TOWARD A PROSPEROUS AND INCLUSIVE FUTURE

UZBEKISTAN

The Second Systematic Country Diagnostic

WORLD BANK GROUP

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Introduction

1. **Uzbekistan has entered its sixth year of an ambitious market transition that has the well-being and prosperity of the people at its center.** A few months into his appointment in late 2016, President Shavkat Mirziyoyev announced a transformative economic and social reform agenda to reshape Uzbekistan. Breaking from policies of statism and relative isolation, the country and its people have embraced a new era of openness and international engagement. Early reforms quickly liberalized most prices, removed heavy-handed regulations on businesses and trade, increased transparency, and relaxed policies that limited personal choice and economic freedom. The reform agenda has also been people-focused, helping to generate public support. Five years on, a more open and competitive economy is emerging. Citizens have seen their economic opportunities and freedoms expand. Looking to the next five years, the government has committed to reducing poverty by half and making Uzbekistan an upper-middle-income country by 2030. These are ambitious plans, requiring real per capita national income to grow by between 9 percent and 10 percent a year, which would rank among the most rapid growth episodes in history. The achievement of these goals is the focus of this second Systematic Country Diagnostic (SCD).

2. **The transition to a market economy is only just beginning**. Uzbekistan's economic transformation has progressed slowly for most of the past 30 years. Few institutions have changed from those prevailing at the time of the planned economy. A high share of economic activity is still managed by centralized state institutions. The structural transformation of the economy is also still at an early stage. At 26 percent of gross domestic product (GDP) in 2020, the share of agriculture in the economy is the highest in the Europe and Central Asia region. The share of services, an engine of prosperity in most advanced economies, is among the lowest in the world and below all other countries in the region. Domestic labor mobility rates are among the lowest in the world, and the resulting slow pace of urbanization (and low density) has left Uzbekistan's cities less populated and productive than cities in peer countries. In sum, both the market transition and the structural transformation of Uzbekistan's economy is still at an early stage. But the country's late embrace of comprehensive reform comes with a silver lining. Uzbekistan can draw from a wealth of lessons learned from the successes and failures of other transitions around the world. These examples clarify the high-level outcomes that have proven necessary for success and for avoiding the pitfalls that have undermined past transitions.

3. **Uzbekistan's reform sequence is consistent with other successful economic transitions around the world so far.** The country's first phase of reforms has followed a pattern similar to the patterns among the early reformers in Eastern Europe and East Asia. In these cases, governments liberalized prices and trade, while building the legal foundations for strong financial markets, competition, and transparent public finance. In Uzbekistan, the areas that require more fundamental restructuring, such as factor markets and privatization, followed later as was the case in other successful transitions. What may be different in Uzbekistan's case, however, is the fact that the breadth of economic and social reforms has sometimes been emphasized more than the depth and quality of implementation or any clear link to results. A stronger focus on results will be important as the government and stakeholders begin to implement more complex reforms.

4. **Poverty has fallen consistently over the past two decades, but the pace has been disappointing given the economic growth.** Using the official national definition of the low-income population, the poverty rate fell from nearly 28 percent in 2000 to 11 percent in 2019. World Bank estimates suggest that the most extreme forms of poverty had been nearly eradicated by 2018. Meanwhile, the poverty rate

using the threshold typical of lower-middle-income countries was 9.5 percent in the same year. Though extreme poverty is now rare, the progress in reaching more ambitious standards of well-being has been much slower over the past decade, especially given Uzbekistan's growth record. Among countries in Uzbekistan's peer group, the number of people living below the national poverty line typically falls by about 3.3 percent for each percent increase in per capita GDP, though the rate is somewhat less among heavy commodity exporters. By contrast, the share of the low-income population fell by less than half that pace in Uzbekistan between 2009 and 2014 and slowed even further, to only 1.1 percent, from 2015 to 2019. Although income growth has accelerated since 2017, it was most rapid among the population that already had the highest incomes. Growth has been much weaker among the bottom 40 percent of the welfare distribution. Economic growth is steadily losing its effectiveness in reducing poverty.

5. **More inclusive growth is essential to the success of Uzbekistan's transition.** The benefits of Uzbekistan's economic growth over the last two decades have not been widely shared. Slow employment and wage growth, a principal challenge identified in the first SCD, remains a pressing development challenge (see World Bank 2016). Since 2010, about two-thirds of economic growth has been generated through increases in the capital stock and the value of natural resource exports, such as in gold and natural gas. Although output per worker rose by 50 percent over this period, almost all this increase was narrowly concentrated in mining and industry. For more than two decades, productivity growth in sectors such as agriculture and services, where most people work, has strikingly underperformed relative to other countries in the Europe and Central Asia region. The labor share of national income was only 41 percent in 2017, far below the regional average of 55 percent, and is likely falling. New employment generation was negligible: only 6 percent of the total increase in GDP per capita between 2010 and 2019 was due to employment generation. A 1 percent increase in employment required GDP growth of 5 percent between 2010 and 2018, more than twice the average among other developing economies. In 2018, annual job creation fell short of the growth rate in the labor force by more than 200,000 places, and, in 2020, the official unemployment rate rose to 10.5 percent, from about 9.0 percent before the COVID-19 pandemic. Addressing these challenges through a more inclusive growth model will be critical to achieving the country's development goals.

Pathways for Inclusive Development

6. **Progress along four development pathways is essential to creating the high growth and job creation Uzbekistan's transition needs to succeed.** If Uzbekistan is to become an upper-middle-income country by 2030, per capita real GDP growth will need to average about 10 percent a year, which would rival some of the most remarkable growth episodes in history. Cutting the poverty rate by half within five years will require much faster job creation and a reduction in the level of exclusion from economic opportunity, especially among youth, women, and people with disabilities. But the pace of job creation depends critically on the reallocation of resources to more productive and sustainable uses. This requires that the state reduce its control over the economy in favor of markets and a more dynamic private sector. It also requires that the government invest more proactively in human capital, a stronger safety net, and a greener growth model. This SCD discusses these priorities in terms of four development pathways: encouraging a strong private sector response, strengthening the market-enabling role of the state, investing in people, and building a sustainable and resilient future (table 1).

7. **The private sector needs room to grow.** Uzbekistan's areas of comparative advantage are dominated by state-owned enterprises (SOEs) that are shielded from private sector competition. A burdensome regulatory environment has restrained the discovery of new growth opportunities. Until

recently, the private sector had limited access to necessary factors of production, including land, labor, and capital. The state disproportionately directs investments to SOEs in high-growth, but less highly job-creating activities, while land and workers are misallocated. The consequences for the private sector have been stark. Uzbekistan's rate of new firm creation is among the lowest compared with regional and income-group peers; unemployment is high; and private firms remain disproportionately small. Rectifying these constraints to growth requires a significant reduction in the number of SOEs, better governance of SOEs, and the exposure of SOEs to market competition. It requires closing infrastructure gaps caused by market distortions and public investments that are misaligned with the needs of businesses and people. In place of the state-led model, reforms to embolden private sector–led growth holds promise in areas of urgent priority, such as the green transition, and for increasing productivity rapidly in agriculture.

Table 1. **Four Development Pathways: Priorities of This Systematic Country Diagnostic**

A strong private sector response	Encouraging the emergence of a vibrant private sector is essential to the economic growth and employment ambitions of the government and stakeholders. So far, the government's reform policies have not succeeded in generating sufficient private sector growth and job creation. Firms remain constrained by centrally controlled factor markets and limited freedoms.
An enabling state	More rapid job creation and more equitable growth require a more capable state that can support inclusive and competitive market-led growth. This calls for the state to end its control over production and resources. Competition is low because of an unlevel playing field between the state and the private sector. Regulations often support the state rather than the market. This results in lower productivity and comes at a high cost to business and job growth. Citizens, the media, and civil society are limited in the means available to them to shape economic policy.
Investing in people	The country's future prosperity depends on its people. Large gaps persist in Uzbekistan's human capital development and the inclusiveness of economic growth. Health care and education systems require modernization to ensure the country's workers are ready for the more productive economy that will emerge. Labor markets and safety nets continue to exclude large segments of the population, and other barriers limit the equality of opportunity needed for more inclusive growth.
A sustainable and resilient future	An enduring transition requires greener growth. Much of Uzbekistan's economic potential is lost because of the inefficient use of natural resources. Water and energy are used wastefully, and the neglect of land management threatens livelihoods and future sources of growth. A focus on green growth can propel Uzbekistan toward a more sustainable future, while creating new jobs in emerging high-skilled fields. Reforms are incomplete without a clear strategy to support and shape such a sustainable and resilient structural transformation.

8. **The people and the private sector need a more effective and accountable public sector.** The public sector enjoys the trust and confidence of the population. This is a strong foundation for the state to reshape its role around the needs of businesses, workers, and consumers. But a burdensome and discretionary regulatory regime severely restricts the actions of both the private sector and civil society. As a result, the country underperforms peers in perceptions of the rule of law and the quality of market institutions. Centralized governance reduces local accountability and limits the opportunities for citizens to engage with the development process. Uneven tax and regulatory burdens have stifled growth, severely disadvantaged workers, and prevented the emergence of a large and more productive private sector. The transition is thus an opportunity to redirect the state's regulatory powers and budgetary

resources to enabling more competitive and inclusive growth in the private sector. The transition needs more transparent, accountable, and evidence-based policy making and a greater voice among citizens, the media, and civil society.

9. **Uzbekistan's transformation depends on the well-being, knowledge, and capabilities of all people.** Long-term prosperity will require productivity-enhancing structural transformation that not only generates additional employment but does so in higher value occupations. As Uzbekistan becomes more prosperous and its economy more complex, the country will increasingly rely on its human capital—the knowledge, skills, and health people accumulate throughout their lives—to maintain and drive growth. Yet, a child born in Uzbekistan today can expect to reach only 62 percent of their potential human capital. Closing the gap will require building capacity and increasing economic participation by focusing on translating growth into equitably rising incomes among the poorest and most excluded members of society. Investing in people through high-quality education, effective health care, and strong social protection—in all parts of Uzbekistan—are essential to ensuring that the population can take full advantage of opportunities.

10. **Environmentally unsustainable practices jeopardize Uzbekistan's social and economic future.** Uzbekistan is among the countries that are most dependent on water resources and natural gas in the world. The country is highly sensitive to climate change. Despite this, Uzbeks are among the world's most inefficient users of water and energy. Driven primarily by inefficient state-led management in agriculture, water withdrawal rates exceed 90 percent of the total renewable resource. The inefficient use of natural gas increases emissions and risks the depletion of the available resources within a single generation. Widespread land degradation had caused losses equivalent to 4 percent of GDP when these were last measured in 2016. A delay in transitioning to green forms of energy production also risks locking-in obsolete technologies and investments that are costly to reverse and may close the country off from valuable export markets. Greater competition and private sector involvement are key to maximizing the productivity gains needed to reduce the intensity of resource use, finance transition investments, and introduce modern climate-smart technologies.

Policy Instruments

11. **Progress in realizing the four development pathways requires that the state make full use of the instruments at its disposal.** An inclusive transition requires concerted action by all of parts of society. But the state will play an especially important role in encouraging and enabling the transition. In a few pivotal areas, the state must relinquish its direct role in favor of more efficient market-based alternatives, especially in production and resource allocation. Strong market institutions and regulatory quality are essential as accompanying instruments for the private sector to emerge and thrive. The state must proactively invest in vital priorities, including social safety nets, public services, human capital, and the green transition. The following instruments appear throughout this SCD. Each represents a means by which the state can pursue the development pathways that will determine the success of Uzbekistan's transition.

Expanding markets and choice

12. **Introducing market mechanisms is among the most powerful means to increase the efficiency and dynamism of Uzbekistan's economy.** This is especially the case in factor markets, including land, capital, and labor, in which market-led resource allocation could significantly boost productivity,

competition, and job creation. The development trajectory of nearly every high-income country in the world today has depended on the efficient reallocation of factors of production to the most fruitful uses. Markets are especially adept in achieving this continuous reallocation. But, in Uzbekistan, centralized decisions by the state, rather than market mechanisms, still largely determine how resources are allocated and used in the economy. Nearly all land allocation decisions in Uzbekistan are still made by government authorities. The high taxation on formal businesses, combined with the heavy-handed regulation of labor mobility, qualifications, and wage setting, have slowed employment growth and contributed to high informality. Labor market reforms have moved rapidly since 2017, but more is needed to overcome the effects of policies that have limited the economic freedoms of workers. Uzbekistan's financial system is dominated by state-owned banks that lend disproportionately to SOEs.

13. **Market institutions cannot effectively function if they are restricted to the margins of the economy.** Reducing the state's dominant role in production is a prerequisite for more rapid private sector growth. Collectively, the operations of over 2,000 SOEs and other public sector activities represent about half of Uzbekistan's GDP, and SOEs account for about 18 percent of employment and 20 percent of exports. State-owned assets are concentrated among 15 large SOEs, with total assets in 2019 equivalent to 57 percent of GDP. Large SOEs enjoy preferential regulatory treatment and dominate in key sectors of the economy, such as mining, oil and gas, energy, chemicals, aviation, rail, and telecommunication. Many also play an active role in shaping regulations that govern their private sector competition. At the end of 2020, state-owned banks held 88 percent of total outstanding credit in Uzbekistan, serving as a vehicle for state-directed lending on preferential terms. Lending policies and the poor governance of state-owned banks contribute to the misallocation of capital to lower productivity uses in the economy.

14. **The agricultural sector epitomizes the growth opportunities of a more private sector– and market-led economy.** The role of the state-led agricultural system has been one of the root causes of Uzbekistan's missed opportunities in structural transformation. Uzbekistan's agriculture sector has great potential for increasing value added and productivity through better practices, more effective use of inputs such as fertilizer and water, and the more appropriate allocation of land. Horticulture is highly productive and has the largest job creation potential, generating 50 percent of the value of crop production and 40 percent of gross agricultural output from only about 10 percent of the total arable land. Reforms have begun dismantling the dominant state agricultural system, which is focused on cotton and wheat, to create new diversification opportunities for the private sector and, especially, for growth in horticulture. Sustained progress in addressing the remaining constraints could improve resource allocation in the economy and ultimately create more and better jobs.

Developing strong market-enabling institutions

15. **A competitive private sector needs the certainty that only the rule of law can provide.** The country needs better legal and regulatory policies that establish fair rules that are well enforced and simple to follow. It also needs strong institutions to enforce these policies appropriately. This means curtailing state discretion in favor of impartial, transparent, and rules-based governance. In areas where the state remains an economic producer, it also means a commitment to maintaining market discipline and competitive neutrality. The ability of individual investors to benefit from an investment-specific regulatory environment creates an unbalanced and nontransparent playing field. This environment stifles both the domestic private sector and foreign direct investment (FDI).

16. **Though the environment for competition is improving, underdeveloped competition policy limits private sector growth and job creation.** As lessons from other transitions show, markets alone cannot guarantee an enduring, sustainable, and equitable transition. According to the latest Bertelsmann transformation index, perceptions on the state of market competition in Uzbekistan have improved since 2016, likely the result of reforms to enhance the business environment. However, the amount of competition in markets is much lower in Uzbekistan than in peer countries. As of 2020, Uzbekistan still falls behind its regional peers in perceptions on the effectiveness of competition policies.

Spending money effectively

17. **Strong economic management and fiscal buffers are essential for a smooth transition.** The country is strongly positioned to use targeted spending to achieve both immediate and long-term development goals, but this requires improving the way public investments are planned and implemented. If used effectively, these resources can empower authorities to take the long view and make investments in areas such as human capital accumulation and disaster risk management that pay off over generations. But long-term success also requires prudent policy decisions that leave the country in a sound fiscal position to confront the development challenges ahead.

18. **Institutional fragmentation and the absence of a systematic approach to policy making weaken the effectiveness of reforms.** More than 50 government institutions are responsible for the design and implementation of policies linked to the core functions of government. In addition, some SOEs play a dual role of production and sector-level policy making. In many cases, institutions have overlapping roles and disparate reporting lines. Crucial data gaps disrupt the preparation, implementation, and monitoring of strategic development priorities. Better policy prioritization, interinstitutional coordination, and monitoring could increase the impact of public policy.

19. **Public investments are not well aligned with development needs.** Public investment accounted for about a third of total investment spending in the economy in 2009–19. Public investment funding is supplied through a range of channels, each with its own decision-making framework on how to spend the resources and with little coordination across different channels of public investment. An emphasis on generating positive cash flow, rather than assessing the economic and social benefits of projects, reduces incentives for public investments with longer-term returns, such as human capital and environmental projects. Weaknesses in asset maintenance and recurrent expenditure budget planning erode the quality of public investment and increase long-term project financing costs.

Increasing the responsiveness and accountability of government institutions

20. **A government in the service of its people requires that people have a greater voice in determining needs and priorities**. Decentralizing Uzbekistan's heavily concentrated authority, budget making, and service delivery systems could accelerate this process. This also requires greater transparency and the empowerment of citizens, civil society, and other nongovernmental organizations (NGOs) to hold government authorities accountable. Uzbekistan's centralized model reduces the incentives to align public spending to local priorities. In contrast to deliberate fiscal decentralization efforts pursued by other transition economies, such as Georgia, the Kyrgyz Republic, Poland, and Ukraine, Uzbekistan's system of subnational finance has changed little since Soviet times. Planning and budgeting are largely centralized with limited local input, and local governments have virtually no power to raise money to realize their spending priorities. Although reforms are enhancing the role of local governments in the budgeting

process, resource transfers from the center are highly unpredictable across years, and the execution of projects is hampered by overlapping mandates across different levels of government. As experiences in other transition economies attest, decentralization that is focused on raising local and citizen engagement can strengthen public service delivery, public accountability, and public support for reforms.

21. **Increasing the responsiveness of the public sector to the needs of citizens is essential to achieving more inclusive growth.** Many channels of communication between citizens and government officials have been created since 2017, including grievance and redress mechanisms, virtual office receptions with public officials, an online regulatory consultation platform for public feedback, and measures to increase citizen involvement in local budgeting processes. These represent a strong break with historical approaches that is aimed at boosting government accountability before citizens. But there remain many untapped opportunities to increase public accountability and citizen involvement. A burdensome regulatory regime severely restricts the formation of civil society, which can play an important supporting role in improving public sector performance. Laws and regulations to expand the recognition of press freedoms and enhance the right to information need to be strengthened to ensure greater public accountability.

Trade and outward orientation

22. **Increasing the outward orientation of Uzbekistan's economy can boost trade and investment.** Uzbekistan is close to nearly a third of the world's population in China and South Asia and to markets where a quarter of global trade occurs. Yet, it exports much less as a share of output than its regional peers. Uzbekistan is one of the largest nonmembers of the World Trade Organization, and substantial trade barriers reduce the scope of an export-led growth model. There are at least 13 different legal regulatory documents that specifically govern FDI. Global value chain integration remains mostly limited to cotton and horticulture and to sectors in which the state collaborates with strategic foreign investors as part of the government's industrial policy. The trade volumes are lower in areas of revealed comparative advantage than in sectors of revealed comparative disadvantage. This is largely the result of SOE dominance, industrial policies, and large state subsidies.

Prioritizing investments in human capital

23. **The most pressing gaps in Uzbekistan's education system are in access to preschool and tertiary education and in the quality of primary- and secondary-school instruction**. On average, more than half the respondents to the Listening to the Citizens of Uzbekistan (L2CU) survey say they are worried about giving their children a good education.[1] Uzbekistan's preschool enrollment lagged all regional comparators until recently, and limited access was more common in parts of the country with higher poverty rates and more rapid population growth. With a tertiary enrollment rate of 16 percent in 2021, Uzbekistan is one of the most poorly performing countries among income peers, and, despite recent reforms, still has the lowest tertiary enrollment rate in the Europe and Central Asia region. Closing these gaps are among the most direct actions the government and stakeholders can take to strengthen the country's human capital and take advantage of the ongoing transition.

[1] See L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

24. **Focused improvements in public health care can build on 20 years of progress and close the remaining gap with the most successful transition countries.** Life expectancy rose in Uzbekistan by 2.1 years between 2010 and 2019. The rate of stunting among children ages under 5 because of inadequate nutrition fell from about 29.5 percent in 2000 to 8.7 percent by 2017. Between 2009 and 2020, maternal mortality fell by about 39 percent, and infant mortality by about 20 percent. While remarkable, these achievements still leave Uzbekistan behind almost all other countries in the Europe and Central Asia region on summary indicators of public health. Life expectancy trails the regional average by more than 4 years; the risk of maternal mortality is twice the regional average; and, while better than many countries in the same income class, the childhood stunting rate is higher in Uzbekistan than regional benchmarks (such as Poland's 2.3 percent in 2020). Both the underuse and low quality of care contribute to high avoidable mortality, which took an estimated 42,000 lives in 2018 and accounted for about one-quarter of all deaths that year. Substandard care is responsible for 58 percent of avoidable deaths, while the remainder are associated with the underuse of services. Thus, while public health in Uzbekistan is building on a strong track record of progress, large gaps remain.

25. **Urban-rural and regional disparities in basic living conditions are stark.** According to the 2019 household budget survey, about 63 percent of households in Uzbekistan had access to improved piped water, and 68 percent of the population had access to improved sewerage, including more than half of the poor across both measures. Access to electricity has long been nearly universal. Nonetheless, inadequate access to water and sanitation alone is estimated to represent a cost to Uzbekistan of US$635 million a year (or 1.3 percent of GDP). These challenges are largely concentrated in rural areas. In 2018, only 22 percent of the rural households in a World Bank survey said that water services were "good," compared with 58 percent of urban households. There is likewise a clear division in the perceived urgency of realizing local infrastructure priorities; rural areas much more often highlight needs across a range of issues, especially improved gas, water, paved roads, parks, and irrigation services, compared with urban areas. Well-regulated private sector investment is underexplored and could help quickly expand coverage and access to basic public services.

Focusing on the needs of the poor, the vulnerable, and the excluded

26. **Proactive social protection policies are consequential tools for reducing poverty, promoting inclusion, and lowering the risks of negative impacts of reform.** The government can spend more on the poor and vulnerable. All social assistance spending combined amounted to roughly 0.76 percent of GDP in 2017, one of the lowest levels in the Europe and Central Asia region. Targeted social assistance programs achieve substantial poverty reduction. But, at the most recent assessment, in 2018, such programs excluded more than half of poor families. They are constrained by limited funding, though subsequent reforms have likely substantially improved this performance. Core initiatives focused on unemployment achieve only limited coverage despite many overlapping labor market programs. Coverage of unemployment benefits reaches only about 1 percent to 5 percent of the registered unemployed, and there is no basic unemployment insurance system for workers to support themselves in the event of job loss. Modernizing social protection, including safety nets, pensions, and labor promotion programs, could reduce poverty and vulnerability, while finding jobs for unemployed and discouraged workers, to help realize the country's economic potential.

27. **Addressing inequality of opportunity between men and women will make growth fairer and more inclusive.** There are large gender imbalances in the access to educational and health care services and to economic opportunities in Uzbekistan. There is also a large inequality in the voice and agency of

women in society compared with men. Since the gender development index was calculated in Uzbekistan for the first time in 2013, women have only ever scored higher than men on life expectancy. The labor force participation rate is much lower among women than among men, with a gap of about 28 percentage points in 2018. There is also strong gender segregation in occupations. A recent law aimed at addressing gender-based violence represents a major milestone in the country, but the services available for survivors are modest, and gender-based violence is widely underreported.

28. **The full inclusion of persons with disabilities is a welcome and ambitious goal that now calls for strong implementation measures.** Uzbekistan ratified the United Nations Convention on the Rights of Persons with Disabilities in 2021, a major step to ensuring greater inclusion. The full implementation of the convention's provisions will be important to addressing the many challenges that persons with disabilities still face in accessing services, opportunities, and social assistance. A recent survey among people living with disability shows that fewer than 60 percent find using essential public services easy. Only 84 percent of people with disabilities report they have access to education compared with 99 percent for persons without disability, and about 51 percent of people with disabilities report they have access to professional secondary education compared with 97 percent of persons without disability.

Supporting a green transition

29. **Uzbekistan's resource inefficient and carbon-intensive growth model is unsustainable.** The country ranks among the top 30 in energy and mineral reserves, including natural gas, gold, copper, uranium, and coal. Uzbekistan's economic model heavily exploits this comparative advantage in natural resources, but this approach has come at a heavy cost. The gains among the population have been limited, and the environmental impacts have been severe. Widespread land degradation had caused losses equivalent to 4 percent of GDP at the most recent measurement, in 2016. Driven primarily by poor agricultural practices, the country is one of the world's most unsustainable and inefficient users of water, as the near disappearance of the Aral Sea attests, with withdrawal rates exceeding 90 percent of the total renewable resource.

30. **The government can make quick environmental and efficiency gains by prioritizing the green transition with support from the private sector.** Uzbekistan is the fifth most intensive greenhouse gas (GHG) emitter in the world, and the country's energy intensity per unit of GDP is also among the highest in the world. Despite falling over the last two decades, Uzbekistan's emissions intensity is more than twice the level of Central Asian peers and 18 times the average in the Europe and Central Asia region. Uzbekistan's GHG emissions are dominated by the energy sector, which contribute 79 percent of total emissions, while another 15 percent come from agriculture. In the past, state leadership in both sectors was fed by resource-intensive modes of production. In both the energy and agricultural sectors, ambitious climate mitigation actions have been identified in which the private sector must play an especially pivotal role.

Managing Risks

31. **Not every country has succeeded in achieving an inclusive market transition.** There are several common patterns in stalled and failed transitions. Effective implementation involves more than simply undertaking reforms. It also requires thoughtful appraisal of the prerequisites and interactions among policy changes, the interests of powerful actors participating in the reform agenda, and the implications of reform for the country's social contract. Reforms that are rushed poorly sequenced often undermine

the larger social and economic goals of reform in transition countries. In the absence of thorough preparation and strategic planning, the risks arising because of vested interests, corruption, and social discontent can become substantial. Three types of risk are highlighted in the SCD because they call for greater preparedness and attention among policy makers.

The risks associated with vested interests and corruption

32. **The threats to a successful transition are particularly strong if ownership is transferred.** Privatization efforts that are undertaken without first establishing a strong legal foundation to ensure a transparent, accountable, and competitive process are at risk of corruption and the influence of vested interests. Evidence from the failure of past privatization programs highlights the severe dangers of reform undertaken without these prerequisites in place. Utmost caution is necessary to ensure the accurate and open valuation of assets and to minimize the scope for the creation of private monopolies. If not implemented by knowledgeable, accountable, and financially disinterested actors, reform programs can result in greater inequality and the loss of public resources.

The risks associated with social discontent because of the reform process

33. **Transitions have often been cut short in countries that have failed to protect the vulnerable and equitably share the benefits of reform.** In contrast, transitions that have generated high and sustained economic growth often feature strong political commitment to social protection and public investment to raise economic inclusion. Sequencing has also been a key to avoiding the risks of social discontent. Most successful examples of market transition have involved investment in inclusive opportunities and social protection early in the process before the most socially costly reforms have exerted an impact. Timing large and disruptive changes—for instance, those that result in job losses or rising prices—so they coincide with strong overall economic growth and job creation can soften the impact of reform. In this, Uzbekistan is particularly well placed to avoid a transition includes the implementation of difficult reforms in the context of fiscal austerity and during periods of overall economic hardship. Prioritizing the needs of the vulnerable throughout the transition process is an end in itself but can also help sustain the popular support reformers need during difficult phases of the transition.

The risks associated with lack of preparedness for natural disasters

34. **Earthquakes and droughts pose highly significant threats to Uzbekistan's long-term growth and resilience.** Although less than 15 percent of the country's territory is at very high seismic risk, the danger is concentrated in the Tashkent and Bukhara regions, home to more than half the country's population and accounting for 65 percent of the country's GDP. Another major earthquake in Uzbekistan could have impacts on the scale of 30 percent of GDP. Tashkent ranks first among nine cities in Central Asia and the Caucasus in terms of earthquake hazard and the share of the population exposed to seismic risk. Thus, the 1966 earthquake resulted in losses (adjusted for inflation) equivalent to over US$10 billion. Uzbekistan also faces substantial additional risk from climate change. The country is projected to see average temperatures rise significantly above global averages by the end of this century. By the 2090s, temperatures could begin regularly exceeding the 35^{O}C heat index threshold, a measure of a temperature and humidity accompanied by significant risk to health. Uzbekistan is among the top 20 countries globally in drought exposure, faces high wildfire risk, and is subject to above-average levels of flood hazard.

A Roadmap to the SCD

35. **The rest of this SCD provides more detailed analysis of the constraints on the realization of a more prosperous and inclusive future in Uzbekistan.** The next section describes relevant social and economic trends. This is followed by four sections that focus on the development pathways that are essential to Uzbekistan's transition. Part 2 explains the importance of establishing a strong and competitive private sector. Part 3 examines the capacity of the state to serve its essential regulatory and enabling roles. Part 4 explores the need to invest in people, especially by protecting the poor and vulnerable, building the country's human capital, and providing basic public services. Part 5 analyzes the need to ensure sustainability by preventing degradation and inefficient resource use, decarbonization, and strengthening resilience. Part 6 concludes with recommendations, arguing that establishing the priorities outlined in the SCD will help reduce poverty by half and achieve the transition of Uzbekistan to upper-middle-income status.

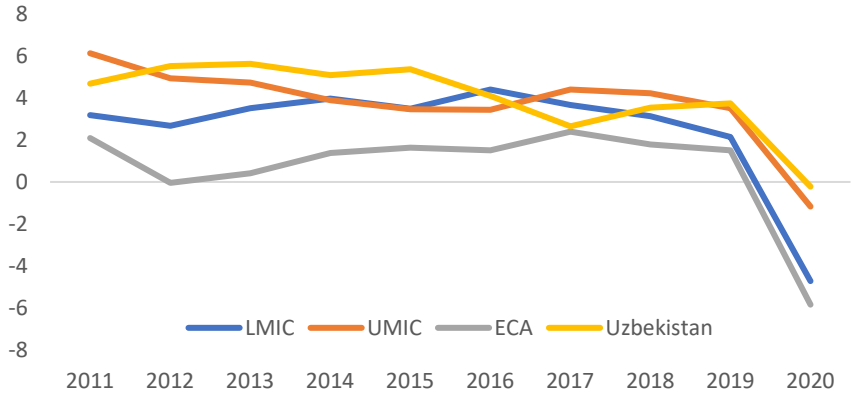
36. **This SCD chronicles the rapid increase in data openness and accessibility following the reforms in 2017 and the current investment effort to fill remaining gaps.** All the constraints on obtaining primary data noted in the first Uzbekistan SCD, including the challenges in accessing macro- and micro-level data, were fully addressed during the preparation of this second SCD. The limitations that remain largely relate to gaps in the country's national statistical system. The government has not completed a population census since independence, a gap with pervasive effects on official statistics. The national census is scheduled for 2023. Although summary statistics are available, a lack of granular data on firms, especially SOEs (including revenue, financing, ownership, employment, and other key issues), limits the scope of the assessment included in this SCD. Measures of well-being, such as poverty, consumption, and income, reported in the text often rely on the household budget survey, which followed a nonstandard design before the introduction of a new survey system in 2021. Combined with the fact that the government of Uzbekistan did not participate in past rounds of the International Comparison Program process, these factors may limit the comparability with other countries of some measures of well-being. National accounts and related macro and financial statistics were being revised during the preparation of the SCD in advance of the adoption of the 2008 standards of the system of national accounts. Closing these gaps and realizing the comprehensive modernization of the national statistical system are the focus of the National Statistical Development Strategy to 2025 and the subject of a World Bank lending operation currently being prepared.

Part 1. Trends and Reforms

Economic growth and related trends

1. **Real GDP growth per person in Uzbekistan has averaged about 5 percent a year over the last two decades (figure 1)**. This relatively high growth rate has been maintained by a centrally planned and investment-led economic strategy largely financed by natural resource rents. Key features of this strategy endure to this day. In 2018, natural resource rents accounted for almost 18 percent of GDP (more than 10 percent from natural gas alone), down slightly from an average of 21 percent of GDP per year between 2000 and 2018. Uzbekistan has remained more dependent on these rents than the Russian Federation (15.5 percent), Tajikistan (6.8 percent), and the Kyrgyz Republic (11.6 percent), and is not far behind Kazakhstan (22.4 percent). Over the past decade, a large state-led investment program aimed at infrastructure development, diversification, and the industrialization of the economy, generated a nearly fivefold increase in the economy's capital stock. The government also ran budget surpluses for most of the period, and gross international reserves consistently exceeded 50 percent of GDP for more than a decade.

Figure 1. Per Capita GDP Growth, %



Source: World Bank estimates; WDI (World Development Indicators) (dashboard), World Bank, Washington, DC, https://datatopics.worldbank.org/world-development-indicators/.
Note: ECA = Europe and Central Asia. LMIC = lower-middle-income country. UMIC = upper-middle-income country.

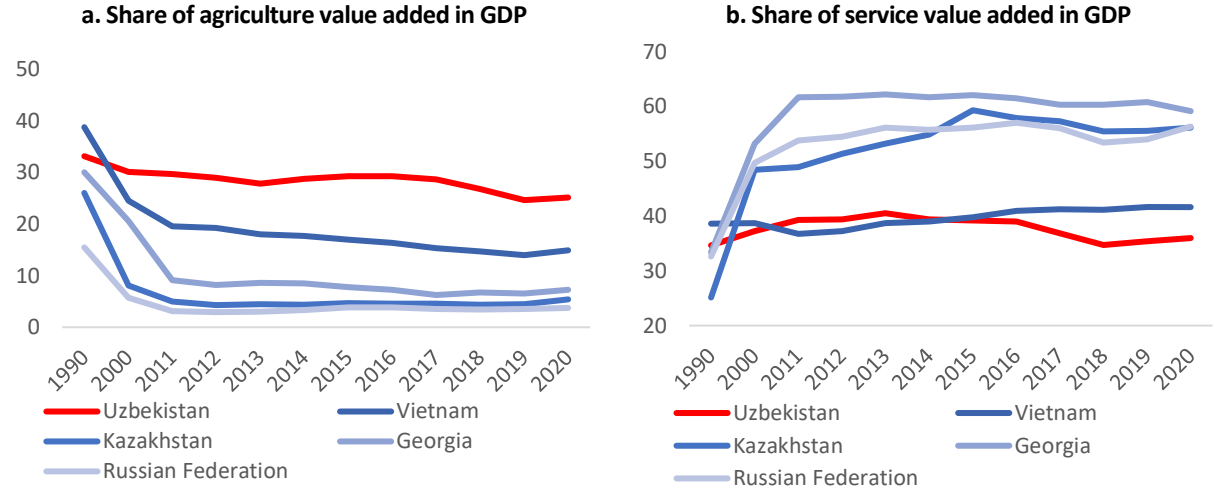
2. **Productivity has risen in specific sectors, but alongside only limited employment growth**. Between 2010 and 2019, large capital investments in selected industries, combined with natural resource exports, compensated for two concerning economic developments: limited intersectoral shifts in employment from less to more productive sectors and the negative growth in total factor productivity (TFP).[2] Analysis of the components of GDP growth between 2010 and 2019 reveals that about two-thirds of growth derived from a nearly 50 percent increase in labor productivity (output per worker) linked to the increased capital stock and the value of natural resource exports (such as gold and natural gas).[3] But this rising output per

[2] In the first Uzbekistan SCD, TFP growth was estimated at negative levels in the first decade after independence, then at about 2 percent in 2002–08, and steadily declining thereafter to an average of about 1 percent in 2009–11 (World Bank 2016). Analysis of the World Bank (2018a) suggests that this decline continued between 2011 and 2017.
[3] GDP per capita can be broken down into three components: output per worker (labor productivity), the employment rate (employment as a share of the working-age population), and the share of the working-age population (as a share of the total population). Using the Shapley Decomposition approach, the analysis in this

worker was heavily concentrated in mining and industry. In stark contrast, productivity growth in agriculture and services, which together account for about 77 percent of employment, has consistently remained disappointing. Over the past decade, employment has contributed little to overall growth. After accounting for a 2 percent reduction in the labor force participation rate, only about 6 percent of the total increase in GDP per capita arose from increased employment between 2010 and 2019. Demographic changes added another headwind to per capita growth: the birth rate continued to outpace the growth of the working-age population over the past decade.

