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SELECTED ISSUES

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January 4, 2023

Approved By
Middle East and Central Asia Department

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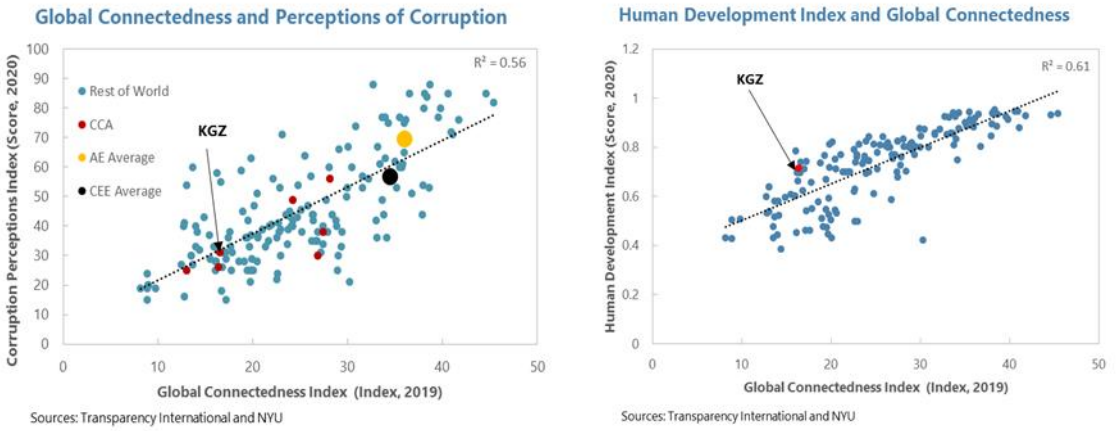
GOVERNANCE CHALLENGES IN THE KYRGYZ REPUBLIC[1]

Governance reforms in the Kyrgyz Republic can leverage linkages to the global economy and structural transformation to deliver higher and more inclusive growth. Combating corruption and strengthening governance, including of state-owned enterprises and public finances, and improving the regulatory environment and the AML/CFT framework, are critical steps to improve the business climate and promote private sector-led growth. Reforms in these areas have a significant potential to increase efficiency of allocation of public resources and the delivery of public services.

A. Introduction

1. Good governance is essential for higher and more inclusive growth. It strengthens confidence of investors, promotes more efficient and transparent use of public funds, reduces opportunities for corruption, and thereby leads to more efficient allocation of capital and labor in the economy. The Kyrgyz Republic needs investment in physical and digital infrastructure to improve productivity and generate more jobs for its growing labor force, which requires more FDI and better global integration. Human capital development is also positively correlated with global integration,[2] which in turn is robustly associated with good governance (Figure 1). However, the Kyrgyz Republic scores poorly on the perceptions-based corruption and governance indicators suggesting that considerable gains could be achieved through governance reforms.

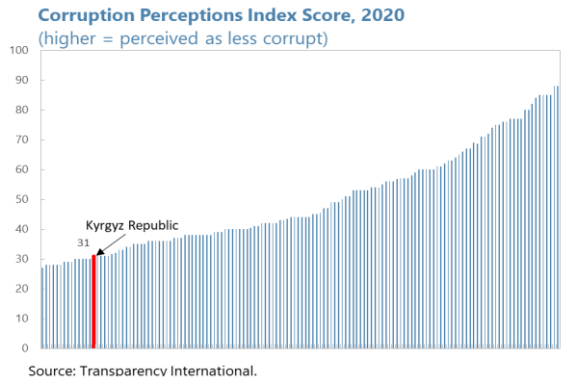
Figure 1. Development, Connectedness and Governance

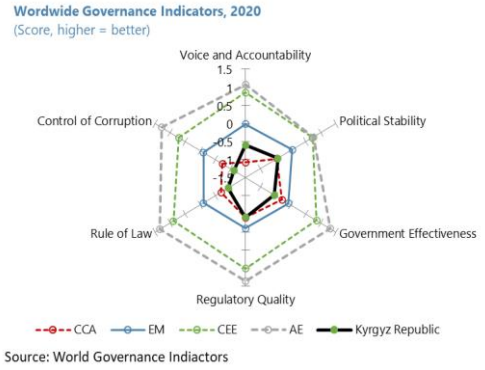


[1] Prepared by Erkeaim Shambetova and Jean van Houtte.

[2] The Global Connectedness Index measures the depth and breadth of international flows of trade, capital, information, and people. It draws on more than 3.5 million data points across the 13 measures of country-to-country flows: merchandise trade; services trade; FDI stock; FDI flows; portfolio equity stocks; portfolio equity flows; international internet bandwidth; telephone call minutes; scientific research collaboration; trade in printed publications; tourist departures and arrivals; international university students; and migrants (foreign-born population). A higher score implies more dispersion or diversification. The data are from NYU Stern School of Business; Center for the Future of Management; DHL Initiative on Globalization.

Figure 1. Development, Connectedness and Governance (Concluded)





2. This paper aims to assess various aspects of governance in the Kyrgyz Republic and identify some of the key challenges in this area. The Fund's analytical work has shown that governance reforms could raise the country's growth rates by about 1.2 percentage points per year. Strengthening control of corruption and regulatory quality, reforming state-owned enterprises, and enhancing transparency and accountability of the public sector are important priorities to pursue. The paper places particular emphasis on transparency and management of state-owned enterprises, but in addition it approaches governance along four other traditional pillars: economic regulation and the rule of law; Public Finance Management (PFM); anti-corruption; and Anti-money Laundering and Combating Financial Terrorism (AML/CFT).

State-Owned Enterprises

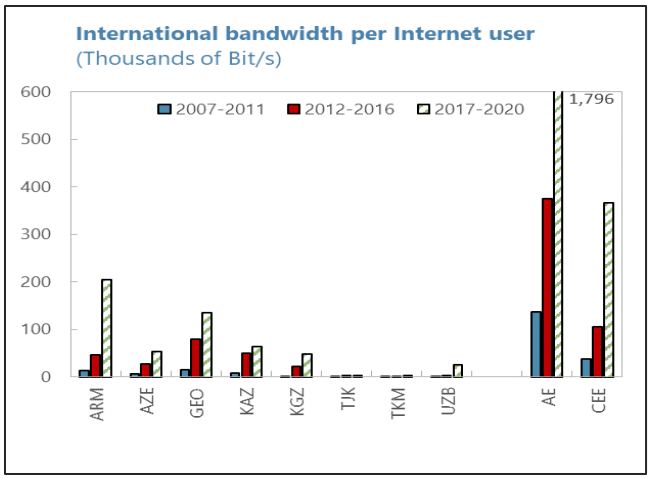
3. State-owned enterprises are a prominent feature of the economic landscape in many countries. While SOEs exist in virtually all countries, state ownership and oversight frameworks differ. These frameworks are particularly consequential in countries with large SOE footprints, because they claim sizable allocations of limited public resources. Some SOEs provide essential goods and services, such as water, public transportation, and electricity, have social or strategic importance, or serve other national interests. Others operate in sectors that are traditionally served by the private sector. In both cases, however, SOEs are a particular source of economic and fiscal risk that requires vigilant oversight. Studies have shown that SOEs are the second largest category of fiscal risks (after the financial sector), realization of which could inflict significant fiscal costs of 3 percent of GDP on average. They enjoy privileged access to capital and sometimes labor, and can thereby distort competition and undermine market efficiency. Therefore, countries need to adopt strong legal frameworks governing SOEs and articulate a comprehensive SOE ownership, management and oversight strategy to ensure that public resources are put to their best use and generate maximum social and economic returns for taxpayers without crowding out the private sector. This strategy would define the rationale and the objectives for state ownership of SOEs and how it will exercise its

ownership rights through good governance, including transparency and accountability arrangements.

4. SOEs remain prevalent in the CCA and the Kyrgyz Republic. The country has 136 SOEs, or 22 per million inhabitants, whereas the average OECD country has only one. The largest SOEs are concentrated in energy, telecommunications, mining and financial services – sectors that are critical for economic development and growth. SOE employment has come down over time as the private sector expanded fast, and its share in total employment in the Kyrgyz Republic is less than in many other countries in the region. On average, Kyrgyz SOEs also appear to be performing better than its peers, but international experience suggests that profitability and labor productivity of SOEs is generally lower than in private firms. Partly this relates to the public policy mandate of some SOEs (e.g. below cost pricing of essential goods and services), but profitability and productivity gaps with the private sector are also present in other areas, and are larger in more competitive sectors. This is a manifestation of resource misallocation.[3]

5. Performance of energy sector SOEs in the Kyrgyz Republic need to be improved. According to the World Bank,[4] the return on assets of energy sector SOEs is around zero, while the return on assets of other SOEs is close to 8 percent. Moreover, energy sector SOEs have undergone successive restructurings of their liabilities to the state, underscoring weaknesses of their financial positions. In the past 3 years, government on-lending worth around 10 percent of GDP has been in large part written off, thus irrevocably claiming resources that the state could have allocated to other priorities. Meanwhile, the quality of electricity is described by the World Bank as "very unreliable" which is a serious obstacle to attracting investment, including FDI, but also for operations of existing businesses. This largely reflects below-the-cost residential tariffs for electricity and cost inefficiencies of operations. Therefore, long term sustainability of the energy sector will require a reform of the tariff policy to ensure cost-recovery while being mindful of affordability for the vulnerable, on the one hand, and strengthening management of respective SOEs to optimize costs and improve revenue collection, on the other. These reforms could also make the sector attractive to private power providers.

6. The telecom sector needs to keep pace with new technologies. As in most CCA countries, international broadband capacity in the Kyrgyz Republic lags considerably behind Central European or Advanced Economies. Advancement in Information and Communications Technologies (ICT) is critical for productivity, employment, and growth in all sectors of the economy. The gateway to digitalization and the adoption of new



[3] IMF, 2020, Fiscal Monitor, Chapter 3: State-Owned Enterprises, the Other Government.

[4] World Bank, 2021. Kyrgyz Republic: Integrated State-Owned Enterprise Framework Assessment.

technologies is Kyrgyz Telecom, an SOE which enjoys a monopoly on the development and provision of core ICT infrastructure. Therefore, the government's ownership strategy of Kyrgyz Telecom needs to articulate its development objectives for ICT. As part of this strategy, consideration should be given to allowing the private sector to play a lead role in the sector, including possibly by divesting all or part of this SOE through a competitive tender, and strengthening competition in the sector.

7. The Kyrgyz Republic's largest gold producer, Kumtor Gold Company, has become fully state-owned in 2022, but is still operating under a special tax arrangement negotiated with the former foreign sponsor. Its central role in economic activity, foreign exchange generation and contributions to public revenue make it a critical SOE for the country. Given the large cashflows generated by gold mining, strengthening its governance and oversight is critical. At the same time, a convergence of the tax regime in line with the mining code would improve competition in the sector, while channeling Kumtor's profits to the state budget would provide the much-needed fiscal resource.

8. The legal framework for the 136 SOEs in the Kyrgyz Republic is fragmented. There are two separate laws governing SOEs, one for Joint Stock Companies (JSC) covering 32 largest SOEs, and the other for the remaining 104 SOEs that are not formally incorporated. These 104 SOEs mostly encompass smaller local operations, but also the national railways. Neither law governing SOEs stems from a clear ownership policy and a strategic vision for SOEs. JSCs are subject to explicit governance, oversight, and reporting requirements by the state, but the rest are not.[5] Both laws are complemented by secondary legislation but do not provide sufficient clarity and at times are contradictory. The Corporate Governance Code for board appointments has been formally adopted, but its implementation has been uneven, not adequately factoring in experience and competence. The SOE governance framework has also been weakened by exclusion of SOEs from the 2021 public procurement law. Instead, a temporary set of rules for SOE procurement was adopted in 2022 by the Ministry of Economy and Commerce.

9. During 2020-2021, operational oversight of SOEs was decentralized from the State Property Management Fund to line ministries, resulting in multiple reporting procedures. The system of Key Performance Indicators (KPIs), introduced in 2018 to evaluate SOE performance, has not been fully adopted by all SOEs. Financial reporting is mandated under the accounting law, with solid requirements to comply with IFRS reporting and disclosure standards, but its implementation has not been systematic. No single database for SOE financial statements and audits currently exists, although its establishment was legislated in 2021.

10. Oversight mechanisms for SOE holding companies are unclear. Whereas formal reporting arrangements exist for incorporated SOEs, the scrutiny of public financial holding structures that formally own SOEs in a given sector is undetermined. There are two leading SOE holdings: the "National Energy Holding Company" was established in 2015 and holds all energy sector SOEs, except one; a new SOE Holding ("Legacy of Great Nomads") was created in 2021 to hold

[5] Unincorporated SOEs include the National Railway Company, which is proving difficult to reform in the absence of normative transparency and reporting requirements, despite incurring chronic large losses.

all corporate assets in the mining sector, including the recently nationalized gold mine, Kumtor. Other holdings were created recently but are less important. These recent developments highlight a trend of further decentralizing SOE ownership via diversified web of SOE Holdings, thus diluting their accountability.

11. SOEs' control environment remains weak, the results of independent and state audits are published partially or with delays. While many of the large SOEs undergo independent audit, the legislative requirement to publish the complete set of annual audited financial statements is not followed by SOEs or enforced by the government. The state audit is carried out by the Chamber of Accounts, which has a mandate to audit companies that are majority owned by the central government or municipalities, and those entities that receive budget funding. The COA audit reports often do not cover critical issues such as government on-lending to energy SOEs. There is no explicit requirement to inform Parliament of SOE performance, which also weakens public scrutiny of this sector.

