transparent, equitable manner to all of the country's energy companies, based on actual power production and set tariffs.

In addition to the overall improvements in power sector governance, management of the six energy companies needs to be enhanced if the public is to accept gradual tariff increases to cost-recovery level. Tariffs need be increased to a level that will suffice to cover (i) the full cost of production, transmission, and distribution of electricity; (ii) the modernization and expansion of the energy system; and (iii) the repayment of loans, ensuring energy security while protecting the poor. Also, increases in tariffs would provide important price signals that could slow down the rapidly increasing demand for electricity.

Taking into account the seasonal constraints to the use of hydropower, it is recommended that the projects aimed at building new generating capacity be scrutinized carefully, as the rehabilitation of existing assets may yield higher returns with shorter gestation periods. Such reviews could help rebalance the NSDS emphasis on building new generation capacity while older hydropower plants continue to suffer from problems caused by antiquated equipment.

In the next several years, key power assets need to be rehabilitated, and these should receive resources on a priority basis. Unfortunately, the government has been spending time and resources trying to attract funding for new assets, rather than focusing on rehabilitation. The rehabilitation of assets is often more cost-efficient based on a calculation of cost for unit of generated electricity. According to a preliminary study, the rehabilitation should focus on (i) the Toktogul Hydroelectric Power Plant and Bishkek's combined heat and power plant, (ii) the installation of a comprehensive SCADA system,[170] and (iii) the upgrading of substations and other urgently needed projects. The objective would be to provide uninterrupted, stable power to customers as soon as possible.

[170] SCADA stands for supervisory control and data acquisition. This is a computer system for gathering and analyzing real-time data used for monitoring plants and equipment in several industries, including energy.

While the financial sustainability of the system will depend on the pace with which tariff increases are implemented, the rehabilitation of projects mentioned above must be initially financed through the state budget and donor sources. A link has to be established between the pace of tariff increases and the visibility of service improvements. Also, the tariff policy must include measures to protect the poor from the negative impact of tariff increases on their well-being. After all, reliable and uninterrupted power is as much a quality-of-life issue as it is an economic factor affecting investment decisions.

5.3 High Cost and Inaccessibility of Finance

The high cost of finance and its limited availability are other binding constraints to growth. Like many low-income developing countries, the Kyrgyz Republic has a low level of aggregate domestic savings—estimated at about one-third of GDP—despite the significant inflows of remittances. As noted, the combination of high real interest rates, a shallow finance sector, and inefficient financial intermediation has served to limit access to finance. The role of MFIs has been widening, but MFI interest rates are high, maturities short, and the available amounts small.

The government has been working to achieve better access to credit information for banks and other finance institutions, which should improve the public's access to credit. In fact, a new law on the exchange of credit information has been approved. There have been other legislative actions, including a law on payment systems expected to be approved after revisions, a law on consumer protection, the expected approval of amendments to the Civil Procedures Code that will enable accelerated court enforcement of arbitral awards, and the expected adoption by the National Bank of the Kyrgyz Republic of an integrated risk-based off-site/on-site system for supervising MFIs. There are also amendments to the banking law on collateral that have yet to be approved by the Parliament.

The NSDS calls for amending the banking laws to strengthen the National Bank of the Kyrgyz Republic's independence and its supervisory capability, and to improve and clarify the bank resolution framework. It also calls for a strengthening of the deposit guarantee system, legislative amendments to streamline collateral registration, and an extension of the spectrum of financial products to include those for Islamic finance markets.

The government's Microfinance Sector Development Strategy for 2011–2015 set forth key strategic priorities, and these have been included in the NSDS in the interest of developing the regulatory framework for the microfinance sector and of limiting state intervention in finance markets. Expanding the deposit-taking capacity of the MFIs would help deepen the finance sector by improving the rural population's access to financial services.