3. **Productivity-enhancing structural changes in the economy played a minor role in Uzbekistan's economic performance.** In advanced transition countries, large gains were achieved through a progressive shift of land, labor, and capital, from lower to higher productivity uses within the economy. For workers, this often entails a move away from labor-intensive forms of agriculture and coincides with growth in manufacturing and services jobs. While total agricultural output often still rises because of productivity growth, the agricultural share of GDP falls as other sectors expand even more quickly. For instance, the agricultural share in value added in GDP fell by as much as 50 percent to 80 percent in most transition counties following the breakup of the Soviet Union (figure 2). But Uzbekistan has remained a glaring exception to these trends. Government policy has ensured that agriculture's share in GDP has remained dominant, falling only marginally from about a third at independence to a quarter of GDP in 2019 (figure 2). Although employment in services rose from about 34 percent in 1991 to nearly half the labor force by 2019, the contribution of the service sector to GDP was in fact marginally smaller in 2019 than at independence (see box 1).[4] Today, output per worker in the services sector is more than 44 percent below the average among lower-middle-income countries, and, as a share of GDP, the service sector ranks among the smallest in the world. This sharply contrasts with other transition economies, which often at least doubled their services sector contribution. Thus, because of low productively growth in services and limited employment growth in industry, intersectoral shifts in employment between 2010 and 2019 contributed negatively on average to productivity growth in Uzbekistan.

Figure 2. Changes in Economic Composition, Uzbekistan vs. Selected Countries



Source: World Development Indicators.

section of the report describes changes in GDP per capita (changes in the per capita value added) through changes in each of the three components (Shapley 1951, 1953).

[4] These estimates are based on official national accounts data, which have been revised and improved in recent years. Despite these improvements, the lack of detailed service sector economic and labor data (the collection of which was not a priority under the old economic model) could lead to some measurement errors in the data.

Box 1. Uzbekistan's Old Model

In Uzbekistan, the state retained its central role in allocating economic resources following the breakup of the Soviet Union. Compared with its peers, Uzbekistan engaged in only limited privatization following independence (mostly among small firms) and depended instead on a state-led investment approach. Land remained entirely state owned, and state-owned banks maintained almost total control over the allocation of financial resources in the economy. Labor was centrally managed through strict wage and market regulations and the propiska (registration) system, which severely curtailed domestic geographic mobility. The continuation of a centrally planned economic model was apparent across all sectors. Agriculture was plagued by extractive policies, including forced labor, state monopolies, administered prices, and strict production quotas, leading to slow productivity growth. As had been the case in the Soviet era, the service sector languished as one of the smallest in the world as a share of GDP. Industry and extractives grew rapidly, but nonetheless generated limited employment.

In the years that followed, Uzbekistan's fiscal policy was focused on supporting national self-sufficiency and state-led development. Self-sufficiency was achieved by accumulating foreign reserves, including via a sovereign wealth fund called the Uzbekistan Fund for Reconstruction and Development (UFRD). Industrial development was promoted through SOEs, which were protected from competition through heavy regulatory burdens and state monopolies designed to limit market entry. International trade in commodities was also dominated by state enterprises, and almost all private foreign transactions were required to pass through state institutions. The UFRD also helped support the state's industrial development objectives through investments in SOEs that accounted for about a third of resources under the UFRD's management.

The model came with a heavy cost to the private sector. Private enterprises were only permitted in selected sectors of the economy, such as trade and service activities. In other sectors, private investments were permitted, but only in partnership with the state. Large SOEs and a small number of well-connected private enterprises benefited from subsidized investment, credit at below market interest rates, and regulated prices on production inputs. Other private enterprises, especially large ones, were subject to a parallel and oppressive regulatory system. To avoid regulatory burdens and high taxes, most private firms remained small by hiding revenue and using informal markets for labor, giving rise to a large shadow economy. Access to foreign exchange (especially for imports of consumer goods) was severely curtailed in the private sector, and, prior to market liberalization in 2017, the black market accounted for almost half the country's foreign exchange trading volumes.[a]

a. World Bank (2017b)

Poverty, equity, and jobs

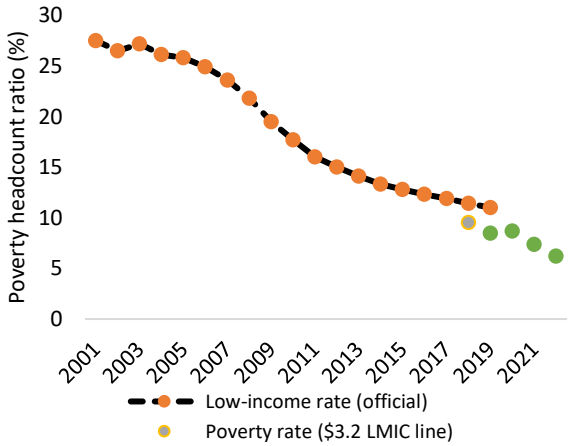
4. **The poverty rate has fallen slowly, but consistently over the past two decades.** Measured by the official national definition of the low-income population, the poverty rate fell from nearly 28 percent in 2000 to 11 percent in 2019 (figure 3).[5] World Bank estimates suggest that the most extreme forms of poverty had been nearly eradicated by 2018.[6] Meanwhile, the poverty rate using the threshold typical of lower-middle-income countries stood at 9.5 percent in the same year.[7] Nonmonetary measures of well-being have also steadily improved over the past decade. Life expectancy rose by more than 2 years between 2009 and 2018, driven in part by a 39 percent decline in maternal mortality and a 17 percent

[5] Historically, this indicator has been measured in terms of the minimum food consumption of 2,100 kilocalories per person per day. This approach is currently under revision.
[6] Measured at US$1.90 per person per day in 2011 purchasing power parity US dollars in terms of consumption.
[7] At US$3.20 per person per day in purchasing power parity terms. In 2018, the poverty rate using the upper-middle-income line ($5.50 per person per day)—appropriate for the income level the country aspires to achieve by 2030—was 36.5 percent.

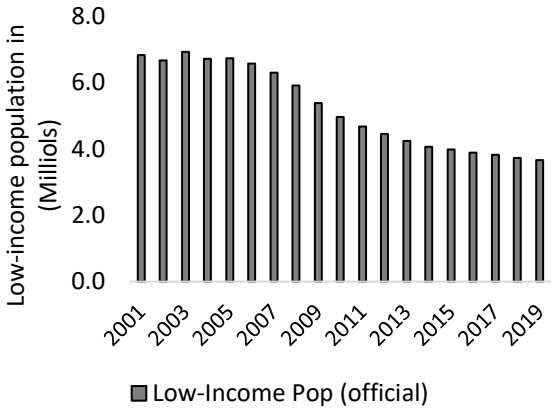
decline in infant mortality.[8] Access to primary and secondary education is universal, and, between 2009 and 2018, the number of higher education institutions grew by 88 percent, and enrollment was up by 54 percent. The proportion of households served by safely managed drinking water rose from 67 percent to 87 percent between 2000 and 2019, and, according to official statistics, access to basic sanitation facilities has been universal for more than a decade.

Figure 3. Low-Income Population and Poverty

a. Poverty headcount ratio



b. Low-income population



Sources: State Committee on Statistics; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

5. **The pace of poverty reduction has slowed.** Though extreme poverty is now rare, progress in meeting more ambitious standards of well-being has been painfully slow over the past decade, especially given Uzbekistan's national income level and growth record. Among countries in Uzbekistan's peer group, the number of people living in poverty typically falls by about 3.3 percent for each percent increase in per capita GDP. By contrast, poverty fell by less than half that rate in Uzbekistan between 2009 and 2014 (a 1.5 percent decline for each percent increase in per capita GDP), slowing further to a mere 1.1 percent from 2015 to 2019. This performance likewise lags the Europe and Central Asia regional average and the average among commodity exporting peers such as Kazakhstan and Russia. Thus, although the most basic needs are often met, economic growth has steadily lost its effectiveness in reducing poverty.

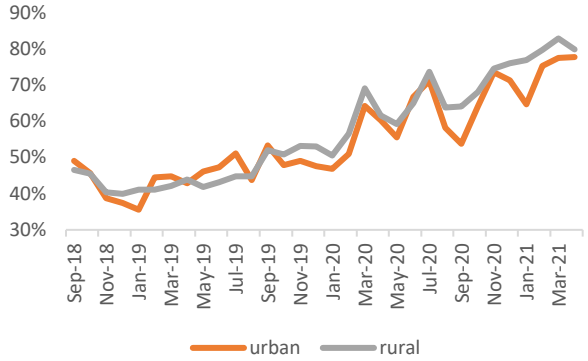
6. **The underperforming labor market is a crucial weak link to more inclusive growth.** Employment income typically accounts for more of a household's budget than all other sources combined. It is usually the dominant share of total income among even the poorest 20 percent of the population. But income from work accounts for an abnormally small share of national income in Uzbekistan. In 2017, the labor share amounted to only 41 percent of national income, well below both the regional average of 55 percent and the global average of about 52 percent, according to a modeled estimate of the International Labour Organization. With strong GDP growth but only a modest pace of wage growth, the income share has likely fallen since that time. Because of the relatively small size of the private sector in Uzbekistan, much of the large nonlabor share of income that remains accrues instead to the state through taxes, capital

[8] The maternal mortality rate fell from 30.4 to 18.5 per 1,000 live births. The infant mortality rate fell from 11.7 to 9.3 per 1,000 live births.

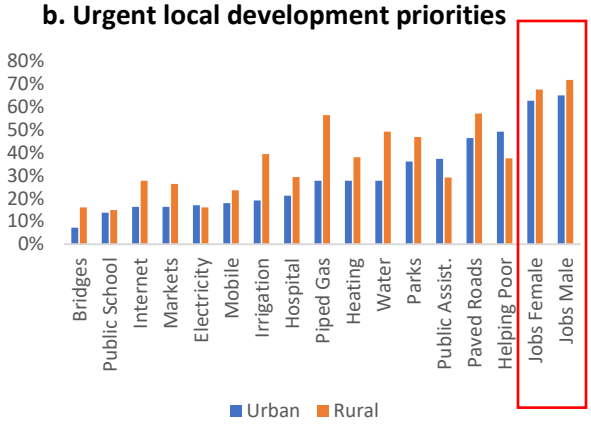
ownership, and dividends (including reinvestment) from SOEs. Challenges in the labor market consistently and increasingly top the list of concerns reported in national surveys (figure 4).

Figure 4. Concerns over Jobs and Employment Are Dominant and Rising

a. Lack of jobs: a key challenge facing the country



b. Urgent local development priorities



Sources: World Bank estimates; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

7. **Unemployment is high; most work is informal; and a significant portion of the working-age population are out of the labor force.** In 2020, official statistics estimated unemployment at 10.5 percent of the active labor force, while another 34.0 percent of the working-age population were inactive (that is, not working or looking for work). Both measures are partially the result of a limited number of jobs available and strong seasonality in economic activity. Between 2010 and 2018, an economic growth of 5 percent would have been required to achieve a 1 percent growth in employment, less than half the average among developing economies according to estimates of the International Labor Organization (ILO 2020b). The State Committee on Statistics estimates that there were about 1.1 million jobs available in 2018, including informal and small-scale agricultural work, falling short of growth in the labor force by more than 200,000 places.[9] Official employment estimates also include labor migrants working abroad (adding 2.6 million to the total in 2018). In 2019, according to the Ministry of Employment and Labor Relations, about 59 percent of total employment was informal, and, among all the employed in 2019, only about 35 percent held a labor book (a record of years of formal sector work and pension rights).

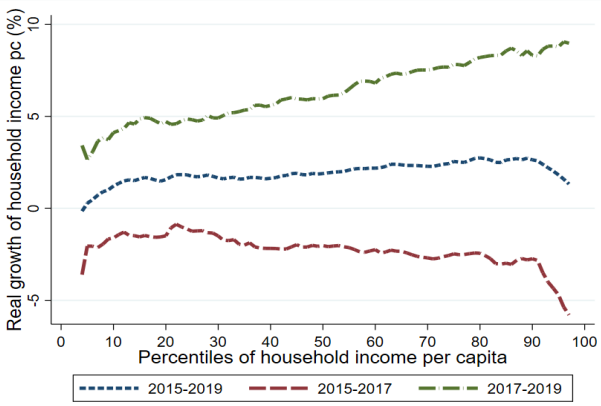
8. **Recent income growth has been weak, especially among the poorest.** Although incomes consistently rose between 2015 and 2019, the growth was far below the pace of growth in per capita GDP, and growth was even slower among the poor. According to official survey data, the median income grew by about 1.4 percent a year between 2015 and 2019 compared with 4.8 percent growth per year in GDP per capita, after accounting for inflation (figure 5). Among the poorest 20 percent, income grew by about half the typical pace over the same period (0.74 percent a year).[10]

[9] This includes about 152,500 job vacancies, 188,000 vacancies owing to death or illness, 169,500 seasonal or part-time job vacancies, 48,000 jobs reserved for socially vulnerable workers, and 155,800 opportunities for self-employment in smallholder land plots and dehqon farms (individual or family farms in Central Asia).

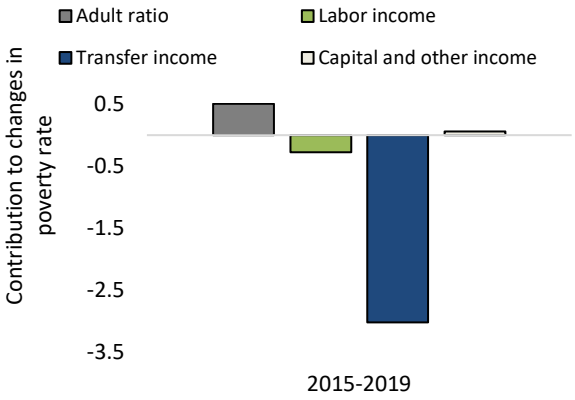
[10] Growth in per capita consumption reported in the official household budget survey was much higher over the same period, especially among poorer people. However, the nonstandard measurement approaches used in the survey complicate the interpretation of these results. The national household budget survey was modernized in 2020 and officially launched in 2021 partially to address this issue.

Figure 5. Recent Changes in Poverty Driven by Transfers, Particularly Remittances

a. Real growth in household income



b. Contributions to changes in the poverty rate



Source: Household Budget Survey of Uzbekistan.

9. **Long-term Income and consumption inequality have been moderate and stable.** Results from a new national household budget survey launched in 2020 show that the Gini coefficient of income in Uzbekistan at that time stood at 0.360, while the Gini coefficient for consumption per capita stood at 0.340. This suggests that inequality in 2020 was nearly unchanged relative to 2003, when it was last measured at 0.350 in a comparable survey. Official long-term estimates of the distribution of income reported by the State Committee on Statistics also suggest moderate and stable levels of inequality. By the official measure, between 43 percent and 38 percent of total income has remained concentrated among the richest quintile, while between 5 percent and 9 percent is accounted for by the poorest quintile. In contrast to other countries in Europe and Central Asia, both measures suggest modest and stable long-term inequality trends.

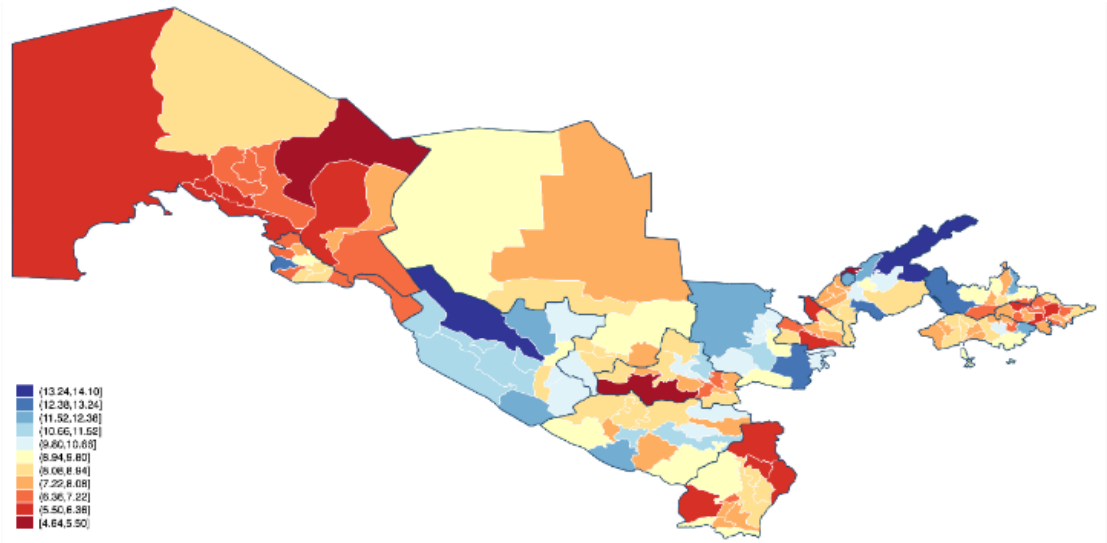
10. **Income inequality is held in check by government policy and public transfers.** The country began its independent history with a highly compressed wage structure that was typical of all former Soviet countries. But unlike many, it has maintained this feature through to the present. Wages both within and across sectors are standardized on the unified wage scale, with relatively limited variation by profession or specialization.[11] The small scope of private firm ownership also mutes the contribution of capital income to inequality. Because surpluses generated under the state-led growth model largely accrued to the state rather than the private sector, they did not count toward the personal incomes of individuals in the economy. Compressed wages and the low level of financial inclusion have also constrained the meaningful accumulation of private financial savings, and investment mechanisms have remained modest over the decades since independence. Compared with public-private hybrid systems elsewhere, state-administered social transfers and pension programs in Uzbekistan are relatively flat, further restraining the potential drivers of inequality.

11. **Poverty is mostly a rural phenomenon in Uzbekistan.** In 2018, about 79 percent of the poor were living in rural areas according to the L2CU baseline survey (map 1). In 2018, the regions of Karakalpakstan Republic, Samarkand, and Surkhandarya all had similar poverty rates (at above 15 percent), while the

[11] The unified wage scale is codified in a resolution (No. 775) of the Cabinet of Ministers that sets out standardized wages in the public sector and for all budget organizations based on multiples of the minimum wage.

region of Samarkand hosted nearly 20 percent of the total poor because of its relatively large population.[12] The largest disparities are apparent if income levels and growth rates are compared between Tashkent and the rest of the country. The median wage in Tashkent City was 61 percent higher than the national level in 2018 and 88 percent higher than in rural areas. Official estimates show that the divide grew in subsequent years. Published estimates of inflation-adjusted income growth from 2019 show that the city of Tashkent had by far the highest share, at 12.2 percent of the poor, against the national average of 5.2 percent. The gap in official estimates of inflation-adjusted disposable income grew even more quickly, rising by 18.3 percent in the city of Tashkent in contrast to 5.7 percent overall.

Map 1. Small Area Estimates of Poverty at US$3.20 per Person per Day
2011 purchasing power parity US$



Sources: World Bank calculations; Seitz 2019b.
Note: Small area estimates are derived from survey responses in the L2CU baseline survey.

12. **Although the access to and quality of many public services have steadily improved, they still lag benchmark transition counties**. Compared with other countries at its income level, Uzbekistan maintains a relatively comprehensive system of public services and social protection. Nonetheless, large gaps have emerged in several key dimensions of human capital because of rationing, spatial disparities, and policy priorities. Access to tertiary education is a particularly severe case. Despite recent swift improvements, at 16 percent in 2021, Uzbekistan still had the lowest tertiary enrollment rate in the Europe and Central Asia region, trailing far behind the average among lower-middle-income counties (more than 23 percent). In recent years, the country did not even manage to reach a third of the enrollment rate in neighboring Tajikistan, a low-income country. In 2017, only 29 percent of children ages 3–7 was enrolled in preschools, compared with 60 percent in Kazakhstan and 85 percent in Russia. Although access to primary and secondary education is universal, authorities struggle to enhance quality, especially in rural areas, which compare poorly with high-performing schools clustered in Tashkent. And, despite relatively high coverage rates, the public health care system is also plagued by substantial out-of-pocket costs that are unaffordable for the poor, quality concerns, and spatial disparities in service. Uzbekistan's system of social protection is relatively comprehensive, but it relies on antiquated procedures and lacks key components,

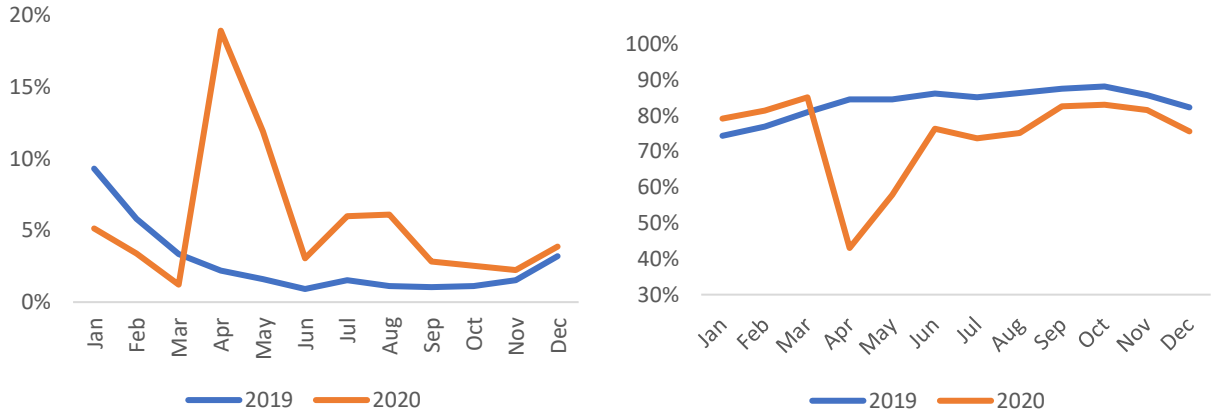
[12] Such regional rankings in Uzbekistan are sensitive to the choice of the poverty line.

such as unemployment insurance. Uzbekistan struggles with a remarkable rural-urban divide in satisfaction with the quality of local infrastructure. (These challenges are discussed in detail in part 4.)

13. **The COVID-19 pandemic has affected millions of people.** By November 2021, more than 1,300 lives had been lost to the pandemic, and more than 190,000 COVID-19 cases had been recorded in Uzbekistan. The economic impacts have also been severe. After lockdowns began in April 2020, less than half as many respondents to World Bank surveys reported that someone in the household was working (figure 6). Job losses led to a steep decline in labor income, the population's principal source of revenue. Migration abroad also came to an abrupt halt, and tens of thousands of households were left without the remittance income they typically rely on. However, the situation was clearly on a path to recovery by late 2020, and the economic situation steadily improved in 2021. New requests for social assistance quickly fell in the new year; reported mental health improved; and the number of labor migrants abroad had surged above pre-pandemic levels by the fall of 2021.

Figure 6. Employment Disruptions Because of the COVID-19 Pandemic

a. At least one household member had lost a job **b. Any household member working**



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

14. **Economic growth slowed dramatically in 2020 because of the COVID-19 pandemic, but growth is projected to accelerate to 6.2 percent in 2021.** However, this forecast remains subject to uncertainties about the continued impact of further COVID-19 waves on global and domestic economic conditions. A recovery in investment, trade, and remittances will support economic growth and reduce unemployment and poverty in 2021. Growth is projected to remain strong at 5.6 percent in 2022 as the pace of vaccinations accelerates and global disruptions ease. The current account deficit is projected to be 5.9 percent of GDP in 2021 as capital imports for investment projects recover and as gold exports fall from the record levels of 2020. FDI is expected to remain subdued in 2021 and partially recover in 2022. The continued expansion of social assistance and public investments to improve rural infrastructure and vaccination costs will continue to elevate public spending in 2021. This will be partially offset by higher tax, mining, and privatization revenues, leading to a projected overall fiscal deficit of 5.5 percent of GDP in 2021. Increased public debt will finance this deficit, and public debt is projected to reach 40.6 percent of GDP by the end of 2021. COVID-19 uncertainties and a forthcoming value added tax rate reduction in 2023 are likely to contribute to a higher medium-term fiscal deficit. A robust economic recovery, the gradual withdrawal of anti-crisis measures, and tax administration reforms to widen the tax base are

projected to help consolidate public finances and stabilize debt at about 42 percent of GDP by the end of 2023.

Sustainability and the environment

15. **Uzbekistan's carbon-intensive development model and reliance on resource extraction are unsustainable**. Uzbekistan's economic model exploits the country's comparative advantage in natural resources, ultimately accounting for a large share of recent growth. Exports have been dominated by natural resources, by intensively farmed cotton historically and, more recently, by metals and natural gas. But this growth has come at a cost. Energy use for both commercial and residential purposes has traditionally been heavily subsidized. The gains for the population have been limited nonetheless, and the environmental impacts have been severe. Going forward, the sustainability of this approach is subject to environmental risks that will become increasingly large.

16. **Uzbekistan is rich in natural resources and highly reliant on them.** The country ranks among the top 30 countries in energy and mineral reserves, including natural gas, gold, copper, uranium, and coal. It has significant potential in renewable energy sources, such as solar and wind, that can cater to the country's growing energy needs and transition to a clean and efficient energy economy. Estimates from 2018 suggest that the value of Uzbekistan's natural resources, at US$5,045 on a per capita basis, is second only to Kazakhstan in the Central Asia region and substantially above the average among lower-middle-income countries (in 2018 prices). Rents derived from natural resources are four times the lower-middle-income country average and 75 percent greater than the Europe and Central Asia regional average. Close to three-quarters of exports in 2019 came directly from natural resources: 46 percent from minerals (mostly gold); 18 percent from natural gas; and 9 percent from agricultural raw materials. The remainder of exports come mainly from resource-based (for example, food production) and energy-intensive manufacturing. Natural resources also contribute substantially to government revenues; revenues from gas and minerals are estimated to contribute around 15 percent of the government budget.[13]

17. **Natural resources are particularly critical as a source of household income in rural areas.** While much of Uzbekistan's natural capital derives from fossil fuels and minerals, the country also has significant wealth in cropland and pastureland. This wealth plays a critical role in supporting households in rural areas, where some of the poorest people in the country live. The agriculture sector accounts for 27 percent of employment, and more poor people work in the sector than any other. But the value of renewables per capita is lower in Uzbekistan than in many countries at similar income and geographic characteristics. Notably, the value of forests and protected lands, which are critical for preserving the value of croplands and strengthening resilience to climate change and natural disasters, accounts for only 4 percent of natural capital in Uzbekistan.

18. **Despite the importance of natural resources to Uzbekistan, they are not being managed efficiently.** After accounting for inflation, the value of natural capital in Uzbekistan declined by 13 percent between 2010 and 2018. While this derives in part from volatile energy and mineral prices, a significant driver of declining natural capital comes from stagnant productivity in croplands and pasturelands. The value of renewable sources of natural capital fell by 7 percent over this period, and the country rates as one of the world's most unsustainable users of water.[14] Agricultural land productivity ranks well below

[13] See USITC Dataweb (dashboard), United States International Trade Commission, Washington, DC, https://dataweb.usitc.gov/.

[14] Based on measuring the ratio of total water withdrawals (cubic meters) to renewable resources.

the average for lower-middle-income countries.[15] Recent estimates of energy usage and environmental degradation suggest that adjusted net savings in Uzbekistan have remained negative since 2012. Furthermore, a comparison with countries in the Asia-Pacific region shows Uzbekistan falling behind in material, energy, and water resource use efficiency.[16]

An assessment of reforms since 2017

19. **Uzbekistan's transition from central planning to a market economy started 30 years ago, but progress has been slow.** Though economic diversification was a key policy objective after independence, the structural economic transformation stalled during most of the country's independent history. Institutions and policies changed little with respect to those prevailing under the planned economy. The government led in the distribution of resources and outputs among SOEs through the government budget, strict regulation, and public sector orders. Apart from commodity exports that connected the country with global markets, the economy was closed and inward looking, with little competition and dynamism. The government provided rationed basic services to all, typically without linking budget outlays to results. The past development model was dominated by heavy industry, great reliance on natural resources, a neglectful approach to job creation, and remarkable gaps in human capital development. Good jobs were scarce and wages low. Resources were misallocated and labor mobility restricted. In other words, the government was too present in some areas, too little involved in others, and its role throughout the economy lacked adequate effectiveness, efficiency, and support for inclusive and sustained growth.

20. **The first SCD of Uzbekistan completed in 2016 found 10 key constraints to sustaining rapid economic growth and robust, high-quality job creation.** These included market distortions affecting allocative efficiency and competition, regulatory barriers to firm operations, suboptimal allocation of resources, infrastructure bottlenecks, low accountability among public officials, labor market weaknesses, low and inequitable access to quality preprimary and tertiary education, spatial inequities in public service, lack of targeting in social protection programs, and unsustainable use of natural resources.

21. **But, in late 2016, Uzbekistan unexpectedly launched an ambitious economic and social reform program with wide breadth and remarkable speed.** The reforms started with a focus on the main vulnerabilities of the statist economic paradigm: the dominance of the state, the insufficiency of citizen-centricity in government policy making, and the curtailment of personal economic freedoms. The government announced a broad market-oriented reform program (the Development Strategy 2017–21), which, following public consultations, was adopted by presidential decree in February 2017. The strategy includes five priority policy areas: (a) improving state and public institutions, (b) securing the rule of law and reform of the judicial system, (c) promoting economic development and liberalization, (d) creating jobs and fostering social development, and (e) ensuring personal and public security through interethnic and religious tolerance and constructive foreign policy. The program also restated the commitment of authorities to macroeconomic stability and improving the business climate (see figure 7).

[15] Agricultural land productivity is measured as the gross production value as a share of total agricultural land.

[16] Uzbekistan is less resource efficient than the Asia Pacific regional average in material resource use (4.42 kg/US$, 2010 GDP versus 2.04 kg/US$, 2010 GDP regionally, 2016 data); energy use (238.69 koe/kUS$ GDP versus 133.63 koe/kUS$ GDP regionally, 2015 data); and water productivity (2.131 m^3/US$ versus 0.118 m^3/US$ regionally, latest data). See Resource Efficiency (Helpdesk), United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, https://sdghelpdesk.unescap.org/knowledge-hub/thematic-area/resource-efficiency.

Figure 7. Shared Words in Official Decrees and Documents under Presidents Karimov (Red) and Mirziyoyev (Green)

Source: LexUZ (National Database of Legislation of the Republic of Uzbekistan) (dashboard), National Center of Legal Information "Adolat," Ministry of Justice, Tashkent, Uzbekistan, https://www.lex.uz/en/.

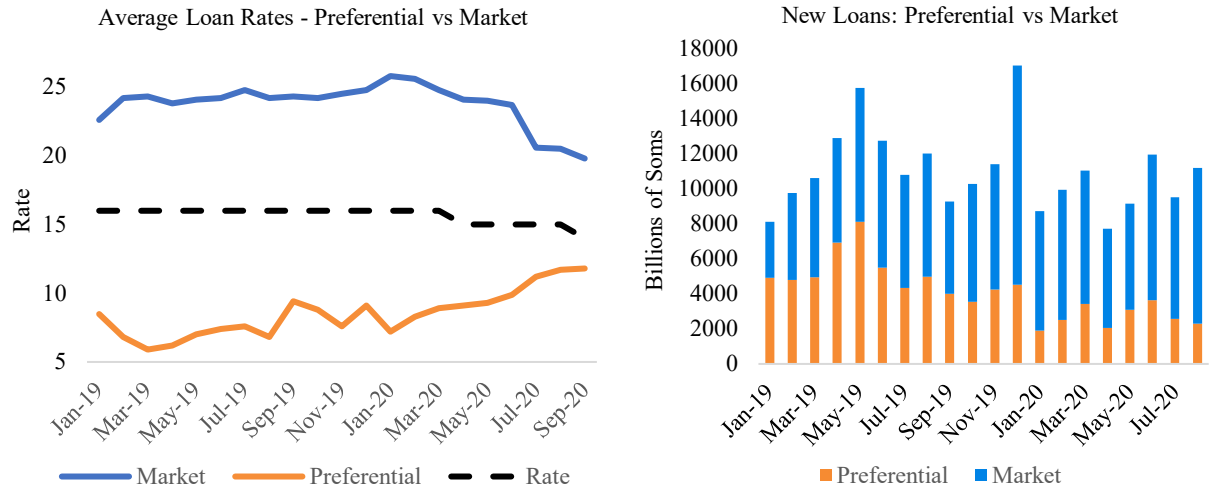
22. **The first phase of reforms focused on price and trade liberalization.** Since 2017, reforms have been enacted to liberalize prices, provide enterprises with access to foreign currency, liberalize external trade, and unify the exchange rate. In mid-2017, the central bank devalued the official exchange rate of the Uzbek som against the US dollar by almost 50 percent, aligning it with the widely used parallel black-market rate. Since 2017, the government has liberalized most previously administered prices in the economy, and only about 15 socially significant and strategic goods—largely utility tariffs—remain under a regime of administered price regulations.

23. **Greater exchange rate flexibility and a new inflation targeting regime have moderated the inflation pressures from reforms in prices, wages, and trade liberalization.** In January 2018, 12-month inflation peaked at 20 percent before trending downward. In addition to the direct effects of reforms in liberalizing prices and imports and increasing public sector wages, the pass-through effects of exchange rate depreciation and directed lending contributed to inflationary pressures. A new inflation target was

established in 2020 with the goal of reducing inflation to 10 percent in 2021 and 5 percent in 2023. In line with the new focus on price stability. The Central Bank of Uzbekistan now actively reviews and adjusts its policy reference rates in response to inflationary pressures.

24. **Financial sector reforms have started to remove market distortions and strengthen legal frameworks, but progress has been slower in reducing the state's dominance in the banking system.** In preparation for greater private sector ownership in the banking sector, reforms have focused on improving prudential oversight and the overhaul of legislation on banking and central banking. Reforms have also prohibited almost all government-directed lending below reference interest rates, restricting government interventions to explicit on-budget interest rate subsidies. This has helped rapidly reduce the level of preferential lending in the banking system and increase the transmission of monetary policy (figure 8). In contrast, reforms to restructure the financial sector and privatize banks are at an early stage.

Figure 8. Market and Preferential Loan Rates and Amounts



Source: Government Banking Authorities

25. **Improved policy has strengthened the regulatory environment for private sector growth.** A significant overhaul of tax policy unified and reduced the complexity of taxes on large and small enterprises, expanded the value added tax base, reduced mandatory social contributions, and strengthened tax administration procedures. Reforms have also removed onerous licensing and trading restrictions and reduced compliance costs through single-window systems. These reforms and other measures to liberalize imports and the availability of foreign exchange have improved the business environment and contributed to record-setting increases in new business registrations and the tax base.

26. **Market reforms to liberalize agriculture have been implemented quickly.** A first phase of agricultural sector reforms in 2017–18 abolished systematic child labor, significantly reduced coercive labor practices in cotton picking, and liberalized horticultural exports. Farmgate procurement prices for wheat and cotton were increased to reduce the gap with world market price levels. Farmgate production and price controls on cotton have now been fully abolished, and similar controls on wheat will be abolished starting with the 2022 harvest. State purchases of both commodities are required to be conducted in markets and at market prices.

27. **An inclusive reform agenda has been central to the transition process from the start.** Since 2017, programs to cushion the potential costs of reform on vulnerable people and to accelerate poverty reduction have been central to the reform agenda. Though in their early stages of implementation, these programs have helped demonstrate the government's commitment to ensure that the benefits of the reforms are broadly shared. Social protection benefits were expanded in sync with price liberalization measures, including energy tariff increases, thereby helping partially offset price shocks on the poor. The government also expanded short-term public works–related programs among the unemployed. Programs to support local development in rural areas, including obod qishloq (prosperous villages) and programs to encourage rural and women's entrepreneurship, represent visible efforts to support income growth in areas lagging in the performance of the more economically dynamic parts of the country. Simultaneously, a strong and early focus on agricultural reform has supported incomes in rural areas, where most of Uzbekistan's poor still live.