Figure 2. Characteristics of SOEs in the Kyrgyz Republic

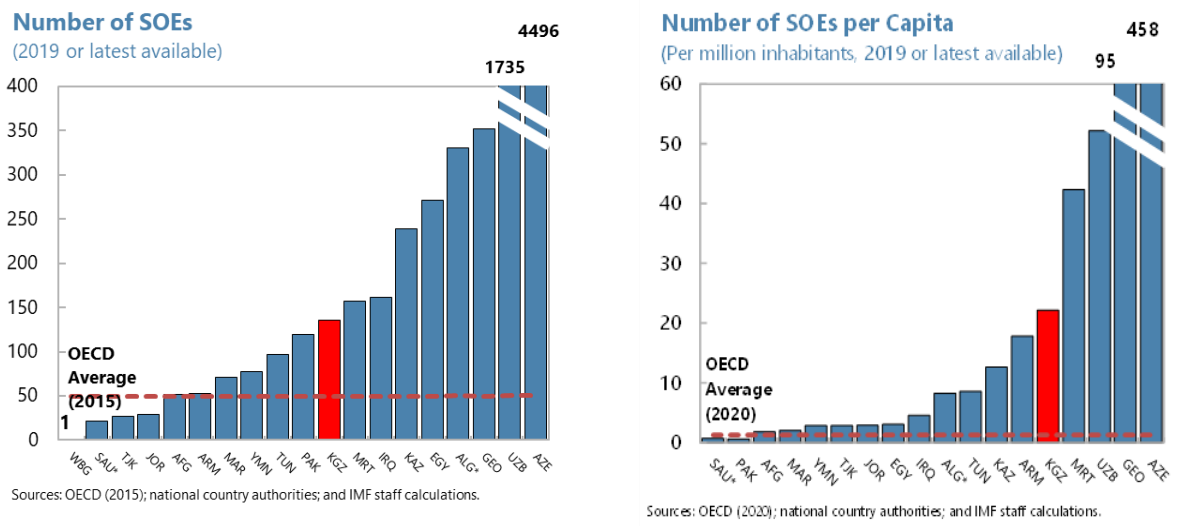
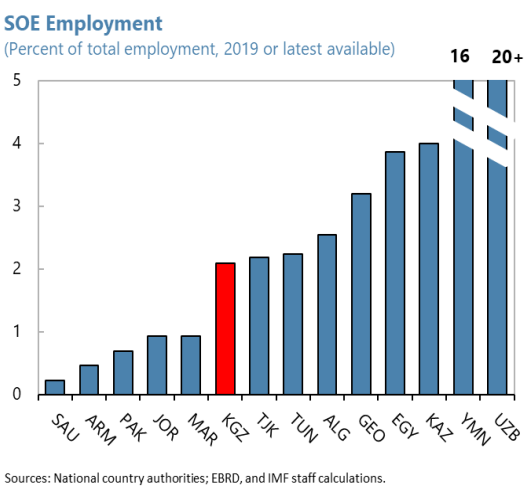
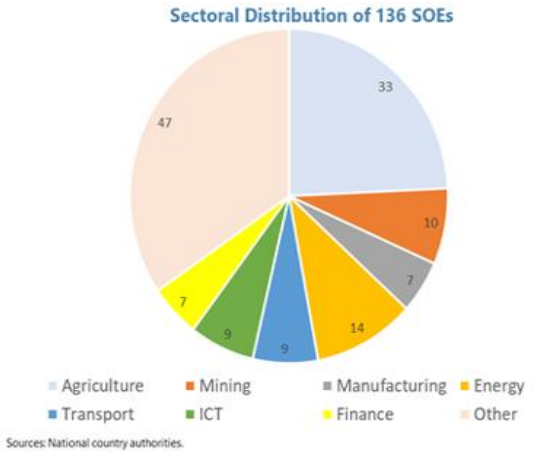


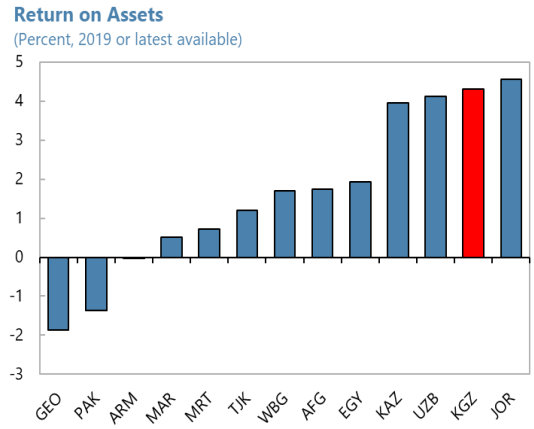
Figure 2. Characteristics of SOEs in the Kyrgyz Republic (Concluded)



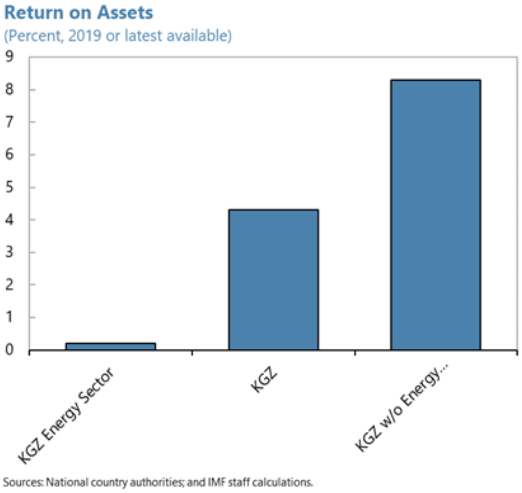
Sources: National country authorities; EBRD, and IMF staff calculations.



Sources: National country authorities.



Sources: National country authorities; and IMF staff calculations.



Sources: National country authorities; and IMF staff calculations.

12. A sound legal, institutional and operational framework for SOEs and a clear ownership strategy can improve SOE performance and increase economic activity. Staff analysis found that in addition to general governance reforms, the Kyrgyz Republic could significantly increase growth by reducing the state participation in the economy where companies can operate commercially, including through privatization and restructuring and strengthening corporate governance of SOEs (IMF 2022, forthcoming). Apart to sector-specific constraints to SOE performance (e.g. electricity tariff regulation), there are a number of broad reforms that can further improve the way SOEs are run. These include:

- **Streamlining and harmonizing legislation that govern SOEs.** An SOE law should provide a clear definition of an SOE and legal forms of government ownership (e.g. incorporation); define the role

and the powers of the government in exercising its ownership rights; and reporting and disclosure requirements (e.g. publishing of audited annual reports and financial statements). In addition, all SOEs should be subject to the public procurement law.

- **Articulating and publishing a clear ownership policy, reducing state presence in competitive sectors.** The ownership policy should define the government's policy objectives as a shareholder (financial, economic, or social objectives); the mandate of each SOE; and the main principles of how the government will exercise its ownership rights in support of public interests, include binding reviews of SOE budgets, borrowing plans, and capital injections. This policy should then determine which SOEs should remain in state's ownership. For example, the government may decide to retain SOEs that serve strategic or social objectives, privatize commercially viable entities, and restructure or close non-viable ones.
- **Establishing a strong corporate governance framework.** This framework should envisage professional management and qualified boards to allow SOEs to operate effectively without government's interference. To this end, the Corporate Governance Code, which reflects international standards[6], should be implemented consistently. In view of capacity limitations, the application of the corporate governance framework could initially start with the most strategic and largest SOEs, and gradually extended to others.
- **Enhancing the operational and financial transparency requirements and strengthening institutional oversight.** This should start with timely financial reporting by all SOEs, and publication of financial accounts and audit reports. A comprehensive annual report should be prepared and published alongside the annual budget execution report. It should review the SOE sector performance, including financial results and key policy decisions. The report should also include a full list of SOEs, broken down by industry, size, and type of ownership (e.g. shares of state ownership, strategic relevance, or candidates for privatization), and information on individual companies, comprising a summary of their operations, abridged financial statements, key performance indicators, the appointment of boards and management, and profit distribution.
- **The Ministry of Finance should exercise financial oversight**. As a matter of fiscal due diligence, the MoF should launch the centralized analysis and monitoring of fiscal costs and risks stemming from SOEs, and use this analysis to inform the budget process and pro-actively manage such risks. In that connection, the largest SOEs should be prioritized, starting with those in the energy and transport sectors.

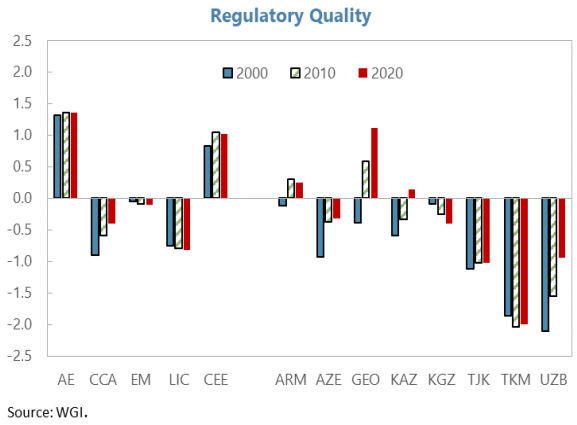
B. Economic Governance and the Rule of Law

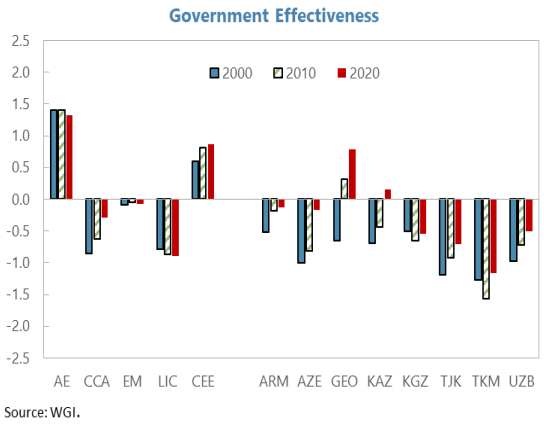
13. The Kyrgyz Republic has a scope to strengthen economic regulations to promote private sector-led growth. The score for the World Governance Indicator (WGI) for the quality of the regulatory framework is comparable or better than other CCA countries except Georgia. However, progress since 2000 has been slow. On Government Effectiveness, the Kyrgyz Republic outperforms low-income countries, but lags emerging markets, central and eastern Europe as well as

[6] "How to Improve the Financial Oversight of Public Corporations", IMF, 2016

Armenia, Azerbaijan, Georgia, and Kazakhstan in the CCA. The Armenia and Georgia experiences show that comprehensive reforms can markedly improve regulatory quality and government effectiveness. The Kyrgyz Republic could significantly strengthen governance by streamlining of regulations, improving infrastructure, notably electricity, broadband telecommunication, and roads, limiting discretion and harmonizing rules with neighboring countries to help foster regional integration and a common market. The latter will require harmonizing technical and economic standards, aligning VAT rates, adopting an expedited border control mechanism, liberalizing cross-border service provision, and reducing non-tariff trade barriers.

Figure 3. Quality of the Regulatory Framework and its Implementation





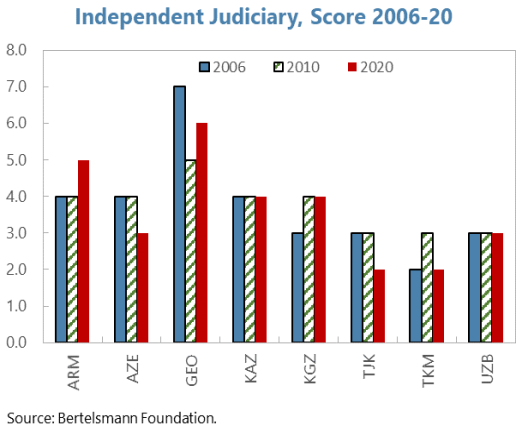
14. Improving perceptions of the rule of law and contract enforcements can attract investment and support business activity. Investment decisions could be negatively affected if entrepreneurs believe that they cannot protect their property and enforce contracts, or that these will cost an excessive amount of time and money. The Kyrgyz Republic scores an average rating among its CCA peers on the Bertelsmann Foundation's judicial independence indicator, and relatively low on WGI's "Rule of Law" indicator. Progress since 2000 has been limited for Kyrgyzstan, whereas Georgia shows that faster progress is possible. There is also a disproportionately small number of court case filings in the Kyrgyz Republic relative to its population. The number of cases filed in the country is significantly smaller than a city in Europe,[7] while the number of arbitration cases filed abroad is similar to that of Kazakhstan, which has a population three times larger and economy 20 times larger. The number of court filings on tax disputes has been declining steadily, suggesting that perceptions of enforcement mechanisms are weak. Declining court filings manifest

The Kyrgyz Republic: Tax Case Inflow	
2015	216 cases
2016	209 cases

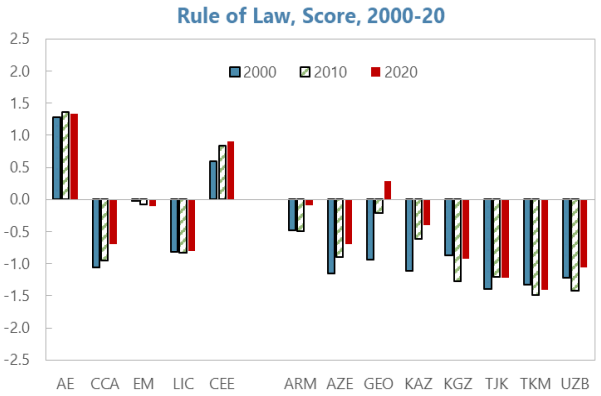
[7] IMF staff estimate the entire first instance civil, commercial and tax inflow of cases for in 2018 at was 85,000 cases nationwide. In comparison, in the Belgian city of Antwerpen with population of 520,000 the number of civil cases in that year was about 140,000 cases (www.rechtbanken-tribunaux.be)

the lack of trust in the judiciary, which imposes inefficiencies and constrains growth. Strengthening judicial effectiveness is therefore one of the key priorities.