With a very low bank credit–GDP ratio, the financial system in the Kyrgyz Republic should be developed in a way that would be commensurate with the needs of the economy. Together with the legislative and regulatory changes outlined in the NSDS, improvements in the intermediation of remittance flows through finance institutions (e.g., mobile payment platforms), and the introduction of debit cards that could work in neighboring countries would go a long way toward instilling banking habits in rural areas, where only 2% of the population have accounts with a formal finance institution.[171]

[171] World Bank. Global Financial Inclusion Database. http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTFINRES/EXTGLOBALFIN/0,,contentMDK:23147627~pagePK:64168176~piPK:64168140~theSitePK:8519639,00.html

A number of specific actions could yield quick results:

- Revise the regulatory framework for the MFIs to include innovative products and to strengthen the capacity of the National Bank of the Kyrgyz Republic to regulate and supervise the microfinance sector.
- Encourage more MFIs to take deposits.
- Allow MFIs to transfer remittances and mobile money.
- Exempt savings account interest earnings from income and transaction taxes.
- Consider introducing prize-linked savings programs that offer savers liquidity along with protection against the loss of principal, instead of paying interest proportional to savings balances; these programs would essentially "raffle off" the interest pot for each period.
- Encourage the banking system to offer basic, "no-frills" banking with accounts requiring no (or very low) minimum balance requirements and very low service charges.
- Allow the payment of direct taxes, patent payments, and fees for government services through the financial system, and simplify the procedures on the government side (e.g., eliminate the need for proof of payment).
- Develop remittance-backed finance products for domestic and external markets.
- Encourage and develop payment platforms that would be linked to mobile transactions, and offer them to small traders.
- Exempt sales of agricultural produce, equipment purchases, and interest earned from savings cooperatives from taxation to encourage the development of agricultural production and equipment leasing.
- Relax the rules governing the sale of foreclosed lands in rural areas.
- Develop a public grievance redress mechanism at the National Bank of the Kyrgyz Republic for the clients of finance institutions.

5.4 Shortage of Skilled Labor

The shortage of skilled labor, which results in low labor productivity, is a major constraint to growth. While wages in the Kyrgyz Republic are lower than those in most benchmark countries, unit labor costs in the formal sector remain relatively high because of low labor productivity, creating a competitiveness gap.

As reducing migration is not feasible in the short run, the focus should be on improving the quality of education and its relevance to the labor market. Indeed, the need to improve the education system has been recognized in government strategies.

The NSDS shows the government's commitment to improving the quality, governance, and financial viability of the education system. It proposes enabling the participation of public–private partnerships in expanding preschool capacity. For secondary education, the main NSDS objectives are to (i) review the content of secondary education; (ii) introduce a new generation of content standards; and (iii) provide textbooks and create conditions that will improve instruction in information technology, especially at schools in remote areas. The NSDS also proposes to introduce public–private partnerships into secondary education, as well as establish boards of trustees to improve accountability and reduce corrupt practices in education. These are important measures, but improving teachers' quality should also be a priority. For that purpose, the government has introduced some measures including a performance-based salary system. The effect of the measures should be closely monitored.

Regarding higher education, the NSDS is focused on eliminating widespread corruption, which is considered to be the most urgent problem, given that much of the university system is plagued with informal payments, from the admissions stage to graduation. The proposed measures include (i) improving the quality assurance system in higher education, such as introducing accreditation and ranking systems for the institutions of higher education; (ii) setting up new mechanisms for student admissions; and (iii) establishing supervisory boards.

While the entire education system is in need of an overhaul to tackle fundamental problems, TVET requires urgent attention. The government has taken several steps to improve the relevance of TVET training to the job market. Some vocational schools now have advisory councils that include representatives of the private sector. There is also the National Skills Council, which was established to improve coordination at a higher policy level. Also, curriculums have been gradually updated and developed into modular curriculums.

Further, the strategy's focus for the TVET system is on improving the quality and relevance of training through (i) the selection of new programs based on national priorities, (ii) improved teacher training, and (iii) the upgrading of facilities. It also envisages strengthening ties with industry and social partners to create a demand-driven, quality-assured, flexible education system capable of effectively addressing the changing needs of the economy and the labor market. The hope is that a student's completion of an upper secondary education will result in genuine opportunities. In higher education, the goal is to increase the supply of graduates in mathematics, science, and technology. This will benefit the students, who will have more job prospects than they would with diplomas in other fields, and will benefit society as a whole.