28. **The transformation of the state has moved more slowly.** Progress with SOE restructuring, privatization, and the creation of a more supportive competition and investment environment among new private firms has been substantially slower than in the case of other reforms. Similarly, the transformation and restructuring of the financial sector have taken more time. Though the launch of reforms to improve the social protection system was slow, the COVID-19 pandemic has helped generate significant reform momentum. Finally, reforms to improve the quality and efficiency of education, health care, and other social services to help build human capital have been among the slowest moving, with pockets of rapid progress, such as the expansion of access to tertiary and early childhood education, tempered by a slow overall pace of reform.

Box 2: Results emerging from five years of reforms

In five years, a wide-ranging reform agenda has touched nearly every part of the economy, society, and public sector. Although Uzbekistan's transformation is still in an early stage, six results underscore the country's encouraging progress towards its development goals.

1. More, and more resilient, growth from sectors neglected under the old model. Although Uzbekistan's average growth rate prior to the COVID-19 pandemic was slightly lower than before 2017, more sectors of the economy—especially those constrained under the old economic model—contributed to growth. The impact of reforms to liberalize horticultural production and exports revived a flagging agriculture sector that contributed almost a third of total output and employs about a quarter of the workforce in 2020. Horticultural exports reached record levels in 2019—over US$1.1 billion. Though the value of exports fell in 2020 due to the pandemic, sustained production increases were pivotal to Uzbekistan's growth of 1.6 percent in 2020—a year where most other countries in the world recorded contractions. Similar trends were also present in the tourism sector, with record tourist arrivals in 2019 following sweeping visa liberalization. Tourism exports grew by 50 percent between 2016-2019 and accounted for about 10 percent of total exports prior to the pandemic. Although tourism has fallen sharply since the pandemic, the resumption of global leisure travel in 2022-23 is expected to again revive Uzbekistan's tourism sector.

2. A revival of manufacturing productivity growth and job creation. Many labor-intensive manufacturing subsectors in Uzbekistan, – such as the food processing and beverages industry and the textile, apparel, and leather industry – represent Uzbekistan's current competitive advantage in international trade. But these sectors saw large decreases in employment and new job creation between 1996-2016—the result of onerous trading rules and industrial policies that favored more capital-intensive manufacturing sectors. The removal of trade, investment, regulatory, and labor market constraints has reversed this trend: new job creation and labor productivity have increased since 2017.[17]

[17] World Bank – *Uzbekistan Growth Diagnostics*, An Update (forthcoming, 2022)

3. An encouraging private sector response. Reforms to liberalize prices, (domestic and external) trade, and the private sector business environment have supported a surge in new business registrations, including in sectors such as wholesale trade that were heavily constrained by burdensome licensing requirements. An overhaul of the tax system to remove barriers to firm and employment size and shift from turnover to profit taxation have similarly supported record increases in new business and personal taxpayer registrations. Both new firm registrations and taxpayer registrations reached record levels in 2019 and rebounded strongly in 2021. Though progress to reform SOEs has been gradual, more space is emerging for the private sector through the downsizing of state-led production. About 600 small and medium-sized SOEs, about a fifth of the total number, have been sold through auctions or liquidated since the start of a systematic effort in 2019.

4. An easing of financial market distortions. Though most price controls and trading restrictions were removed in the initial years of reform, financial resource allocations were still heavily distorted by state-directed lending at interest rates well below the official policy rate. With most allocations made to SOEs and private sector businesses in priority industrial priority sectors, this approach had a heavy impact on access to formal channels of finance in the wider economy and on the effectiveness of monetary policy in controlling inflation. Since then, however, reforms to end nearly all preferential lending have lowered the share of outstanding preferential loans from 78 to 41 percent of total state commercial banking loans. In addition to improving the efficiency of bank financial allocations, the reduction of preferential lending has improved monetary policy transmission, helping to sustain a steady fall in inflation, which reached single digits in February 2022 for the first time since the start of price liberalization reforms in 2017.

5. More data transparency. Open data and fiscal transparency reforms have been among the most important in support of Uzbekistan's transformation. In 2017, Uzbekistan joined the IMF's General Data Dissemination Standard (GDDS) and announced ambitious plans to expand data transparency and availability. Since then, substantial progress has been made to improve statistical data availability, and nearly all government institutions participate in the government's newly established open data portal to provide regular information. Improved data availability has served as an important foundation for other major reforms, such as the modernization of poverty measures, the expansion of data on the coverage of social programs, and most notably fiscal transparency reforms. In 2018, more than half of public spending was estimated to have been off-budget—through tens of thousands of off-budget accounts and special funds (including the sovereign wealth fund). By 2022, all off-budget spending had been fully consolidated into the government's annual budget approved by Parliament. Improved debt data transparency was critical to the government's establishment of, and adherence to, an annual nominal ceiling on new public debt that was established in 2019.

6. Greater inclusion. Expanding economic opportunities, and safeguarding vulnerable households from transition shocks, has been an integral part of the reform strategy. In 2019, the government abolished one of its least popular policies: onerous domestic residential permit restrictions (*propiska*) which were used since Soviet times to heavily restrict migration to Tashkent and other large cities.[18] Tax reforms that no longer penalized firms for employing more than 100 workers led to nearly a million new personal taxpayer registrations in 2019—most of which were likely informally employed workers that were now able to obtain formal work contracts and the ability to make contributions to the pension system. Since 2017, Uzbekistan's tertiary education enrolment rate, which is one of the lowest in the Europe and Central Asia region, has increased by 60 percent. Reforms to guarantee equal opportunities and equal pay for women, reduce gender-based violence, and guarantee disability rights, have also helped create a more enabling institutional environment for greater economic and social inclusion.

[18] Until their abolition, *propiska* restrictions were among the most disliked policies in the World Bank's *Listening to the Citizens of Uzbekistan Survey*.

Table B2.1: Net Change in Employment

Sector	Net Employment Flows	
	2009-2016	2017-2019
Agriculture	+	-
Electricity & gas supply industry	-	-
Fuel industry	+	-
Metallurgical products industry	-	+
Chemicals, Plastics, Rubber, Pharmaceuticals industry	+	+
Machinery & equipment building industry	-	+
Textile, garments, leather industry	-	+
Food processing & beverages industry	+	+
Furniture, woods, paper products industry	-	+
Construction industry	+	+
Transport & communications services	+	-
Accommodation & Catering services	+	+
Other services	-	+
Other manufacturing	-	+

Source: World Bank Growth Diagnostics – An Update (Forthcoming 2022)

29. **This sequencing of Uzbekistan's reforms is largely consistent with other economic transitions globally.** The sequencing of reforms has been similar in Uzbekistan and among the first reformers in Eastern Europe and East Asia. Areas that require more fundamental restructuring and deeper rethinking on the role of the government have tended to take longer. What may be different in Uzbekistan is that the speed and breadth of reforms have sometimes been emphasized more than the depth, the clear link to results, and careful implementation. The pace of reform has been mixed but appropriate, given that reforms are dependent on experience with markets and prices, initial conditions, and institutional strength. In comparators such as Estonia, Poland, and Russia, the first year of transition was dedicated to market liberalization, small privatization, the building of essential market institutions (including in financial sector development), and controls on medium and large SOEs to forestall asset stripping. During years 2 and 3, the authorities developed market institutions and started the privatization of medium and large firms. During year 4, privatization continued, and best practices in corporate governance were introduced among the remaining SOEs. Based on this timeline, Uzbekistan's reform program has proceeded in line with comparators in terms of market and trade liberalization, modest privatization, and the building of essential market institutions. But privatization among both SOEs and state-owned commercial banks (SOCBs) has barely begun. The same is true of the introduction of best practices in corporate governance. Deeper reforms to reduce state control and landownership have also moved slowly.

Looking to the future

30. **Poverty reduction and rapid economic growth are the country's overarching development targets for 2030.** In his January 2020 address to the Oliy Majlis (Parliament) of Uzbekistan, President Mirziyoyev announced preparations for a new strategy to reduce poverty, using the term for the first time in an official setting. In 2021, Uzbekistan's leaders established an official definition of poverty and committed to cutting the poverty rate in half by 2030. In 2021, the authorities also announced their target to reach gross national income per capita of US$4,200 by 2030, bringing Uzbekistan to upper-middle-income status in the World Bank classification. This lofty target requires annual national income growth

per person of 9 percent–10 percent, which the government acknowledged can only be achieved through greater private sector–led growth.

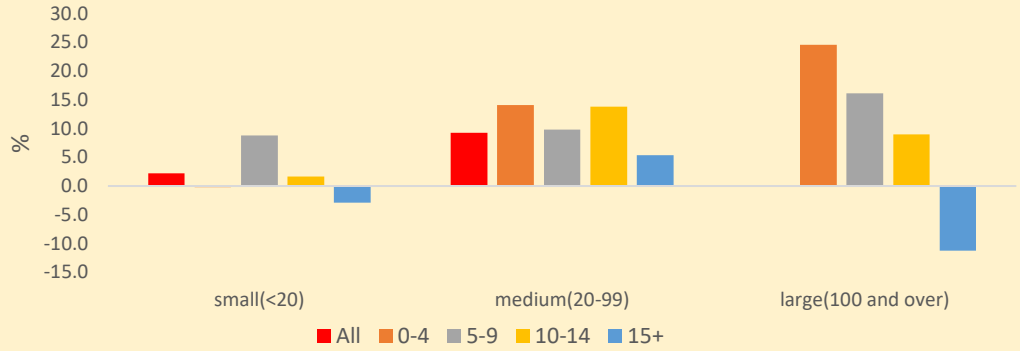
31. **The first phase of reforms has set the stage for an effective transition, but it is still early in the process.** The country is at an early stage of transition, and the state continues to play a dominant and pervasive role as a producer in the economy. This involvement tempers private sector investment and job creation. It creates the risk that vested interests may capture or slow the transition process, and it elevates fiscal and macroeconomic risks. Compounding these challenges is the slow pace of public sector transformation, especially in areas such as public investment management, effective regulation, investment in human capital, and the decentralization of public service delivery. Overcoming these challenges is critical to sustaining the effective, inclusive, and sustainable transition process needed to achieve the ambitious 2030 development objectives for Uzbekistan.

Part 2. A Strong Private Sector Response

Key Insights: Part 2

Uzbekistan's private sector is slowly emerging from the constraints of old policies. Under Uzbekistan's past model, tightly state-controlled capital was overinvested in high-growth but less job-creating activities, such as mining and metallurgy. Land allocation was rigidly directed by the state, and workers were prevented from moving out of activities characterized by low labor productivity. A preferential policy regime favoring state-led investments further limited the private sector's ability to improve productivity through greater efficiency, competition, and innovation. Disproportionate tax and regulatory burdens on medium and large enterprises created strong incentives for private sector firms to remain small, informal, and inefficient (figure 9). The net effect of these policies was to constrain severely the growth and emergence of a strong, competitive, and productive private sector.

Figure 9 Annual Employment Growth, Formal Private Sector, by Firm Size and Age, Uzbekistan, 2016–19



Source: World Bank calculations; data of Enterprise Surveys (dashboard), World Bank, Washington, D https://www.enterprisesurveys.org/en/enterprisesurveys.

Addressing the jobs deficit requires removing constraints that stop private sector firms from entering, competing, and growing. Many reforms have been enacted since 2017 to improve the private sector environment, but the private sector remains constrained through inefficient, state-controlled factor markets, policies that support the market dominance of SOEs and reduce outward economic orientation, weak market institutions, and poor infrastructure. As reforms in the agriculture sector have shown, addressing these constraints can have a rapid impact on the pace of job creation and income growth, especially in rural areas where most of Uzbekistan's poor are located.

Improving the allocation of land, labor, and finance

32. **Markets continue to play a minimal role in determining how land, labor, and finance are used in Uzbekistan.** Aside from a handful of oil-rich countries, the development trajectory of every high-income country in the world today has depended on the structural transformation process to reallocate land, labor, and capital to the most productive uses. Markets are especially adept at efficiently supporting such continuous reallocations. But, in Uzbekistan, centralized decisions from the state—rather than market mechanisms—determine how these resources are allocated and used across sectors of the economy.

33. **Improving factor market efficiency is necessary for the emergence of a stronger private sector that creates more and better jobs, especially in historically neglected sectors such as services.** The process of resource reallocation inevitably leads to greater economic complexity, rising productivity, and

rising incomes. As transformation gains momentum, growing service and manufacturing sectors—often concentrated in urban areas—create more and more well-paying jobs that attract workers from other sectors such as agriculture. For high-income countries on the other end of this transformation, this has not come at a cost of lower agricultural output. In high-income countries, agricultural output has instead continuously increased over the past several decades, even as agricultural employment has accounted for only about 3 percent of the workforce in 2019, while services accounted for more than 64 percent.

Land

34. **Though improving, centralized land allocation and weaknesses in land administration have prevented the formation of an efficient land market.** Land use and the ability to sell or transfer land remain strictly regulated, though the legal environment is now under substantial revision. Most rural agricultural land is reserved exclusively for wheat and cotton. Prior to 2019, land allocation decisions were made exclusively by regional governors, who had near-absolute power over land use rights in their regions. In 2020–21, land allocation decisions in Uzbekistan were required to be made by elected regional bodies, in consultation with regional governors. This system is in the process of being replaced by a market-based approach. Other rural land parcels are subject to restrictions, both formal and informal, on the crops that the land will be used for, limiting the flexibility of land use. In urban areas, the acquisition and development of land are complex and bureaucratic and involve numerous steps requiring central and local government agency approvals. Urban planning documentation, such as general or master plans, is often absent or outdated and heavily centralized, creating risks of an urbanization process that cannot adapt to local productivity and agglomeration dynamics.

35. **Land use is constrained by weak land tenure and inflexible land use rights among citizens and firms.** Almost all land—both agricultural and urban—is state owned. A new law adopted in 2021 allows the sale and transfer of urban land, though it is still in the early stages of implementation. Land allocation decisions and use permissions are made by local authorities, rather than market mechanisms. Until recently, buildings in designated urban areas could be freely owned, but the land underneath the buildings was leased or held via land use rights that offer limited levels of land security. As a result, land was rarely acceptable as collateral for bank financing. Agricultural land and most nonresidential urban land can still not be transferred via sale or lease. The inability to transfer land rights, the insecurity of land tenure, and the rigidity of land use rights are the biggest constraints to a functioning real property market (Törhönen 2002; USAID 2005). The absence of a market for urban and agricultural land are among the most frequent constraints cited by domestic and foreign investors (IMF 2019; USAID 2005; World Bank 2018a).

36. **Data and information gaps slow the reform of land policies, administration, and taxation.** Although the cadastral system is improving, 10 percent of land parcels in the country are unregistered, and, outside of urban areas, parcel boundaries are often imprecise. There is currently no multipurpose national spatial data infrastructure uniting spatial data and other data across public institutions, the private sector, and individuals. Real estate markets are underdeveloped and nontransparent because of data gaps in the cadastral system and the absence of reference market values for land. These are prerequisites for ongoing land taxation reforms that will establish unified land values and real estate tax based on market values (box 3). These gaps increase the risks from illegal transactions and limit measures to strengthen transparency and accountability.

Box 3. The Challenges and Opportunities of Urban Land Reform

Nonagricultural land reforms are expected in 2022 following the adoption of the new Law on the Privatization of Nonagricultural Land, in November 2021. Although implementing regulations for this law have not been finalized, a pilot project in Syrdaryo Region revealed several shortcomings in current procedures, which may be addressed by an update to regulations expected in 2022. The government's proposed measures will be a key reform in an effort to improve the protection of private property rights and increase domestic and foreign investor confidence. The proposed measures will also protect the owners of buildings for which land rights have not yet been transferred. Implementation will require three complementary institutional reforms, as follows:

Modernizing the planning process. Most institutions involved in land use planning were established in the Soviet era, and planning procedures are antiquated. The rigid and outdated approach to urban planning restricts needed development and housing supply in high-demand areas, raising costs and driving economic exclusion, especially in and around Tashkent. An outdated planning process also limits integrated urban development, a critical pillar of sustainable urbanization and a transition to greener cities in Uzbekistan. The widespread use of general plans does not allow officials to predict or adapt to longer-term urban development needs and plans not linked to socioeconomic development strategies or local economic development needs. The rigidity of existing plans severely constrains infill development, while ignoring trends outside city limits, encouraging haphazard development in the periphery of denser cities and urban sprawl. Incentives for such inefficient urban development results in a less ecologically sustainable footprint, while increasing the future costs of regularization and public services.

Decentralizing finance. The currently highly centralized public financing system is another legacy of the Soviet system of centralized governance. Current practice limits the authority and resources available to local authorities to identify and address localized problems quickly. Local hokimiyats (city administrations) have no power to levy taxes and little discretion over budgets and spending. This limits the scope of local perspectives in the urban transformation process. However, since 2017, municipalities have been permitted to retain and spend additional revenue collected through fees and other processes on approved budget revenue targets. This has provided some hokimiyats with modest resources for localized investment decisions.

Accelerating cadastre modernization. There are around 10 million registered real properties in Uzbekistan, 60 percent of which are in urban and per-iurban areas. Until recently, records were often maintained in paper form, stored using an undisclosed coordinate system dating back to the Soviet-era, and spread across multiple information systems under the responsibility of multiple government institutions. This severely constrained the optimization of land use and the maintenance of records on real property assets that are critical to the security of land tenure. Work to modernize and streamline these systems has advanced in recent years, with a clearer distribution of responsibilities between the newly created Cadastral Agency under the State Tax Committee (managing nonagricultural land) and the Ministry of Agriculture (responsible for agricultural land). The Cadastral Agency is now exclusively responsible for recording information on cadastre and land registration, residential and nonresidential buildings, and mortgages. The new agency is implementing reforms to strengthen the valuation process, expand engineering capability through a licensing system, enforce the mandatory use of digital auctions for nonagricultural land allocations (formerly the remit of hokimiyats), and finalize the digitalization of cadastral records. Significant work remains, however, in streamlining laws and regulations for land and real property and in developing a new and harmonized Land Code that reflects the modernization work done so far. The World Bank is collaborating on a roadmap in 2022 for land sector reforms covering the privatization of agricultural land, valuation, and state property management.

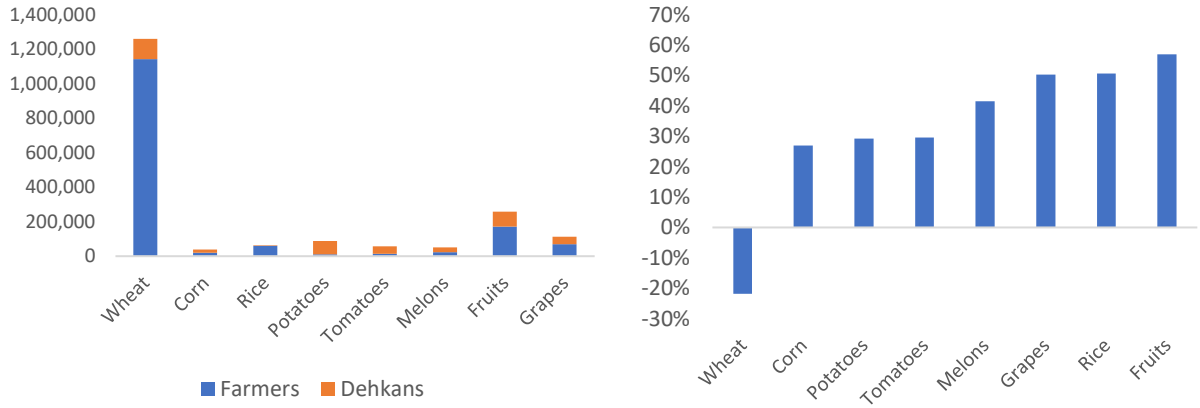
37. **Land use restrictions drive underinvestment in rural land.** In farming, non-dehqon (non-smallholder or nonfamily) farmland is leased via open tenders for up to 50 years, but not less than 30 years. The tenant normally has a preemptive right to renew the lease after its expiration. Land plots cannot be privatized and cannot be sold, gifted, or exchanged. In contrast to dehqon plots, a farmer who leases a non-dehqon plot may offer the lease as collateral to obtain loans. However, despite this de jure regime, de facto constraints on tenure and security are prevalent. In a pilot study of 7,000 farmers by the Ministry of Agriculture, the average land tenure on plots was only 1.5 years (Gazeta.uz 2019). Land rights

can be terminated by discretionary and ill-defined procedures, such as misuse, irrational use (as expressed in yields below cadastral valuation norms for three years or nonuse within one year), declines in soil fertility, and environmental degradation. Often, land use permissions are not formalized at all, and criteria are subject to misapplication by local authorities. This leads to uncertainty and drives underinvestment in the maintenance and productivity of rural land.

38. **Converting more agricultural land to private or dehqon-style arrangements promises substantial productivity gains.** Small dehqon plots—less than 0.5 hectares on average—carry lifelong, intergenerational tenure, with few conditions that could lead to legal termination. While they cannot be sold to a third party, dehqon plots can be inherited within the family. Relative to other landholdings, dehqon farms are exceptionally productive (figure 10). Although they represented only about 14 percent of the agricultural area under cultivation in 2019, they produced over 68 percent of agricultural output that year. This is partially because dehqon farms largely produce higher-value horticulture and livestock products compared with non-dehqon farms, which produce over 80 percent of total cotton and wheat output. But this is also because, except for wheat, dehqon farms are consistently more productive than non-dehqon farms for the same crops (figure 10).[19]

Figure 10. Area under Cultivation and Dehqon Yield Advantage, Selected Agricultural Products

a. Area cultivated, total hectares **b. Dehqon yield advantage, production per hectare**



Labor

39. **Unemployment is high; wages are abnormally low; most work is informal; and a large share of the working-age population is out of the labor force**. According to estimates of the International Labor Organization, to achieve employment growth of 1 percent required GDP growth of 5 percent in Uzbekistan between 2010 and 2018, more than twice the average among developing economies (ILO 2020b). Those jobs have not proven especially remunerative. In total, the labor share amounted to only 41 percent of national income in 2017, far below the Europe and Central Asia regional average of 55 percent according to a modeled estimate of the International Labor Organization. The modest pace of wage growth, in contrast to the relatively robust pace of GDP growth, suggests that the income share has fallen further since that time. The State Committee on Statistics estimates that the unemployment rate reached 10.5 percent of the active labor force in 2020, up from about 9.0 percent in 2019 before the pandemic. Another 34 percent of the working-age population were inactive (that is, not working or not looking for work).

[19] Data of the State Committee on Statistics on agricultural output in 2019.

Both measures are partially the result of the limited number of jobs available. There were about 1.1 million jobs created in 2018, including informal and small-scale agricultural work, far short of the growth in the labor force of more than 200,000.[20]

40. **To generate inclusive employment growth, the government and stakeholders must address the country's legacy of harmful state intervention and limited economic freedoms among workers.** Following independence, the government maintained or expanded a range of policies that reduced employment choice and economic freedom. Forced labor was pervasive in the agriculture sector until recently. Private enterprise was either highly regulated or illegal. Relocating within Uzbekistan to locations where jobs were more abundant was restricted under the propiska registration regime, and, until reforms were adopted in 2019, it was illegal for a person to apply for a job outside of their region of registered residence. In short, labor was prevented from moving freely across industries in response to wage differences that signaled areas of competitive advantage. Permits and occupational licensing, along with severely limited access to requisite training opportunities, artificially excluded most workers from more well-paid professions. Combined with the high taxation of labor income, such heavy-handed regulation contributed to slow employment growth and high rates of informality. In 2019, about 59 percent of total employment was informal, and, of all people employed in 2019, only about 35 percent held a labor book, a document recording their years of work and their pension rights.[21]

41. **The economic surplus generated by state-directed agriculture largely accrued to the state instead of to workers**. Because the state set wages and engaged in forced labor, the chronically low wages and productivity in the agricultural sector were largely the result of state intervention. This also led to lower national wage rates among similar workers in other industries. Under the agricultural production model followed between 1991 and 2017, the state was the monopsonist buyer of cotton and wheat, the predominant crops grown in the country. Farmers were given strict production quotas for these goods, which could only be sold to the state at a fixed price that was far below the export price. The state claimed the difference between farmgate and export prices, placing a low ceiling on the incomes of farmers and agricultural workers. Noncompliance with production targets or monopsony arrangements was punishable by fines of up to 300 times the minimum wage, correctional labor, and up to three years in prison.[22] The state allocated highly subsidized financing, as well as inputs such as fertilizer and water. The state was also often directly involved in mobilizing labor at compensation levels that were strictly controlled, especially during the harvest season. These practices suppressed rural incomes and led to severe labor shortages, ultimately contributing to the widespread use of child labor and forced labor in the agricultural sector (ILO 2020a). In 2018, real agricultural output per worker reached UBZ 23 million, but real agricultural labor income per worker was only UBZ 6 million, only about a quarter of the total.[23] This state leadership of agriculture did not generate strong productivity growth relative to Uzbekistan's peers. During the 2010s, agricultural value added per worker rose by less in Uzbekistan than in any other country in Central Asia and by much less than either the average in the Europe and Central Asia region or among lower-middle-income countries elsewhere in the world (figure 11). Official statistics likewise

[20] This includes about 152,500 job vacancies, 188,000 vacancies owing to death or illness, 169,500 seasonal or part-time job vacancies, 48,000 jobs reserved for socially vulnerable workers, and 155,800 opportunities for self-employment on smallholder land plots and dehqon farms.

[21] See data of the Ministry of Employment and Labor Relations of Uzbekistan, at https://mehnat.uz/en.

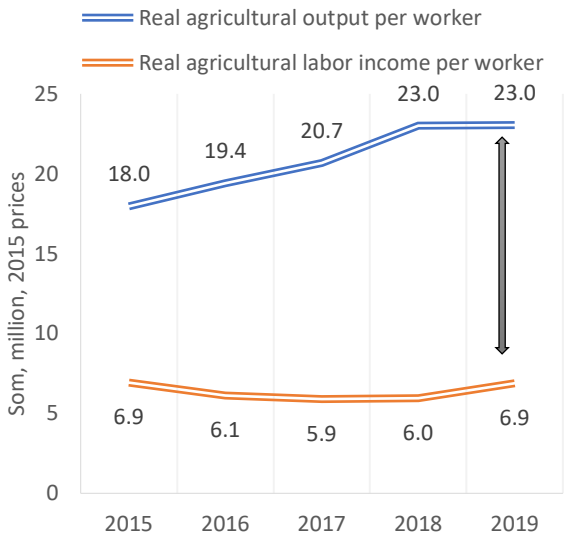
[22] Article 186 of the Criminal Code.

[23] In 2015 terms, adjusted for inflation.

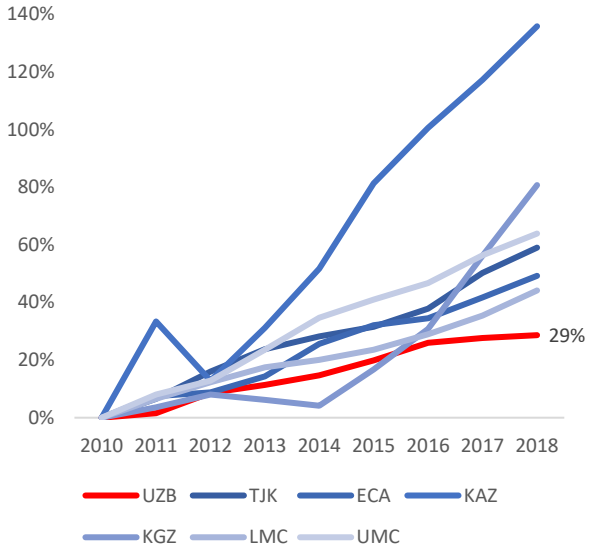
suggest that, at about 27 percent of employment in 2020, the agricultural share has remained unchanged since at least 2010, and more than half of agricultural workers are subsistence farmers.[24]

Figure 11. Agricultural Output, Income. and Value Added per Worker

a. Agricultural output and labor income



b. Growth in agricultural value added per worker



Sources: Data of the State Committee on Statistics; World Bank calculations based on data of the 2015–19 household budget surveys.

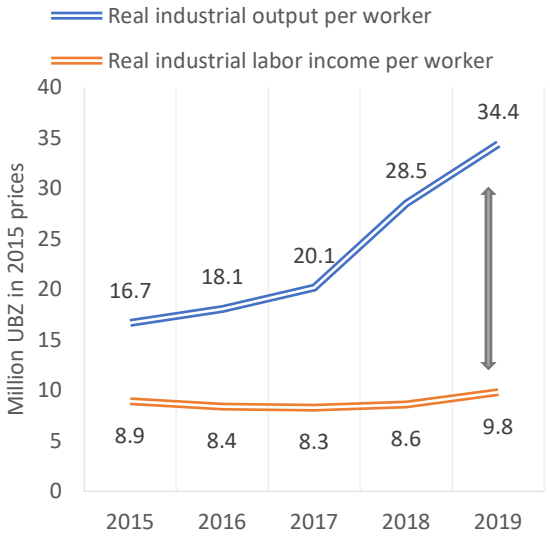
42. **Although reforms have addressed some of the most challenging issues in the agriculture sector, large barriers to inclusive growth persist.** State involvement in the agriculture sector has been steadily withdrawn since 2018 (ILO 2020a, 2021). In 2020, the government officially ended the use of cotton production targets and mandatory surrender requirements, which is expected to remove the main driver of the remaining cases of forced labor. Forced labor may continue to be a risk in areas with labor shortages, but ongoing surveillance and strong enforcement to combat illegal practices leave the complete eradication of this oppressive policy within the government's immediate grasp. However, private enterprise and job growth in agriculture are still constrained by heavy-handed state intervention. Aside from small dehqon family plots, agricultural land allocation and the purposes for which land can be used are fully under state control. Regulations governing the cluster model in cotton production are associated with severe market distortions that reduce the bargaining power of agricultural workers and famers. Farmers have no choice over the crops they produce or the inputs they use on land allocated to them. Land allocated for wheat and cotton production is especially strictly regulated. Farmgate prices for cotton are still administered, and farmers are still required to sell cotton to a single monopsonist buyer designated by the state. Compensation for cotton-picking has increased only modestly relative to the value added per worker, and cotton-picking pay rates are still set by government decree rather than market mechanisms (though, in principle, higher rates could be offered to seasonal workers in the cotton industry, this is uncommon in practice). Because agriculture represents an outsized share of employment and income among the poor and the bottom 40, these extractive policies run counter to the country's goal of generating inclusive growth.

[24] See "Employment in Agriculture (% of Total Employment) (Modeled ILO Estimate): Uzbekistan," World Bank, Washington, DC, https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=UZ.

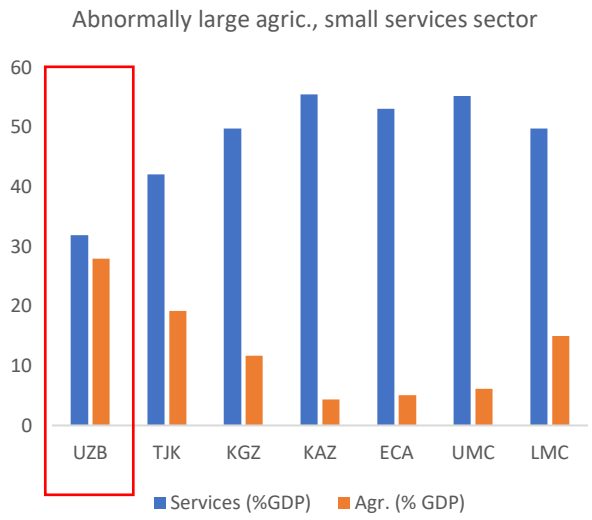
43. **The state's accumulation of resources reduced incomes in agriculture and other sectors.** Over the past decade, the capital stock increased fivefold mainly through investments (largely from the national sovereign wealth fund), budget subsidies to SOEs, earnings reinvestment through SOEs, and other targeted industrial policies. But partly because wages are determined (over a long enough time horizon) within a national labor market that includes strongly distorted sectors such as agriculture, labor income growth in industrial jobs has lagged even as industrial output per worker has increased, as has been the case in agriculture and services. In 2015–19, real industrial output per worker more than doubled, from UBZ 16.7 million per year to UBZ 34.4 million (figure 12). Real industrial labor income per worker, however, rose by only 10 percent, from UBZ 8.9 million in 2015 to UBZ 9.8 million. According to the household budget survey, this output growth was not matched by growth in employment. At 23 percent of total employment, the manufacturing and industry share remained nearly unchanged in 2015–19. This suggests that labor market rigidities are preventing labor reallocations to the most productive sectors of the economy and stifling wage and employment growth. As in agriculture, this implies that most gains from productivity growth in recent years have accrued to capital (and the state, through SOEs) instead of workers. Despite reforms in recent years, the gap has widened since 2017.

Figure 12. Industrial Output and Income and the GDP Share of Agriculture and Services

a. Industrial output and labor income



b. Agriculture and services in GDP, selected countries



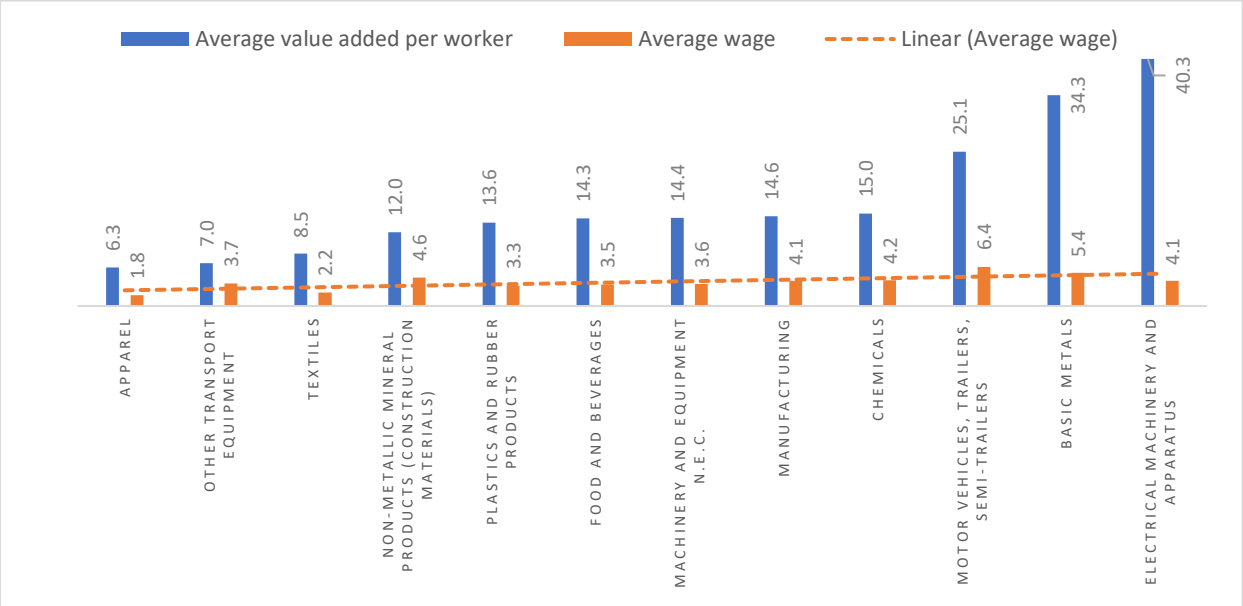
44. **Meanwhile, Uzbekistan's beleaguered services sector is among the smallest in the world.** Unlike other post-Soviet transition economies that encouraged rapid service sector growth, Uzbekistan's services sector, including transportation, financial services, health care, education, professional services, and most activities related to tourism, was severely neglected in favor of the industrial and agricultural sectors.[25] In 2020, the services share of value added in GDP was smaller in Uzbekistan than in any other country in the Europe and Central Asia region and far smaller than the average in lower- and upper-middle-income countries elsewhere. The limited growth in the services sector is a special cause for concern. Globally,

[25] This was largely a continuation of the Soviet approach, whereby agriculture and industry were considered productive sectors, while services were assigned less importance. See Marginson (1998).

services exhibit the highest average employment-growth elasticity among sectors and are commonly a locus of rising employment in growing economies.