Figure 4. Legal Framework and its Implementation



Source: Bertelsmann Foundation.



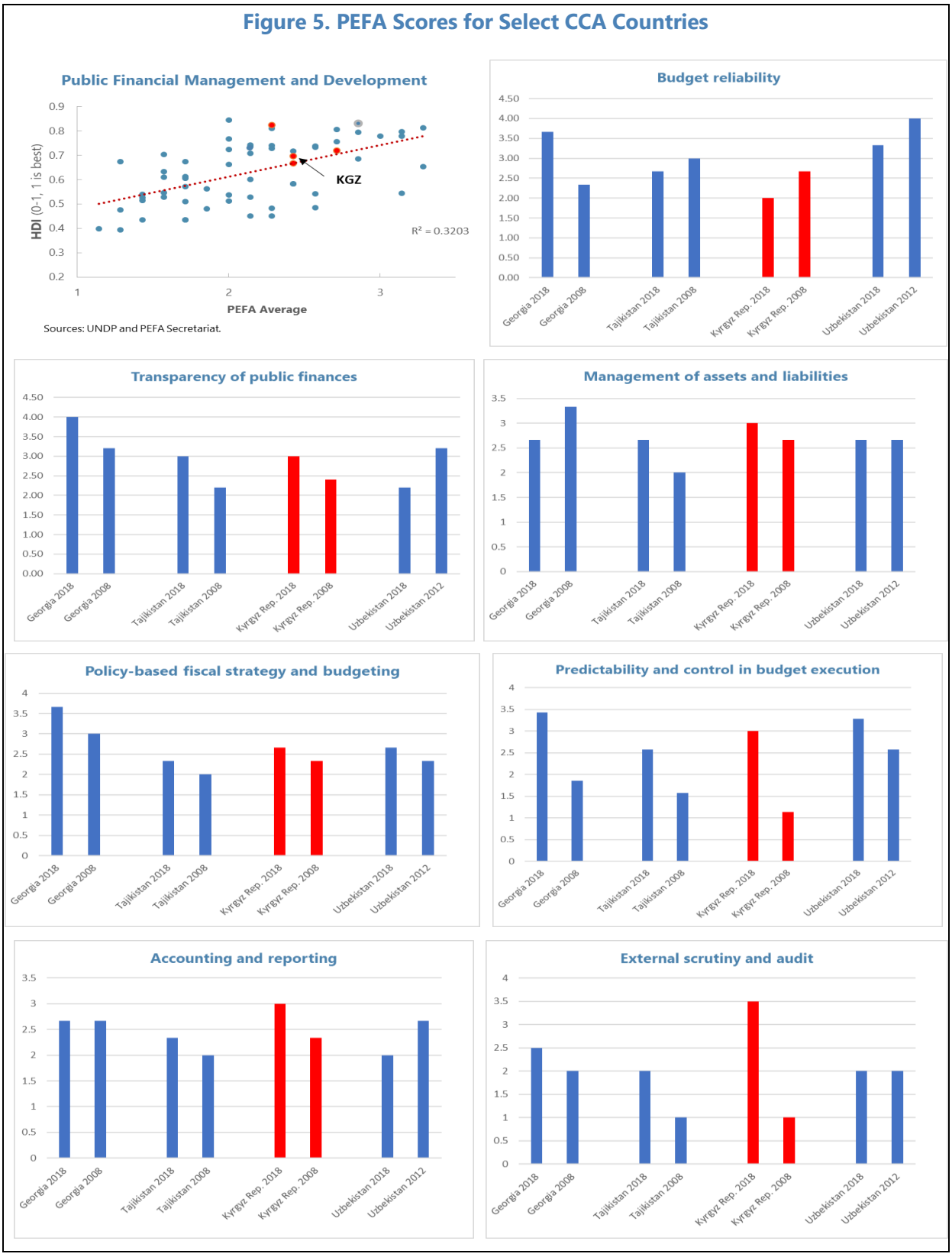
Source: WGI.

C. Fiscal Governance and Public Financial Management

15. Sound PFM practices are necessary to support development. Countries that monitor and control their public resources more effectively perform consistently better in terms of commonly accepted measures of development. The four CCA countries for which Public Expenditure and Financial Accountability (PEFA) data are available[8] achieve better development outcomes than their PEFA performance would predict, but there is room for improvement. PFM has progressed well in the Kyrgyz Republic with a significant increase in PEFA scores for all categories except budget reliability. Two other CCA countries show similar progress. However, these improvements do not yet the reflect (i) the 2022 public wage increase, which has significant medium-term implications; and (ii) the recent uptake in extra-budgetary funds that hinder transparency and comprehensive budgeting. Work is ongoing to improve budget reliability by centralizing payroll management with IFMIS to better control the wage bill; institutionalize SOE oversight mechanisms to centralize fiscal risks analysis, monitoring, and limit the accumulation of contingent liabilities. Extra-budgetary funds need to be limited, and their performance and new allocations need to be discussed explicitly in the budget law at the time of approval.

[8] Georgia, the Kyrgyz Republic Tajikistan, and Uzbekistan.

Figure 5. PEFA Scores for Select CCA Countries



Sources: UNDP and PEFA Secretariat.

D. Anti-Corruption Framework

16. Enforceable, transparent, and comprehensive financial disclosure by public officials could serve as an important corruption deterrent. It is an important tool to strengthen integrity of the public service, limit opportunities for illicit enrichment and corruption, and hence improve public trust. Allowing public access to these financial declarations greatly enhances transparency of disclosure schemes and strengthens accountability of public officials. Combating illicit enrichment is equally critical to strengthen an anti-corruption framework and achieve accountability.

17. The Kyrgyz Republic adopted a financial disclosures law in 2017.[9] Implementing resolutions, adopted in 2018 establish the declaration form, the procedures for filing, the classification of the financial information, the parameters for publication and the regulations on the procedures for reviewing and analyzing the declaration information. This new regime transfers the administration, control and verification responsibility from the State Personnel Service to the State Tax Services (STS). The law requires the annual submission of declarations in an electronic format through an online system. Summary of the income, expenditure, and property of some senior officials whose activities are not related to national security and their relatives are published on the website of the STS. Failure to submit a financial disclosure or submission of inaccurate or incomplete information can lead to sanctions, including dismissals.[10] However, the sanctions regime for non-submission is unclear, the coverage of the requirements does not include close relatives, and triggers for investigation and prosecution for illicit enrichment are not established. Finally, officials tasked with verifying compliance are not specifically trained to implement this law.

E. Anti-Money Laundering and Combating Financial Terrorism (AML/CFT)

18. The authorities have strengthened AML/CFT legislation. In 2018 the Kyrgyz Republic reformed its AML/CFT framework by adopting a new AML/CFT Law that considerably improved financial risk-based supervision and introduced mandatory disclosure of beneficial ownership of all legal entities. In the review by EAG (a FATF[11]-affiliated regional group), the new law and related by-laws are marked as a significant achievement. Among CCA countries, the Kyrgyz Republic has the strongest record with 39 of the 40 FATF recommendations at or near compliance. However, while the Kyrgyz Republic is ahead of its peers in terms of the legal framework, it lags on the effectiveness of managing the related risks. This underscores the need to strengthen analytical capacity and implementation capabilities. In particular, the FATF found that money laundering and terrorism

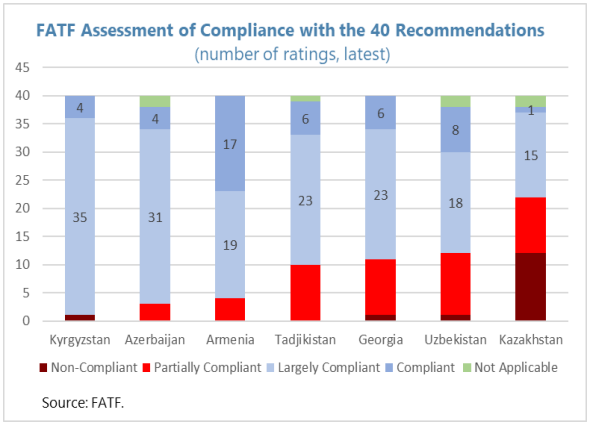
[9] The law is titled 'On Declaring Incomes, Expenses, Obligations and Assets of Persons Holding or Occupying State and Municipal Offices'. The financial disclosure obligations apply to persons holding political, special civil service posts; persons holding administrative civil service posts; military servicemen, law enforcement officers and diplomatic officials; persons holding or occupying political and administrative municipal offices; Chairman of the National Bank and his deputies.

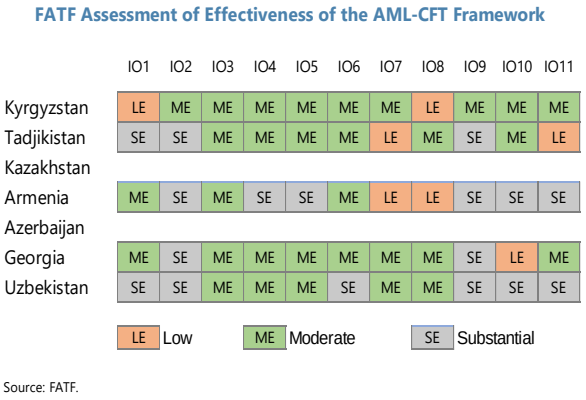
[10] See: Law about state civil service and municipal service of May 30, 2016 (art. 47) and Law on anti-corruption of August 8, 2012 (art 7).

[11] The Financial Action Task Force (FATF) is a global money laundering and terrorist financing watchdog. It developed a set of recommendations, or FATF standards, which ensure a coordinated global assessment mechanism and response to prevent organized crime, corruption and terrorism.

financing risks are little understood and better coordination is needed domestically to combat money laundering and the financing of terrorism and proliferation (IO1). It also found that the proceeds of crime are rarely confiscated (IO8). This finding underscores the importance of strengthening risk-based AML/CFT supervision, and monitoring of cross-border activities with a focus on detecting and recovering proceeds of corruption.

Figure 6. FATF Compliance and Effectivness of Measures





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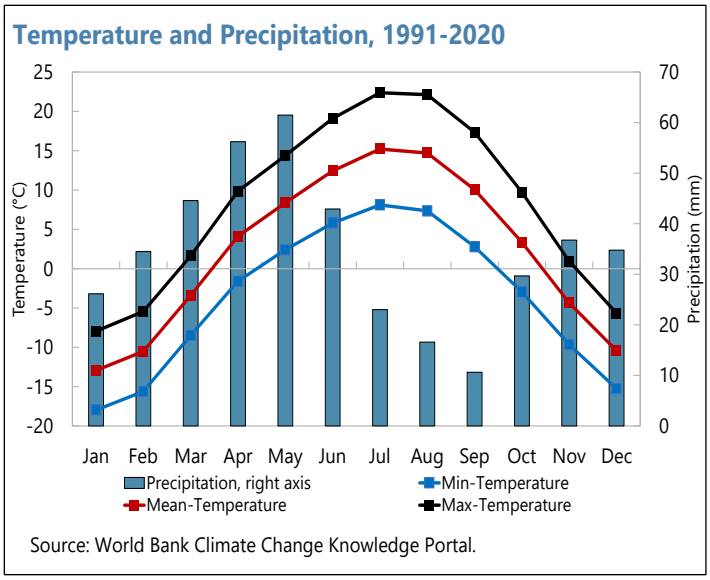
CLIMATE CHANGE ADAPTATION AND MITIGATION IN THE KYRGYZ REPUBLIC[1]

The Kyrgyz Republic is a small emitter of greenhouse gases. However, it is vulnerable to climate change because of its mountainous landscape with glaciers and a large agricultural sector. The Kyrgyz authorities have ambitious plans to reduce carbon emissions and adapt to climate change, with consideration given to national priorities and the Sustainable Development Goals. Because of the Kyrgyz Republic's small carbon footprint, the authorities' main focus should be on adaptation policies to build resilience to climate change and reduce annual output losses from global warming. However, success of adaptation policies would hinge on the availability of sufficient financing, both from domestic and external sources.