The Education Development Strategy for 2012–2020 clearly lays out the government's vision regarding the role of education in developing human capital that meets labor market demand.[172] The implementation of the strategy will ensure that the educational system prepares workers who will

- have strong communication skills;
- be able to act independently, openly express their views, and use creative and innovative approaches;
- share the values of human rights and freedom, gender equality, and respect for cultural, ethnic, and political diversity; and
- possess general and specialized knowledge and skills that will allow them to be successful in the labor market and in life.

The strategy includes concrete measures for realizing the government's vision and the NSDS goals listed above. There is a strong emphasis on systemic changes, such as improvements in human resources management, modifications of the sector service procurement system, greater administrative and finance autonomy for service providers, more effective strategic management using modern technologies to collect and analyze information, and better monitoring and evaluation. In fact, the swift implementation of the strategy will be the key to addressing the shortage of skilled workers.

In addition to the goals set out in these two strategies, a comprehensive labor market study should be undertaken to analyze the factors behind the shortage of skilled labor, and to identify the improvements that could be made in the education and TVET systems to better serve the needs of the economy. A strong social

[172] Government of the Kyrgyz Republic. 2012. *Education Development Strategy of the Kyrgyz Republic for 2012–2020.* English translation. Bishkek.

partnership between the education system and business will be critical, as it would improve the transmission of market signals regarding the skills that are in demand.

Regarding corruption in the universities, Georgia provides a good example of successful policy implementation. The entrance to state universities in that country used to require bribes, and students had to make additional payments to pass exams, receive good course grades, and even obtain their degrees, regardless of their academic merit. However, in 2005, the Government of Georgia enacted four major reforms: (i) establishing a single, centralized university entrance examination, instead of allowing a different exam for each university; (ii) ensuring that the examination process is transparent and secure; (iii) improving the quality of higher education institutions by instituting a rigorous institution accreditation process that eliminated poor-quality institutions, reducing the number of schools from 237 to 43; and (iv) conducting an aggressive media campaign to overcome resistance to these reforms from the public and the university community.[173] As a result, according to the World Bank, "Georgia's once notoriously corrupt university entrance exam has been transformed into a competitive exam based strictly on merit. Wealthy and well-connected students are no longer able to bribe their way into university, and students from the regions now have much greater access to higher education."[174]

However, there are no hard-and-fast rules or blueprints for combating corruption. The conditions that allow some countries to make profound changes in their anticorruption strategies may not exist in other countries, so Georgia's success might not be completely replicable in the Kyrgyz Republic. Yet Georgia's experience at least highlights the importance of a comprehensive approach to reform that is executed with political determination, as opposed to piecemeal approaches, or to policies that amount to little more than lip service from politicians.

5.5 Uneven Access to Economic Opportunities

The most important constraint to inclusive growth is the lack of economic opportunities caused by slow and unstable growth, and the uneven geographic distribution of the opportunities that do exist. Thus, addressing the constraints to economic growth is an important way to address the constraints to inclusive growth. The uneven distribution of opportunities exists because the constraints to growth identified for the country as a whole apply even more strongly to the poorer areas, and they act as disincentives to potential entrepreneurs and investors. To reignite growth and poverty reduction, the government must address the identified constraints (especially corruption, inadequate access to finance, unreliable electricity supply, and the shortage of skilled labor) in all oblasts, not just in the wealthier economic centers. The objective should be to create attractive environments for private sector investment and entrepreneurship across the country. In particular, addressing shortcomings in the financial system will help entrepreneurs create economic opportunities and develop small and medium-sized enterprises.