45. **Wages in Uzbekistan are not strongly correlated with sectoral productivity, limiting the incentive among workers to move between sectors or regions**. The primary function of the labor market in a market economy is to allocate labor resources efficiently. This is achieved through adjustments in relative wage rates that reflect differences in marginal productivity and the relative scarcity of labor. But wages in Uzbekistan have remained quite equal across sectors for decades, creating fewer incentives for intersectoral movements of workers (figure 13). Several rigidities have contributed to this outcome. In the public sector, the base salary for a position is not linked to performance, and all job groups, including political appointees, are on the same base salary matrix, the unified wage scale (which contains almost no horizontal variations) and links most wages structurally to progressions of the minimum wage. State-led wage-setting arrangements, including the pay of agricultural workers in activities such as cotton farming and harvesting, affect both SOEs and public sector workers, and flat indexing policies based on a national standard also contribute to a relatively flat wage distribution among the employed. As a result, the state is the de facto wage setter across much of the economy.

Figure 13. Average Value Added per Worker versus Wages in Manufacturing, 2018, *US$, 1,000s*



Sources: United Nations Industrial Development Organization and World Bank calculations; World Bank 2018a.

46. **Concentrated market power among employers is typically not counterbalanced by unions and other worker organizations in Uzbekistan.** Uzbekistan performs poorly on measures of market competition, and the economy is one of the most concentrated national markets in the Europe and Central Asia region (see below). Much of this concentration relates to SOEs. About 40 percent of SOEs operate in direct competition with private firms, while, in most other areas, SOEs represent monopolies within their markets, which conveys considerable market power with respect to hiring. Such high market concentration can negatively affect employees and the labor market in several ways. First, global evidence suggests that, if collective bargaining is not available, wages are often negatively correlated with market concentration. Lower competition among firms increases the market power of the firms that dominate and ultimately undermines the bargaining position of employees with respect to wages and conditions (if this trend is not countered by other factors that strengthen the bargaining position of workers). Second,

firms that operate in positions of monopoly typically create jobs at much lower rates than businesses in competitive markets. Though recent regulations have provided additional protections for the independence of trade unions, trade unions in Uzbekistan since 1991 have been structured to represent the interests of both workers and the state simultaneously, limiting their autonomous role in bargaining over employment conditions and compensation. In recent high-profile cases, the authorities enforced restrictions on strikes and other work disruptions, weakening the bargaining power of unions and other worker organizations. Because of these widespread de facto limitations on collective bargaining and the formation of independent trade unions, highly concentrated market power among employers is typically not counterbalanced, which likely contributes to the country's sustained low wage share in national income.

The financial sector

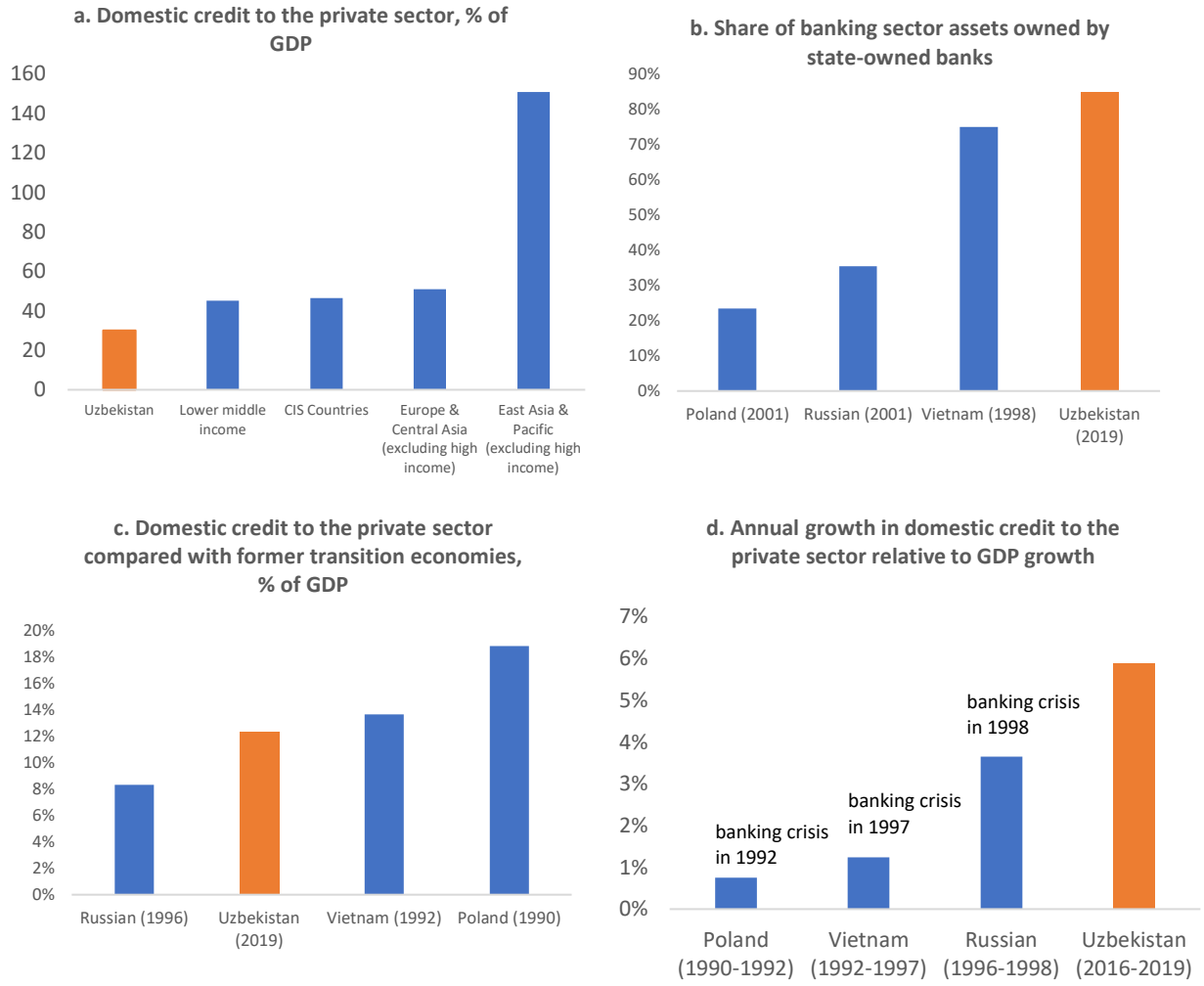
47. **Uzbekistan's private sector lacks access to finance and financial services because of low levels of competition and the dominance of state-owned banks.** The banking sector is highly concentrated and dominated by the state, and it engages in directed lending to SOEs at below-market rates. Of the total 32 commercial banks at the end of 2020, 13 SOCBs held 85 percent of the total sector assets and accounted for 88 percent of total credit (figure 14, panel b). Until recently, almost half of the SOCB loan portfolio consisted of loans to SOEs, and organizations assisted by the government budget. Preferential lending—about 80 percent of total loans in 2018—was provided to areas of priority identified in state industrial policy. Since 2017, preferential lending has focused on additional areas, such as low-income housing and support for entrepreneurship, agriculture, and other sectors. SOCBs funded their lending activities predominantly through long-term government, the Uzbekistan Fund for Reconstruction and Development (UFRD), and foreign bank credit lines. This practice reflects the political mandate to grant the loans and the soft budget constraints arising because of the availability of UFRD funding and equity injections. These policies have historically crowded out private sector access to finance. Access to finance among small and medium businesses remains a significant challenge in Uzbekistan compared with peer countries. According to the World Bank Enterprise Survey, only about 22 percent of Uzbek firms had access to loans in 2019 compared with the average of 28 percent in lower-middle-income countries and 38 percent in Europe and Central Asia.[26] Micro-, small, and medium enterprises also lack access to an appropriate range and quality of financial products, while most lending products require substantial collateral.

48. **Uzbekistan's financial sector is at an early stage of development, creating growth opportunities but also increasing the risk of financial crisis.** By broad measures of financial deepening, Uzbekistan falls behind averages among or developing countries in Europe and Central Asia and in East Asia and the Pacific. It also lags countries of the Commonwealth of Independent States (CIS) and lower-middle-income countries (figure 14, panel a). Compared with other transition countries, such as Poland, Russia, and Vietnam, which had similar economic structures prior to transition, state ownership in the banking sector is more prevalent in Uzbekistan at the early stages of transition (figure 14, panel b). In parallel, benchmarking Uzbekistan's credit growth (driven primarily by state-owned banks) to that of the other transition countries reveals that Uzbekistan may be expanding credit too quickly. In countries such as Poland, Russia, and Vietnam, which, during the early transition, had similar stocks of credit to GDP (figure 14, panel c), credit grew more slowly than it has in Uzbekistan over the last few years. Even with slower credit growth, they each still experienced banking crises (figure 14, panel d). These experiences suggest

[26] Account ownership is high among micro-, small, and medium enterprises, about 84 percent, compared with 95 percent in Europe and Central Asia.

that Uzbekistan faces a significant challenge in deepening financial intermediation in the economy, while avoiding the painful economic consequences of a banking crisis.

Figure 14. Benchmarking Financial Deepening, Uzbekistan, and Peers



Sources: ADB 1999; 2003 survey, BRSS (Bank Regulation and Supervision Survey) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/research/brief/BRSS; data of Central Bank of Uzbekistan, International Monetary Fund, and World Bank; Laeven and Valencia 2018.

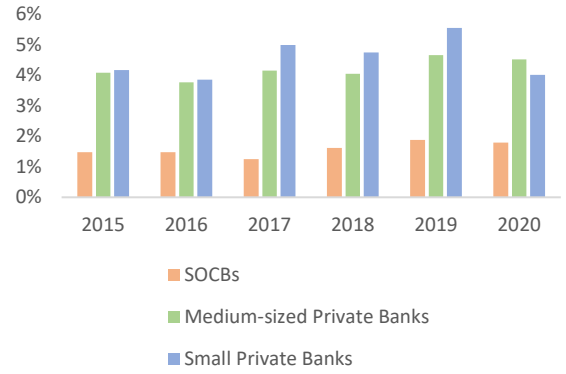
49. **Uzbekistan's financial system is relatively unsophisticated and heavily concentrated on commercial banking activity.** Commercial banks account for more than 95 percent of total financial sector assets. Nonbank credit organizations include microcredit organizations, leasing companies, and pawnshops and account for only 0.2 percent of Uzbekistan's banking sector assets. These underdeveloped nonbank financial organizations and capital markets provide virtually no viable alternative to bank finance. Capital markets are practically nonexistent, while the insurance sector is small and dominated by state-owned financial institutions. Thus, for instance, the three largest state-owned insurance companies (out of 28) account for 36 percent of total premiums.

50. **Policy lending, weak governance among SOCBs, and low competitiveness of banks translate into financial sector inefficiency, which causes credit and capital misallocation.** Although credit may play a

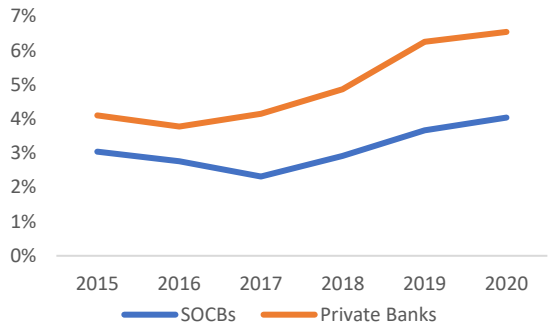
more intensive financial role in some sectors, there are signs pointing to the misallocation of credit to less productive and SOE-dominated activities. Some sectors receive much less credit than may be desirable for productive growth (figure 15). For instance, despite their large contribution to GDP, agriculture, trade, and services receive less attention from banks. By contrast, industry and transport, which are dominated by SOEs, benefit from more lending, especially from SOCBs.[27]

Figure 15. SOCBs Are Much Less Profitable Than Private Banks

a. SOCBs have lower returns on average assets than private banks



b. SOCBs have lower net interest margins than private banks



Sources: World Bank calculations; data of the Central Bank of Uzbekistan.

51. **Private banks, though small, mainly serve the private sector and are more profitable than state-owned banks.** With an average equity of US$48 million, 19 private banks operate in Uzbekistan.[28] Their loan portfolio amounts to less than 60 percent of their total assets, on average, while liquid assets and interbank exposures amount to about 30 percent. Unlike SOCBs, private banks fund their operations mostly through retail deposits, which account for more than 60 percent of their liabilities. The remaining funding originates from foreign banks and international development finance institutions (about 15 percent) and SOE and state deposits (about 9 percent). Compared with SOCBs, private sector banks generate higher returns on assets and equity and show better efficiency indicators. The large scale of SOCB operations and low level of staff specialization, however, lead to lower operational and wage costs among SOCBs relative to private sector banks.

52. **The financial system is rarely used by households to save or borrow.** Precautionary motivations are the primary reasons people report saving in Uzbekistan, especially to provide for health, medical, or emergency needs (25 percent) (IFC 2020). The health care system places a relatively high burden on patients. Few account owners in Uzbekistan use the formal financial system to save (10 percent of adults). Instead, about 78 percent of adults prefer to save informally by keeping money at home. Other savings methods include informal clubs, saving with family and friends (22 percent), and purchasing assets (18 percent). Informal borrowing is also common, especially among friends, family, or work colleagues, and 36 percent of the population reported borrowing from informal channels, which is higher than the Europe and Central Asia average (26 percent) and the average among lower-middle-income countries (24

[27] In addition to state direction, lending to larger SOEs is often more convenient for banks because these enterprises are more transparent and less risky than private businesses in riskier sectors, such as agriculture, trade, and services.
[28] The smallest have equity of only US$14 million, while larger ones have equity at US$60 million–US$130 million.

percent). Few people use the financial system to borrow. As the reason for not borrowing formally, people cite high interest rates (14 percent), ineligibility (10 percent), and lack of trust (4 percent) (IFC 2020).

53. **The insurance market is unknown and unused.** Awareness and use of insurance products are even more limited: only 14 percent of adults are aware of insurance products, of which 24 percent use some form of insurance. Men (32 percent) are more likely than women (17 percent) to buy insurance. Rural residents (26 percent) are slightly more likely than urban dwellers to buy insurance products.

Increasing competition

54. **Underdeveloped market institutions constrain the level of competition in the economy, limiting private sector growth and job creation.** The degree of competition in Uzbekistan's markets is still perceived as weak compared with peer countries. According to the latest Bertelsmann Stiftung's transformation index, perceptions of the state of market competition in Uzbekistan have improved since 2016, likely the result of reforms to improve the business environment.[29] However, as of 2020, Uzbekistan still falls behind its peers in Europe and Central Asia (figure 16). This is also true of perceptions of the effectiveness of antimonopoly policy (figure 17).

Figure 16. Perception of Market Competition, Uzbekistan vs. Selected Countries, 2016 and 2020

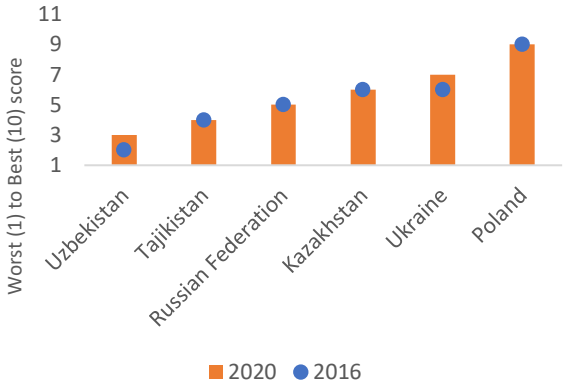
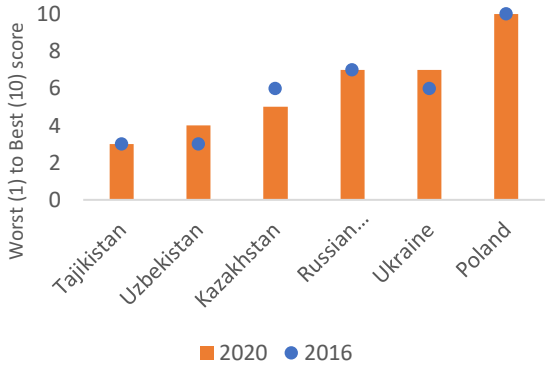


Figure 17. Perception of the Effectiveness of Antimonopoly Policies, Uzbekistan vs. Selected Countries, 2016 and 2020



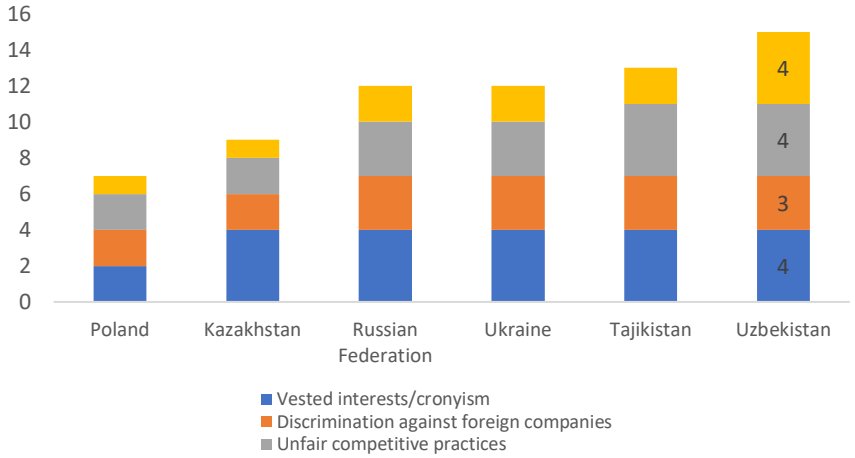
Sources: World Bank calculations; 2020 data of BTI (Transformation Index) (dashboard), Bertelsmann Stiftung, Gütersloh, Germany, https://bti-project.org/en/?&cb=00000.

55. **Regulations and government interventions limit competition.** According to the Economist Intelligence Unit, firms in Uzbekistan perceive that their ability to compete is limited by government rules that impede competition on merit.[30] The country performs at the bottom of its comparator group, particularly on the perception that vested interests are distorting economic decisions. The perception of unfair competitive practices, discrimination against foreign companies, and price controls also appears at the highest level in Uzbekistan among comparator economies (figure 18).

[29] BTI (Transformation Index) (dashboard), Bertelsmann Stiftung, Gütersloh, Germany, https://bti-project.org/en/?&cb=00000.

[30] See Risk Tracker dataset, January 2021, at Risk Briefing (dashboard), Economist Intelligence Unit, London, https://www.eiu.com/n/solutions/risk-briefing/.

Figure 18. Competition-Related Risks for Business, Uzbekistan, and Selected Countries



Sources: World Bank calculations; Risk Tracker dataset, January 2021, at Risk Briefing (dashboard), Economist Intelligence Unit, London, https://www.eiu.com/n/solutions/risk-briefing/.
Note: The figure illustrates the aggregation of four indicators, each scored on a scale from 0 (very little risk) to 4 (very high risk).

56. **SOEs dominate in important subsectors of the economy, including those that are typically the domain of the private sector elsewhere in the world.** There are currently 131 SOEs that are officially considered natural monopolies.[31] In addition, 107 firms are described as dominant in Uzbekistan, which is defined as a market share greater than 35 percent. A total of 93 of these firms are SOEs (87 percent). Many SOEs enjoy monopolies over activities that, in other countries, are usually served by a competitive private sector, such as telecommunication, public transport, airlines, and car manufacturing. In sectors in which SOEs coexist with private sector firms, such as hospitality services, chemicals, banking, and insurance, SOEs benefit from anticompetitive advantages granted through preferential access to land, cheap state-directed financing, and preferential regulatory policies.

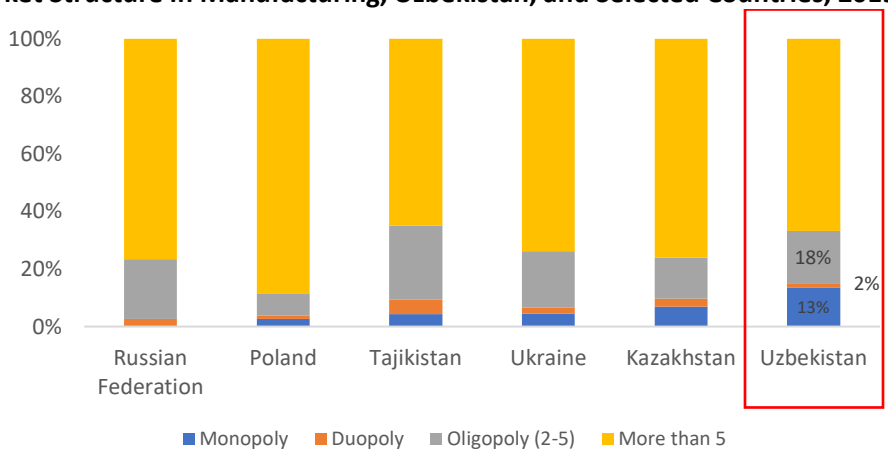
57. **Although the situation is improving, several large SOEs are still involved in regulating their own sectors.** The vertical integration of operational, policy, and regulatory responsibilities within SOEs creates conflicts of interest whereby the SOE is expected to generate dividends, while simultaneously regulating other private and publicly owned firms in the sector. In addition to incentives to limit private sector entry into markets, this structure also creates political risks that short-term goals will be prioritized to the detriment of the long-term enterprise performance of the sector. Although reforms to unbundle these responsibilities are under way, for instance, in the transportation and energy sectors, reporting lines of most large SOEs are embedded in the government's executive structure, limiting autonomy and exposure to competition.

58. **Firm-level data in the manufacturing sector show a high concentration and may suggest low competition.** Data from the 2019 World Bank Enterprise Survey suggests that monopolistic and oligopolistic market structure is widespread in Uzbekistan's manufacturing sector.[32] In 2019, the share of

[31] Quarterly update (1st quarter 2021), State Register of Natural Monopolies (dashboard), Open Data Portal, Antimonopoly Committee of the Republic of Uzbekistan, Tashkent, Uzbekistan, https://data.egov.uz/eng/data/610b8a641a64fdd0373a8f56.
[32] This is based on a representative sample of firms in the formal, nonagricultural, private economy. See Enterprise Surveys (dashboard), World Bank, Washington, DC, https://www.enterprisesurveys.org/en/enterprisesurveys.

formal private manufacturing firms that considered that their operations were being undertaken in monopoly, duopoly, or oligopoly markets was relatively high (33 percent) in Uzbekistan relative to peers (figure 19). In the region, only Tajikistan had a more concentrated structure overall (35 percent) in a much smaller sector, but Uzbekistan had by far the highest share of monopolies in the region. (In Tajikistan and other countries, more sectors at least have duopolies or oligopolies.) High levels of concentration should not necessarily be a cause for concern either because specific markets are prone to higher market concentration given their structural characteristics or because substantial market concentration can reflect a process whereby successful firms obtain larger market shares through efficiency-enhancing measures. Still, persistently concentrated markets can also be characterized by risks of anticompetitive behavior, especially in the presence of structural and behavioral barriers to entry that protect incumbent players from competition.

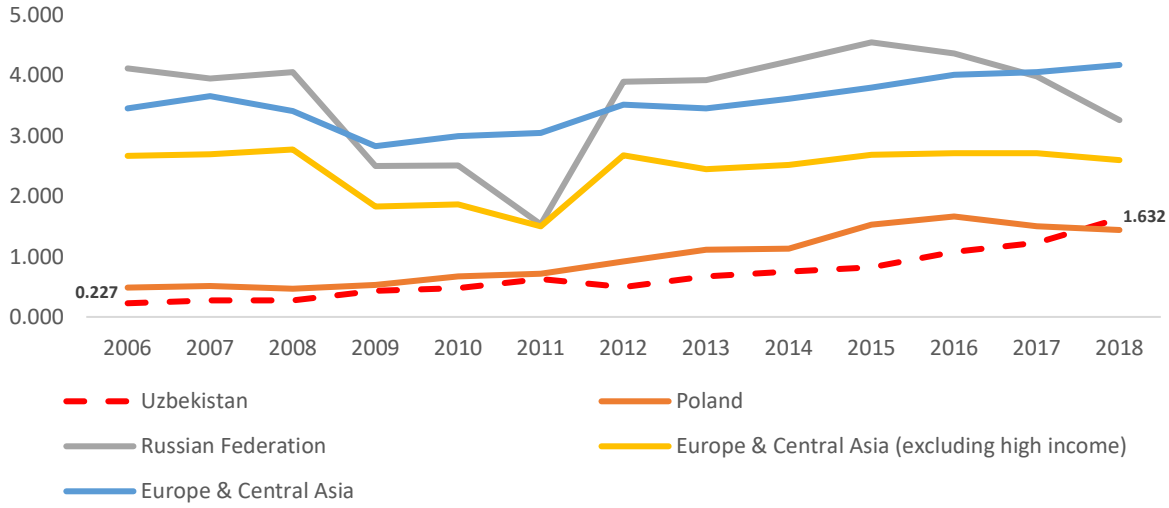
Figure 19. Market Structure in Manufacturing, Uzbekistan, and Selected Countries, 2019



Source: World Bank calculations; 2019 data of Enterprise Surveys (dashboard), World Bank, Washington, DC, https://www.enterprisesurveys.org/en/enterprisesurveys.
Note: Shares reflect the percentage of respondents answering "None", "One", "2–5" or "More than 5" to the question "For fiscal year [indicated in parenthesis], for the main market in which this establishment sold its main product, how many competitors did this establishment's main product/product line face?" "None" is coded as "Monopoly" and "One" as "Duopoly." Establishments providing no answers or whose main markets are overseas are excluded.

59. **The entry of new formal firms has improved in Uzbekistan in recent years but remains well below regional and income-group peers.** New firms play a crucial role in fostering competition and increasing pressure on incumbent firms to become productive. Reforms in 2017–20 substantially reduced the cost of opening a new business. Figure 20 shows trends in new firm entries in 2006–18 measured by the average annual number of new limited liability firms registered for every 1,000 individuals of working age. The entry density rate steadily expanded, partly because of reforms aimed at reducing the cost of regulatory and tax compliance. However, the pace of firm entry remained well below the Europe and Central Asia average. The average entry rate among formal firms also remained well below expectations based on the country's growth in average income per capita over the period.

Figure 20. New Firm Entry Density: Uzbekistan vs. Selected Countries, 2006–18



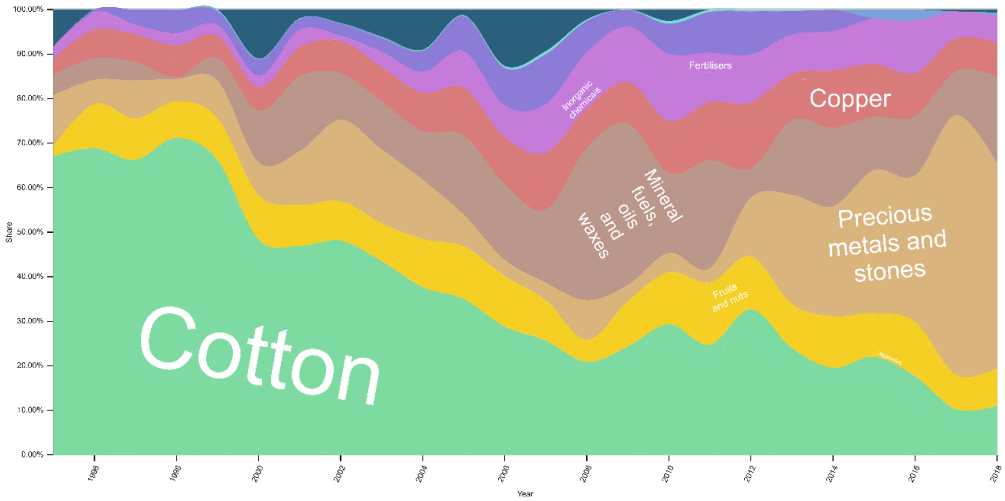
Sources: World Bank calculations; Entrepreneurship Database, World Bank, Washington, DC, http://www.doingbusiness.org/en/data/exploretopics/entrepreneurship.
Note: New business entry density is defined as the number of newly registered formal private limited-liability firms per 1,000 individuals of working age (ages 15–64).

60. **Low entry rates suggest that further competition policy reforms are needed to boost the pace of firm entry.** The entry of new firms and the growth of the firms thereafter are more closely influenced by regulations that determine market design, such as price controls and preferential access to inputs and finance. This is especially the case in subsectors with SOEs and with investor incentive agreements. In subsectors in which SOEs directly compete with the private sector, such as hospitality services, chemicals, banking, and insurance, SOEs enjoy unfair access to inputs and regulatory preferences. If combined with the dominant presence of SOEs in the sector, these interventions stifle investment and private sector market entry.

The outward orientation of the private sector

61. **Though exports have been integral to growth over the last two decades, Uzbekistan has not yet tapped into its full potential in exports.** Uzbekistan has exhibited the greatest export diversity in the Central Asia subregion, which has been the result of a concerted industrial policy over the last two decades. The declining role of cotton and the growing role of new areas of industrial expansion and diversification are illustrated in figure 24. Although Uzbekistan's exports have become more diverse, most new exports have minimal value added as measured by product sophistication and complexity. Indeed, almost all of Uzbekistan's export earnings are generated by products that are at the lower end of the complexity spectrum (figure 21, bottom panel). Between 2003 and 2018, Uzbekistan exported 31 new products (mainly textiles, chemical and metal products, and horticulture), which contributed an estimated US$11 in additional income per capita in 2018. By contrast, Vietnam exported 48 new products over this same period (mainly specialized manufacturing, electronics, processed metals, and primary products), which contributed an estimated US$1,020 in additional income per capita in 2018. This stark dissimilarity between the experiences of Uzbekistan and Vietnam highlights the importance of greater export sophistication and the role of the associated trends in supporting jobs and productivity.

Figure 21. Sectoral Composition of Exports, Uzbekistan, 1995–2018



Source: Atlas of Economic Complexity (dashboard), Growth Lab, Center for International Development, Harvard University, Cambridge, MA, https://atlas.cid.harvard.edu/.

62. **More FDI, especially in non–resource-extraction sectors, will be an essential ingredient if export complexity is to be raised in Uzbekistan.** Foreign investment typically falls into three categories: (a) investments in natural resource extraction, (b) investments to tap into new market opportunities, and (c) investments to improve efficiency. Inward FDI in the latter two areas can be especially helpful for export sophistication. FDI can also produce positive spillovers by reducing the pressure for higher public investments (such as through public-private partnerships), increasing the availability of long-term balance of payments financing, facilitating skills and management knowledge transfers, and supporting greater integration with global value chains. FDI inflows to Uzbekistan remain low relative to peers, and investment is largely concentrated in energy and natural resources. Between 2010 and 2017, net FDI inflows to Uzbekistan averaged 1.8 percent of GDP, with most coming between 2010 and 2015 as part of state-led efforts to expand production in the petrochemicals and mining industries. Between 2017 and 2020, net FDI inflows averaged 2.7 percent, with promising expansion in sectors with potential for global value chain integration, such as agriculture and transportation. Higher FDI since 2017 and the expansion of FDI outside extractives are likely the result of a better investment climate with friendly FDI regulations. But even this higher level is low relative to peers and to the expectations of private sector, government, and development partner stakeholders. Despite having low levels of FDI, Uzbekistan scores highly in international measures of FDI openness such as the OECD FDI Regulatory Restrictiveness Index. It is likely that these measures do not fully capture other entry barriers to investment, such as the presence of state ownership and monopoly controls; and restrictions to both domestic and foreign investors that are not captured by FDI openness indices (which measure restrictions applying only to foreign investors).[33]

63. **Limited foreign trade and investment exposure have contributed to declining firm productivity in Uzbekistan.** Empirical studies consistently find a strong positive relationship between exporting activities and productivity gains driven by two channels: self-selection into the export market and learning-by-exporting. Enterprise Survey data suggest that the private sector in Uzbekistan may not be benefiting from these gains. Only 5 percent of formal private firms export at least 10 percent of their sales, well below the regional average (figure 22). Within the manufacturing sector, firms that do export are typically large and more productive; annual productivity growth in these firms was 3.5 percent between

[33] OECD FDI Regulatory Restrictiveness Index 2020

2016 and 2019.[34] More freedom to import can also offer productivity benefits. Access to wider variety and higher quality in imported inputs offers firms greater possibilities to produce at lower costs or higher final product quality.[35] Enterprise Survey data show that private sector firms in Uzbekistan are not fully harnessing these opportunities either. The share of private manufacturing firms that rely on imported services or inputs is the lowest in Central Asia (figure 23). Overall, foreign-owned firms emerge as exceptional cases in terms of trade performance in Uzbekistan. They are 4.0 times more likely than domestic peers to export and 1.5 times more likely to use imported inputs (materials and services).

Figure 22. Formal Private Firms Exporting At least 10 Percent of Sales, 2019

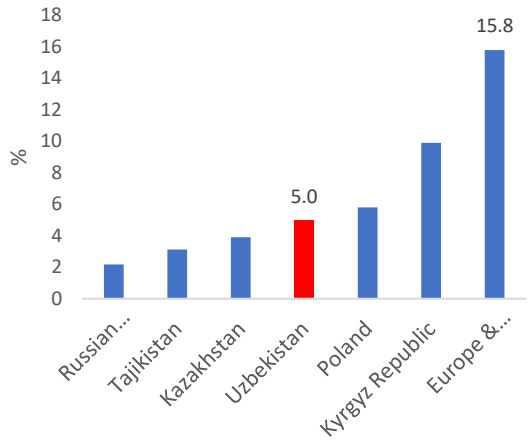
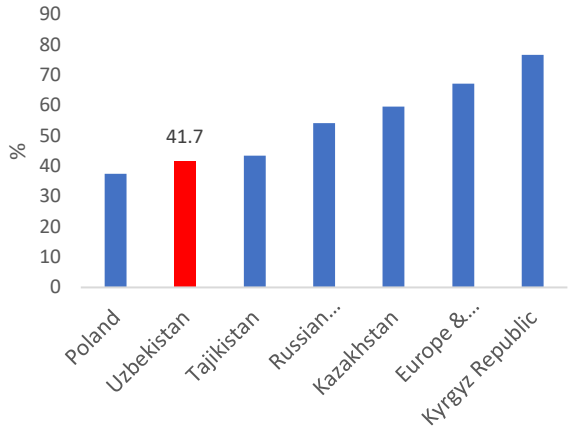


Figure 23. Formal Private Firms Using Material Inputs or Supplies of Foreign Origin, 2019*



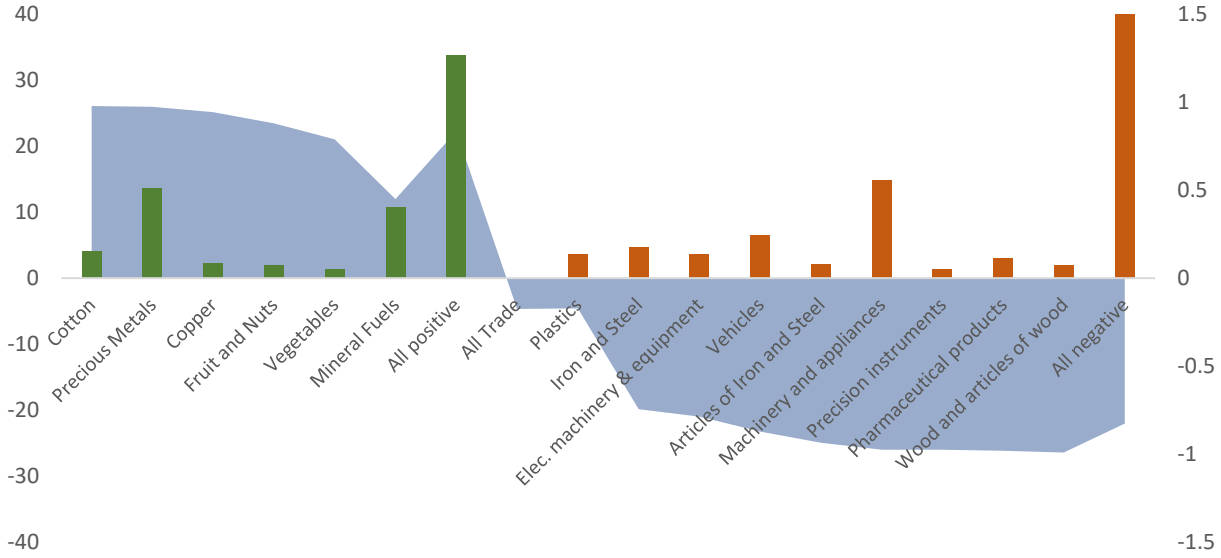
Source: World Bank calculations; data of Enterprise Surveys (dashboard), World Bank, Washington, DC, https://www.enterprisesurveys.org/en/enterprisesurveys.
* Tabulations apply only to manufacturing firms.