A. Climate Change Prospects in the Kyrgyz Republic

1. Mean temperature changes in the Kyrgyz Republic have outpaced global averages and the country is vulnerable to climate change. The geography and topography of the Kyrgyz Republic makes it one of the most hazard-prone countries in Central Asia. It is a landlocked arid country located in Central Asia between two major mountain systems, the Tien Shan and the Pamirs. Approximately 94 percent of the country is above 1,000 meters from the sea level and about 4 percent is permanently covered by snow. Average annual temperatures vary from less than −10°C in high altitudes to over 12°C in the northern and western lowlands. Average annual temperatures have risen by approximately 1.3°C between 1992–2021, frequently exceeding the world average (Figure 1). The country experiences 3,000 to 5,000 earthquakes every year[2]. Since the independence in early 1990s, the country has experienced 19 climate related disasters, resulting in about US$76 million in damages (in 2020 dollars, about 1 percent of 2020 GDP), more than 2 million people affected, and 323 deaths.[3]



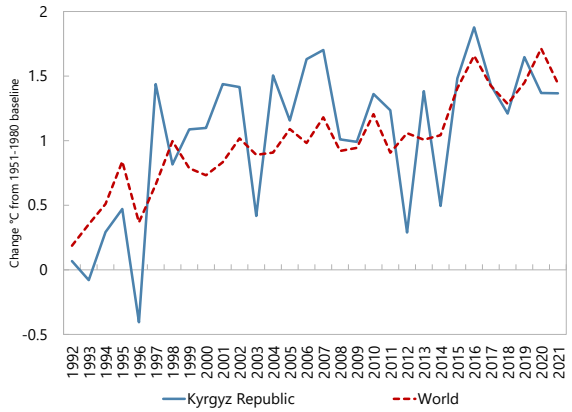
[1] Prepared by Lilia Kadyrberdieva, Alexandra Solovyeva, and Tigran Poghosyan.

[2] World Bank Climate Change Knowledge Portal.

[3] EM-DAT, The international Disasters Database (2022/06/03).

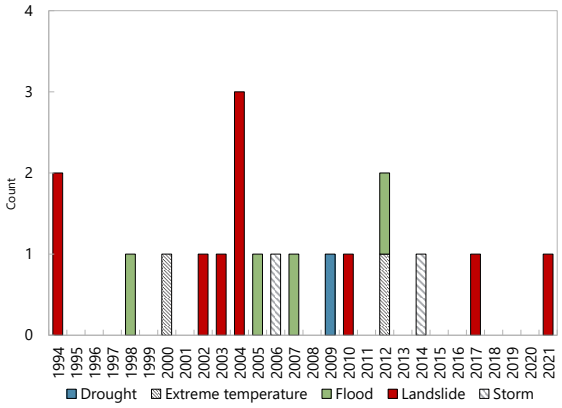
Figure 1. Mean Temperature Change and Frequency of Climate-Related Disasters

Mean Temperature Change of Meteorological Year



Sources: IMF Climate Change Dashboard: FAO Temperature Change.

Frequency of Climate-Related Disasters



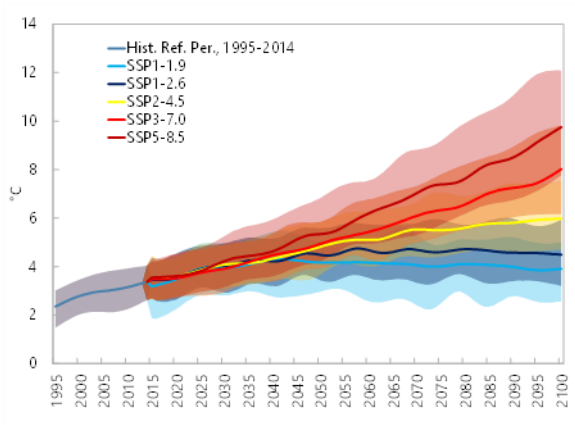
Sources: IMF Climate Change Dashboard: EM-DAT, CRED / UC Louvain, Brussels, Belgium.

2. The Kyrgyz Republic is likely to continue experiencing rates of warming considerably above the global average. The WB models[4] for the Kyrgyz Republic show a trend of consistent warming (Box 1). By 2100 this multi-model ensemble projects 6.1°C of warming in the Kyrgyz Republic under the highest emissions pathway (SSP5-8.5) [5] compared to an average increase of 5.3°C for the CCA region and a global average rise of 4.4°C. Under the lowest emissions pathway (SSP1-2.6), warming peaks at the end of the 2050s at around 1.7°C above the 1995–2014 baseline and then begins to decline. Extreme temperatures, potentially over 40°C, would become a regular occurrence in the low-lying and most densely populated areas. While considerable uncertainty surrounds projections of long-term precipitation trends in the country, the intensity of extreme rainfall events appear to be increasing with temperature. As glaciers continue to melt due to rising temperatures, more intense flooding events in the wintertime and reduced water flow in the summer are expected. Rising temperatures, changing hydrology, and frequency of extreme weather events will exacerbate the Kyrgyz Republic's vulnerability to extreme events.

[4] Coupled Model Intercomparison Project Phase 6 (CMIP6).

[5] Shared Socioeconomic Pathway, World Bank Climate Change Knowledge Portal.

Box 1. Mean-Temperature Projections



1995-2014 is a reference period. Projection data is presented as multi-model ensembles, which shows the range and distribution of the most plausible projected outcomes of change in the climate system for a selected Shared Socioeconomic Pathway (SSP).

SSP1-1.9: The most optimistic scenario assumes that global CO2 emissions are cut to net zero around 2050. Societies switch to more sustainable practices, with focus shifting from economic growth to overall well-being. Investments in education and health go up. Inequality falls. Extreme weather is more common, but the world has dodged the worst impacts of climate change. This scenario meets the goal of keeping global warming to around 1.5 °C above preindustrial temperatures, with warming hitting 1.5°C but then dipping back down and stabilizing around 1.4°C by the end of the century.

SSP1-2.6: In the next-best scenario, global CO2 emissions are cut severely, but not as fast, reaching net-zero after 2050. It imagines the same socioeconomic shifts towards sustainability as SSP1-1.9. But temperatures stabilize around 1.8°C higher by the end of the century.

SSP2-4.5: This is a "middle of the road" scenario. CO2 emissions hover around current levels before starting to fall mid-century, but do not reach net-zero by 2100. Socioeconomic factors follow their historic trends, with no notable shifts. Progress toward sustainability is slow, with development and income growing unevenly. In this scenario, temperatures rise 2.7°C by the end of the century.

SSP3-7.0: On this path, emissions and temperatures rise steadily and CO2 emissions roughly double from current levels by 2100. Countries become more competitive with one another, shifting toward national security, and ensuring their own food supplies. By the end of the century, average temperatures have risen by 3.6°C.

SSP5-8.5: Current CO2 emissions levels roughly double by 2050. The global economy grows quickly, but this growth is fueled by exploiting fossil fuels and energy-intensive lifestyles. By 2100, the average global temperature is a scorching 4.4°C higher.

Source: World Bank Climate Change Knowledge Portal.

B. Impact of Climate Change Risks on the Macro-Financial Situation and Long-Term Outlook

3. Climate change can result in direct human and material damages and have an adverse impact on growth. Duenwald and others (2022) analyze the growth impacts of higher temperatures, more erratic precipitation, and intensified disasters, and find that countries with low average annual temperatures of up to 19°C (such as the Kyrgyz Republic) can benefit from higher temperature. A 1°C increase in temperature is associated with higher per-capita GDP growth in CCA countries for about three years. However, abnormally large temperature deviations within one year

can reduce GDP per capita (irrespective of the initial temperature level), and more so with larger deviations.

4. Weather shocks can affect some productive sectors more than others, resulting in a change of output composition with ripple effects on sectoral employment. Temperature increases above annual averages have reduced unemployment in CCA countries. However, higher precipitation has increased youth unemployment for both males and females as the young tend to have lower job security and weaker skillsets. Temperature increases have weighed negatively and persistently on agricultural employment, but have increased employment in the service sector (and the discernible effect on industry), which suggests that climate change amplifies the shift of labor from agriculture to services.

CCA: Key Macroeconomic Impacts of the Region's Main Climate Stressors, 1970-2020

	Real GDP p.c. growth	Sectoral GDP	Sectoral employment
Temperature shock (+)	(+)	(-) for agriculture (+) for tourism until a turning point (+) for construction	(+) total employment (-) for agriculture over a short time period (+) for services no impact for industry
Precipitation shock (+)	(+) for countries with below-average rains, otherwise (-)	(-) for agriculture (-) for financial and real-estate activities	(-) total, male and female employment, youth employment
	Real GDP p.c. growth	Public debt	Current account balance
Disruptive disaster year	(-)	(+)	(-)

Source: Duenwald and others (2022).

5. Climate disasters weaken short-term economic performance in the CCA, with some effects persisting through the medium term. In disaster years, real per capita growth declines by 1.7 percentage points on average and recovers slowly over the medium term, resulting in a permanent output loss of almost 5½ percentage points of GDP. Public debt surges by 2½ percent of GDP mainly reflecting an immediate budget and growth deterioration, and the current account deficit widens gradually by about 4 percentage points of GDP in the medium term.

6. Agriculture is most susceptible to climate change in the Kyrgyz Republic. Despite its declining share in total GDP, agriculture remains important for the livelihoods of rural population, which constitutes 65 percent of total population in the Kyrgyz Republic. Over the last decade, it contributed more than 14 percent to the country's annual output and employed more than 25 percent of the economically active population on average[6]. Leading agricultural products include grain and forage crops (80 percent of cultivated area), meat and dairy. Agricultural products comprised about 8 percent of total exports in 2020. Climate change will impact both crops and livestock (USAID, 2018).

7. Continuing glacial melt and pressure on water resources in the Kyrgyz Republic will influence food and livestock production (USAID, 2018; WB and ADB, 2021). Direct effects include changes in carbon dioxide availability, precipitation, and temperatures. Indirect effects include impacts on water resources and seasonality, soil erosion, and decline in arable areas due to desertification. Wang and others (2020) show that climate change reduces productivity of grasslands across the majority (96%) of the Kyrgyz Republic's land surface area. Increased water scarcity and droughts can reduce access to drinking water and adequate foraging, potentially reducing crop yields and exacerbating food insecurity. The increased biological stress and poorer nutrition are likely to leave the livestock more vulnerable to infectious diseases.

[6] Source: National Statistical Committee of the Kyrgyz Republic (http://stat.kg/en/).

8. Climate change will also adversely affect the energy sector. The estimates on how climate change can affect demand for energy vary across studies (WB and ADB, 2021; USAID, 2018)[7]. Nevertheless, all studies report a significant adverse effect of climate change on energy supply which is already under pressure. Hydropower provides around 90 percent of the country's electricity. Changing rainfall patterns, increasing temperatures and increasing droughts will likely reduce reliability and availability of water for hydropower and thermoelectric cooling. Increasing glacial and snow melt are expected to affect hydropower sources in the coming decades, with increases likely in the next five to ten years and significant decreases thereafter. The aging power plants, energy infrastructure and transmission would face threats from higher temperatures and increased heavy rains along with floods and mudslides.

9. Climate change will disproportionally affect vulnerable groups, aggravating poverty and inequality, and contributing to social tensions, migration, and conflict. Higher intensity and frequency of droughts stand out as the most significant risk for the poor in the Kyrgyz Republic. The poorest quintile is estimated to be more than twice as likely to be exposed to droughts than other groups (Winsemius and others, 2018). This population group typically works in, or relies on, rural agriculture for livelihood or subsistence, the sector which is particularly impacted by droughts. Smaller businesses are least able to afford space heating and cooling or investing in energy efficiency. Poorer farmers and communities are least able to afford local water storage, irrigation infrastructure, and technologies for adaptation. Women and low-income rural dwellers are most likely to be affected by flash flooding and landslide as they spend more time in exposed residential and subsistence production areas. Historical evidence suggests that a climate-driven increase in floods and landslides could contribute to rural-urban migration.

10. Climate change is a major threat to growth, prosperity, and macro-financial and socio-political stability (Duenwald and others, 2022; Saliba and others, 2022). Without adequate adaptation strategies, even in a moderate global warming scenario, climate change will:

- Reduce long-term growth through adverse impacts on human and physical capital, and total factor productivity. Across sectors, changing weather patterns typically first impact agriculture and hydropower production, with ripple effects on manufacturing, trade, tourism, and services.

- Undermine macroeconomic stability as lower growth would shrink the tax base and reduce fiscal space, and generate additional expenditure needs for infrastructure, social protection, and investment in human capital. This will result in higher fiscal deficits and public debt. Lower potential growth would also reduce exports, while import may rise due to the increased infrastructure investment needs. As a result, the external balance could weaken exerting pressure on international reserves, the exchange rate, and price stability.

- Pose risks to financial stability as lower growth and loss of incomes by firms and households would weaken asset quality and bank balance sheets. More frequent climate disasters could also

[7] Analysis of fifteen studies in the world examining the impact of ambient temperature on total electricity consumption showed that the actual increase of the electricity demand per degree of temperature increase varies between 0.5 and 8.5 percent (Santamouris and others, 2015).

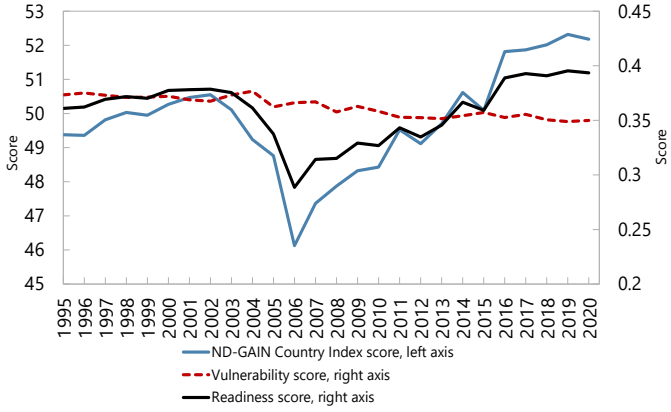
result in larger losses for insurers and investment funds and trigger capital outflows, fire sales and other negative macro-financial spillovers.

11. Compounding effects of the above-mentioned factors could cause social and political instability. Weak social safety nets and insufficient fiscal buffers to protect the vulnerable could further aggravate the situation and lead to more migration and conflicts, increase poverty especially among the youth and women, and weaken growth potential even further in a vicious cycle.