Education and skills are the most important determinants of poverty and access to employment. Thus, the graduates of vocational schools have the lowest unemployment rate, followed by graduates with a tertiary education. Helping rural youths find employment by equipping them with marketable skills would be a major

[173] World Bank. 2012. *Fighting Corruption in Public Services: Chronicling Georgia's Reforms.* Washington, DC. pp. 2, 75–80.
[174] *Ibid.,* p. 80.

contribution to poverty reduction. In times of severe underemployment, rural residents will migrate to the cities or abroad to seek opportunities outside of agriculture. These migrants are highly vulnerable to falling below the poverty line, but skills training could protect them from that fate.

Reforming the education system as soon as possible, especially TVET, would be the most effective way to equip the youth of the Kyrgyz Republic with the necessary skills. The problems of the education system are in need of urgent redress.

In the short term, remittances will continue to be an essential source of income, particularly in the south. Migrants should be supported, for example, with information about job opportunities and their legal rights. Appropriate education and training could help them access better-paid and higher-skilled jobs. The government should work to ensure that all domestic migrants, including those living in unofficial settlements, can access social services. This may help increase the inclusiveness of growth by making it easier for workers from remote areas to access opportunities in economically developed areas. Transfers of funds to and from abroad should be secure, straightforward, and reasonably priced. In the longer run, however, inclusive economic growth should provide workers in the Kyrgyz Republic with employment and livelihood opportunities in their home regions.

6 Conclusion: Need for Concrete Action

The Kyrgyz Republic is facing formidable development challenges. The country is trying to establish democracy while working to achieve stable growth in an uncertain economic environment. To make matters worse, the Kyrgyz Republic's dependence on workers' remittances and external assistance, and its limited resources, make the country even more vulnerable to risks and disruptions in the global economy. The future may be further complicated by the burden of short-term adjustments accompanying the country's integration into the Customs Union.

As in other developing countries, a host of constraints have hampered private investment and economic growth in the Kyrgyz Republic, and these are not limited to the binding constraints identified previously. However, unless the binding constraints are removed or alleviated, growth is unlikely to be ignited, even after the other challenges have been addressed. For this reason, the binding constraints must take priority. This report holds that resources must be focused on relaxing the binding constraints, rather than on trying to address all of the country's problems at once.

It should be understood that the removal of most of the binding constraints will take time. Any reforms by the government must be accompanied by a proven track record to change the perceptions of investors. Statements of intent will not be enough; they should be followed up with a relentless effort to implement the government's declared strategies.

The development of the NSDS by a multisector council, and its approval by the President, was a very important step toward stabilizing the country's development strategy. Frequent changes of government will no longer disrupt the continuity of development projects. A more realistic assessment of the list of national investment projects is needed to see whether they represent the best possible use of resources, and whether the efforts to mobilize the resources to finance these projects are the most effective. Most of the megaprojects on the list are unlikely to generate many jobs in the long run, but they may contribute to the GDP during their construction phases.

There is no shortage of declared intentions in the strategies for combating corruption or reforming public administration. The government has long been heavy on process-revising procedures and amending legislation, rules, and regulations. However, the government must supplement these efforts with concrete action—for instance, by dealing with the most conspicuous forms of corruption swiftly and decisively.

Most of all, the government cannot afford to lose public support. To be sustainable, policies aimed at removing binding constraints will require not only the government's commitment, but also widespread support from across the political spectrum and from large segments of society. Only under these conditions will the country be able to break out of its "20 years of survival mode," and become a country with well thought-out priorities and a clear sense of direction.[175]

[175] Government of the Kyrgyz Republic. 2013. *National Sustainable Development Strategy for the Kyrgyz Republic for 2013–2017.* Bishkek. p. 5.

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The Kyrgyz Republic: Strategic Assessment of the Economy

Promoting Inclusive Growth

The Kyrgyz Republic, among the poorest countries in Central Asia, has also been among the most open to economic reform. The country has experienced significant political and social instability since independence in 1991. In 2010, the country adopted a new constitution and became a parliamentary democracy. The government has set up an ambitious reform program. Yet, the Kyrgyz Republic faces serious challenges ahead. This publication examines factors constraining investments and inclusive economic growth, identifies gaps between policies and their implementation, and discusses options to overcome them.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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