64. **Though close to markets where a quarter of global trade is conducted, the export share is lower in Uzbekistan's than among regional peers.** One implication of Uzbekistan's state- and resource-driven approach to development was that it led to an economy that was less reliant on foreign trade and integration with global value chains. Uzbekistan's total trade (exports and imports) fell consistently between 2008 and 2016, from about 80 percent of GDP to about 29 percent. This began changing after the reforms in 2017. Within two years of the start of the reforms, total trade had nearly reverted to the 2008 levels, reaching about 80 percent in 2019.

65. **Uzbekistan's economy currently exhibits a comparative advantage in resource-based products, and the lack of competitiveness in higher value-added sectors reflects broader economic constraints.** Uzbekistan's revealed comparative trade advantages are highly concentrated in resource-based products, such as cotton, metals, minerals, and horticulture (figure 24). Total trade (exports, plus imports) in these sectors accounted for about a third of Uzbekistan's total trade in 2017–19. The high level of concentration around relatively low–value added sectors is likely the result of the limited sophistication and global trade integration of other export-oriented industries. Yet, total trade in the sectors in which Uzbekistan's revealed comparative advantages are negative accounted for over 40 percent of total trade in 2017–19.

[34] In the same period, the annual productivity growth of nonexporters was −8.5 percent.
[35] A large literature shows that productivity gains extend to firms that directly import inputs. For instance, see Amiti and Konings (2007); Goldberg et al.(2010); Halpern, Koren, and Szeidl (2015); Topalova and Khandelwal (2011).

Figure 24. Average Revealed Comparative Advantage, 2017–19



Source: UN Comtrade (United Nations Commodity Trade Statistics Database), Statistics Division, Department of Economic and Social Affairs, United Nations, New York, https://comtrade.un.org/data/.
Note: Shaded positive (negative) areas indicate revealed comparative advantages (disadvantages). The bars represent each sector's share in total trade in 2017–19.

66. **Uzbekistan is not yet a member of the World Trade Organization (WTO) and is not well integrated in regional and global trading markets.** Although the government-initiated preparations for accession to the WTO in 1994, the process was largely neglected and eventually put on hold. An accelerated resumption is a key pillar of the 2017–21 Development Strategy. Progress was slowed by the impact of COVID-19 but is expected to gain momentum over the medium term. Following a two-year negotiation process, Uzbekistan recently became the ninth country to be granted access to the European Union's Generalized Scheme of Preferences Plus regime. The regime offers special incentives to countries that commit to sustainable development and good governance, providing 0 percent tariff access to European Union markets on two-thirds of tariff lines. Uzbekistan is also a member of the CIS Free Trade Area, which it joined in 2014.

67. **The government is evaluating membership in the Eurasian Economic Union (EAEU).** Membership includes participation in the customs union and a common customs tariff regime. In addition to trading benefits, membership allows greater freedom of movement for labor and capital. In 2020, Uzbekistan was granted observer status in the EAEU. The accession processes of both the EAEU and the WTO require substantial harmonization of regulations and tariff policy. Nontariff barriers, such as border facilitation, and the high level of state intervention in the economy are likely to be among the more difficult accession challenges involved in joining these organizations. Should the government choose to join both the WTO and the EAEU, experts typically advise safeguarding global trading relationships by first joining the WTO (which includes EAEU members Armenia, Kazakhstan, the Kyrgyz Republic, and Russia) and then regional trade agreements.

68. **The domestic services sector is poised to growth but cannot generate sufficient prosperity and well-being alone.** Uzbekistan's ongoing transition will expand domestic opportunities as households and firms begin receiving larger shares of income. Reforms to liberalize factor markets and increase resource efficiency in the economy will also help reverse decades of policies that have stymied growth in the

underdeveloped domestic services sector. This is an encouraging trend because the services sector is typically one of the most poverty-reducing sectors given that many of the associated subsectors are open to entry among low-skilled workers. These opportunities, however, are unlikely to be sufficient on their own to match the government's ambitions for the transition: substantially accelerate growth, reduce poverty, and attain upper-middle-income status within a decade. Lessons from the most rapid and successful transitions, especially in East Asia, suggest that greater outward economic orientation will be an important tool. In addition to enabling the economy to trade with larger markets, greater outward orientation can improve domestic competition, expand product diversity, and impose stronger market discipline.

69. **Greater investment in light manufacturing could accelerate poverty reduction and human capital accumulation**. The past state-led export and industrialization strategy focused on extractives and heavy industries such as mining and quarrying, oil and gas, and the manufacturing of heavy machinery, especially linked to cotton cultivation. However, it is rarely possible to engage many workers in these highly capital-intensive industries, which limits the inclusiveness of these drivers of growth. However, light industries, such as textile and apparel manufacturing, food and beverage processing, and wood, paper, plastics, and rubber product manufacturing, require relatively less capital and skills, so that they are good candidate industries for the engagement of low-income workers with low human capital. As these activities are relatively more labor intensive, they also tend to be more inclusive than more capital-intensive industries. Meanwhile, poor workers, many of whom may only have experience in the agricultural sector, could move into higher value-adding industries, earn higher incomes, and accumulate more human capital through on-the-job learning.

70. **Human capital constraints limit the economy from engagement in greater outward trade and investment orientation.** Firms in Uzbekistan cannot access the skills they need. The lack of skilled labor is cited as one of the most binding constraints on firms. This derives from significant gaps in access to higher education services and in the quality of education and training available to the workforce. These problems compound the mismatches between the skills being taught through the education system and the skills needed and valued by investors in the economy. As a host of international experiences demonstrates, addressing these gaps are critical to the efforts of the government and stakeholders to shift to higher-value goods and services and to attract and retain high-quality FDI (box 4).

Box 4. A Spotlight on Chemicals

The chemicals sector has significant private sector development potential. The sector has the potential to create higher value-added jobs, develop other industrial and services sectors, and boost exports. The economy is fortunate in having the raw materials needed to produce all types of mineral fertilizers—nitrogen (from natural gas) and potassium and phosphorous (from ores)—as well as natural gas for energy. It can produce an abundance of feedstock, methanol, petrochemicals, and downstream chemicals to support value chains. Estimates suggest that the chemicals and fertilizer industry can generate more jobs and higher-skilled employment in Uzbekistan. Estimates of the International Finance Corporation (IFC) suggest that every US$1 million invested in chemicals creates nearly 450 jobs: 21 direct jobs and 427 indirect jobs. There is also potential to improve the environmental sustainability of the sector through more carbon-efficient fertilizer production.

There is significant scope to expand the range, efficiency, and carbon intensity of the chemicals and fertilizers produced in Uzbekistan. Uzbekistan's chemical and fertilizer industries are currently narrow, mainly because of an outdated manufacturing base. Greater private sector investment and knowledge transfers could help expand the range of base chemicals, specialty chemicals, petrochemicals, and plastics of various types used in consumer goods production. This expansion could also generate downstream benefits through the substantial ecosystem of large and

small firms that add value and provide support services. Similarly, the economy also has the potential to expand the fertilizer base. Fertilizer production is largely focused on products required for cotton and wheat, but not for horticulture. Expanded production of the phosphate-based and complex fertilizers used in horticultural production could help accelerate the growth of the country's high-potential horticulture sector. It could also help expand exports.

Tapping into these opportunities requires a significant overhaul of sector policies and investment regulations. Chemical processes are capital intensive, and larger plants improve competitiveness by lowering unit production costs. The private sector is likely to be the most well placed to make such large injections of investment and bring in new technologies, but these investments are severely constrained by the current state of regulations and policies governing the sector. Uzbekistan's chemicals sector is almost entirely dominated by SOEs that also have significant influence over policies and regulations that inhibit private sector market entry. Reforms to separate regulatory functions from production activities and eliminate inherent conflicts of interest, transform SOE governance and operations, ensure long-term access to inputs, and establish a clear and transparent investment regime that is neutral relative to all investors could help support the transformation of a high-value economic sector in Uzbekistan. More carbon efficient fertilizer production is also highly relevant for the government's green growth strategy currently under development.

Creating better private sector support services

71. **Innovation is low in Uzbekistan's private sector, though the adoption of the knowledge embedded in foreign technology is relatively strong.** Through process and product innovation, local firms can improve the quality of goods and services and reduce production costs. Improvements have a direct bearing on firm productivity.[36] In Uzbekistan, Enterprise Survey data suggest that innovation by formal private firms is underdeveloped at both the idea stage and in the final output stage. First, few firms engage in research and development activities. The relevant share is only 4.5 percent of formal private sector firms compared with 9.4 percent in the Europe and Central Asia region . Likewise, the adoption of digital technologies is low. Only 26 percent of formal private firms in Uzbekistan have their own websites, well below the regional average (63 percent).[37] This suggests that the private sector has not been able to harness the opportunities arising from increased digitalization to raise demand and productivity. Output innovation by Uzbekistan's private sector is below the potential. Formal private firms in the country are 34 percent less likely, on average, to have introduced a new product or process relative to the average business in the region over 2016–19. While this does not provide details on the quality of innovation, it does suggest the low performance of firms in Uzbekistan. But, on the positive side, the adoption of the existing knowledge embedded in foreign technology—an easier and less risky way to acquire new knowledge—is higher in Uzbekistan than in the region overall. Among private manufacturers, 21 percent report they use licensed foreign technologies, compared with about 17 percent in the region. Foreign-

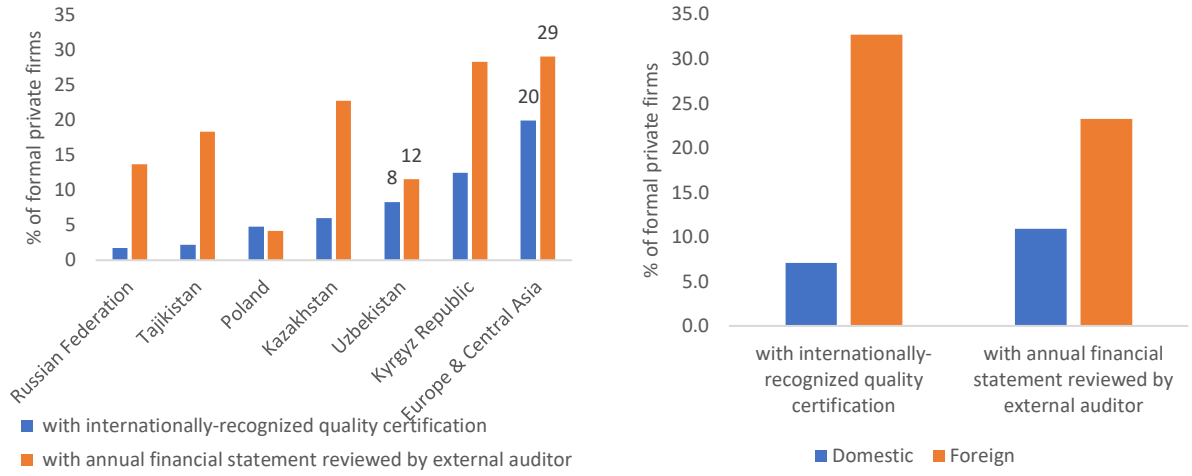
[36] Innovation can also affect aggregate productivity in the economy through the between component because innovating firms can grow more than others and displace inefficient firms. Empirically, however, there may be reasons why the correlation observed between innovation and productivity is not as strong as the true underlying impact that innovation has on productivity. This is because the relationship between innovation and productivity is influenced by several factors, including the market conditions within which firms operate, for instance, barriers to investment, barriers to imports of capital goods, the availability of skilled workforce, barriers to multinational enterprises, protection for intellectual property, product quality standards, and the availability of consumer finance.

[37] Data from the first wave of the World Bank's COVID-19 Business Pulse Survey show encouraging signs that this may be changing. Uzbekistan had the second-largest share of firms (51.2 percent, excluding microenterprises) that started or increased their use of digital platforms in response to the pandemic. See COVID-19 Business Pulse Survey Dashboard, World Bank, Washington, DC, https://www.worldbank.org/en/data/interactive/2021/01/19/covid-19-business-pulse-survey-dashboard.

owned businesses play an important role in driving innovation. Foreign-owned companies are 67 percent more likely than their domestic counterparts to introduce innovative practices and products.

72. **One reason Uzbek firms innovate less is because their capabilities are less well developed.** The ability of firms to identify opportunities, manage risks, formulate future growth strategies, and link these processes to product and process innovation is critically dependent on their capabilities. Many capabilities matter: basic education and skills, managerial capabilities, technological capabilities, and actuarial capabilities.[38] Enterprise Survey data show that Uzbekistan's private sector underperforms in several of these areas. For instance, only about 8 percent of formal private firms have internationally recognized quality certifications, considerably below the 20 percent average in the Europe and Central Asia region. The share of formal private firms that have their annual financial statements reviewed by external auditors is lower than in other Central Asian economies, although it is higher than in Poland. Foreign-owned companies are again outliers. Compared with their domestic peers in the formal private sector, foreign-owned firms are 4.6 times more likely to have an internationally recognized quality certification and 2.1 times more likely to have their financial statements assessed by external auditors (figure 25).

Figure 25. Firm Capabilities, 2019



Source: World Bank elaboration based on Enterprise Survey data.

73. **Private sector development policies have focused principally on providing concessional loans, infrastructure, and basic skills training rather than building firm capabilities.** The government's current approach to private sector development centers on promoting (mainly individual) entrepreneurship through concessional financing, intermittently combined with basic business skills training. The government also provides basic infrastructure for businesses—largely in manufacturing—through small industrial zones and free economic zones. Although both types of programs aim to address constraints faced by businesses, no systematic policies target firm capability and innovation. Program monitoring is inadequate, and anecdotal evidence suggests there are considerable overlaps between the programs and that the programs are not achieving desired outcomes. There is also evidence the government's concessional lending programs for entrepreneurs crowd out commercial lending opportunities (Tadjibaeva 2019).

[38] See Cirera and Maloney (2017) for a general conceptualization of the necessary capabilities to grow and innovate.

74. **There are no formal support programs for younger, commercially viable businesses.** The productivity patterns of Uzbek firms appear to mirror the global patterns: younger businesses with high growth potential create most new jobs. Better targeting of policies to allow more tailored support for these businesses in the formal and informal sectors could help increase firm capabilities, as lessons from other countries, including Chile (the Programa de Apoyo a la Pequeña y Mediana Empresa) and the United States (the Small Business Administration) demonstrate (box 5). Improving the targeting of government support would also help address potential market distortions, such as the potential crowding out of commercial financing.

Box 5. The Role of the State in Supporting Businesses

The government can play a complementary role by fostering a vibrant private sector in Uzbekistan. Global evidence suggests that the government can encourage the emergence of a more competitive private sector by focusing on structural transformation and economic diversification. In Uzbekistan's case, three transformative shifts could help the government play a more effective role, as follows: (a) greater public-private collaboration rather than unified government direction, (b) a more experimental approach that fosters private sector innovation rather than picking winning sectors, and (c) more export orientation rather than import substitution. Rodrik (2004) proposes 10 principles of government subsidies to shape economic activity:

1. **Targeting new areas of specialization** by ensuring that incentives are provided only to produce new products or for new technologies that are used to produce existing products
2. **Setting clear and observable benchmarks for success and failure** to encourage experimentation, while enabling the government to measure success—such as greater export orientation—and limit the costs of experiments that fail
3. **Ensuring that all subsidies have built-in time limits** to ensure that resources are not tied up in activities that do not generate results within a predetermined time
4. **Targeting activities, not sectors** to ensure that the most critical constraints on sector growth are being addressed; Rodrik (2004) suggests, as an example in the case of tourism development, that it is preferable to provide bilingual training than broad subsidies
5. **Focusing on spillover and demonstration effects** that crowd in other complementary investments or support wider technological and informational spillovers to the economy
6. **Building policy tools around areas of institutional strength**, for example, by using tax or credit tools if administrative competencies are strong in tax administration or in the state development bank, rather than relying on broader tools that are administered by weaker institutions
7. **Ensuring effective institutional monitoring** that provides sufficient autonomy and independence among institutions implementing industrial policies, but that ensures strong and transparent higher-level administrative and political accountability
8. **Creating strong communication channels with the private sector** through ongoing contact that allows public officials to increase their understanding of the business environment
9. **Minimizing the costs, rather than the chances, of failure** to ensure that sufficient experimentation and discovery occurs in the economy, but that failures—which are a desirable and inevitable consequence of experimentation—are not costly
10. **A flexible support program that minimizes policy rigidities** and can change and be reinvented as the needs and circumstances of innovation in the economy change.

A special focus on agriculture

75. **A sustainable transformation to a market-led agricultural model might drive Uzbekistan's economic future.** The state-led agricultural system was one of the root causes of Uzbekistan's slow

structural transformation. The country's agriculture sector has great potential to increase value added and productivity through better practices and more efficient land allocation. Horticulture is highly productive and has high job creation potential. It already generates 50 percent of the value of crop production and 40 percent of gross agricultural output on only about 10 percent of the total arable land (World Bank 2020b). Reforms have begun to dismantle the excessive focus of the state agricultural system on cotton and wheat and create new opportunities for horticulture growth and exports. Sustained progress in addressing the remaining constraints could free up significant resources in the economy that could be used to create more and better jobs elsewhere.

76. **Since 2017, a series of reforms has started to unlock the dynamism of the agriculture sector.** After years of stagnant growth and reflecting the strong supply response to reforms, the sector grew by 3.1 percent in 2019, while the amount of land devoted to agriculture fell by 2.2 percent. In 2020, despite the pandemic, agriculture was the main contributor to the country's economic growth. Starting with incremental reductions in cotton and wheat growing areas in 2017, a wave of reforms in 2018 removed almost all formal export restrictions on horticulture and liberalized bread prices. Further reductions in cotton and wheat growing areas were also undertaken. Almost all areas assigned to cotton production have been transferred to private textile companies that process cotton into higher-value products, such as yarn and textiles. Between 2017 and 2019, nominal wage rates in cotton harvesting doubled, and about 300,000 hectares in cotton and wheat growing areas were shifted to higher-value and more labor-intensive horticulture products. In 2019, wheat and cotton prices set by the state and paid to farmers converged with market prices, and the government is close to its target of ending exports of raw cotton in favor of processed exports. In March 2020, the government announced the end of state production targets and of the mandatory procurement of cotton and wheat, the two defining policy instruments that supported the old state agricultural system. Decisive reforms eliminated the systematic use of child labor by 2018, and, after falling from an estimated 364,000 people in 2017, the end of the systematic use of forced labor in Uzbekistan was formally announced by the International Labor Organization in January 2021 (ILO 2020a, 2021).

77. **Horticulture has been central to the early turnaround in agriculture.** Horticulture exports nearly doubled in under three years, from US$570 million in 2017 to US$1,200 million in 2019. In 2020, horticulture exports declined by 20 percent compared with 2019. They were affected by COVID-19–related border restrictions and a decline in purchasing power among consumers in traditional export destinations, such as Kazakhstan and Russia. Despite this decline, the geography of horticulture exports continued expanding in 2020. Since 2019, Uzbekistan's horticulture exports have entered new markets, including Austria, Azerbaijan, India, Japan, the Republic of Korea, Malaysia, Turkey, Turkmenistan, Ukraine, and the United Kingdom. Many horticulture processors and exporters are appropriately certified to meet the requirements of these new markets.

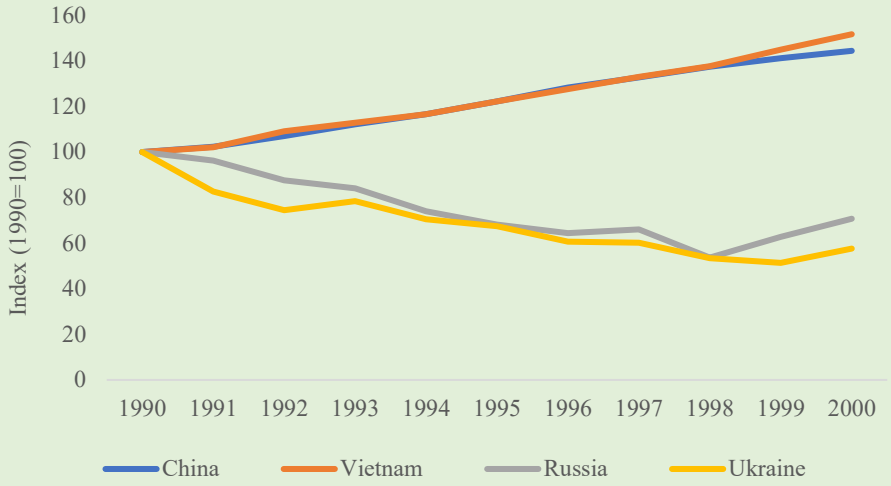
78. **Significant market and institutional constraints must still be addressed to increase the resource efficiency in agriculture.** Until land reforms are enacted, weak tenure rights and the absence of secondary land markets for leasing or trade represent significant constraints on investment and productivity in agriculture. The withdrawal of the state production system leaves a large gap in agricultural financing given that, for the entire history of Uzbekistan as an independent nation, the government has relied on the state budget to finance cotton and wheat production. As ownership of the sector moves from the state to private hands, a still nascent private financial sector may not yet be capable of handling the large costs and risks associated with agricultural production. Logistics, public infrastructure, seed and input quality, and underinvestment in knowledge and research also constrain the sector in reaching its

productive potential (box 6). Many anticompetitive regulations remain, including monopsony restrictions on sales of cotton that are now undertaken to assigned clusters rather than the state.

Box 6. Six Lessons from the Agricultural Transition of China and Vietnam

The contrasting agriculture transition experiences of post-Soviet economies, China, and Vietnam offer lessons for Uzbekistan. The rapid abandonment of old institutions and arrangements in early post-Soviet transition economies often overlooked the links among simultaneous reforms in banking and SOEs. In China and Vietnam, a more sequential reform process helped address productivity constraints, created more space for experimentation, and allowed for a more deliberate strategy of replicating successful policies nationwide. A sustained policy effort to include smallholder farmers in value chains, accompanied by continuous adjustments in policies, regulations, and supporting investments, was adapted to the rapidly evolving needs of the agrifood sector and consumers. Between 1990 and 2000, agricultural output doubled in China and Vietnam, while, in Russia and Ukraine, production only recovered after declining by 50 percent (figure B6.1). The factors behind the success of the transition in China and Vietnam offer some lessons for Uzbekistan.

Figure B6.1. Changes in Agricultural Value Added, Selected Countries, 1990–2000



Source: World Development Indicators.

Secure land tenure and tradable use rights. The farmland use approach is the same in China, Uzbekistan, and Vietnam: farmers lease state-owned land. China and Vietnam also have crop placement systems (rice in both countries; wheat in China). They both proactively coordinate farm production decisions because of their dependence on irrigation. Water is delivered to 100-hectare irrigation blocks containing many of the plots of smallholder farmers. Key to their success, however, has been the focus on land tenure security, the flexibility of use rights, and the role of market forces in allocating land to more efficient users through land rental. Land users have long-term leases, 50 years in the case of Vietnam, and the state-order system with production targets was abolished in both countries in the early years of reform. Farmers cannot be evicted from their lands if they do not meet production targets or fail to reach certain crop yields. Farmers producing rice or wheat in China receive subsidies to keep producing these crops as compensation from the state for producing the less-profitable crops that are critical to national food security. Farmers can lose their land only if they pollute or violate a short list of clearly defined land misuse criteria. Land rentals, especially in China, have supported farm consolidation and the transfer of land to more efficient users. The area of agricultural land that is rented in China rose from 3 percent of total agricultural land in 1996 to 24 percent in 2013 and has continued to rise, although this remains below the averages in developed countries: 30 percent in Japan, 45 percent in Korea, and above 60 percent in France and Germany.

Sequencing the agricultural transition and wider structural reforms. As was the case with successful SOE reforms, agricultural reforms in China and Vietnam were developed gradually to allow important prerequisite institutional reforms to be implemented. Reforms were first undertaken in rural areas, and, as broader reform strategies emerged, they were implemented gradually and experimentally. Pilot projects were rigorously assessed and rolled out nationally only if successful. This provided several benefits: (a) it helped circumvent political resistance against reforms by demonstrating success up front before wider replication; (b) it allowed experimental reforms to be tested in a business and regulatory environment that was heavily distorted and where market signals were not clear; and (c) experimentation provided an easy way to abandon initiatives that did not work because they could be written off as an experiment rather than considered an embarrassing policy failure.

Decentralization. The decentralization of responsibilities to local governments became a powerful tool for achieving progress, while still enabling the transformation to continue within a central strategic policy framework. It offered both countries a laboratory for reform. Provinces and local governments acquired growing authority over investment approvals, fiscal resources, and policies. Municipalities, counties, and provinces were encouraged to experiment with reform in specific areas, and successful experiments then became official policy and were quickly adopted throughout China and Vietnam.

Removing market distortions. In the early 1990s, the farm prices of many products in China were well below the world market level, as was recently the case in Uzbekistan. Most distortions in farmgate prices were lifted by 1997, and policy makers emphasize the provision of price incentives and support for farmers to sustain a significant increase in agricultural productivity. Vietnam followed a similar approach, although it did not provide direct subsidies to farmers as China had done, focusing instead on the provision of agricultural public services to support farmers.

Public investment in core agricultural programs. China and Vietnam have invested substantially in improving the quality of public infrastructure, especially irrigation and drainage in rural areas. Both countries also invested heavily in improving agricultural knowledge and expanding innovation, which have been critical to raising agricultural productivity. China increased these investments from 0.3 percent of agricultural GDP in 1996 to 0.5 percent in 2017. In Vietnam, this figure was 0.3 percent in 2017. For comparison, the public investment in agricultural research and extension services in Uzbekistan in 2019 was a meagre 0.04 percent of agricultural GDP. The investments in China and Vietnam have generated new high-yielding and environmentally localized seeds and enabled farmers in both countries to use small and limited average farm assets (such as in Uzbekistan) to produce multiple crops within a year, thereby helping keep the sown area stable even as the cultivated area declined.

The inclusion of small farmers in agri-food value chains. Agriculture in both China and Vietnam remained dominated by small farms averaging less than 1 hectare. This has made the self-organization and vertical coordination of these small farms difficult, reducing the benefits of agricultural diversification and the generation of higher–value addition. While smaller farms excelled at increasing the production and export of bulk undifferentiated commodities, they were failing to succeed in more affluent markets, where competitiveness depends on high standards of food quality, safety, and sustainability. In recent years, both countries have placed a greater active emphasis on the inclusion of small farmers in agri-food value chains. Through matching grants and credit lines, both countries have helped farmers achieve economies of scale and reduce transaction costs through land consolidation and horizontal (farm cooperatives) and vertical (productive partnerships, clusters) coordination.

79. **The agriculture sector is already being affected by climate change.** Climate change will continue to accelerate in the future, and a business-as-usual approach could result in losses and missed opportunities. It is important to adopt agriculture policies in line with climate change adaptation and mitigation measures, especially given agriculture's outsize role in supporting rural livelihoods. Climate change could also create opportunities. Increased temperatures could lengthen growing seasons, and higher carbon dioxide concentrations could enhance plant growth in some areas.

Table PR1. Policy priorities for a stronger private sector response.

Priority 1: Improving the allocation of land, labor, and finance	
1. Develop Land Markets	• Enact stronger land rights that are secure, long-term, tradeable/leasable, and acceptable as collateral for finance • Liberalize land use restrictions, ending crop placement rules, and minimize distortions due to permitting processes • Upgrade land cadaster and land value assessment systems (using market reference); and effective land tax policies • Accelerate market-oriented urban/rural planning focused on sustainable, green, and affordable urbanization
2. Improve labor market efficiency and equity	• Minimize the use of permitting and occupational licensing that constrain employment opportunities • Increase progressivity of labor taxes and contributions • Phase out the use of the Unified Wage Scale in favor of a new public sector wage structure based on job function, skill scarcity, and performance • Allow fully independent trade unions to form and operate
3. Establish deeper and more efficient capital markets	• Complete the state bank privatization and corporate restructuring process • Further develop financial sector risk monitoring and stress testing systems • Enact legislation and regulations to allow for planned IPOs of large SOEs
Priority 2: Increasing Competition	
4. Improve the legal and regulatory framework for competition	• Implement competition legislation currently under development • Streamline business licensing and reduce invasive regulations • Liberalize wholesale and long-term supply contracts
5. Liberalize market entry and trade	• Remove market entry and operational restrictions in all commercial sectors (e.g., chemicals, aviation, telecommunications) • Remove all trading (e.g., compulsory commodity exchange) restrictions • Limit business licensing requirements to high-risk activities
6. Make compliance easier and fairer	• Streamline tax administration by simplifying and automating compliance • Further simplify the tax code in line with international good practice—especially for the treatment of investments • Simplify and digitalize compliance requirements (e.g., statistical reporting) to increase efficiency
Priority 3: Expanding the private sector's outward orientation	
7. Adopt trade and investment policies that favor global integration	• Accelerate efforts to join the WTO within a 3-year timeframe • Further reduce tariff and non-tariff barriers to trade • Simplify, streamline, and modernize the investment legal regime and ensure it guarantees a level playing field for all investors • Maintain continuous dialogue with existing and new investors
8. Strengthen global connections	• Develop labor exchange and training partnerships with advanced economies and globally competitive firms • Support private sector platforms to integrate small businesses and farmers with global value chains, including through e-commerce tools

Priority 4: Establishing strong private sector support services	
9. Establish more effective support programs to increase firm growth and productivity	• Develop programs to strengthen firm capability development, especially managerial and business services capabilities • Consolidate and streamline existing financial support programs to small and medium businesses in favor of more commercial approaches • Systematically and regularly evaluate costs and benefits of financial incentives and non-market-based support programs
Priority 5: Accelerating agricultural market reforms	
10. Enhance the role of markets in agriculture	• End **all** crop placement rules and growing requirements • Adopt market-based approaches to address food security needs • Removal tariff and non-tariff barriers in agriculture • Expand agricultural finance by allowing crop receipts, improved partial credit guarantee schemes, and agricultural insurance
11. End interference in the agricultural market	• Stop all regional and local interference in agricultural market and land activity
12. Refocus public spending and investment around market-led agriculture	• Introduce a single medium-term integrated budget framework for agriculture, water resources, livestock, and biosecurity • Rebalance public spending from subsidies to investments in irrigation efficiency (water and energy), biosecurity, and research • Upgrade sanitary and phytosanitary regulations to international standards • Improve the Agricultural Knowledge Innovation System to allow for faster knowledge improvements and technology adoption

Part 3. An Enabling State

Key insights: Part 3

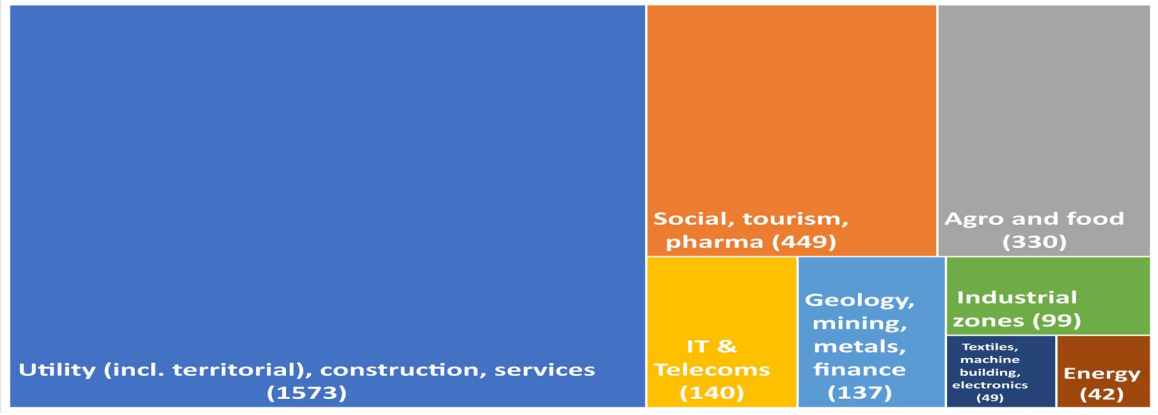
A strong and competitive private sector depends on an effective and accountable public sector. Uzbekistan's strong state institutions typically enjoy the trust and confidence of citizens. This offers a strong platform for rebuilding the government's role in shaping the economy around the needs of citizens and firms. The transition is an opportunity to redirect administrative and budget resources toward enabling investments that received less attention under the old economic model. But the ability of the government to do this well is constrained at several levels. Private sector growth and investments are constrained by a complex and fragmented legal regime and by public investments that are not well synchronized with the needs of the economy. These challenges are compounded by substantial institutional fragmentation, centralization in decision-making, and limited public accountability and citizen engagement. Uzbekistan's regional economic diversity also amplifies the

Accelerating the state's transition from producer to market enabler

Fewer and more well performing SOEs

80. **The state's dominant role as a producer in the economy, the weak legal standards governing businesses, and discretionary regulatory powers limit private sector development.** The economy is dominated by SOEs that operate across most sectors. About 2,580 tier 1 SOEs account for around 18 percent of employment and 20 percent of exports (figure 26).[39] Collectively, SOEs and public sector activities represent about half of GDP (Holzhacker 2018). SOEs played an important role in financing through dividends and high taxation and in implementing the old economic model through the execution of investment plans. SOEs are responsible for production in key economic sectors and all high-priority activities identified in government industrial policies. Most state-owned assets are concentrated in 15 large SOEs, with total assets in 2019 equivalent to 57 percent of GDP.

Figure 26. The Distribution of Tier-1 SOEs in the Economy



Source: 2020 data of the State Assets Management Agency.
Note: The number of enterprises in each sector is shown in brackets

[39] Tier 1 refers to direct ownership by the government vs. subsidiary ownership by other SOEs.

81. **SOE employment is sizable.** The share of public sector employment to total employment in Uzbekistan is one of the largest in the Europe and Central Asia region (EBRD 2020). Unlike other countries with large public sector employment, public sector employment in Uzbekistan is almost evenly split between SOEs (44 percent) and the rest of the public sector (56 percent). By contrast, in Azerbaijan and Belarus, SOEs dominate public sector employment.

82. **Explicit and quasi-fiscal subsidies for SOEs amount to about 7 percent of GDP.** SOEs have long benefited from public spending that offsets costs, including both financing (often in loans at advantageous interest rates) and administered input prices. A high share of quasi-fiscal subsidies going to SOEs flows via public utilities (electricity, gas, water, district heating) as part of public service obligations, but are also available to SOEs in commercial sectors, such as aviation, automobiles, chemicals, and fertilizers. The quasi-fiscal subsidies are not explicitly recorded in the budget and are estimated at about 6 percent of GDP. Explicit budget subsidies to SOEs represented another 1 percent of GDP in 2020. But even these sizable resources have been insufficient to ensure adequate investment. Technical losses because of deferred maintenance are significant and above international norms in natural gas, heating, water supply, and electricity. Losses in natural gas alone are estimated at 1.2 percent of GDP.[40] Losses in drinking water supply reach 35 percent of the volume supplied and cost about 0.47 percent of GDP in quasi-fiscal deficits. Electricity transmission and distribution losses reach about 20 percent, costing about 0.24 percent of GDP in quasi-fiscal deficits. These technical losses are greater in Uzbekistan than in comparators (Tajikistan at 0.19 percent of GDP; Bulgaria at 0.15 percent; Romania at 0.14 percent; and Pakistan at 0.10 percent).