C. Adaptation Plans

12. Early adaptation is critical to strengthen resilience of the Kyrgyz economy to climate change. The country is a small emitter of greenhouse gases on the global scale but can be heavily affected by climate change if global mitigation efforts fail to deliver on the Paris Agreements. Priority should be given to policies with positive externalities that remove market imperfections and help engage private sector (see Box 2). Adaptation policies are estimated to reduce annual output losses from global warming in the Kyrgyz Republic by up to 1.5 percent of GDP by 2060 (Saliba and others, 2022)[8].

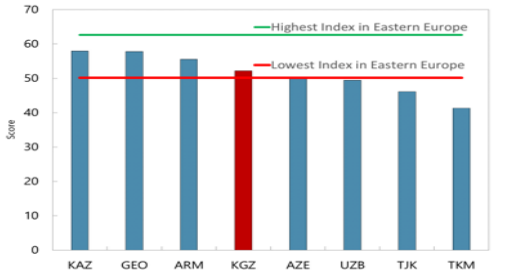
13. Despite considerable progress over the past decade, the Kyrgyz Republic remains highly vulnerable to climate change. In 2020, it ranked 69th out of 182 countries on the University of Notre Dame ND-GAIN Country Index that combines vulnerability to climate change and other global challenges with readiness to improve resilience. Kyrgyzstan was the 153rd most vulnerable country and the 101st most ready country. While vulnerability to climate change overall was below international averages, the Kyrgyz Republic scored high on agriculture capacity, engagement in international environmental conventions and dependency on imported energy. In terms of readiness, control of corruption and innovation indicators had the lowest scores. In 2020, according to the ND-GAIN Index, Kyrgyzstan ranked 4th out of eight CCA countries and its score was slightly above the lowest Index in Eastern Europe.



Source: University of Notre Dame (2021), Notre Dame Global Adaptation Initiative.
Note: Higher ND-GAIN Index scores indicate lower vulnerability and greater readiness.

[8] Kahn et al. (2019) estimate that the total losses from the climate change for the Kyrgyz Republic range between 0.48 and 3.91 percent of GDP by 2050.

14. The Kyrgyz Republic has made strong commitments to address climate change challenges. It has ratified the Paris Agreement, participated in COP27 conferences and reflected these international commitments in major national policy documents.[9] The updated NDC (2021) represents the Kyrgyz Republic's latest plan to fight climate change and contribute to the global effort to reduce greenhouse gas emissions. It specifies guidelines for a low-carbon transformation until 2030, with consideration given to national priorities and the Sustainable Development Goals. Priority areas include green energy, agriculture and industry, low carbon and environmentally friendly transportation, sustainable tourism, waste management, and green cities. In November 2021, the State Committee on Ecology and Climate was upgraded to the Ministry of Natural Resources, Ecology and Technical Supervision. The latter will be working jointly with the Ministry of the Economy to integrate climate change into development planning. The Coordinating Council for Climate Change, Ecology and Sustainable Development, headed by the Chairman of the Cabinet of Ministers, was formed to oversee overall coordination and implementation of measures to mitigate and adapt to climate change, promote green economy. At the same time, the Coordinating Committee for the Green Economy will be formed, with the participation of the private sector, key government agencies and development partners, to develop a consolidated and justified policy for a phased transition to the principles of the Green Economy in the Kyrgyz Republic.



Source: University of Notre Dame (2022). Notre Dame Global Adaptation Initiative.
Note: higher ND-GAIN Index scores indicate lower vulnerability and greater readiness.

15. However, adaptation requires significant additional spending and hence financing. Financial resources required for adaptation are estimated at more than $2.8 billion, or 33 percent of 2021 GDP, which would require significant international support. The authorities have committed to provide 29 percent of this financing need from domestic sources and will seek the remaining 71 percent externally. The Kyrgyz authorities need to create fiscal space to allow domestic financing without compromising debt

Required Financial Resources for the Implementation of Adaptation Measures (USD million 2021)

Sector	Total requirement*	Own resources**	Need for additional international support***
Water resources	1 977.7	577.1	1400.6
Agriculture	276.0	83.0	193.0
Energy	64.9	25.2	39.7
Health care	144.1	2.7	141.4
Reducing the risks of climate emergencies	309.9	121.9	188.0
Forest and biodiversity	46.2	4.0	42.2
Climate resistant areas and green	12.7	1.9	10.7
Improving the adaptation reporting system	1.6	0.6	1.0
Total	**2 832.9 (100%)**	**816.3 (28.8%)**	**2 016.6 (71.2%)**

* The required resources were calculated by national experts based on the cost of specific actions of the NDC Implementation Plan under the "Adaptation" section.
** Own resources refer to funds from the national budget in the amounts determined for the specified sector, as well as funds from the private sector, international donors, in current public investment programs.
*** International support refers to funds not currently supported by funding sources that need to be mobilized during the implementation period of NDC.

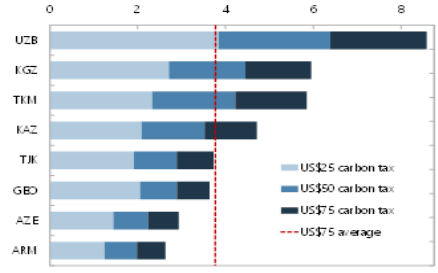
Source: The Kyrgyz Republic: Updated Nationally Determined Contribution 2021 (https://unfccc.int/NDCREG).

[9] These include: National Development Strategy for 2018-2040, the Decree of the President of the Kyrgyz Republic "On measures to ensure environmental safety and climate sustainability", the Green Economy Development Program for 2019-2023, and Updated Nationally Determined Contribution 2021. The country also developed sectoral policy documents in the field of emergencies, health care, forestry and biodiversity, agriculture, industry, energy, waste and water resources management.

sustainability and catalyze private investment in green economy to complement government efforts (Duenwald and others, 2022).

16. Decisive policy measures will be needed to create fiscal space. More revenue can be collected by eliminating or reducing tax exemptions, adjusting certain tax rates and improving administration. On the expenditure side, there is a significant potential for fiscal savings by reducing the public wage bill and energy subsidies, including by raising electricity tariffs, and improving efficiency of capital spending. Structural reforms to strengthen governance and reduce corruption, restructure or divest loss-making SOEs, and improve the electricity sector would generate higher and more inclusive growth and broaden the tax base. Carbon taxation is another potential source of climate financing. According to the IMF estimates[10], taxing production and use of fossil fuels can raise up to 6 percent of GDP in additional revenue by 2030. Such measures, however, would need to be paired with a well-targeted social assistance system to protect the vulnerable and promote inclusiveness.

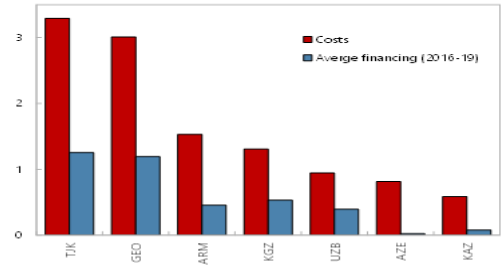
CCA: Potential Carbon Tax Revenue, 2030
(Percent of GDP)



Source: Duenwald and others (2022).

17. Leveraging various multilateral and bilateral sources of climate financing would be important to mobilize international support. The multilateral adaptation assistance is often linked to countries' institutional capacity to apply, implement, and manage projects. This limits access to such sources of climate financing for countries in transition, especially low-income and underdeveloped countries, which face significant climate vulnerabilities. In all countries of the CCA region, including the Kyrgyz Republic, the available financing falls considerably short of their estimated adaptation costs. Mobilizing more concessional financing for adaptation is crucial, given tight fiscal space particularly after the COVID-19 pandemic. Moreover, multilateral support for adaptation can also have a catalytic effect in crowding-in private sector investment, including FDI (Duenwald and others, 2022). Swift progress in long-overdue structural reforms aimed at strengthening domestic institutions and governance would be essential for mobilizing international financing. The IMF's new Resilience and Sustainability Facility (RSF) that was put in place in 2022 to complement the IMF's lending toolkit is an innovation that could help countries finance reforms that address climate-related challenges.[11]

CCA: Climate Adaptation Costs and Related Development Financing, 2009–19
(Percent of GDP)



Source: Aligishiev and others (2022), Duenwald and others (2022).

[10] Estimations are based on a model calculation from the Carbon Pricing Assessment Tool (CPAT) developed by the IMF and World Bank. For the description of the model and its parameterization, see IMF (2019).

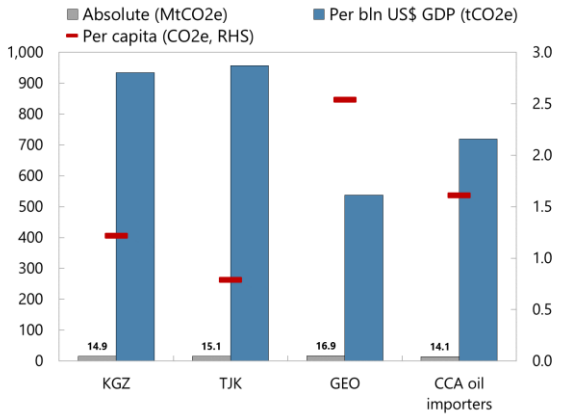
[11] More information is available at: https://www.imf.org/en/Topics/Resilience-and-Sustainability-Trust.

D. Mitigation Plans

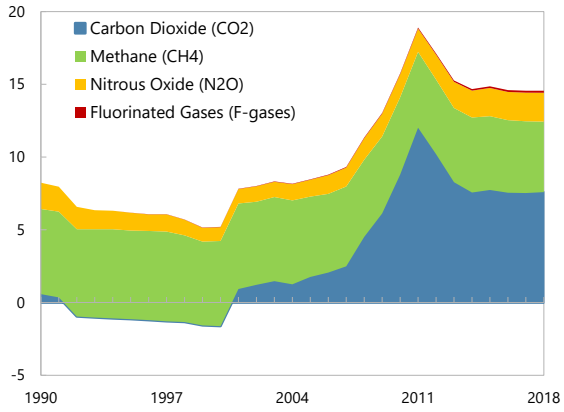
18. The Kyrgyz Republic is a small emitter of greenhouse gases, both in per capita and in absolute terms. In 2018, the country contributed only about 0.03 percent of the world's total carbon emissions, or 15 million tons of greenhouse gas. It ranks seventh out of eight CCA countries on emissions in absolute terms. Among CCA oil importers, the country emits more greenhouse gas in per unit of output, but less in per capita terms (Figure 2).

Figure 2. Kyrgyz Republic and Peers: Greenhouse Gas Emissions, 2018

Average Emission Levels



Evolution and Composition (MtCO2e)



Sources: CAIT, WB WDI, IMF WEO; and IMF staff calculations.
Note: All greenhouse gases are converted to CO2-equivalents to account for their different warming potential. See WRI (2015) for more information on the CAIT greenhouse gas data.

19. Nevertheless, the authorities' NDC sets out plans to reduce emissions further. While the Kyrgyz Republic's economy is relatively small, greenhouse gas emissions are set to increase with economic development and the planned expansion of energy production, where around 60 percent of all emissions in the country are concentrated. Mitigation actions and policies in the NDC are primarily concentrated in energy, agriculture, forestry and other land uses. The mitigation measures were developed on the basis of data from the 4th National Greenhouse Gas Inventory (4NGHGI), carried out according to the IPCC 2006 methodology. The projections extend to 2050, but the time horizon for mitigation planning in the updated NDC is through 2025 and 2030. As part of the updated NDC under the Paris Agreement, the overall mitigation goal is to unconditionally (WM scenario) reduce greenhouse gas emissions by 16.63 percent by 2025 and by 15.97 percent by 2030, relative to the business-as-usual scenario (BAU). The carbon reduction goals conditional on international support (WAM scenario) are a 36.61 percent reduction by 2025 and a 43.62 percent reduction by 2030 (Figure 3).

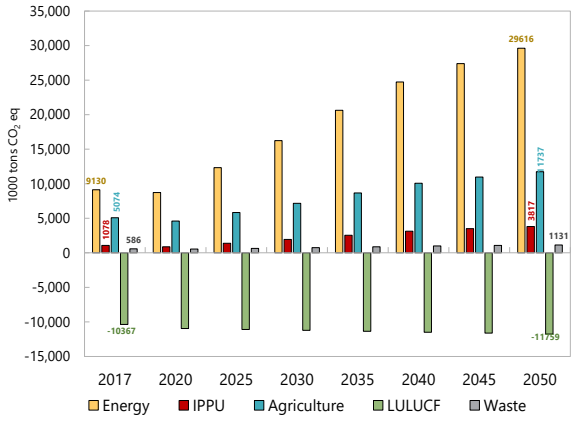
- **Energy.** The core of the mitigation plan is to decrease consumption of fossil fuels and increase power generation from renewable sources. Modernization of energy supply systems, expansion

of the natural gas network, and promotion of electric vehicles and other energy efficient consumption will also be essential.

- **Agriculture.** Climate policy priorities in agriculture are to increase farming of climate-resistant crops; reduce headcount and increase productivity of livestock and improve the pedigree; expand the area of cultivated organic and climate change-resistant crop farming lands and increase efficiency of fertilizer use and generation of biogas.
- **Forestry and other land uses.** The authorities' plans to preserve and increase the area of forests and expand perennial plantations have both adaptation and mitigation potentials.
- **Mining.** Transition to more environmentally friendly gold extraction technologies would help preserve glaciers and fresh water.