83. **The operations of state-owned banks are tightly linked with the provision of quasi-fiscal subsidies to SOEs.** SOEs continue to receive quasi-fiscal subsidies through subsidized lending from state-owned banks using funds from the UFRD and sovereign-guaranteed long-term loans from international financial institutions (table 2). Since its establishment in 2006, the UFRD has played a major role in financing industrial development through concessional loans to SOEs, but at a high cost to financial sector efficiency and stability. Most directed lending occurs through a complex process of on-lending, involving UFRD equity and debt transfers to state banks that are then on-lent to SOEs at concessional rates (in foreign or domestic currency). The UFRD has recapitalized banks and restructured large SOE loans with growing frequency since 2017. By mid-2019, UFRD was the largest shareholder of and lender to the banking system, accounting for about two-thirds of preferential lending through banks.

Table 2. Quasi-Fiscal Activities, Uzbekistan

Type of quasi-fiscal activity	*In use before 2017*	*Still in use*	*Quasi-fiscal loss or profit*
Financial system			
Subsidized lending	X	Yes ↓	Loss
Under-remunerated reserve requirements	X	No	Loss
Credit ceilings	X	Yes ↓	Loss
Exchange and trading system			
Multiple currency exchange rates	X	No	Profit
Import deposits	X	No	Profit
Exchange rate guarantees	X	No	Profit
Nontariff barriers	X	Yes ↓	Profit
Commercial operations of SOEs			
Charging less than commercial prices	X	Yes ↓	Loss
Provision of noncommercial services	X	Yes ↓	Loss
Special pricing power	X	Yes ↔	Profit
Paying above commercial prices	X	Yes ↑	Loss

[40] Relative to domestic cost-recovery price parity.

Sources: World Bank calculations; Izvorski et al. 2021.
Note: Arrows indicate if the activity has decreased, is the same, or has increased since 2017.

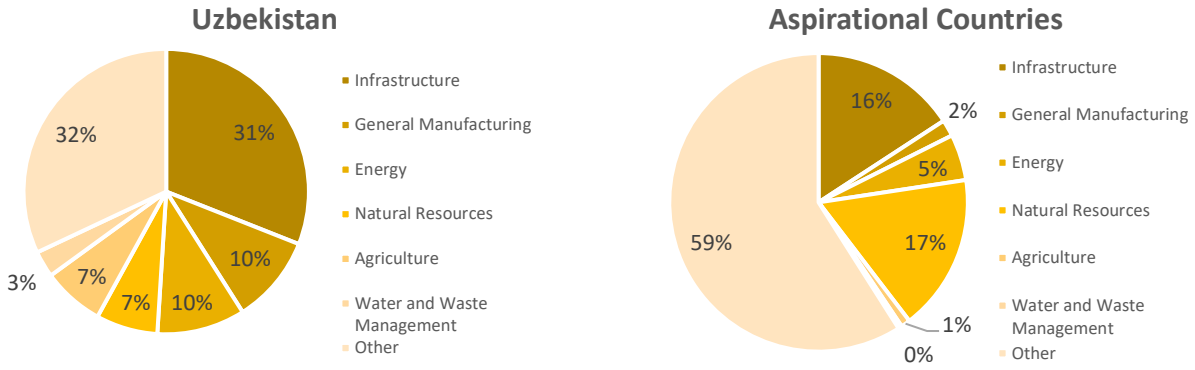
84. **The reported financial performance of SOEs has been mixed.** The net financial performance of the largest SOEs in the economy was modestly positive in 2020, despite the impact of COVID-19. Including subsidies, profits of about 1.5 percent of GDP offset losses of about 1.0 percent of GDP, with most losses arising from technical losses in natural gas, lower export prices, and hot water distribution companies (about two-thirds of the total financial losses generated by the largest SOEs in 2020). In 2020, 4 of the largest SOEs were among the 10 most profitable state enterprises: JSC Uzbekneftegaz, JSC Almalyk Mining and Metallurgical Company, JSC Uzmetkombinat (Uzbek Steel), and JSC Uzavtosanoat. Three of the largest SOEs were also among the top 10 loss-making state enterprises in 2020: JSC UzTransGaz, JSC Uzbekistan Airways, and JSC Uzbekkumir (Uzbek Coal).[41]

85. **There are significant gaps in the corporate governance of SOEs.** Most SOEs produce financial statements that are based on national accounting standards but that do not provide a true and fair valuation of the financial positions of the SOEs. SOE boards lack the power to perform critical functions recommended by the Organization for Economic Co-operation and Development and other international organizations, such as the nomination, appointment, and dismissal of CEOs. Many SOEs are not required to appoint independent board members, although this changed with reforms in 2020 to increase the number of independent directors on SOE boards. The government maintains a substantial presence on SOE boards. Government representation is usually linked to designated roles rather than to the relevant sector or governance expertise of the civil servant, which is not in line with emerging good practice and the experiences of other countries with large SOE sectors.[42] Although systems have been established to strengthen performance monitoring, these systems are still at an early stage of implementation, and public disclosures about SOE performance are largely limited to the release of financial statements.

86. **The government has announced a five-year privatization plan, but many enterprises excluded from consideration in the plan are, in most developed economies, led by the private sector.** Following a large intergovernmental effort to identify and assess all SOEs, the government approved plans to divest its ownership in most small and medium SOEs within five years through a mix of liquidation and auction-based privatization processes. More recently, plans to divest minority stakes in most large SOEs via equity offerings to develop local capital markets within the next five years have been approved (with cross-listings in global stock markets to enable greater participation). But these plans do not extend to all industries. Figure 27 provides a comparison between the sectoral composition of about 70 medium and large SOEs that are under consideration for state ownership, against the average sectoral composition of SOEs of aspirational examples of SOEs that have demonstrated effective management in Germany, Lithuania, Norway, and Sweden. Box 7 offers a comparison with other transition countries. Even if current privatization plans are implemented, a large SOE presence will remain in activities usually dominated by the private sector, such as agriculture, chemicals, metal production, and machine building.

[41] These results do not include several quasi-fiscal subsidies supplied by the government, such as regulated input prices.
[42] The Organization for Economic Co-operation and Development (OECD 2015) suggests that, although civil servants may hold board positions in SOEs, this should usually be reserved for SOEs with a public service mandate.

Figure 27. Post-privatization SOE Portfolio, Uzbekistan vs. Benchmark Countries



Sources: CFRR 2020; CIS Legislation 2022.
Note: The example countries are Germany, Lithuania, Norway, and Sweden.

Box 7. Lessons from Privatizations in Other Transition Economies

Three transition economies—Poland, the Russian Federation, and Vietnam—offer useful lessons for Uzbekistan's SOE reform program. All three countries emphasized initial reforms to promote market liberalization, followed by a rapid program to privatize small SOEs, but, beyond that, the sequencing of reforms was vastly different in each case. The privatization of medium and large enterprises in Russia proceeded at speed in the early years of transition, while deeper reforms to address market institutions and financial sector gaps were undertaken later. Poland was the opposite case. There, policy makers chose to fill market and financial sector gaps first before pursuing a relatively slow privatization process among medium and large SOEs. Vietnam's case was somewhere in between. It was characterized by modest progress in addressing gaps, while also making only modest progress in the privatization of larger enterprises. (Vietnam still retains many thousands of SOEs.)

Studies of post-Soviet transition suggest that liberalization policies and choices about the sequence of reforms have been the most influential determinants of long-term growth. In the early years of transition, initial conditions in each economy were the most important determinants of different growth rates (World Bank 2002). But, between 1995 and 1999, when most countries had begun recovering, policy choices became more influential. Within a decade of starting the transition process, Poland's real GDP recovered and had reached 112 percent of the initial level. Russia's real GDP had only recovered to 64 percent by that stage. Vietnam's gradual transition never led to a decline in real output, allowing it to double real GDP within a decade of launching reform. Uzbekistan's current reform program is most reminiscent of Vietnam's starting point (although the COVID-19 pandemic has since created significant new challenges).

Experiences in Poland and Russia show that preparing the financial sector, closing gaps in market institutions, and awaiting a stable macroeconomic environment are important prerequisites for a successful large privatization process. Big gaps in Russia's legal and regulatory framework created loopholes that allowed capture by vested interests. Although this insider advantage was also a problem in Poland's privatization, early investments in strengthening market institutions, especially reforms to strengthen the rule of law, were critical in restricting insider influence. Another difference between the two cases was the level of worker involvement. Poland's privatization process involved pretransition worker councils and relatively strong labor unions. These often acted independently of the government and management to resist and delay privatization. This struggle slowed the privatization process and encouraged the stronger oversight of managers. As a result, the councils are believed to have limited asset stripping and the practice of generating the fictional deterioration of SOE performance for the purpose of undervaluing the sale price of firms. This allowed insiders to acquire the firms at substantially below the true value. In Russia, such councils were absent or sidelined, leaving the management risks relatively unchecked. The slower pace of privatization in Poland also meant that privatizations occurred in a healthier macroeconomic environment, whereas the rapid

privatization program in Russia coincided with severe economic distress, compounding the impacts on workers and society.

The lessons learned provide guidance in sequencing the SOE reform and privatization process in Uzbekistan, as follows:

- **In the first stage,** much as Uzbekistan has done, market reforms should focus on liberalization of prices, production controls, interest rates, and trading restrictions. Reforms should also be adopted to improve the business and market environment by overhauling tax and regulatory systems, establishing strong protections of property rights, introducing transparent financial accounting standards, and allowing for market-friendly business processes such as ease of registration, freedom to contract, and permitting secured lending. To increase efficiency and minimize future banking crises, financial sector reforms should focus on strengthening banking supervision, reducing directed lending, and reducing state control in the banking system. A program of small SOE privatizations, which, in Uzbekistan, are likely to be linked largely to the value of the underlying property of the SOEs, should focus first on confirming accurate property administrative information, followed by the privatization of small, less important SOEs.
- **In the second stage**, market reforms should focus on competition law and policy, including the principle of strong competitive neutrality between SOEs and the private sector and between different private sector market participants. (Part 2 identifies legal constraints with important implications for competitive neutrality.) Clear legislation governing bankruptcies and foreign investment should be established and enforced. Financial sector reforms should focus on improving the bank licensing environment and a capital market development strategy. Reforms should also enhance the regulatory environment of local capital markets (for instance, securities legislation and capital market regulatory supervision capacity). The completion of small privatizations during this stage will free up administrative capacity to focus on medium and large privatizations through the independent external audits of all medium and large SOEs, the design of safety nets for employees made redundant by privatization, and the modernization of privatization and asset management legislation.
- **The third stage** of the process should focus on privatizing medium and large SOEs and embedding good corporate governance practices more deeply within SOEs the ownership of which is retained by the government.

Uzbekistan's SOE reform has made significant progress, but important gaps require attention. Reforms to improve the business law environment and measures to secure property rights still require implementation. Several hundred small SOEs were successfully privatized in 2020. That process and the results should be studied to identify possible risks and constraints to privatization. Second-stage reforms are also under way. But the quality of competition reform is still a binding constraint on both the private sector and the privatization process. Less attention has been paid to supervision and risk management, which should take priority ahead of plans to issue minority equity shares in large SOEs over the next few years. Progress in upgrading financial reporting standards and seeking independent external audits must be completed in advance of larger privatization efforts.

Weaknesses in safety nets could jeopardize the privatization process. Support for displaced workers is currently limited to legal severance entitlements paid by employers, though additional state funding is available as a contingency. Such programs have produced mixed results in past privatization programs elsewhere in the former Soviet Union. Limited progress has been made in introducing unemployment insurance to allow displaced workers sufficient time and resources to retransition into the economy. Although unemployment support policies exist de jure, they require updating and a strong political commitment to ensure that they provide robust support and avoid de facto rationing.

Strengthening transparency and public accountability is essential. Civil society institutions such as the media, independent unions, and worker councils are limited by a difficult regulatory environment. The absence of independent organizations that represent workers increases Uzbekistan's exposure to risks of capture by insiders with vested interests. Although press freedoms have improved since 2016, the media in Uzbekistan is still highly regulated and faces binding constraints to strengthening public accountability.[a] Removing these constraints as early as possible would play an important role in supporting an effective privatization process.

Source: Based on background information for Izvorski et al. 2021.
a. "Uzbekistan," 2021 World Press Freedom Index (dashboard), Reporters without Borders, Paris, https://rsf.org/en/uzbekistan.

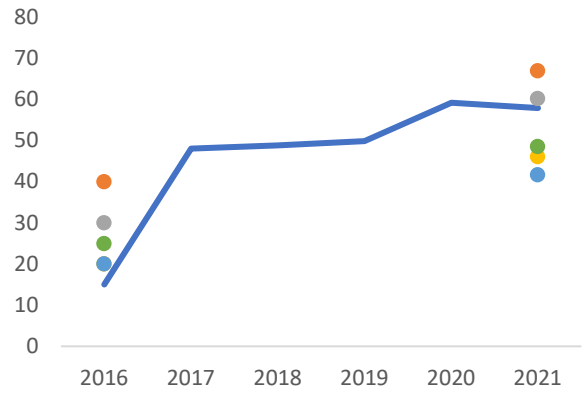
87. **Official data on Uzbekistan's SOEs are inaccessible and incomplete.** Data such as aggregate financial information and the contribution of SOEs to the economy are limited. Granular data on SOE performance, including the measurement of revenues, tax and dividend contributions, and more detailed economic analysis of SOE performance, are not publicly available. Better firm data will enable SOE performance to be benchmarked and facilitate the assessment of the contributions of SOEs more accurately.

Strengthening the legal and regulatory environment

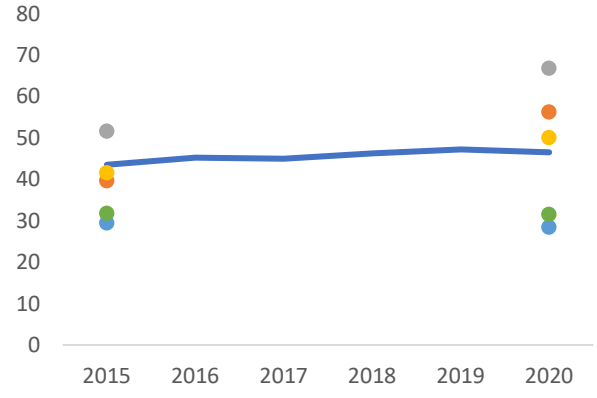
88. **Weak legal standards for businesses, together with discretionary and nontransparent regulatory powers, constrain Uzbekistan's business environment.** Uzbekistan lags well behind regional peers in general perceptions about the rule of law. Despite reforms in recent years to improve the legal environment, the protection of property rights in Uzbekistan lags peer economies. At least 13 different legal regulatory documents pertain specifically to FDI in Uzbekistan (US State Department 2020b). The ability of individual investors to obtain an investment-specific regulatory framework creates an unlevel playing field. SOEs enjoy preferential access to land, infrastructure, credit, state support, contracts, and, until recently, foreign exchange. The quality of the legal environment in business is also behind peer group leaders in several areas critical to firm investment and operational decisions (figure 28). During consultations, stakeholders on several occasions noted that there were significant differences between measured indicators of Uzbekistan's performance against their actual experiences in resolving legal issues.

Figure 28. Business Law Environment, Select Indicators, Uzbekistan vs. Peers

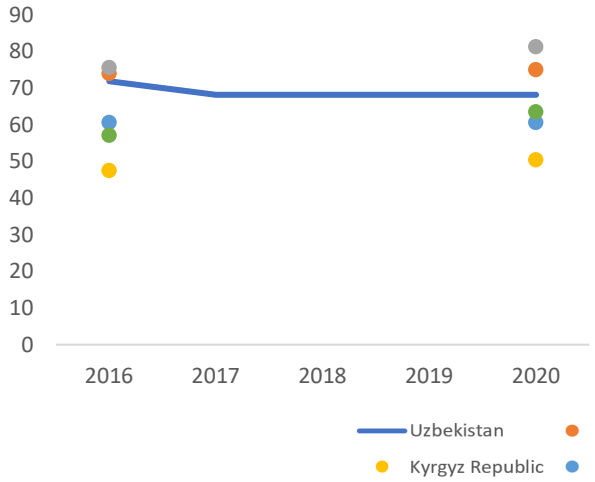
a. Property rights enforcement score



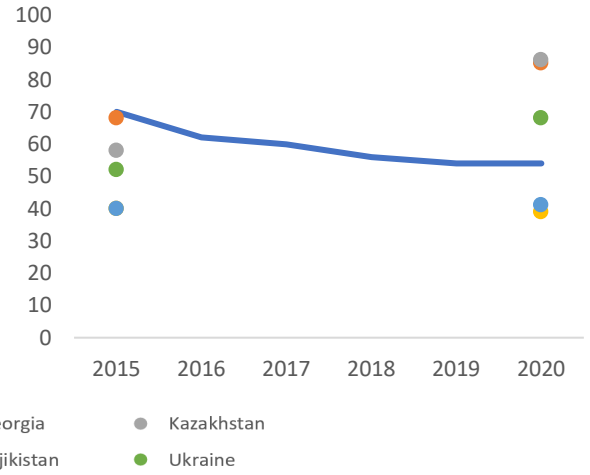
b. Resolving insolvency score

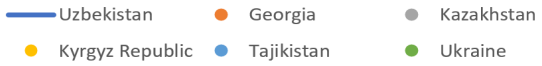


c. **Contract enforcement score**



d. **Protecting minority shareholders score**





Sources: BEE (Business Enabling Environment) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/programs/business-enabling-environment; Index of Economic Freedom (dashboard), Heritage Foundation, Washington, DC, http://www.heritage.org/index/.

89. **The fragmentation of legislation deters investors and increases the risk of corruption.** Uzbekistan's laws and regulations are highly fragmented. They consist of presidential decrees and resolutions, laws of Parliament, cabinet-level and ministerial resolutions, and ministerial orders. Though businesses may still be required to comply with them, many of these documents are not publicly available because of administrative delays or decisions to withhold publication. Furthermore, each of these legal and regulatory acts from various sources is often linked with parent and subsidiary documents, requiring the Ministry of Justice carefully and constantly to curate subsidiary regulatory legal acts when parent legislation is amended. The process vastly increases the complexity of the compliance environment for businesses. It also creates risks of legal and regulatory loopholes and increases the risk of capture by vested interests.

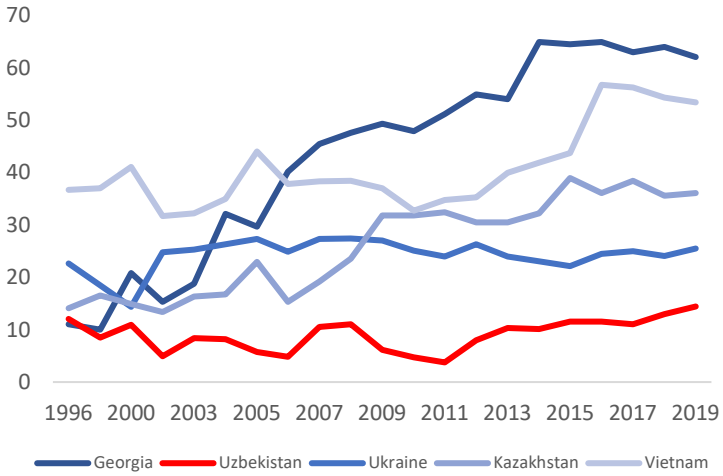
90. **Assessments of the rule of law point to weaknesses in checks and balances, transparency, and enforcement** (figure 29). Uzbekistan ranks 92nd among 128 countries in the World Justice Project's rule of law index and has one of the lowest scores in the Europe and Central Asia region.[43] Although scores have recently improved in areas such as regulatory enforcement and civil and criminal justice, progress in other dimensions is much slower. These dimensions and the subfactors include the following:

- **Constraints on government powers**, which are weakened by inadequate powers in the legislature and judiciary to maintain checks and balances over executive power
- **Open government**, which is weakened in the absence of sufficient civic participation, public informational transparency, and the right to information
- **Fundamental rights,** which are weakened by the absence of sufficient protections guaranteeing freedom of assembly and freedom of association

[43] WJP Rule of Law Index (dashboard), World Justice Project, Washington, DC, https://worldjusticeproject.org/our-work/research-and-data/wjp-rule-law-index-2020.

- **Regulatory enforcement**, which, although improved in recent years, remains constrained by insufficient respect for due process in administrative proceedings and by government expropriations without adequate lawful process or compensation
- **Civil and criminal justice**, which is weakened by improper government influence

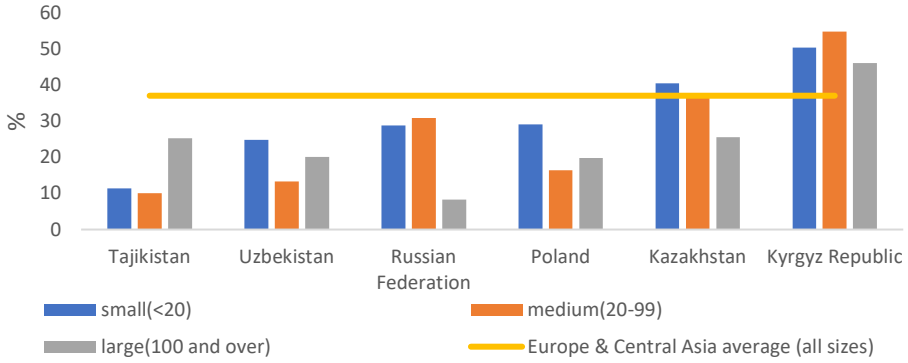
Figure 29. World Governance Indicators: Rule of Law



Source: WGI (Worldwide Governance Indicators) (dashboard), World Bank, Washington, DC, http://info.worldbank.org/governance/wgi/#home.

91. **Regulatory burdens and high tax rates constrain the private sector.** Despite significant progress in reform, regulatory issues persist among the most binding business constraints cited by firms. In the 2019 World Bank Enterprise Survey, 23 percent of formal private firms in Uzbekistan cited high tax rates as the highest business obstacle. Tax administration and regulatory licensing and permit procedures feature among the top 10 constraints. Practices of the informal sector are listed as the second most relevant obstacle to private sector development. A large literature attests that competition from the informal sector can lower the market share of formal firms and reduce productivity because of the additional costs of regulatory compliance that formal firms face (figure 30). This can force formal firms at the lowest productivity to exit the market.

Figure 30. Competition between Formal Private Firms and Unregistered or Informal Firms, 2019



Source: World Bank elaboration based on Enterprise Survey data.

92. **Special decrees to authorize individual investments pose one of the largest threats to a level playing field.** Because of fragmentation and discretion in the legal system allowing government institutions to grant legal and regulatory exemptions, investors, especially foreign investors, commonly seek special resolutions guaranteeing special tax or regulatory relief. Although detailed information is not available, these special guarantees were certainly among the biggest contributors to government estimates that about 6 percent of GDP was lost in 2019 through various forms of tax expenditures in the economy. Often, these resolutions are not published, making it difficult to know the full extent of their application and making assessments of commercial risks exceptionally difficult for new investors and market players. The lack of transparent criteria and process to obtain exemptions also increases the risk of corruption and capture by vested interests by favoring those with strong political connections. These concerns were consistently identified in surveys and stakeholder consultations. Clear and unified legislation that applies equally to all market players is one of the most important and urgent priorities for improving the business environment.

93. **Global experiences in attracting and retaining FDI suggest that transparency, fair competition, and policy stability are likely to be more important than incentives and even infrastructure.** A large survey of global investors conducted by the Multilateral Investment Guarantee Association and the Economist Intelligence Unit in 2013 found that economic stability and the removal of policy constraints in the economy were more important to investors than the quality of infrastructure or incentives (MIGA 2014). The survey also found that the size of domestic markets has become less important to investors because of greater global market integration opportunities. Research in other countries reinforces these findings and suggests that incentives are most relevant at the margin of a decision when an investor is deciding between two suitable options that meet broader requirements, such as the business and economic policy environment, the availability of human capital, and domestic and global market access.

Increasing the impact of public investments

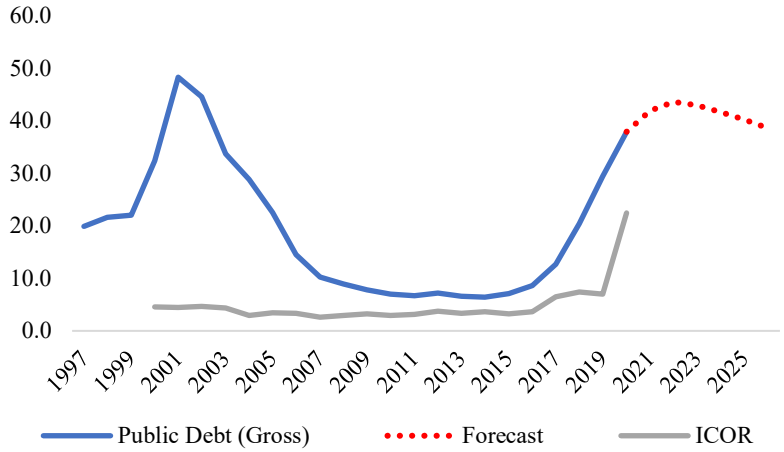
94. **Public investments accounted for about a third of total investment in the economy in 2009–19**. Between 1995 and 2016, total investment in the economy averaged about 20 percent of GDP, before picking up substantially following the launch of reforms in 2017. Estimates of the per capita share of public capital placed Uzbekistan among the lowest performers among CIS countries. Nonetheless, government investments were instrumental in driving the country's growth and industrial diversification over the period and in contributing to many of the challenges facing the country during the transition.

95. **The UFRD has played an important role in financing public investments.** Funded largely through profits from gold exports, the UFRD provides policy loans through commercial banks to enterprises (mainly SOEs) implementing government-directed investment projects. A smaller share of UFRD financing in recent years has supported lending to entrepreneurs and to promote homeownership. Surplus revenues augment the country's foreign currency reserves, accounting for about 30 percent of total international reserves at the end of 2020.

96. **Weaknesses in the public investment framework limit the effectiveness of the greater capital spending since 2017.** Total public investment increased from about 8 percent of GDP in 2016 to about 13 percent in 2019. A significant portion of these activities were funded through projects financed using external debt. This increased spending was accompanied by a sharp rise in the incremental capital-output ratio, which assesses the marginal impact of greater investment in generating additional economic growth in the economy. The ratio in Uzbekistan averaged about 3.3 between 2004 and 2016. Between 2017 and

2019, the average ratio more than doubled, to 7.0 (figure 31). The sharp increase suggests that the economy is becoming unable to convert investment into higher growth and more job creation.

Figure 31. Government Debt vs. the Incremental Capital-Output Ratio

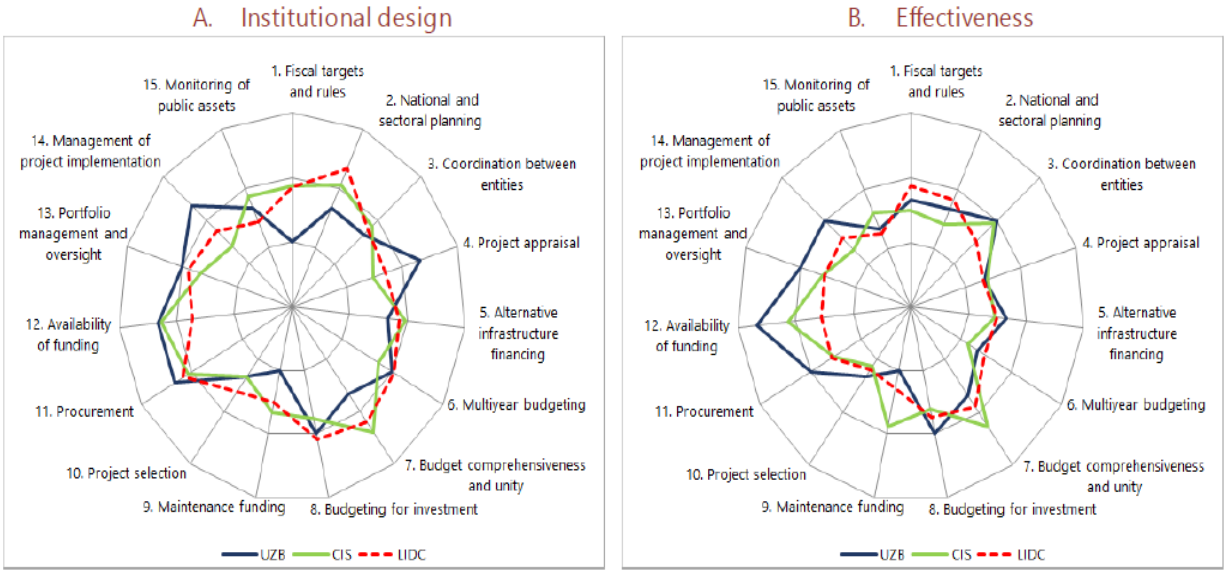


Sources: World Bank calculations based on official data; DSA (Debt Sustainability Analysis) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/programs/debt-toolkit/dsa.

97. **Public investment management is fragmented and uncoordinated.** Over the last decade, funding for public investments through the government's Centralized Investment Program has been generated from several sources, including the state budget, the UFRD, special state targeted funds, and development partners and bilateral creditors (Izvorski et al. 2019). This funding has been directed to budget entities, SOEs, and a select number of private enterprises for implementation. Further decentralized investments has also been permitted by public finance legislation, which consists of complex joint business arrangements involving co-investments whereby private and foreign direct investors fund public enterprises. Recent legislation and regulations to enable public-private partnerships has created a new channel for public investments, with a current pipeline of projects equivalent to about 16 percent of GDP. A patchwork of approaches manages investments arising from different funding sources (figure 32). State budget investments are managed by the Ministry of Economy and Poverty Reduction under the budget process, whereas UFRD-financed and public-private partnership projects have entirely different processes for the screening and selection of investment projects (IMF 2020).

98. **Prioritizing public investments for industrial policy objectives have left less space for investments in human capital and important enabling economic infrastructure.** Although the detailed composition of historical public investment spending information is not available, most public investments financed the government's strategic industrial policy objectives. The strong focus on industrial policies limited the resources allocated to other priorities, notably, declining education, health care, and other public services. As a result, large gaps in public services have emerged. Prioritizing new activities also came at the expense of ongoing management, contributing to the decline of infrastructure in critical sectors such as energy and transportation.

Figure 32. Public Investment Management Assessment, Uzbekistan Relative to Peers



Source: IMF 2020.

99. **Public financial management has improved, but the absence of a clear public investment framework leads to inefficient spending and weak projects.** A host of reforms has been enacted since 2017 to improve the effectiveness and transparency of public financial management. A consolidation of off-budget spending expanded the coverage of the budget, and new budget processes have increased parliamentary oversight and scrutiny. Improvements to treasury and debt management operations have resulted in better cash and debt management. However, there is still no systematic framework for public investment that provides guidance for project screening and selection, allowing most projects to be selected based on noneconomic judgments. Public investments are largely delinked from the regular budget process that oversees current expenditures, and recurrent asset maintenance and replacement costs are required in costing investment projects. These expenses are instead expected to be requested by implementing government agencies in subsequent budget processes. Investment projects are among the most vulnerable areas of public expenditure to corruption and financial mismanagement. In emerging areas, such as public-private partnerships, where sizable pipelines are being generated, they are also a large source of fiscal risk and capture by vested interests. Addressing these challenges will be critical to ensuring that public investment is well aligned to the needs of a rapidly transitioning economy.

Addressing infrastructure gaps

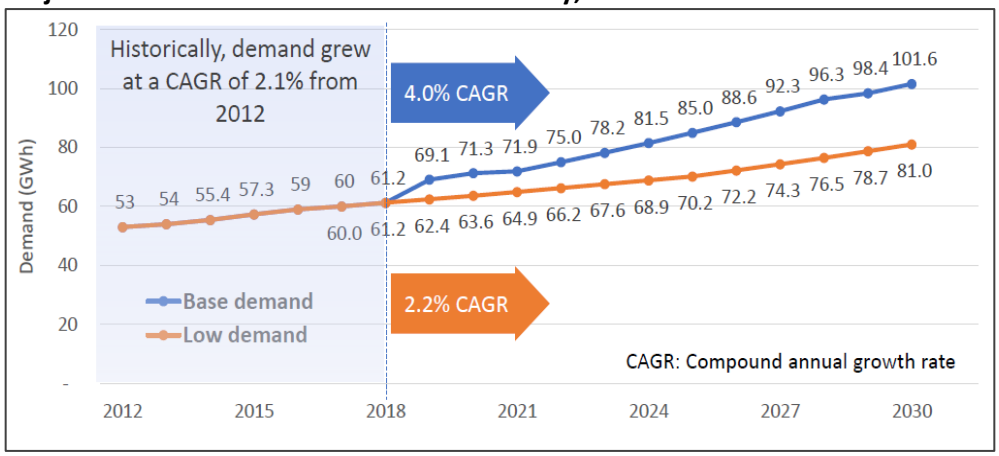
100. **High-quality physical and digital infrastructure is especially crucial if the private sector is to overcome geographic constraints.** Infrastructure bottlenecks have increasingly undermined the country's economic performance in recent years. Aging energy and transport infrastructure cause significant production disruptions and raise costs for exporters. The slow pace of digital infrastructure investment limits the potential of Uzbekistan's underdeveloped and historically neglected services sector. In surveys, these challenges consistently emerge among the most binding constraints to the private sector. Addressing them would improve private sector productivity, while opening opportunities to replace aging technologies with cleaner, more efficient, and more sustainable infrastructure.

Energy

101. **Reliable energy supply is sought by businesses and is among the highest reform priorities of the government**. According to the World Bank (2018a), ensuring the uninterrupted supply of electricity, natural gas, fuel, and water remains a key priority for the leadership of small and medium firms. Manufacturing firms reported between 24 to 29 days of electricity blackouts per year in 2017 and 2018. As a result, a large amount of output was lost, estimated at 24 percent among large firms and 38 percent among small firms, because of service interruptions, including electricity, gas, and water. Gas supplies to households and public infrastructure such as schools are frequently disrupted during winter months. Recognizing these concerns, energy sector reforms are among the highest priorities under the 2017–21 Development Strategy. After years of investment neglect under the old economic model, the energy sector has received the largest share of public investments since 2017.[44]

102. **Electricity demand is projected to grow steadily as the economy grows.** Total electricity consumption in 2018 reached 63 terawatt-hours, and demand for electricity is expected to grow at approximately 4 percent annually through 2030 (figure 33). Most electricity is consumed by the industrial sector (41 percent), followed by residential (24 percent), agriculture (21 percent), and commercial users (11 percent).

Figure 33. Projected Growth in the Demand for Electricity, Uzbekistan



Source: World Bank 2019b.

103. **Soviet-era infrastructure and weak institutional capacity have hampered the energy sector's ability to reliably meet demand.** The weighted average thermal efficiency of existing gas-fired thermal plants is 33 percent, which is low compared with new units that typically reach 53 percent–56 percent efficiency. Transmission and distribution losses are estimated at around 25 percent of sales and 20 percent of net generation. Both the number and duration of outages are high by Europe and Central Asia regional standards. High system losses are a symptom of the electricity supply infrastructure that is aging and in need of rehabilitation. Electricity transmission and distribution lines are 30 years old on average. Dated transmission infrastructure is also a bottleneck in the development of large-scale renewable energy projects.[45]

[44] IEA (2021); World Bank estimates based on budget and debt reporting information of the Ministry of Finance.
[45] The government energy strategy projects that up to 8,000 megawatts of new solar and wind energy will be connected to the grid by 2030.