Figure 3. Greenhouse Gas Emissions

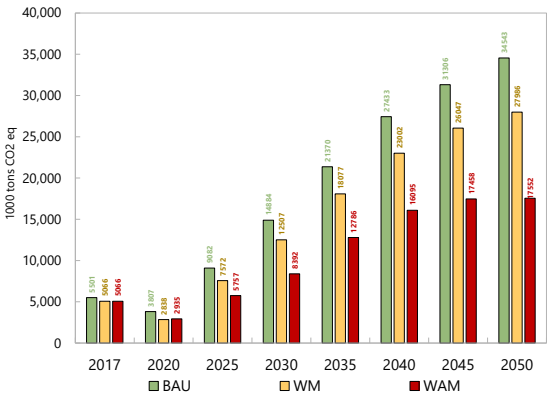
Greenhouse Gas Emissions Projections by Sectors - BAU Scenario until 2050



Source: Updated Nationally Determined Contribution 2021 (https://unfccc.int/NDCREG).

Note: IPPU stands for industrial processes and product use. LULUCF stands for land use and land use change, and forestry.

Greenhouse Gas Emissions Projections under Three Scenarios until 2050, 1000 t CO2 eq..



Source: Updated Nationally Determined Contribution 2021 (https://unfccc.int/NDCREG).

Note: business-as usual (BAU), with measures (WM), with additional measures (WAM).

20. Mitigation policies will also require significant financing. Table 1 below summarizes the authorities' own estimates of the needed financing to cover mitigation costs. Similar to adaptation, the bulk of financing is envisaged from external sources which are yet to be identified.

E. Policy Options

21. For the Kyrgyz Republic, which is small carbon-polluter, but is vulnerable to global warming, adaptation should be at the heart of its climate policies. Building resilience to climate

change involves creating fiscal space for additional public spending on green infrastructure, human capital and social protection. Public investment in climate-resilient infrastructure and other adaptation projects would help reduce adverse impacts of climate shocks and provide foundation for sustainable economic growth. Improving human capital by investing in skills upgrading, healthcare and education would make the labor force more resilient and productive, while strengthening social safety nets would be critical to shield the vulnerable from the fallouts of climate change. It is also important to incentivize adaptation in the private sector by enforcing regulations and improving financial inclusion of farmers and small businesses. To strengthen adaptive capacity of agriculture, the sector that provides jobs and incomes to most of the rural population, there is a need to put in place a comprehensive agriculture risk management system with built-in mechanisms to mitigate, reduce, or transfer climate risks, and provide timely hydrometeorological information to farmers. Switching to water-conserving crops and improving irrigation efficiency by providing incentives to adopt water-saving technologies would also be important.

Table 1. Kyrgyz Republic: Necessary Financial Support for the Implementation of Mitigation Measures

(USD million 2021)

Sector	Resources required*	Own** funds: scenario WM	International support: scenario WAM***
Energy	7,155.8	2,857.1	4,298.7
IPPU	0.6	0.1	0.4
Agriculture	19.3	12.1	7.1
LULUCF	63.0	36.2	26.8
Waste	3.8	0.5	3.3
Total	**7,242.4 (100%)**	**2,906.1 (40%)**	**4,336.4 (60%)**

* The required resources were calculated by national experts based on the cost of specific actions of the NDC Implementation Plan under the "Mitigation" section.
** Own resources refer to funds from the national budget in the amounts determined for the specified sector, as well as funds from the private sector, international donors, and current public investment programs.
*** International support refers to funds not currently supported by funding sources that need to be mobilized during the implementation period of the NDC.

Source: The Kyrgyz Republic: Updated Nationally Determined Contribution 2021 (https://unfccc.int/NDCREG).

22. Mitigation policies would help reduce relatively small greenhouse gas emissions even further. This includes maintaining and, if fiscal space permits, expanding fiscal instruments to encourage green transition, such as preferential customs tariffs for fuel-efficient vehicles and energy-efficient appliances while also discouraging air, soil, and water pollution through fines and penalties. Introducing feebates, i.e. revenue neutral sliding scales of fees on products and activities with above or below average emission intensity, would help promote more mitigation responses without additional fiscal costs. Giving preference to public procurement of goods and services with reduced environmental impact throughout their life cycle for the same cost as would otherwise be procured would help reducing emissions without adding budget pressures. Expanding renewable power generation and gradually raising electricity tariffs to cost recovery, a long-standing reform priority, would attract private investment in power generation. Similarly, a gradual increase in

heating tariffs to its cost-recovery rate would reduce excessive consumption of heating, and by implication, of fossil fuels used to generate heating. The authorities should also consider raising fuel (diesel, natural gas, coal) prices through corrective taxes to their efficient levels that reflect both supply and environmental costs. Extra revenue from mitigation measures would contribute to fiscal space, including to compensate the vulnerable for higher prices.

23. Climate change mitigation and adaptation policies should follow certain economic principles (Box 2). Effective climate policies require improved climate data collection, including information on the costs of high and low intensity disasters, disaster response expenditure, and sources of financing. It would also be important to mainstream climate resilience into all sectoral plans and strengthen cooperation across ministries, especially between Ministry of Finance, Ministry of Economy, Ministry of Natural Resources, Ecology and Technical Supervision, and Ministry of Emergency Situations, and standardize post-disaster information gathering and reporting across ministries. Translating overarching plans and commitments (including NDC) into implementable and "finance-ready" sectoral strategies would increase realism of policies. Finally, it is critical to strengthen institutional capacity to implement the commitments.

24. Success of climate change policies would hinge on the availability of sufficient financing. It would be important to take a strategic view in matching climate projects with financing sources that can be accessed with reasonable efforts and at acceptable cost. NDC forums should be used as a catalyst to articulate a strategy for raising climate-change financing. Mobilizing private financing and external grants would help avoid further worsening of fiscal and debt sustainability, which will require a continued dialogue with development partners to secure donor financing for unmet climate and development goals. Advancing structural reforms will be critical to improve climate resilience but also to strengthen engagement with development partners. In addition to reforms of governance, SOEs and the energy sector, priority should be given to public finance management to improve efficiency and transparency of climate-related spending. This would include strengthening climate-sensitive budgeting, rigorous practices for prioritizing, costing and monitoring of projects, regular spending reviews and systematic ex-post audits of climate investments.

Box 2. Economic Principles for Climate Change Policies 1/

Climate change adaptation and mitigation policies should follow certain economic principles. Climate change policies should be part of a holistic development strategy involving both private and public sector responses. Maximization of future welfare given available resources requires information on efficiency and fairness of spending across alternative climate programs to allow prioritization and balance across sectors, population groups, and generations. The authorities should prioritize climate change programs with positive externalities and address market imperfections to make private sector responses efficient. Climate change programs should be prioritized based on a cost-benefit analysis, including their distributional aspects. Some climate change programs may require compensations for damages through carefully calibrated subsidies to prevent excessive risk taking.

Cost-benefit analysis (CBA) needs to be applied to climate change policies. A CBA would provide a comprehensive assessment of social welfare impacts from adaptation and mitigation programs. It would allow to identify programs with positive net present value (NPV), some of which can be self-funding, while others may require financing. For instance, additional spending to make some public infrastructure more resilient and prevent future damages can have a positive NPV for the public if construction costs are smaller than potential losses from climate shocks.

Distributional aspects of climate change policies should also be considered. The NPV of a program measures the aggregate net benefit to the society, but distributional impacts can be critical since programs can generate winners and losers. The positive NPV programs may not make everyone better off, but winners could potentially compensate losers. The government can redistribute the aggregate gains of climate change programs, for instance, by taxing carbon emissions to pay for adaptation. In some cases, equity considerations may lead to scaling back climate change programs when net benefits fall on the wealthiest.

Macro-fiscal implications should be considered in selecting climate change programs. Global adaptation needs in 2030 are estimated at 0.25 percent of world GDP per year, with costs reaching above 1 percent of GDP per year for some developing countries. Lack of fiscal space, however, may prevent many countries from financing all viable positive NPV projects. Competing programs should be ranked using CBA and priority should be given to projects with greatest synergies and positive externalities. By consistently investing in projects with the higher social and economic returns, governments can maximize spending efficiency.

Climate change policies should be planned and mainstreamed into fiscal policy. Climate change mitigation and adaptation policies would benefit from being guided by plans in coordination with other developmental objectives. These plans should identify institutional arrangements and coordination mechanisms, maximizing ownership and facilitating circulation of information. The international experience suggests four building blocks are essential for these plans to be effective: *Identifying climate vulnerabilities and adaptation gaps*. This includes taking stock of climate vulnerabilities, their macroeconomic impacts, identifying weaknesses in terms of adaptation (e.g., capacity gaps, information gaps), developing roadmaps for implementation of plans, and establishing guidance on normative principles of climate change policies.

- *Identifying solutions*. This requires addressing the information gaps and capacity constraints, followed by identification of potential solutions to climate vulnerabilities that are consistent with national development plans, CBAs of climate change policies and their distributional impacts, and communicating these solutions to the public.
- *Mainstreaming of adaptation in public financial management (PFM).* This includes mainstreaming climate change policies into national planning, incorporating the needs in the budget, and enhancing implementation capacity.
- *Monitoring, evaluation, and reporting.* This involves continuously monitoring the progress made, reevaluating climate change plans, and regularly updating those plans.

1/ This box draws on Aligishiev and others (2022), Bellon and Massetti (2022a), and Bellon and Massetti (2022b).

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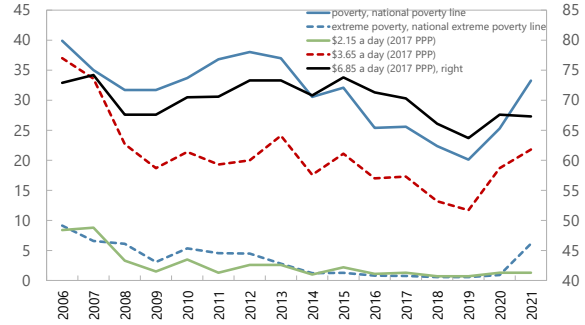
SOCIAL SAFETY NETS AND POVERTY IN THE KYRGYZ REPUBLIC[1]

The Kyrgyz Republic made notable progress in reducing poverty prior to the pandemic. Poverty rates have increased notably since the COVID-19 outbreak which was further exacerbated by the recent spike in food and energy prices. Strengthening social safety nets is crucial to put poverty back on a downward trend. Given the limited fiscal space, priority should be given to improving targeting of social assistance programs and increasing the efficiency of spending. Over the medium term, building fiscal space through expenditure prioritization and revenue mobilization would allow to raise spending on social safety nets required for meaningful progress on the Sustainable Development Goals.

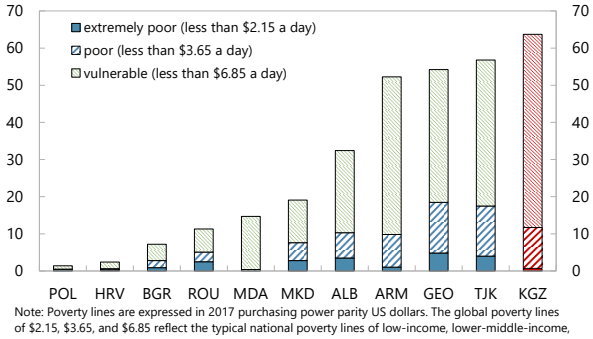
A. Recent Developments in Poverty and Inequality

1. The Kyrgyz Republic made good progress toward reducing poverty prior to the COVID-19 pandemic. Extreme poverty declined to about 1 percent in 2014 and remained broadly stable until 2019, while the overall national poverty rate fell by 10 percentage points to 20 percent, consistent with trends in poverty rates based on World Bank data. Poverty remains concentrated in rural areas, with only 30 percent of the poor living in cities on average. However, despite these gains, poverty rates remained high relative to peers, with almost two-thirds of the population living on less than $6.85 a day (Figure 1).

Figure 1. Poverty Rates in the Kyrgyz Republic and Regional Comparators



Note: International povery rates ($2.15, $3.65 and $6.85) for 2021 are based on the World Bank estimates.
Sources: National Statistical Committee of the Kyrgyz Republic; World Bank.



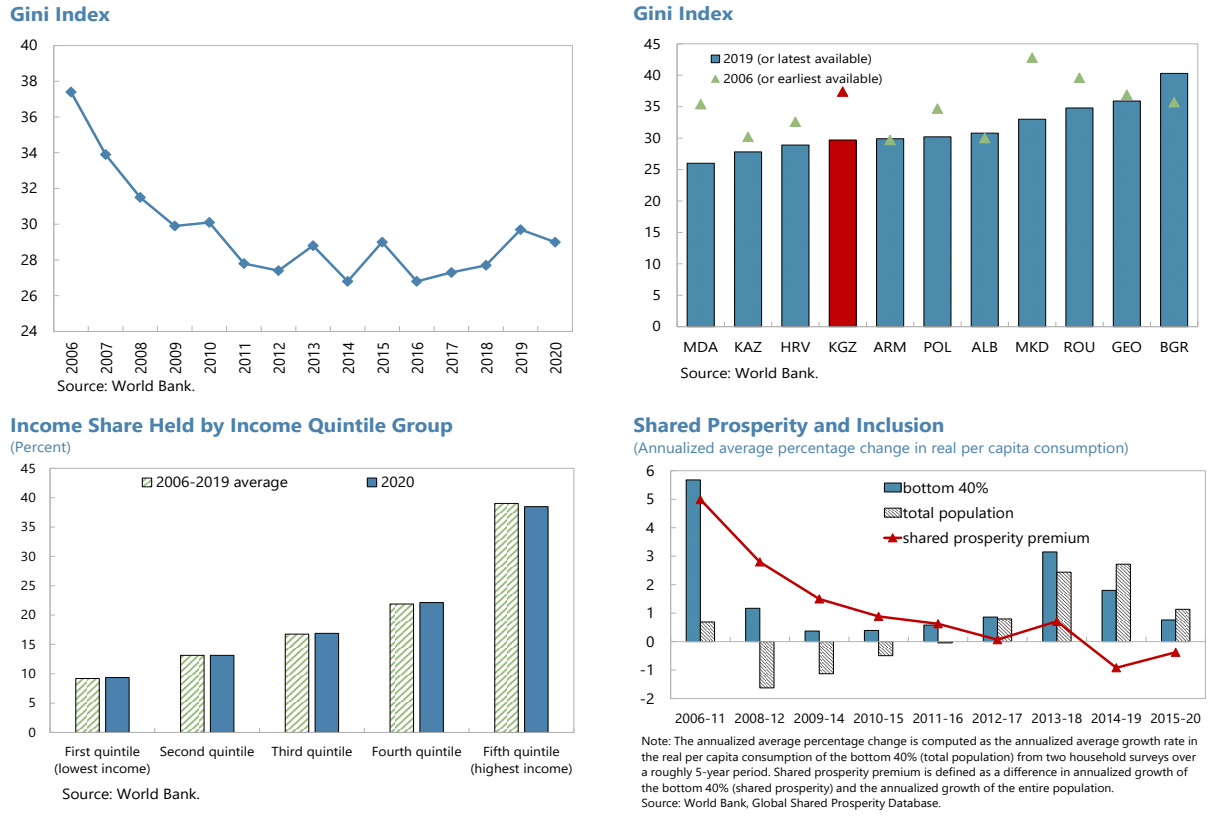
Note: Poverty lines are expressed in 2017 purchasing power parity US dollars. The global poverty lines of $2.15, $3.65, and $6.85 reflect the typical national poverty lines of low-income, lower-middle-income, and upper-middle-income countries in 2017 prices.
Sources: World Bank; and IMF staff calculations.

2. Income inequality had fallen since mid-2000s. It remained broadly stable and relatively low compared to regional peers during the decade prior to the pandemic. The Gini index declined by 10 percentage points between 2006 and 2012, but progress has stalled since then (Figure 2). Nevertheless, the overall improvement in income inequality in the Kyrgyz Republic was more pronounced than in the CCA and Eastern Europe. Income distribution also remained relatively stable

[1] Prepared by Alexandra Solovyeva.

over this period, with the lowest quintile receiving 9.2 percent of the total income on average, compared to 39 percent earned by the highest quintile. Additionally, according to the World Bank's shared prosperity indicator[2], growth in the Kyrgyz Republic was fairly inclusive, with consumption growth for the bottom 40 percent of the income distribution exceeding that of the average across the whole income distribution. Growth has become less inclusive since the mid-2010s.

Figure 2. Inequality and Inclusion Indicators



3. Poverty has increased considerably since the COVID-19 outbreak, with almost 1 million people being pushed into poverty in 2020-2021. The overall poverty rate increased from 20 percent in 2019 to about 25 percent in 2020—mainly in rural areas—while extreme poverty increased by a marginal 0.35 percentage point (Figure 2). In 2021, poverty deteriorated further and reached 33 percent, which was predominantly driven by the unprecedented increase in the number of extremely poor (a sevenfold increase relative to 2020 which is equivalent to 5 percent of the population) [3]. It was accompanied by a significant upward revision of overall and extreme poverty

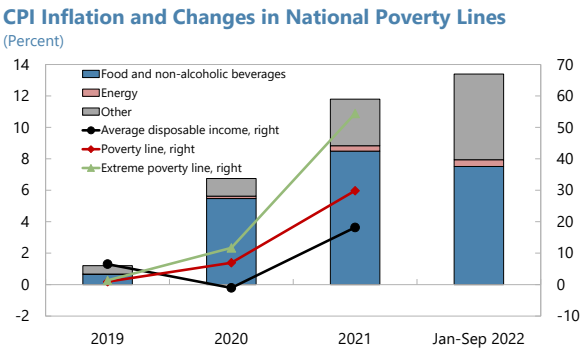
[2] Shared prosperity measures the extent to which economic growth is inclusive by focusing on household consumption or income growth among the poorest population rather than on total growth. It is an important indicator if inclusion and well-being that correlate with reductions in poverty and inequality.

[3] Based on the World Bank data, poverty rate (in the Kyrgyz Republic increased from 11.7 percent in 2019 to 18.7 percent in 2020 at the $3.65 a day, 2017 PPP), while extreme poverty rate (at the $2.15 a day, 2017 PPP) increased by (continued)

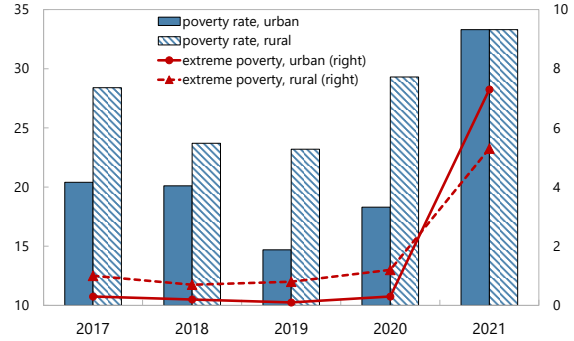
lines, by 30 and 55 percent compared to 2020 respectively, by far exceeding CPI inflation and average disposable income growth (Figure 3, left panel). Given that the poorest households in the Kyrgyz Republic tend to spend almost 70 percent of their income on food (second highest share in the CCA region), poverty is particularly sensitive to food price changes (IMF, 2022b). As of October 2022, 17 percent of households or more than 1 million people were acutely food insecure, while 54 percent of the population remains only marginally food secure (WPF, 2022).

4. In 2021, the poverty increase was disproportionately concentrated in urban areas. The poverty rate in urban areas increased by 15 percentage points to 33 percent and caught up with the rural poverty rate, which went up by 4 percentage points only (Figure 3, right panel). Access to farms and domestic food production most likely helped mitigate the negative impact of higher food prices on poverty in rural areas.

Figure 3. Recent Developments in National Poverty Indicators



Note: Chart shows contributions to average 12-month percentage change in Consumer Price Index and annual percentage changes in average household disposable income per capita, poverty and extreme poverty lines.
Sources: National Statistical Committee of the Kyrgyz Republic; and IMF staff calculations.



Source: National Statistical Committee of the Kyrgyz Republic.

B. Overview of Main Social Safety Net Programs

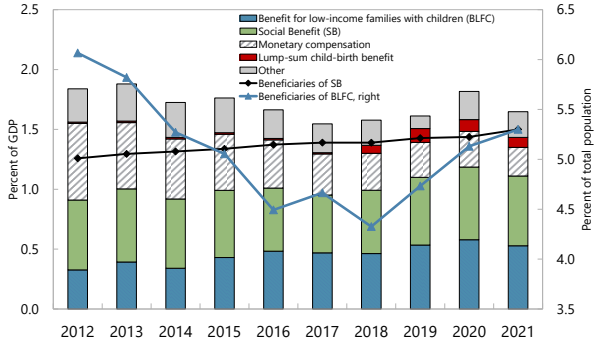
5. Social safety nets (SSNs) constitute a set of transfer programs aimed at addressing current and future poverty. *SSN programs*—also often referred to as *social assistance programs*—encompass a wide variety of non-contributory transfer programs designed to *protect* households from poverty and destitution by ensuring a minimum level of economic well-being (Box 1). In addition, these programs are often designed to enhance human and physical capital of beneficiary households and support them in pulling out of poverty and avoiding future poverty.

6. Social assistance programs in the Kyrgyz Republic are mainly categorical and provide flat benefits, with a limited role for non-demographically targeted benefits. The social assistance system is centered on providing support to groups identified as needy or vulnerable,

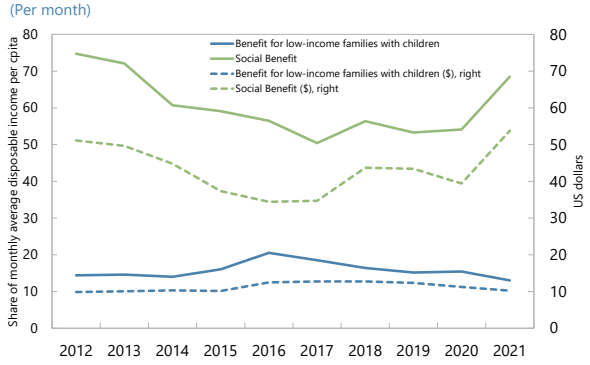
0.5 percentage points to 1.3 percent. According to World Bank's preliminary estimates, the $3.65 poverty rate had deteriorated further in 2021 to 21.8 percent, while extreme poverty remained broadly unchanged. This estimated increase in poverty in 2021 is of much smaller magnitude compared to increases in national poverty rates, and could be partially attributed to differences in the level of corresponding poverty lines.

including low-income families with children, the elderly, the disabled, families living in high altitude or remote areas. Social assistance spending as a share of GDP remained broadly stable over the last ten years, at 1.7 percent of GDP on average. The two main social assistance schemes are the monthly Social Benefit (SB) and the monthly Benefit for Low-Income Families with Children (BLFC). In 2021, spending on these two programs accounted for 35 and 32 percent of the total social assistance spending (0.6 and 0.5 percent of GDP). The BLFC is the largest program in terms of the number of beneficiaries, with 5.3 percent of the total population in 2021 who benefited from BLFC compared to 1.5 percent for other programs. The third largest program is the Monetary Compensation (MC) scheme which accounted for 15 percent of the social assistance spending in 2021 (about 0.25 percent of GDP). All social assistance programs are administered by the Ministry of Labor, Social Security and Migration and financed out of the general government budget.

Figure 4. Social Assistance Programs



Sources: National Statistical Committee of the Kyrgyz Republic, the Ministry of Finance; and IMF staff calculations.



Sources: National Statistical Committee of the Kyrgyz Republic; and IMF staff calculations.

7. The BLFC, the largest program in terms of the number of beneficiaries, is the only means-tested program and provides income support to low-income households with children. The program is targeted to low-income families with children under 16 years of age. The eligibility criteria are based on an income test (currently 1,000 soms or $12.1 per household member per month) and asset assessment. The benefit is a flat monthly allowance of 1,200 soms ($14.5) per child. It has been increased by 50 percent (from 810 soms) starting from June 2022 by the Presidential Decree. Since 2019, the number of beneficiaries has increased by 14 percent (or 0.5 percent of population) and reached 5.3 percent of the population in 2021. The total BLFC spending increased by about 16 percent in nominal terms but remained broadly unchanged as a share of GDP at 0.5 percent.

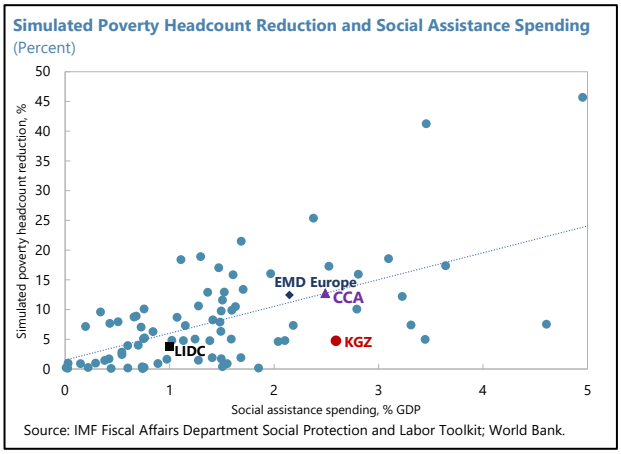
8. The SB is the second largest program which is aimed at providing benefits mainly to the disabled and the elderly who are not entitled to a contributory pension. The categories of SB beneficiaries include children and adults with disabilities, the elderly who have reached the retirement age but are not entitled to a contributory pension, survivor children and orphans. Children and adults with disabilities are the two largest groups, each accounting for about 35 percent of the 99,000 beneficiaries (1.5 percent of the population) in 2021. SB allowances were

raised between October 2021 and June 2022 by 120 percent on average[4]. Each beneficiary receives a flat monthly allowance ranging between 2,000 soms ($24) for the elderly to 8,000 soms ($96) for certain categories of the disabled, and is not automatically adjusted to the cost of living.

9. The MC is a cash transfer scheme benefiting a large number of specific categories, but the pool of beneficiaries as well as spending on this program are steadily declining. This program was introduced in 2010 to replace the 'privileges' program inherited from the Soviet system, which provided assistance in the form of in-kind benefits and discounts to a large number of categories. The MC replaced these benefits with a flat cash transfers paid to 25 categories, including war veterans, survivors of the World War II labor camps, the Chernobyl accident's rescuers, and the disabled. Spending on the MC program has been on a downward trend (both in nominal terms and in percent of GDP) given that the pool of beneficiaries is declining due to the moratorium on the introduction of new categories and limits on new beneficiaries.