104. **Electricity, hot water, and communal heating services rely on natural gas, creating competing pressures between domestic and export needs.** Natural gas accounts for 86 percent of the total primary energy supply in Uzbekistan. The diversification of Uzbekistan's electricity generation is also limited. Natural gas–based generation accounts for more than 80 percent of the total installed capacity, followed by hydropower (above 10 percent), and coal (5 percent). Improving the efficiency of gas supply, diversifying the energy mix, and achieving a sustainable transition to low-carbon pathways are key priorities in the sector.

105. **A long legacy of energy tariffs that are below cost recovery has posed significant challenges for sustainable sector financing.** Wholesale and retail tariffs for all utilities (electricity, gas, hot and cold water, and sanitation services) are set at levels that are below cost recovery. This was a primary channel of government subsidies to firms and households. Although phased increases in tariffs since 2017 brought some utilities closer to cost recovery levels, they are still inadequate to finance capital expenditures and, in many cases, depend heavily on artificially low domestic natural gas prices. Domestic gas tariffs are set at about half of prevailing export prices. Raising gas tariffs to reach export parity would thus have a large impact on cost recovery among other utilities. Tariff adjustments between 2017 and 2019 were a major driver of high inflation, requiring significant monetary tightening and adjustments to increase social assistance benefits.[46] The legacy of low tariffs under the old economic model compounded the financial impact of other challenges on the financial position of sector SOEs, such as low collection rates, greater indebtedness following the exchange rate revaluation in 2017, and high technical and commercial losses.

106. **The financial position of the power sector is deteriorating.** Prior to its organizational restructuring in early 2018, Uzbekenergo, the former state-owned vertically integrated electric utility, was not financially viable. Sustained cash deficits were driven by high technical and commercial losses in the sector, relatively low collection rates prior to 2017 (ranging between 83 percent and 93 percent of the revenue invoiced), greater foreign currency debt exposure following the September 2017 currency devaluation, and tariffs that were below cost recovery. The financial position of the sector was worsened by the COVID-19 pandemic, requiring budgetary financial support.[47]

107. **Harnessing private sector interest in the energy sector offers significant opportunities, but requires complementary reforms to improve the business environment and safeguard the poor.** As demonstrated by the significant investor interest in renewable energy and the modernization of gas-fired electricity generation, there is considerable domestic and foreign private sector interest in Uzbekistan's energy sector. Converting this interest into tangible investments, however, requires several sector constraints to be addressed, such as the low level of tariffs, clarity on access rights to grid infrastructure, dated technology, and the absence of a well-regulated retail and wholesale energy market. It will also require complementary reforms to protect vulnerable households from sharp tariff adjustments, manage the fiscal risks of public investments and public-private partnerships, and ensure a high-quality, transparent business environment.

[46] Tariff increases were suspended in 2020 and 2021 because of the impact of COVID-19 and are expected to resume in early 2022.

[47] The budget provided about US$100 million in 2020 to various energy SOEs created following the unbundling of Uzbekenergo in 2018.

Physical and digital connectivity

108. **Weaknesses in the transport sector are exacerbating the private sector growth challenges stemming from Uzbekistan's double-landlocked geography.**[48] Despite the economy's sensitivity to infrastructure quality and border costs, Uzbekistan has the highest transportation costs in the Central Asia region. Average shipment costs are about US$1.75 (per truck kilometer), about 32 percent more than in Kazakhstan and 23 percent more than in the Kyrgyz Republic. Specialized rolling stock and other equipment needed to move goods are unreliable in both quality and scheduling. For smaller agricultural producers, there are often delays in transporting small lots of produce until rail wagons are full, increasing the risk of postharvest losses. Losses in transit of 7 percent on perishables shipped to Kazakhstan and Russia are considered normal, a point reaffirmed repeatedly by horticultural exporters during stakeholder consultations for this report. Limited transport connectivity with neighboring countries and international economic growth poles are a major constraint to job creation and trade growth in key sectors, such as horticulture and agribusiness, handicrafts, and mining. As a factor that affects nearly all export activities, transport infrastructure bottlenecks threaten growth and development in a host of sectors.

109. **Though it improved in 2018 and 2019, air accessibility in Uzbekistan lags most regional peers and restrains growth in tourism and high-value fresh horticulture.** In 2010–17, international air transport in Uzbekistan exhibited one of the slowest growth rates in Central Asia (4.7 percent), compared with neighboring Kyrgyz Republic (12 percent) and Kazakhstan (9 percent). But, in 2018 and 2019, Uzbekistan's aviation sector grew significantly after reforms were enacted to relax visa requirements. Progress came to an abrupt halt in 2020 with the onset of the COVID-19 pandemic, and the national airline reported the second-largest losses among all SOEs. Despite its significant potential, the aviation sector is limited by low competition because of an underdeveloped international policy regime (for example, air service agreements), regulations that disproportionately benefit the national airline, and anticompetitive subsidies. Airports are burdened by inefficient management and relatively low nonaviation revenues. With visa requirements now relaxed in many countries, the absence of competition in the aviation sector is likely to be a major constraint to tourism growth in Uzbekistan post-COVID-19 pandemic.

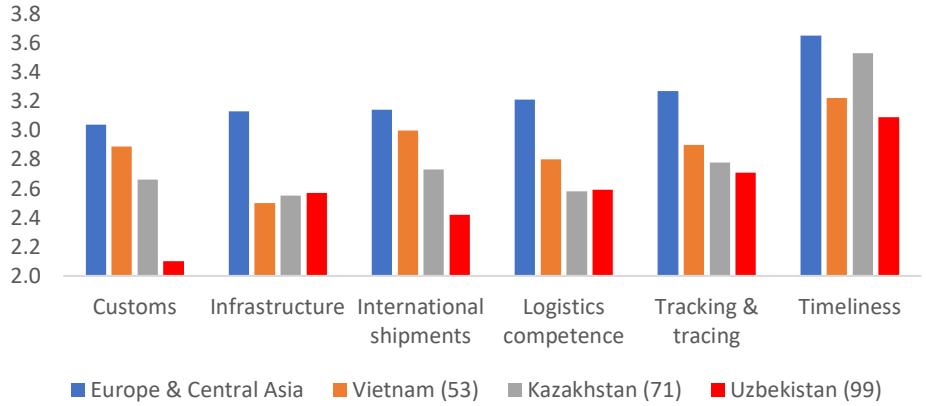
110. **The quality of Uzbekistan's significant road and rail transport network is declining because of maintenance neglect, aging rolling stock, and weaknesses in public investment and budget planning.** Roads account for 88 percent of domestic passenger and short-haul cargo transport and about 10 percent of the international carriage of goods. Although road network coverage has increased over the past two decades, a large backlog of rehabilitation work has accumulated. With a fatality rate eight times that of the European average and the second highest in the CIS, road safety is also a major issue. In contrast, Uzbekistan's rail network is extensive and relatively new, boasting one of the best electrification rates in the region. About half of Uzbekistan's rail network is linked to international rail corridors, and 75 percent of international freight uses rail, as railway border crossings are more efficient than road crossings. But outdated rolling stock creates significant delivery delays and losses in transit, leading to a steady decline in rail freight volumes. Nearly 90 percent of the current rolling stock will require renewal over the next 10 years. Other constraints to the sector include structural weaknesses arising from vertical integration through the main SOE, Uzbekistan Temir Yollari, and the absence of harmonized billing and documentation with regional trade partners (ADB 2021).

111. **Despite reforms to improve customs procedures, border inefficiencies and limited logistics infrastructure increase clearance times.** Transport costs are around 200 percent of production costs for

[48] The country is doubly landlocked because it is landlocked, and it is surround by landlocked countries.

farmers and small and medium enterprises because of the high costs for warehousing, carrying inventory, and management. Customs bureaucracy and difficulties in international shipments were among the most significant weaknesses in Uzbekistan's logistical performance assessment in 2018 (figure 34). The persistence of bureaucratic customs and border delays—where Uzbekistan's logistical performance is significantly worse than its peers—was cited as one of the most binding constraints by exporters and logistics operators during stakeholder consultations for this SCD.

Figure 34. World Bank Logistical Performance Index, Uzbekistan vs. Peers, 2018



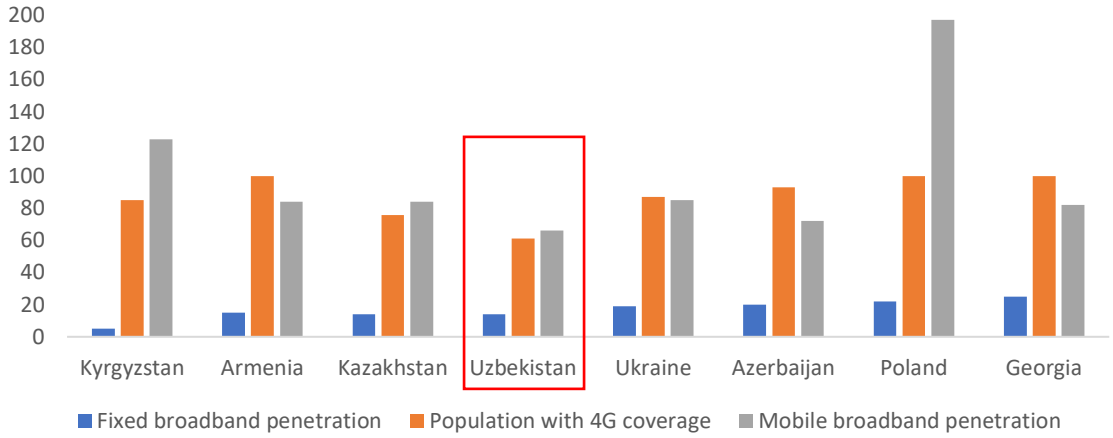
Source: LPI (Logistics Performance Index) (dashboard), World Bank, Washington, DC, http://lpi.worldbank.org/.

112. **Rapid growth in private motorization has increased congestion and local particulate emissions, with implications for health, productivity, and growth.** Infrastructure and public transport service development has not kept pace with increases in motorization and urban growth. Tashkent City and Tashkent Region, from which commuters travel to the city, account for 26 percent of all light-duty vehicles in the country. Transport is estimated to be responsible for about 65 percent of local particulate emissions, which are consistently above safe levels, averaging 414 percent of the daily exposure limits of the World Health Organization (WHO 2021). Sector policies remain focused on providing additional road capacity without significant improvements of the public transport system, but, as international experiences suggest, this is likely to lead to more road traffic and congestion.

113. **Uzbekistan lags far behind its peers in digital connectivity and has larger digital access gaps by sex.** Despite substantial investments in digital infrastructure over the last decade, fixed and mobile broadband penetration in Uzbekistan was 14 and 66 per 100 inhabitants, well below the performance of peers (figure 35). Uzbekistan ranks the lowest in the region in 4G coverage. There are also significant gender disparities that are more acute in Uzbekistan relative to peers. Thus, in Uzbekistan, 77 percent of men own mobile phones compared with only 62 percent of women.[49] By contrast, in Kazakhstan, nearly the same shares of men and women own mobile phones (91 percent of men vs. 90 percent of women.)[50] Uzbekistan's external connectivity to neighbors and to global internet peers is weak. Deficiencies in internet speeds, bandwidth, and user costs in Uzbekistan continue to impact residential users negatively and constrain economic growth across many sectors.

[49] 2019 data, Statistics (dashboard), International Telecommunication Union, Geneva, https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
[50] 2020 data, Statistics (dashboard), International Telecommunication Union, Geneva, https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

Figure 35. Digital Connectivity and Access Indicators



Source: Statistics (dashboard), International Telecommunication Union, Geneva, https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

114. **The dominance of state ownership and limits to entry in the telecommunication sector inhibit Uzbekistan's digital transformation.** Four mobile operators in five in Uzbekistan are state owned.[51] The state-owned fixed-line operator Uzbektelecom dominates the market in both fixed and mobile retail and wholesale markets. Although private sector companies provide last-mile fixed broadband services to households, largely in urban areas, these companies must use Uzbektelecom's wholesale and gateway infrastructure, while also facing competition from Uzbektelecom's own last-mile retail services to households. As in other infrastructure sectors, such as energy and transportation, the vertical integration of Uzbektelecom and the utility's significant influence over regulation and policies in the sector have contributed to higher prices, less innovation, fewer services, and lower service quality. The Herfindahl-Hirschman index for the mobile telecommunications market, calculated by the World Bank based on Uzbekistan operator market shares in December 2019, was approximately 0.27. A market with an index value of less than 0.15 is generally viewed as competitive, while one with an index value from 0.15 to 0.25 indicates a moderately concentrated marketplace, and an index value of 0.25 or greater shows a highly concentrated marketplace.

115. **Monopoly restrictions and an outdated legal and institutional framework for the sector reinforce state controls, curtail investment, and increase prices.** Announced commitments to liberalize access to international telecommunication gateways—seen as a critical reform to promote lower costs and greater competition in the sector—have not yet materialized, and private sector market participants are required by law to use Uzbektelecom's international gateway services. This requirement was recently relaxed for the new private sector licensee that has acquired the majority government share in UCell, along with additional privileges (for instance, tax incentives and public procurement exemptions allowing direct government purchases of UCell services), creating an unequal playing field among private mobile operators. The Ministry for Development of Information Technologies and Communications is responsible for sector regulation, policy making, and board oversight of Uzbektelecom. The legal and regulatory framework governing the sector is largely outdated. The basic laws and regulations were established between 1992 and 2000 and have largely remained the same since then. Considerable bureaucratic delays, complex permitting procedures and approvals, and onerous technical conditions create major

[51] This will soon change through the finalization of a partial privatization (51 percent of state shares) of UCell via a joint venture arrangement involving Russia's USM Telecom Group (the owner of the Megafon brand).

hurdles for the private sector to build new telecommunication infrastructure, and the current tax structure may be discouraging private telecommunication operator growth. An independent regulatory authority for the telecommunication sector was created in 2018 but requires greater powers and more institutional support to operate effectively.

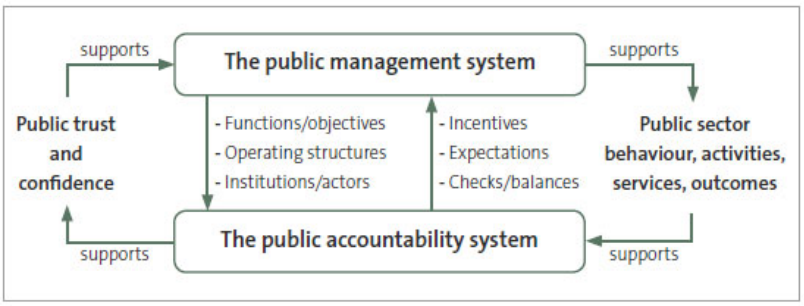
Increasing public accountability and public sector performance

116. **Uzbekistan lags other transition countries in perceptions of public accountability and trust.** Recent governance reforms have focused on financial transparency, reducing corruption, encouraging citizen engagement, increasing media freedoms, improving judicial and law enforcement services, and strengthening the oversight powers of elected bodies. According to consultations with stakeholders, progress in these areas has been substantial, but from a low base, and the effort is far from complete (box 8). Progress in other important areas, including noninterference in independent civil society groups and reforms to strengthen local government accountability, has been slower.

Box 8. The Importance of Local Public Accountability

Effective public management requires accountability to build trust in public institutions. Although public management and accountably represent two separate systems, they share many links (figure B9.1). Both are focused on the same outcome: capable, transparent, and dependable public services. Uzbekistan's reform agenda acknowledges the importance of each, but many opportunities remain untapped. The most significant is the possibility of strengthening both at the community level. Uzbekistan's highly centralized administrative model reduces the incentives for local officials to respond to local needs and citizen feedback. Though channels have increased since 2017, explicit links between the roles of local government officials and the needs of local communities could strengthen the quality of reform implementation beyond Tashkent and other urban areas. Greater financial autonomy among local officials to address these needs is also a prerequisite. Expanding the role of citizen feedback to link it explicitly to assessments of the performance of public officials could improve performance and act as a flywheel for greater popular support of reform.

Figure B9.1. Public Management and Accountability Systems



Source: OAG 2019.

117. **The risk of state capture by vested interests is likely to peak by 2025.** Experiences during post-Soviet transitions, including in Russia and Ukraine, suggest that most state capture and the creation of oligarchs occurred during two critical stages of the reform process: (a) the reduction of state control and state ownership of land and (b) the privatization of SOEs. Both are among the highest reform priorities identified by the government and in this SCD for the coming five years. Lessons from post-Soviet transitions also suggest that there are commonly two types of vested interests: those seeking control over the new resources made available through privatization (early or intermediate winners) and those

benefiting from the status quo who seek to stop the reform process from advancing (Hellman 1998; Krueger 1993). Feedback from all stakeholder groups during consultations suggests that both risks are high in Uzbekistan and that concerns are strongly centered around the land and SOE privatization processes.

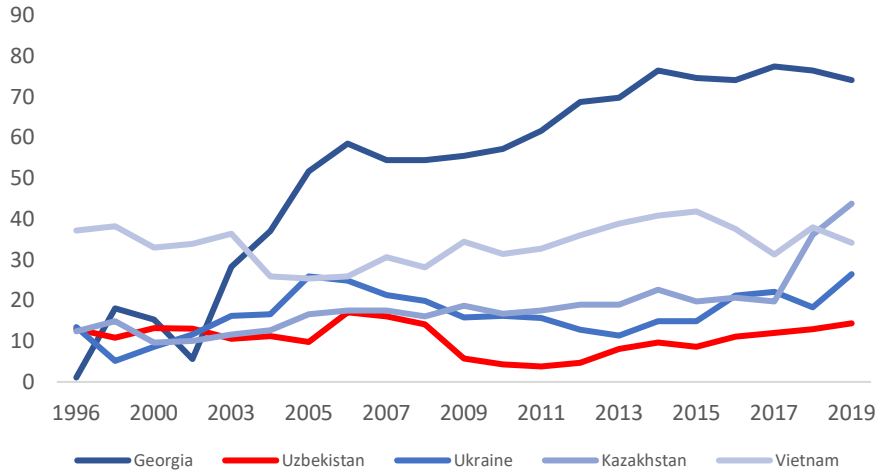
118. **Granting special, nontransparent preferences is one of the most important channels of state capture.** As in other post-Soviet countries, well-connected businesses in Uzbekistan have traditionally been able to negotiate special treatment through presidential, cabinet, or ministerial decrees that provide tax and customs exemptions, concessional access to resources, and even the establishment of explicit entry barriers to potential competitors. Whereas some of these concessions are published in the government gazette, private sector stakeholders consulted for this SCD noted that many agreements, especially financial concessions, are concluded in secret and never published, making it difficult for newly entering businesses to know the full extent of incentives available to competitors in the market. However, stakeholders noted that the legal requirement that concessions be explicitly published in decrees is strongly supported by tradition. The full disclosure of these agreements is an important reform that lies within the technical reach of the government.

119. **Public procurement reforms have moved quickly, but significant challenges remain.** Public procurement in 2020 amounted to over 29 percent of GDP—well over OECD averages of about 12 percent of GDP. Substantial effort has been made in recent years to improve the public procurement system closer to international standards. New public procurement legislation (adopted in July 2021) provides a stronger legal framework in line with good international practices and assigns regulatory and normative accountabilities to the Department of Public Procurement within the Ministry of Finance—the authorized public procurement entity in Uzbekistan. The new law provides a broad framework for the modernization and digitalization of procurement. However, many challenges remain, and public procurement remains a high corruption risk area (OECD 2019). Key challenges include the need for greater informational transparency and disclosure, especially of ultimate beneficial owners of procurement participants, stronger oversight of procurement practices by SOEs and other strategic government budget entities, and more stringent enforcement of exemptions enabling direct contracting.

120. **Accountability reforms are at a nascent stage, and more enforcement is required.** In January 2017, the government adopted a broad framework to increase public transparency and control corruption in public service. Despite notable progress in implementing this framework, legal and regulatory gaps and the risk of state capture persist. For example, conflicts of interest within the public service are reportedly pervasive, but no law prevents them (Freedom House 2020).[52] Dated legislation on privatization and the management of state property and assets is being overhauled, but, in the interim, it poses the risk that state capture may occur in lawful ways. Uzbekistan's policies to prevent money laundering ranks among the least developed in Europe and Central Asia and in the bottom third of countries globally (figure 36). Lessons from other transition experiences highlight the importance of strong enforcement and a capable judiciary.

[52] A draft law is being developed, however, and is expected to be submitted to Parliament in 2022.

Figure 36. Worldwide Governance Indicators: Control of Corruption



Source: WGI (Worldwide Governance Indicators) (dashboard), World Bank, Washington, DC, http://info.worldbank.org/governance/wgi/#home.World Governance Indicators.

Box 9. Tackling Corruption in Uzbekistan

Corruption perceptions in Uzbekistan suggest the challenge is deep-rooted. In a large public opinion survey conducted in early 2017 by Ijtimoy Fikr, a government public opinion research institution, over 58 percent of respondents acknowledged the existence of corruption in society (Khidirov 2017). The most corrupt sectors cited were health care (37.6 percent) and education (31.4 percent). The survey also pointed to widespread corruption in law enforcement, the judiciary, social security, banks, tax authorities, customs authorities, and hokimiyat administrations. The lack of decent wages in the public service and close connections between offenders and law enforcement were cited the most often as major drivers of corruption. Over 90 percent of respondents were supportive of efforts to reduce corruption.

Reducing corruption is a high-profile priority in the administrative reform agenda. In addition to the spillover effects of reducing red tape and removing restrictive social controls, such as the propiska system, that were linked to corruption in the public service, the government also created dedicated anticorruption enforcement capacity. It established the Anticorruption Commission in June 2020, which reports to the president and is accountable to Parliament. The new commission was tasked with internal anticorruption control systems within government agencies and overseeing anticorruption enforcement in public procurement activities. In April 2021, the commission published its first report analyzing corruption-related crime data from 2020. According to this analysis, about 1,500 corruption cases, involving about 2,300 accused individuals, were brought to court.

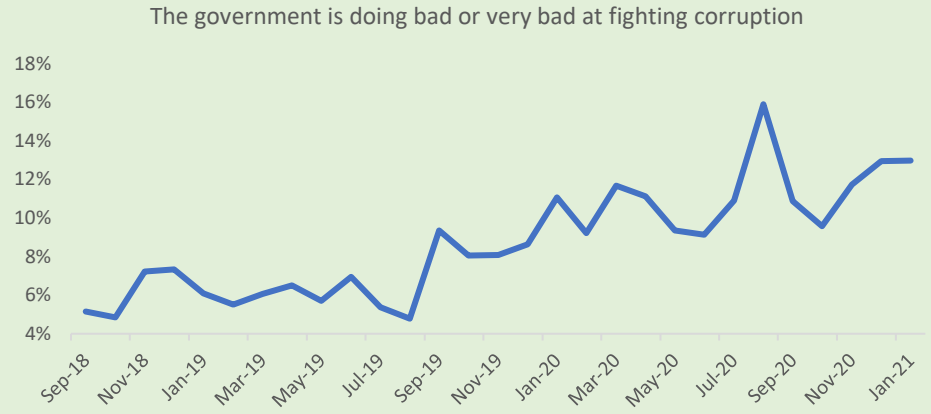
Public procurement and budget implementation are potentially large sources of corruption. Public procurement is an area at high risk of corruption, according to an Organization for Economic Co-operation and Development monitoring report of Uzbekistan's anticorruption framework (OECD 2019). The report finds that over 30 percent of public procurement transactions were conducted through direct contracting, and 57 percent of contracts were awarded based on competitive, but nontransparent final selection processes. The Ministry of Finance and the Anti-Corruption Commission have advanced several reforms to improve monitoring and investigations into public financial misappropriation. The ministry recently issued regulations requiring all government entities authorized to operate extrabudgetary funds, including the UFRD, to provide and publish all revenues and expenditures on a quarterly basis on their websites and open data portals.

The public reacts positively to government anticorruption efforts, but less so than at the start of the reforms. Since 2018, public perceptions of government efforts to tackle corruption have remained strong. Over 85 percent of the

respondents to the L2CU survey expressed the view that the government was doing a good or a very good job at fighting corruption (figure B8.1).[a] However, this share has gradually declined, and the share of citizens expressing dissatisfaction with anticorruption efforts has increased since 2018. Global perceptions of corruption in Uzbekistan are also changing, with small but measurable rises in composite corruption indexes, such as the Transparency International corruption perceptions index and the Worldwide Governance Indicators control of corruption index.[b]

Stakeholders in consultations were also supportive of current efforts but noted that implementation was uneven across the country and public sector institutions. There was strong consensus that corruption had declined in recent years, but was still a problem, especially in construction and land allocation and more acutely in rural and regional areas outside Tashkent. Private sector firms also commonly expressed strong concerns about their growing inability to compete with shadow economy operators who enjoyed close connections with law enforcement and were able to evade tax and customs payments. They also expressed concerns about the fairness of public procurement processes and about the lack of transparency in public procurement, including information about beneficial ownership.

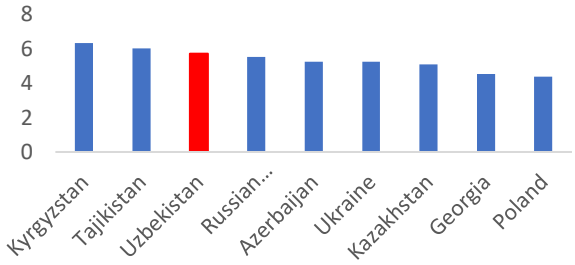
Figure B8.1. How Good Is the Government at Fighting Corruption?



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

a. L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.
b. CPI (Corruption Perceptions Index) (dashboard), Transparency International, London, http://www.transparency.org/research/cpi/overview; WGI (Worldwide Governance Indicators) (dashboard), World Bank, Washington, DC, http://info.worldbank.org/governance/wgi/#home.

Figure 37. The Basel Anti–Money Laundering Index, 2020



Source: Basel AML Index (Basel Anti–Money Laundering Index), Basel Institute on Governance, Basel, Switzerland, https://index.baselgovernance.org/.

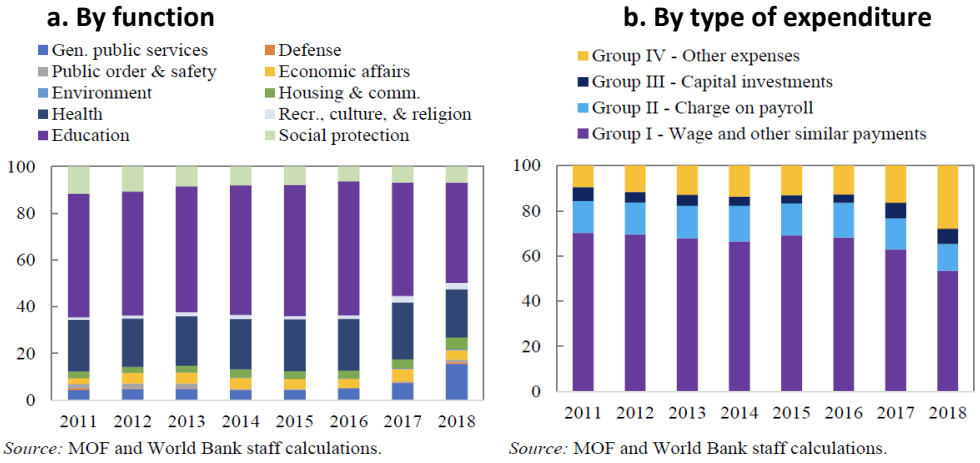
Note: A lower score reflects a stronger anti–money laundering regime. Azerbaijan, Kazakhstan, and Uzbekistan have not yet been evaluated using the revised methodology, reducing the accuracy of comparisons with other countries, which have been assessed using the new method.

Decentralizing public finances and decision-making

121. **Centralization in Uzbekistan's public finances reduces opportunities and incentives to align public spending to local priorities.** In contrast to the large and deliberate fiscal decentralization efforts pursued by other transition economies, such as Georgia, the Kyrgyz Republic, Poland, and Ukraine, the country's system of subnational finance has changed little since Soviet times. Under the current system, most planning and budgeting decisions for the regions are made by central government agencies led by the Ministry of Finance. Until recently, accountability and oversight of regional spending were also centralized, but this changed in 2019 with the transfer of these responsibilities to locally elected regional bodies. With little leeway to impose taxes or spend money autonomously, local authorities are constrained in their ability to address local problems.

122. **Subnational government institutions in Uzbekistan implement more than half the national budget but have little autonomy or discretion.** The government structure involves administrative de-concentration. Subnational governments play the role of the central government's agent in the regions. Although there have been reforms to increase local accountability, subnational government officials are still rigidly accountable to the central government.[53] Subnational governments implemented about 56 percent of on-budget spending in 2013–19, higher than the global average of about 25 percent. Most of this spending was on public sector wages in education, health care, and core public services (figure 38). Only about 7 percent of subnational expenditure was used to implement capital projects. By contrast, self-generated revenues of Uzbekistan's subnational governments as a share of general revenues are among the lowest in CIS countries, estimated at about 8 percent in 2018, compared with more than 20 percent in Kazakhstan and over 30 percent in Russia.

Figure 38. Deconcentrated Subnational Expenditure, by Function and Type of Expenditure



Sources: World Bank calculations; Izvorski et al. 2019.

[53] In 2019, directly elected local governmental bodies were established in all regions and districts of Uzbekistan and given the power to oversee the work of regional hokimiyats. Hokims, local government executives, however, are formally accountable to the president, who also appoints hokims on the advice of Parliament.

123. **Effective subnational public spending is further constrained by unpredictable transfers and overlapping mandates from central agencies.** In the absence of local revenue collection autonomy and of a legislative framework defining functional and administrative responsibilities between the central government and local governments, transfers to subnational governments are shared on an ad hoc basis. In addition to limiting budget predictability among subnational governments, this approach inherently undercuts regional spending priorities during periods of fiscal consolidation and increases the risk of political interference or capture. The limited links between revenues and expenditure responsibilities can also negatively affect the quality of locally delivered services.

124. **Decentralization may reduce disparities in the quality of public services across the regions of the country.** The high level of centralization creates three constraints on local public service delivery. First, the absence of sufficient authority at the district level, where most line ministries provide services and directly manage budgets, constrains planning and execution decisions. This is complicated by dual reporting lines. Thus, district hokims are subject to both provincial hokimiyat and regional line ministry decisions, which can create conflicting and overlapping instructions and weaken the responsiveness of hokims to the needs of local populations. Second, functional assignments and administrative sharing across levels of government are not regulated by law. Consequently, the different levels of government (district and city, region, and republic) often have unclear or overlapping mandates with respect to service provision (such as administering schools), which hampers accountability. Third, the high level of discretion in intergovernmental financial transfers jeopardizes efficient and transparent public financial management at the subnational level (World Bank 2019a). In addition, there are few formal channels through which individuals may hold authorities accountable for lapses in service delivery obligations. There are also no formal procedures to include citizen feedback in gauging the performance of service delivery programs.

125. **More decentralization in decision-making and greater fiscal autonomy could improve the quality of reform implementation.** As experiences in other transition economies attest, decentralization that is focused on expanding citizen and local engagement can play a strong role in strengthening public service delivery, increasing public accountability, and maintaining ongoing public support for reforms (World Bank 2017a). During consultations with stakeholders, there was consensus among both governmental and nongovernmental groups that centralization provided some benefits in reform implementation, notably, the ability of government to replicate programs quickly nationwide (for example, the national rollout of the unified social registry). But there was also strong consensus that greater decentralization in spending and accountability could improve reform implementation given the breadth of reforms included in the 2017–21 Development Strategy.

Increasing the central place of citizens in the public sector

126. **Despite promising initiatives, there is considerable scope to increase the responsiveness of the public sector to the needs of individuals.** Many important reforms have been enacted since 2017 to increase communication between individuals and government officials and create grievance and redress mechanisms. These include virtual office receptions by public officials, an online regulatory consultation platform for public feedback, and measures to increase public budget awareness and citizen involvement in local budgeting processes. These measures represent a strong break from historical approaches and are a deliberate effort under the 2017–21 strategy to increase government accountability to citizens. But many untapped opportunities to raise public accountability and citizen involvement remain. The most successful transition countries graduated from largely unidirectional channels of citizen communication

to a more dynamic process of citizen engagement. But, in Uzbekistan, the effectiveness of reforms in facilitating citizen engagement and participation in local decision-making is constrained by the uneven capacity of local institutions to implement the reforms appropriately.

127. **Effective citizen engagement can increase the success of reforms implemented by government institutions.** Community-level institutions such as mahalla (community or neighborhood) committees might increase the use of participatory processes in identifying and planning budget priorities. At the national level, although public budget consultations have significantly improved since 2017, there are no measures available for either the government or Parliament to seek feedback from groups that face greater exclusion, such as rural communities, women, the disabled, or youth. Deliberate measures to include these groups in participatory processes is also absent in local regulations that require citizen input into some areas of local public spending.

128. **Institutional deficits reduce the effectiveness of citizen engagement processes and community resilience to natural disasters.** Most mahalla employees have not yet received training in basic facilitation and outreach skills, referral pathways, and professional norms (such as confidentiality and nondisclosure of information). The absence of this training can disproportionately reduce the ability of these institutions to work effectively with vulnerable groups. Limited citizen engagement reduces community resilience to natural disasters. Significant institutional knowledge and training gaps at the mahalla level weaken Uzbekistan's local civil defense infrastructure that provides the first response to natural disasters.

129. **A burdensome regulatory regime severely restricts the formation of civil society, which can play an important supporting role in enhancing public sector performance.** Lessons from successful post-Soviet transitions highlight the important role that civil society can play in improving reform outcomes. Robust civil society institutions, such as NGOs and trade unions, can support better local implementation of reforms, raise the accountability and oversight of public officials, and amplify the voice of excluded and vulnerable groups to generate more inclusive reform outcomes. But the formation of civil society is severely constrained in Uzbekistan by the legal and regulatory regime. For example, regulations governing the registration and operations of NGOs are based on excessively restrictive legislation that is not in line with international standards (Yusupov and Isakov 2020). Although there are an estimated 9,200 registered NGOs in Uzbekistan, most are reportedly quasi-state entities, nonoperational, or focused on highly specialized activities. Independent NGOs seeking to register and operate in Uzbekistan face bureaucratic hurdles that most often prevent them from registering (United Nations 2021). Without formal registration, these organizations cannot receive grants from domestic and foreign donors. The registration of independent trade unions is also subject to considerable bureaucracy, despite legal provisions allowing employees and other individuals to establish or join independent trade unions.[54] As a result, there are no independent trade unions known to be operating in Uzbekistan (US State Department 2020a). Although a process is under way to overhaul dated legislation that severely constrains these institutions, greater urgency in implementing these reforms could support efforts to reduce the potentially significant transitional risks Uzbekistan faces in the next phase of reforms.

130. **Laws and regulations to increase press freedoms and improve rights to information require strengthening to ensure greater public accountability.** The government and stakeholders have made progress in improving press freedoms and lifting reporting restrictions on several previously barred international media organizations. Greater investigative freedom has begun to help foster greater public accountability. Media reports routinely highlight cases of misconduct by public officials. Previously

[54] Law on Trade Unions, December 2019.

onerous censorship of critical domestic and foreign information sources has also been largely lifted. Despite this progress, Uzbekistan was ranked 156th in 180 countries in the 2021 world press freedom index, suggesting that press freedom continues to be inhibited in the country.[55] As in the case of NGOs, substantial bureaucratic challenges constrain the ability of media organizations to register and operate. Complex legal regulations governing journalistic reporting, the operations of media organizations, and liabilities for libel and slander and a nontransparent official accreditation regime that enables considerable discretion and selectivity in the decision-making process create barriers on a free and independent press (United Nations 2021). Despite several laws enacted to guarantee citizens the right to information, there has been little progress in the implementation of these laws. Guaranteed access to official information remains a significant challenge for both individuals and the media, which hinders greater transparency and public accountability during the transition process.