C. Social Safety Nets Performance: International Comparison

10. Spending on social safety nets is high by international comparison, but the effectiveness is low. Based on the World Bank's social assistance expenditure database, the Kyrgyz Republic's spending on social assistance corresponds to the 74th percentile for emerging and developing Europe and Central Asia and the 90th percentile for low-income developing countries (LIDC). However, higher spending does not seem to lead to better outcomes, such as poverty reduction. The median poverty reduction for emerging and developing Europe and Central Asia is estimated as 11 percentage points, while in the Kyrgyz Republic social safety nets reduce poverty by an estimated 4.7 percentage points.



Source: IMF Fiscal Affairs Department Social Protection and Labor Toolkit; World Bank.

11. This weaker performance relative to comparators reflects low coverage and limited adequacy. The social assistance coverage in the Kyrgyz Republic is one of the lowest in the CCA region and only 16 percent of people in the bottom quintile receive social assistance benefits, which is about 23 percentage points below the CCA average (Figure 5). Adequacy (or generosity) of social assistance for the bottom quintile, measured as the total amount of social assistance received relative to the total pre-transfer income (or expenditures), is the second lowest in the CCA region (19 percent), compared to the CCA and LIDC averages of around 30 percent. Low level of adequacy is partially related to the fact that benefits are not regularly adjusted to inflation.

[4] SB allowances for all the categories were raised in three stages between October 2021 and June 2022, resulting in a cumulative increase of 50 percent for mothers of 7 or more children, 175 percent for the disabled (Group I), 200 percent for children without parents, and 100 percent for all other categories.

12. There is room for improving targeting of social assistance programs. At the bottom quintile of income distribution, targeting is somewhat better compared to regional peers. Almost 50 percent of social assistance benefits is going to the poorest quintile, which accounts for about 44 percent of all social assistance beneficiaries (Figure 5). However, targeting could be further improved given that non-poor households from second and third quintiles of the income distribution are getting almost 38 percent of total social assistance benefits, the highest benefits incidence across the CCA region.

13. Regular indexation would protect the real value of benefits for low-income and other vulnerable groups. There is no regular indexation of benefits that would mitigate the impact of changes in the cost of living which leads to erosion in the real value of benefits and increases the role of discretionary decisions in setting the level of benefits. The level of SB was broadly unchanged between 2012 and 2017 and, as a result, its purchasing power fell by 20 percent. Similarly, the BLFC allowance remained at the 2017 level until mid-2022, while consumer price inflation exceeded 30 percent over the same period.

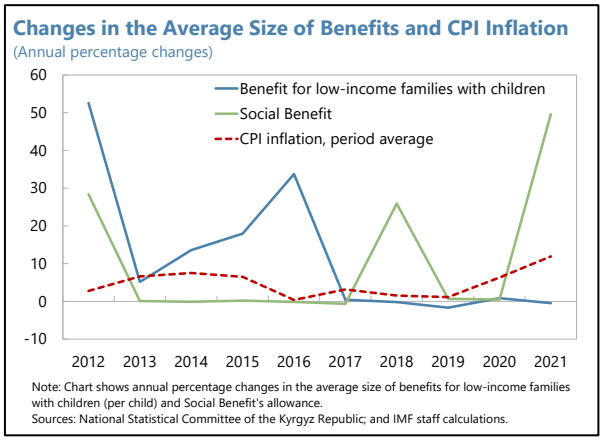
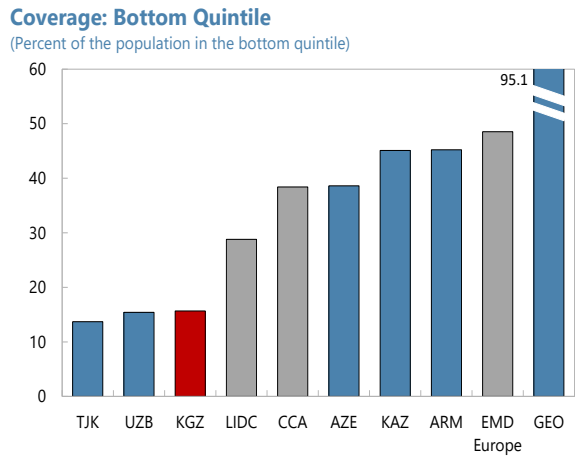


Figure 5. Social Assistance Programs: Performance Indicators



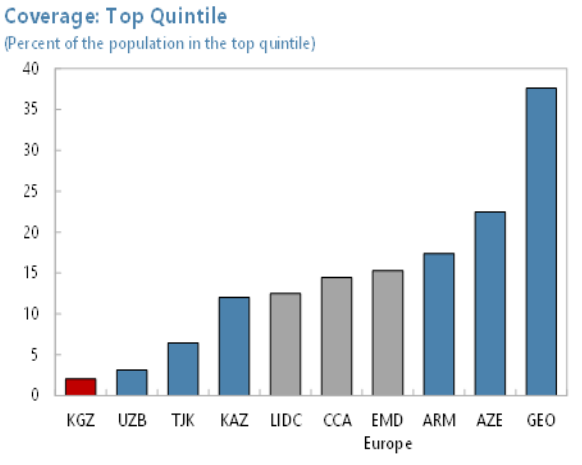
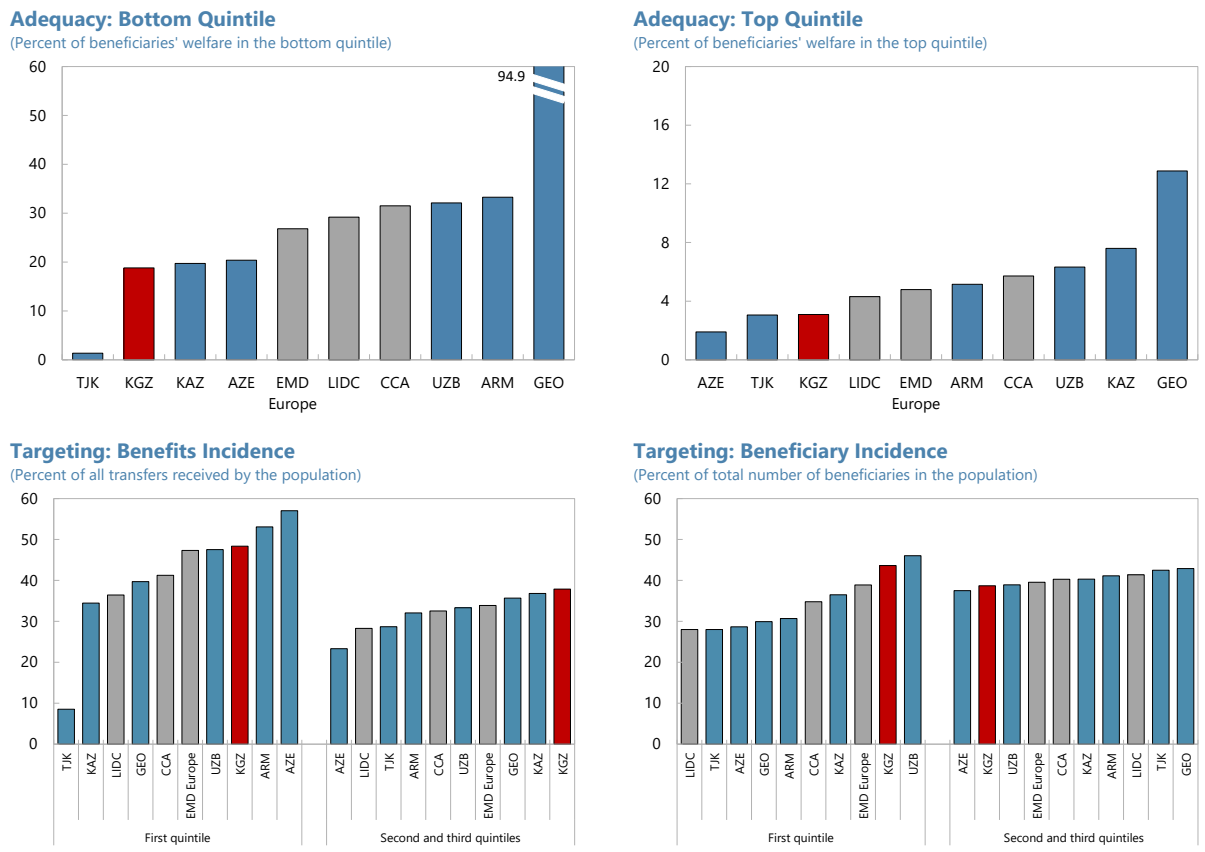


Figure 5. Social Assistance Programs: Performance Indicators (Concluded)



Source: IMF Fiscal Affairs Department Social Protection and Labor Toolkit; World Bank.
Note: The data correspond to the latest available year for each country. Social assistance expenditure is based on the World Bank definition and data. Coverage is the share of population in the corresponding quintile receiving social assistance transfers. Adequacy is the total transfer amount received by beneficiaries in the corresponding quintile as a share of pre-transfer welfare (income or expenditure) of beneficiaries in that quintile. Benefits incidence is the percentage of transfers going to a corresponding quintile relative to total transfers going to the population. Beneficiary incidence is the percentage of social assistance beneficiaries in a corresponding quantile relative to the total number of beneficiaries in the population. CCA=Caucasus and Central Asia; EMD Europe=emerging and developing Europe, LIDC=low-income developing countries.

D. Policies to Strengthen Social Safety Nets

14. Strengthening SSNs while preserving fiscal sustainability is crucial. In the near term, the already limited fiscal space would constrain a significant increase in SSN spending. Instead, priority should be given to improving efficiency of SSN spending. In parallel, prioritization of other expenditures, improving their efficiency, as well as revenue mobilization and phasing out inefficient tax exemptions would help to build fiscal space and increase social spending in the medium term.

15. A comprehensive SSN reform strategy should be centered on strengthening the efficiency of SSNs in the medium term. The main objective should be to develop an adaptive and sustainable SSN system that can provide adequate social benefits to the vulnerable within a sustainable envelope and protect people from falling into poverty. Reforming the SSN system would

require rigorous distributional analysis of the existing system, including an assessment of relative effectiveness and trade-offs of different support schemes, as well as planning and development of new systems and delivery channels.

16. In the short term, the focus should be on upscaling existing means-testing programs, including by increasing the coverage at the bottom of the income distribution. A large fraction of low-income population does not receive benefits, while significant resources accrue to richer groups. The design and implementation of the income test should be strengthened to reduce leakage to higher-income households and avoid errors of exclusion and inclusion.

17. Consolidation of social assistance programs and phasing out of less effective categorical programs would simplify the system and help eliminate overlaps. Categorical social benefits schemes (children, the disabled, the elderly) result in overlaps and inefficiencies. The moratorium on new categories of MC beneficiaries should continue. Over time, resources feed up from the MC program would become available to strengthen more effective SSN programs.

18. More progressivity of social assistance would improve adequacy of benefits within the same spending envelope. Given the limited resource envelope for social assistance, better directing benefits to the poorest households by replacing flat benefits with differentiated amounts according to need would ensure that most in need are reached. For example, switching from flat to the progressive benefit schedule, with the level of benefits decreasing in household income, would help improve generosity and therefore the SSNs poverty mitigation effect.

19. Regular indexation of benefits would help preserve their real value but will require appropriate planning of SSN spending envelopes over the medium term. The absence of automatic indexation of social benefits leads to the erosion of their real value over time and makes the generosity of social benefits exposed to political discretion. Regular indexation of benefits, for example based on the price index reflecting the consumption basked of low-income households, would provide more adequate and stable benefits for the vulnerable. It would also ensure that the safety net automatically reacts to adverse shocks and could be scaled up quickly to protect the poor during health and economic crises.

20. Building a robust administrative capacity is needed to deliver benefits to the most vulnerable in a reliable, cost-effective, and timely manner. A strong information system—developed with the help of development partners—would allow to effectively identify those in need and verify their eligibility. A single registry for all SSN programs would reduce fragmentation and overlapping of different programs and, with greater digitalization, help expand the coverage. The coordination and the information sharing between different official databases also should be enhanced.

Box 1. Typical Social Safety Nets Program Components 1/

Programs that compose Social Safety Nets (SSNs) can be classified in different ways (Grosh and others, 2008; Beegle and others, 2018; World Bank, 2018) and typically include:

- *Cash transfer programs*. These programs offer periodic monetary transfers with the objective of providing regular and predictable income support to beneficiaries. This category covers a wide range of programs, including poverty-targeted cash transfers; family, children, and orphan allowances (including benefits for vulnerable children); and non-contributory funeral grants and burial allowances. This includes both conditional and unconditional cash transfer programs.
- *Social pensions*. These are regular cash transfers provided exclusively to elderly which, unlike contributory pensions, do not require prior contributions. Social pensions may be universal or targeted to the poor and vulnerable.
- *School feeding programs.* These programs supply meals or snacks for children at school, including take-home food rations for children's families.
- *Nutrition programs.* This includes programs providing food stamps and vouchers, food distribution programs, and other nutritional programs (except school feeding programs).
- *Fee waivers and targeted subsidies.* These encompass a variety of benefits targeting the poor and vulnerable, including: health insurance exemptions and reduced medical fees; education fee waivers; housing subsidies and allowances; utility and electricity subsidies and allowances; agricultural input subsidies; and transportation benefits.
- *Emergency programs.* This includes programs providing emergency support in cash or in-kind to individuals in case of emergency or in response to shocks (including support to refugees and returning migrants). Transfers are usually temporary.
- *Other programs.* These include other non-contributory programs targeting the poor or vulnerable, such as programs distributing school supplies, tax exemptions, social care services, and other programs not included in the other categories.

1/ This box draws on IMF (2022a).

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