Improving the policy-making process

131. **Uzbekistan's government institutions are fragmented despite reforms to align public sector institutions.** The country has more than 50 government institutions that are responsible for the design and implementation of policies linked to the core functions of government . In addition, some SOEs, for example, in chemicals, play a dual role of production and sector-level policy making. Institutions often have overlapping roles and disparate reporting lines. There are also many instances of within-sector fragmentation of sector responsibilities, such as in public investment management. In education and skills development, the high level of fragmentation and duplication reduces positive outcomes because separate institutions are responsible for school-level learning, tertiary education, education quality and testing, qualifications, and labor market development (World Bank 2018c). This government-wide and within-sector fragmentation increases the costs of policy making and stretches already burdened administrative capacity.

132. **Better policy prioritization, interinstitutional coordination, and monitoring could help secure gains from the government's reform program.** Since 2017, nearly 23,000 legal and regulatory documents have been issued by the government to support the implementation of the 2017–21 Development Strategy.[56] Although several formal processes ensure interagency policy coordination, these processes are weighted toward consultations at the end of a policy-making process rather than encouraging interagency coordination at the policy design stage.[57] Experiences of successful transition, including in the Europe and Central Asia region, suggest that formal mechanisms that encourage interagency policy coordination across the entire policy-making process, from planning to implementation and evaluation, can help improve the quality of reforms and the alignment of reforms with government priorities. These mechanisms, such as reform councils or secretariats, can strengthen reform prioritization and sequencing, improve the availability of information and evidence on policy costs and benefits, and support better monitoring and evaluation of policy outcomes. In some cases, such as the United Kingdom, such mechanisms have also supported evidence-based policy-making processes that involve greater policy experimentation to understand what works (Arizti et al. 2020).

[55] 2021 World Press Freedom Index (dashboard), Reporters without Borders, Paris, https://rsf.org/en/ranking/2021.
[56] LexUZ (National Database of Legislation of the Republic of Uzbekistan) (dashboard), National Center of Legal Information "Adolat," Ministry of Justice, Tashkent, Uzbekistan, https://www.lex.uz/en/.
[57] For example, the regulations of the Cabinet of Ministers require that almost all major regulatory and legal acts submitted for approval by the Cabinet of Ministers or for transmission to Parliament or the Presidential Administration be extensively distributed and agreed to by relevant line ministries and central agencies prior to consideration by the Cabinet.

133. **Strengthening the national statistical system is essential to the effective implementation of the national reform agenda.** The authorities are struggling with crucial data gaps that are disrupting the preparation, implementation, and monitoring of strategic development priorities. Although the State Committee on Statistics maintains an elaborate data collection and reporting system, many of the associated methods, definitions, and approaches are outdated, labor intensive, and out of compliance with international standards. Since independence, no population census has been conducted, undermining the quality of a wide range of statistical measures. International engagement and cooperation in national statistics was severely limited until 2017, and many nonstandard and noncomparable approaches have been used in the interim, including for data in national accounts and the calculation of GDP. Thus, in many instances, the information available to the authorities and the public is insufficient for assessing the performance of the economy or the social outcomes among the population. Although the State Committee on Statistics has rapidly improved its international rankings, it still performs only moderately well on benchmarks of international standards, with a statistical capacity indicators score of 64.4 and a statistical performance indicator score of 54.9 in 2019.[58] With the technical support of the World Bank and financing provided through the World Bank Trust Fund for Statistical Capacity Building, the State Committee on Statistics developed a National Strategy for the Development of Statistics that was adopted in 2020. The strategy proposed activities to strengthen the institutional and organizational framework of statistics through human capital and technological resources development, the adoption of advanced management practices, and reliance on international statistical standards. These activities are designed to improve the effectiveness, efficiency, and image of the national statistical system and the State Committee on Statistics.

[58] See SPI (Statistical Performance Indicators) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/programs/statistical-performance-indicators.

Table PR2. Policy priorities for a more enabling state

Priority 1: Accelerating the state's transition from producer to market enabler	
1. Fewer and better performing SOEs	• Modernize the legal frameworks for privatization and corporate governance of SOEs through new legislation and secondary regulations • Impose hard budget constraints through explicit on-budget payments to SOEs increase financial discipline and strengthen competitive neutrality • Further accelerate small and medium SOE privatization • Develop robust pre-privatization processes to establish fair value and enable transparent divestiture • of larger SOEs
2. A stronger legal and regulatory environment	• Address gaps in property rights and insolvency frameworks • End use of special investor resolutions in favor of unified regulatory regimes that apply to all market participants in each sector • Reduce legal fragmentation by clarifying powers and responsibilities of government institutions
3. Improving the impact of public investments	• Bring all domestic and externally financed public investments and capital spending into a single, multi-year, public investment program that is reflected fully in the consolidated budget • Establish standard criteria for public investment project screening, preparation, selection, implementation, and evaluation • Conduct systematic cost-benefit analyses of new public investments and modernization projects
Priority 2: Addressing Infrastructure Gaps	
4. Leveraging the private sector for connectivity	• Liberalize the telecommunications, aviation, and chemicals sectors with strong competitive neutrality rules overseeing SOEs in the sector • Accelerate the process of liberalizing open skies policies
5. Improving infrastructure planning and execution	• Prioritize public investments that address deteriorating essential public infrastructure • Integrate asset maintenance and replacement with the national budget • Implement phased increases in utility tariffs to reach long-term cost recovery, while protecting poor and vulnerable
6. Strengthening the regulatory environment	• Strengthen SOE and public infrastructure governance through implementation of effective secondary legislation and regulations • Empower capable independent regulators for public infrastructure sectors and network monopolies
Priority 3: Increasing public accountability and public sector performance	
7. Reducing corruption	• Implement a zero-tolerance corruption strategy for high-risk public institutions such as police, inspectors, tax, border, and customs administrations • Accelerate full compliance status with all FATF anti-money laundering standards before the next Mutual Evaluation • Develop a civil service code of conduct that includes strong whistleblower protections for public servants

8. Decentralizing government functions	• Establish a predictable, multi-year, and rules-based system to determine revenue transfers from central to local government institutions • Allow local authorities to levy, collect, and use local taxes within national constraints • Link local government performance criteria to local parliamentary accountability, and citizen feedback mechanisms
9. Increasing public accountability	• Fully liberalize regulations for the formation and operation of NGOs • Enhance government/NGO partnerships to enhance citizen and community-led monitoring of government programs • Increase media freedoms for journalists and media to operate without interference, liberalize legislation, remove harsh libel and slander liabilities • Modernize and fully implement legislation guaranteeing citizen rights to information • Publish all contracts and ultimate beneficial ownership details for all government asset sales and procurement • Establish effective grievance redress systems in all high-risk areas of government activity—especially including procurement, social protection transfers, and essential public service delivery organizations
10. Improving the process of policymaking	• Set more rigorous planning and selection processes for policy priorities • Develop a clearer reform communication and citizen feedback strategy • Apply systematic use of evidence and rules-based decision making in policy development and implementation • Fully implement the National Statistical Development Strategy (including population census, modernization of national accounts, survey, and administrative data systems, etc.) • Review and streamline public institutional mandates, roles, responsibilities, and reporting lines to support better inter-agency coordination

Part 4. Investing in People

Key Insights

More and better jobs continue to offer the most promising pathway to achieving the country's development goals. The first World Bank SCD (2016, i) argued that "creating high-productivity, high-paying jobs for Uzbekistan's growing population" would be vital to sustaining more rapid economic growth and improving household welfare. However, despite the government's recent impressive reform efforts, low employment growth and slow productivity-enhancing structural changes are hindering the growth of the economy. Labor force participation rates are low; unemployment is high; most jobs are still informal; and a large share of the working-age population is out of the labor force. In total, the labor share amounted to only 41 percent of national income in 2017, far below the Europe and Central Asia regional average of 55 percent and has likely fallen further since then. In 2019 (that is, even before the onset of the COVID-19 pandemic), the labor force participation rate was much lower, and the national unemployment rate was much higher in Uzbekistan than in comparator countries.[1]

Uzbekistan's long-term prosperity will depend crucially on proactive expansion in the well-being, knowledge, and capabilities of all the population. This will require the creation of additional employment opportunities and investment in people through high-quality education, effective health care, and strong social protection. As Uzbekistan becomes more prosperous and the economy more complex, the country will increasingly rely on its human capital—the knowledge, skills, and health people accumulate throughout their lives—to maintain and drive growth (box 10). A child born in Uzbekistan today can expect to attain only 62 percent of their potential human capital. This is on par with other countries at similar income levels, but lower than the average in the Europe and Central Asia region. Closing the gap will require building capacity and increasing economic participation to translate growth into equitably rising incomes among the poorest and most excluded members of society. With respect to employment creation, a growing private sector could play a strong supportive role in addressing these challenges.

134. **Gaps in the education system prevent the achievement of the full development potential of Uzbekistan.** In sharp contrast with the most successful transition countries, Uzbekistan's tertiary education system became much narrower and more exclusive after independence. The tertiary enrollment rate fell from 17 percent in 1989 to 10 percent in 2018 before expanding again under the reform agenda and reaching 16 percent in 2021. Nonetheless, the tertiary enrollment rate is still the lowest in the region. Preschool education was also deprioritized. In 2017, only 29 percent of children ages 3–7 was enrolled in preschools, compared with 60 percent in Kazakhstan and 85 percent in Russia. Although access to primary and secondary education has been free and nearly universal for decades, the authorities in Uzbekistan struggle to improve quality, especially in rural areas, which compare poorly with high-performing (often Russian-language) schools clustered in Tashkent.

135. **Health outcomes have improved since independence, but substantial gaps persist relative to the top-performing countries and health systems in the region.** Despite relatively high coverage rates, the public health care system in Uzbekistan struggles with high out-of-pocket costs, limits in the quality of services, and large spatial disparities. Incomes in Uzbekistan are still well below incomes in the most successful countries in the region, but, in terms of health outcomes, these best-in-class examples may serve as aspirational benchmarks of what is possible through strong public health policies and inclusive economic growth. In 2017, 8.7 percent of children ages under 5 in Uzbekistan were stunted because of inadequate nutrition (UNICEF 2019). Improving life expectancy by more than five years between 1990 and 2018 was remarkable progress, but the country still lags the achievements of the high-performing

transition countries, such as Estonia (an 8.7-year increase) and other regional benchmarks, such as Turkey (a 13.1-year increase). Uzbekistan's infant mortality dropped from nearly 31 deaths per 1,000 live births in 1990 to 10 in 2018, a significant improvement. But the current rate is still 15.0 times the rate reported in Estonia, 3.5 times the rate in Poland, and double the rate in Turkey. These gaps highlight the urgency of inclusive growth and of translating progress into greater improvements in living standards.

136. **Correcting exclusionary policies and protecting the vulnerable are essential to making growth more inclusive.** The government's legacy of often intrusive and counterproductive labor market policies hampers current efforts to generate inclusive growth, while gaps in safety nets and basic public services limit the prospects of vulnerable populations. Errors of exclusion leave a high share of people in need without coverage from social assistance, while unemployment programs are inadequate in addressing joblessness and the risk of job losses because of the transition reforms. The country is struggling with high rates of youth unemployment, large gender gaps in economic and public life, and limited inclusion among people living with disabilities. If uncorrected, these challenges will collectively prevent the government and stakeholders from realizing their economic ambitions and the opportunities created by a more competitive market economy. Nonetheless, Uzbekistan has the resources needed to empower workers with more economic freedom, to modernize the system of social protection, and to invest in equality of opportunity.

137. **A strong safety net and a focus on the needs of the poor will be vital to the success of the transition.** Lessons from other transition experiences show that even strong reform momentum can be derailed by a backlash arising from concentrated harms, unfairness, and dissatisfaction. A healthy and inclusive labor market, alongside a strong safety net, is essential to ensuring that the transition is not inequitable or a source of social discontent. Reinforcing equal access to opportunities has also helped maintain strong popular support during difficult phases of reform in successful transition countries (Commission on Growth and Development 2008). Acknowledging the challenges and focusing support on those in need will be vital in the next phase of the transition.

Strengthening human capital

Box 10. Human Capital in Successful Transition Countries

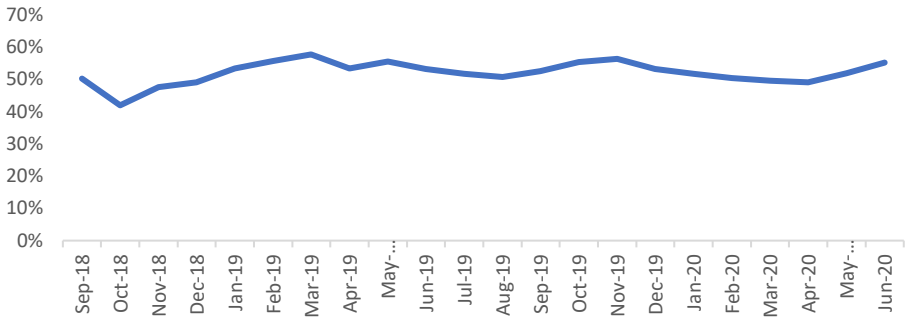
Investment in human capital has been vital during transitions that generated substantial and sustained economic growth. The most successful Asian tigers and other rapidly growing transition countries, such as Estonia, Poland, and Vietnam, prioritized excellence in education, and each has continuously performed well on comparable tests of educational attainment. Thus, tertiary enrollments quickly increased in rapidly growing transition countries, thereby contributing to human capital. The rise in Poland's tertiary enrollment rate, from less than 20 percent in 1989 to about 69 percent in 2018, was typical of high-growth transition economies. The most successful transition countries also achieved near eradication of child malnutrition and universal access to clean drinking water and improved sanitation. The rising quality of public health services in successful transition economies drove dramatic declines in mortality, especially among infants and mothers, and increases in years of healthy life.

Education

138. **The most pressing gaps in Uzbekistan's education system are in access to preschool education, access to tertiary institutions, and the quality of primary and secondary instruction.** On average, more than half of respondents in the L2CU survey say that they are worried about giving their children a good education (figure 39). Preschool enrollment in Uzbekistan lagged all regional comparators until recently. Limited access was more common in regions with higher poverty rates and more rapid population growth.

With a tertiary enrollment rate of 16 percent in 2021, Uzbekistan is one of the world's least well performing countries in its income group, and, despite recent reforms, still has the lowest tertiary enrollment rate in the Europe and Central Asia region.[59] Access to tertiary education and the quality of primary and secondary education in Uzbekistan also offer particularly stark examples of spatial inequality. Tashkent City is in a league of its own in both perceived quality and exclusivity of access in education. These patterns drive inequality of opportunity: estimates from the L2CU survey find that individuals with tertiary education were five times more likely to participate in the labor market than were individuals with less than secondary education and three times more likely to participate than individuals with only secondary education. Closing these gaps is among the most direct actions the government and stakeholders could take to strengthen the country's human capital and take advantage of the transition.

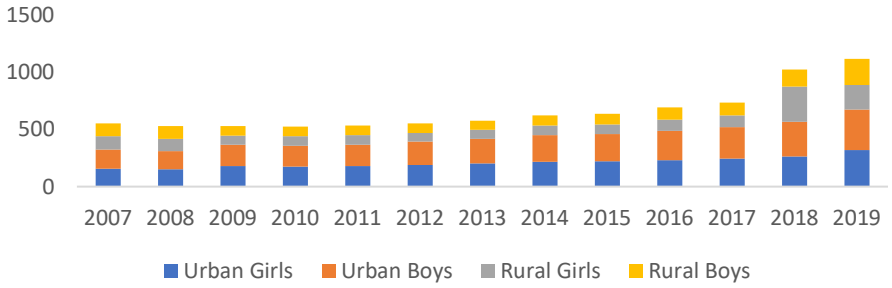
Figure 39. Do You Agree: I Am Worried About My Children's Education



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

139. **Recent reforms aim to address key shortcomings of the education system.** Since 2017, the government has established 43 new higher education institutions and is targeting an enrolment rate of 50 percent by 2030. With the rapid expansion of tertiary enrollment envisioned under current policy, maintaining quality and curricula alignment with the needs of the labor market will be essential. The enrollment of 6-year-old children in preschool education became compulsory in the 2020/21 academic year, and enrollment rates among children ages 3–6 rose from around 20 percent in 2015 to 67.2 percent in 2021. Increasing enrollment in preschools was particularly pronounced in rural areas previously served by fewer formal institutions (figure 40). Though less dramatic, reforms in secondary education have focused on improving quality mainly through better teaching conditions and practices.

Figure 40. Preschool Enrollment, by Sex, Uzbekistan, 2007–19, 1,000s

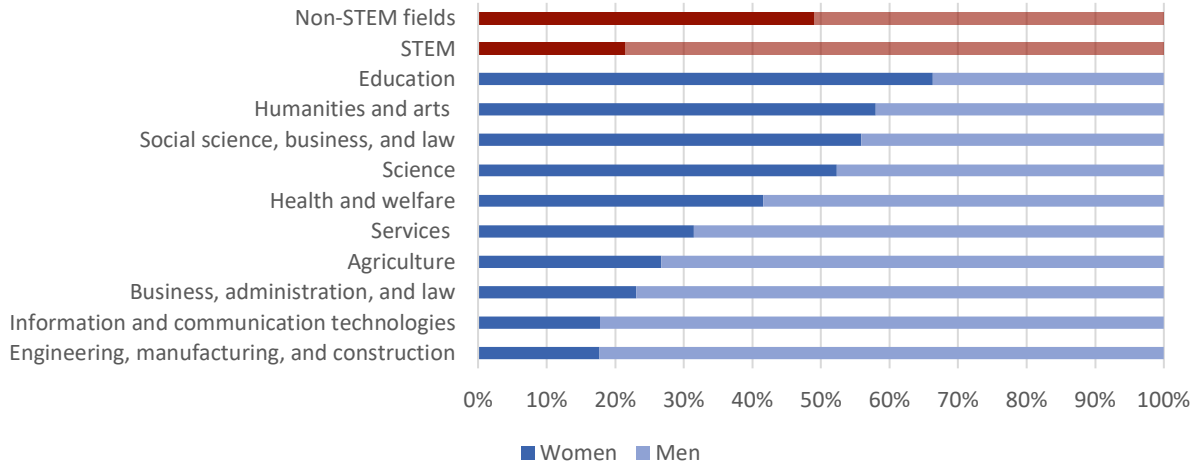


Source: State Committee on Statistics.

[59] See "Data for the Sustainable Development Goals: Uzbekistan," Institute for Statistics, United Nations Educational, Scientific, and Cultural Organization, Montreal, http://uis.unesco.org/en/country/uz.

140. **Large gender imbalances in tertiary education, though narrowing, drive inequality of opportunity in Uzbekistan.** There are only 84 women for every 100 men in higher education institutions in Uzbekistan, and only 63 women for every 100 men enrolled in research topics. Women students overwhelmingly enroll in traditionally woman-dominated specializations, such as health care and education, while men students study transport and communication, agriculture, and industry (figure 41). Women accounted for only about 21 percent of graduates in science, technology, engineering, and mathematics programs in 2019. But the growth rate in enrollment in higher education has been much more rapid among women than men over the past decade, rising among women from about 39 percent in 2010 to nearly 46 percent in 2020. Over the period, enrollment rose more quickly among women than men in every region except Karakalpakstan.

Figure 41. Share of Women University Graduates, by Program, 2018



Source: DataBank: Gender Statistics, World Bank, Washington, DC, https://databank.worldbank.org/source/gender-statistics.
Note: STEM = science, technology, engineering, and mathematics.

141. **Strengthening Uzbekistan's primary and secondary education system requires smarter investment.** Public expenditure on education in Uzbekistan reached 4.6 percent of GDP in 2019, a higher-than-average share among lower-middle-income countries. About 75 percent of these resources were allocated to secondary education alone. But, although Uzbek students are required to complete 12 years of schooling by age 18, they only achieve the equivalent of about 9 years after accounting for the quality of the instruction. Improving foundational and basic skills is crucial in the context of the country's transition, including cognitive skills (such as mathematics and reading) and essential skills (such as foreign languages and digital skills). These are key for employability in a more competitive labor market and for learning more complex and high-level skills later in life. In knowledge-based economies, socioemotional and soft skills, including teamwork, problem solving, critical thinking, and entrepreneurship, are also essential to strengthening the adaptability of the workforce and to meeting high demand among employers. Primary and secondary education must also contend with modest but important gaps related to gender and disability. There were 47,000 children and adolescents out of school in 2019, among whom more than two-thirds of children and more than 90 percent of adolescents were girls.[60] Although, in 2019,

[60] See Education (database), Institute for Statistics, United Nations Educational, Scientific, and Cultural Organization, Montreal, http://data.uis.unesco.org/.

fewer than 2 percent of children were out of school, more than 22 percent of children with disabilities were out of school. Additional specialized support is needed to close these gaps and achieve true universal coverage.

142. **Unless authorities act to recover the learning shortages associated with the pandemic, COVID-19 may cause economic losses of up to US$425 million in 2011 purchasing power parity dollars every year.** World Bank simulations of the effects of school closures show that, in Uzbekistan, the COVID-19 pandemic likely pushed many students below minimum proficiency (Azevedo et al. 2020). Learning in Uzbekistan is expected to have dropped by about 28 percent of a typical year's worth of progress in the first year of the pandemic. Learning losses and reduced years of schooling will reduce expected earnings by an estimated 3.5 percent, assuming a year of schooling increases earnings by an average of 8.0 percent.

Public health care

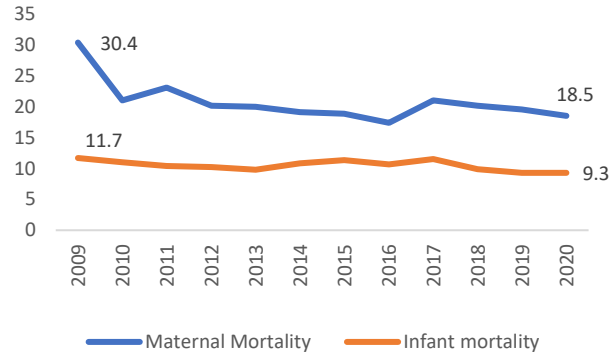
143. **Good health is both an end and a factor determining the limits of a country's economic potential.** A large literature attests to the importance of the two-way interplay between health and inclusive economic growth. Health directly affects productivity, learning, and the demographic trends that govern the capabilities of a country's labor force and the extent of its human capital. In turn, economic growth determines the incomes available to provide the essential needs for people to flourish, such as food, sanitation, medicine, and quality health care. For these reasons, ensuring health and well-being (the third Sustainable Development Goal) is typically at the core of national development strategies, as it is in Uzbekistan. Health care is also the most highly ranked spending priority measured in national surveys, with more than 60 percent of the population naming it as either the first or second most important priority.[61]

144. **Although many health outcomes have improved over the past 20 years, Uzbekistan lags the most successful transition countries in its peer group.** Life expectancy in Uzbekistan rose by 2.1 years between 2010 and 2019 (figure 42). Stunting among children ages under 5 because of inadequate nutrition fell from about 29.5 percent in 2000 to 8.7 percent in 2017 (UNICEF 2019; World Development Indicators). Between 2009 and 2020, maternal mortality fell by about 39 percent, and infant mortality by about 20 percent. Immunization campaigns have eliminated wild polio (certified in 2002) as well as measles and rubella (in 2017). While remarkable, these achievements still leave Uzbekistan behind almost all other countries in the Europe and Central Asia region on summary indicators of public health. Life expectancy trails the regional average by more than 4 years; the risk of maternal mortality is twice the regional average; and, while better than many countries in its income class, Uzbekistan's childhood stunting rate is higher than regional benchmarks (such as Poland's 2.3 percent in 2020). Both the underuse and the low quality of care contribute to high avoidable mortality, which costs an estimated 42,000 lives in 2018 and accounted for about one-quarter of all deaths that year. Substandard care is responsible for 58 percent of amenable deaths, while the remainder derives from the underuse of services. Thus, while Uzbekistan's public health is building from a strong track record of progress, large gaps persist.

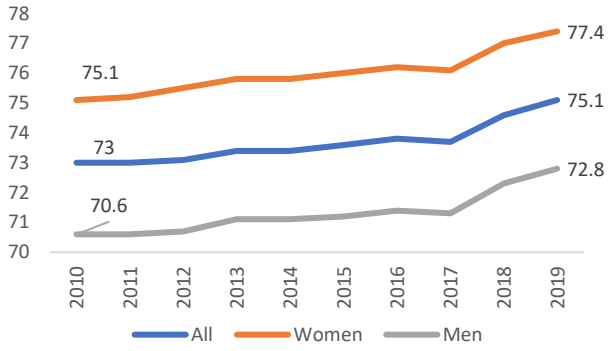
[61] 2016 LiTS (Life in Transition Survey) (dashboard), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

Figure 42. Maternal and Infant Mortality and Life Expectancy at Birth, Uzbekistan, 2009–20

a. Mortality, per 1,000 live births



b. Life expectancy at birth



Source: State Committee on Statistics.

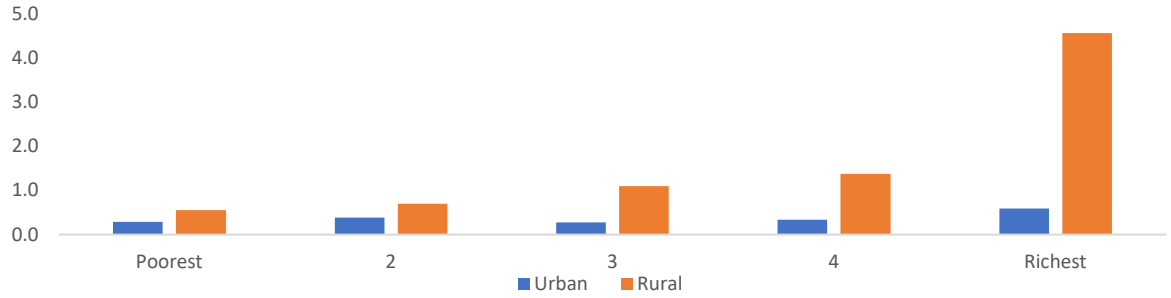
145. **Uzbekistan's health care system places a large cost burden on patients.** From 2000 to 2018, Uzbekistan's total health expenditure, combining public and private spending , was stable at around 5.3 percent of GDP. This is higher than the average in lower-middle-income countries and on par with most countries in the Europe and Central Asia region. But because government health expenditure amounted to only 2 percent of GDP in 2018, patient out-of-pocket costs accounted for more than 60 percent of total health care spending. The high costs patients must bear may curtail participation, thereby limiting the effective coverage of essential medical services. Similarly, the share of primary care in total government health expenditure amounted to only 26 percent in 2018, well below the 33 percent typical of low- and lower-middle-income countries. By contrast, total government health expenditure amounted to 4.9 percent of GDP in Estonia, 3.7 percent in Ukraine, and 2.7 percent in Vietnam in 2018. While government health expenditure has doubled over the past two decades in Uzbekistan (after accounting for inflation), Poland and Vietnam saw 2-fold and 10-fold increases, respectively.

146. **Surveys confirm that cost is the most common barrier to accessing health care and that the lack of affordability is especially problematic among the poor.** According to the 2019 household budget survey, about 8 percent of people were unable to use health services when they were sick. About 46 percent of these people said they self-treated instead of obtaining the professional care they needed. Because costs for medicines and health care services can account for a large share of a poor household's budget, lack of wide public coverage tends to affect individuals with low incomes more. In 2019, the poor were 50 percent more likely than the nonpoor to say they were unable to access the health care they needed, and, in experiencing challenges in access, the poor were 40 percent more likely to cite cost as the primary limiting factor. The basic public benefits package does not cover highly cost-effective outpatient medications, such as blood pressure medication, that can prevent serious health problems and helps avoid greater reliance on the health system. It also does not cover the cost of essential secondary care.

147. **Uzbekistan faces complex health care quality and access challenges that vary by place and type of care.** In urban areas, a large share of 2019 household budget survey respondents reported long waiting times, lack of specialists, and lack of medicines. More than 11.0 percent of these urban respondents cited these problems as the primary cause of their inability to use health services, compared with 2.7 percent in rural areas. There are also large discrepancies in local access to family medicine in rural areas. Unlike in urban areas, few rural mahallas have access to hospitals and other health facilities nearby. Direct access to pharmacies is less common in more remote areas. To compensate, rural areas are more often served

by family clinics, which are less prevalent in urban areas. However, the density of family clinics is much lower in poorer mahallas, rising dramatically in rural mahallas with higher average incomes (figure 43).

Figure 43. Family Clinics, Number by Urban or Rural Location, Uzbekistan



Sources: World Bank calculations; mahalla passport dataset, in Seitz et al. 2020.

148. **The COVID-19 pandemic revealed many service limitations and underscored the importance of a resilient health care system.** From May through June 2020, a monthly average of about 8 percent of households in the L2CU survey reported that they needed medical treatment, and about 16 percent of these said they were unsuccessful in obtaining the treatment. However, access and satisfaction markedly improved over the course of the pandemic. Dissatisfaction with the quality and safety of care declined from 23 percent in July 2020 to less than 5 percent in January 2021, and the share of respondents reporting delays in obtaining medicine fell from 5 percent in July 2020 to less than 2 percent in January 2021. Delays in scheduling appointments with primary doctors dropped from 2 percent to negligible levels over the same period, and, by November 2020, no participating households reported delays in obtaining child immunizations. Nonetheless, the improving health response to the pandemic did not resolve the persistent challenge of cost. At the end of 2020, more than 18 percent of households in the L2CU survey reported that they had not sought treatment because of affordability concerns, similar to the levels that prevailed before the onset of the pandemic. Maintaining the health care system at a high degree of mobilization also tested system limits. While the satisfaction with quality and safety improved, the share of local mahalla leaders who cited the provision of health care as a pressing local challenge rose from 21 percent in August 2020 to more than 39 percent in early 2021.

149. **The outdated health management system needs to be modernized to improve its effectiveness**. The financing and organization of the health system is based on an antiquated Soviet model, the Semashko system, featuring the centralized planning of resources and personnel, the public ownership of health care facilities, the input-based allocation of funds, and no clear division between the service provider and the purchasing unit. The private sector can play an important role in expanding access, as the success of recent improvements in the legal framework for public-private partnerships to spur investment in the provision of dialysis and diagnostics attests. However, the regulations governing private sector participation are also outdated and in need of modernization. Misaligned regulations prevent the emergence of a well-regulated private sector in two ways: (a) the informal or unregulated engagement of the private sector can compromise the quality of health care provision, and (b) unnecessary or anticompetitive regulations can drive out private sector participation and reduce efficiency. In the public sector, expenditures on health care facilities are dominated by fixed costs (salaries and utilities), leaving little space for expenditure on service provision, including treatments, the procurement of medical supplies, and consumables. The health care system also struggles with limited data and monitoring infrastructure and is hobbled by the lack of a comprehensive development and information strategy.

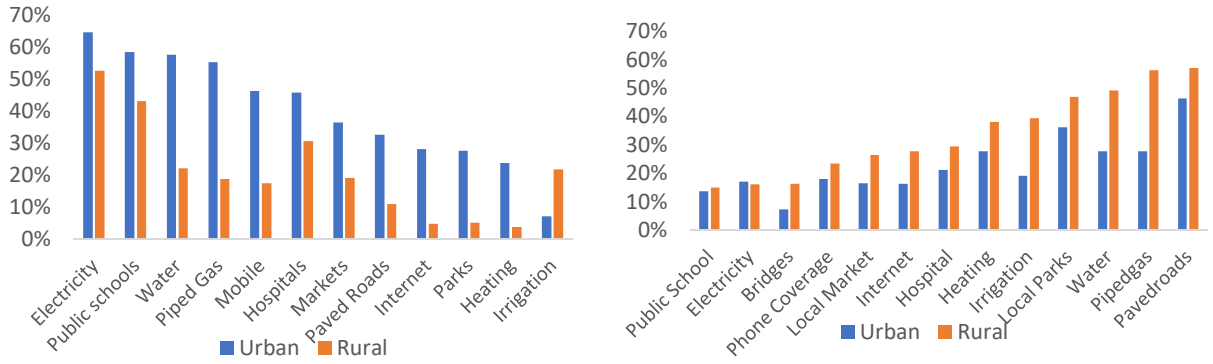
150. **Yet, public health is about more than medical services.** Many of the social determinants of health in Uzbekistan are as important as the quality and accessibility of the medical system. Noncommunicable diseases, such as cancer, cardiovascular disease, diabetes, and chronic respiratory disease, were responsible for 79 percent of all deaths in the country in 2016. Much of this burden is the result of lifestyle choices and the associated risks, including tobacco use, harmful use of alcohol, unhealthy diets, and physical inactivity. Effective responses to such challenges are only partially medical, and complementary policies, such as encouraging nutritious food consumption, healthy lifestyle programs, and high taxes on goods with negative externalities (tobacco, sugar, alcohol, and so on), will grow in importance in the country by promoting broader public health objectives. Similarly, reaching parity with the life expectancy and nutrition standards attained elsewhere in the Europe and Central Asia region will require addressing the country's ongoing challenges of deprivation—monetary poverty, food insecurity, and access to clean water and sanitation services—that has direct, severe, and long-term health consequences.

Basic utilities and public services

151. **Basic living conditions have steadily improved in Uzbekistan over the past two decades, but urban-rural and regional disparities are still stark.** According to the household budget survey, about 63 percent of households in Uzbekistan had access to improved piped water in 2019, and 68 percent of the population had access to improved sewerage, including more than half of the poor across both measures. Access to electricity has been nearly universal for a long time. Meanwhile, inadequate access to water and sanitation is estimated to cost US$635 million per year (1.3 percent of GDP). These challenges are largely concentrated in rural areas. According to the household budget survey, 82 percent of urban households had access to piped water in 2019, compared with 44 percent in rural areas and as low as 38 percent in Bukhara and Samarkand regions. In 2018, only 22 percent of rural households in the L2CU survey said that their water services are at least good, compared with 58 percent of urban households (figure 44). While more than 55 percent of urban households reported that their piped natural gas service was good, only 19 percent of rural households did so. There is likewise a clear split in the perceived urgency of priorities in local infrastructure. Residents of rural areas much more often than urban dwellers note needs across a range of issues, but especially improved gas, water, paved roads, parks, and irrigation services. Well-regulated private sector investment could help expand basic public service coverage and access.

Figure 44. Survey Respondents Views on Service Quality, by Urban or Rural Location, Uzbekistan, 2018

a. Service quality is good **b. Improvement is urgently needed**

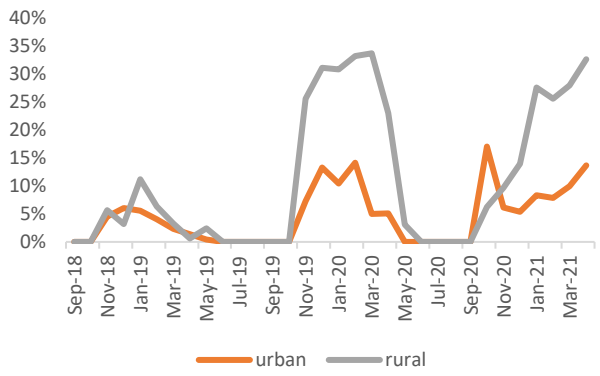


Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

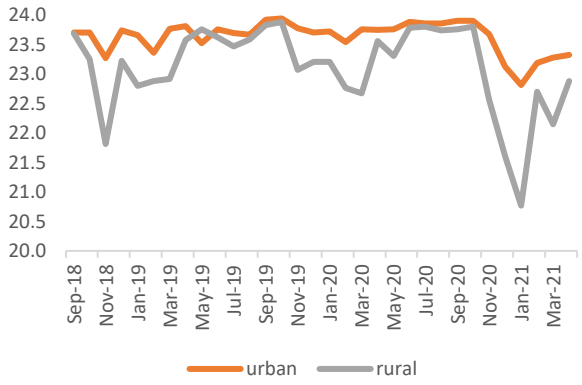
152. **Maintaining existing infrastructure, including water, sanitation, gas, and electricity services, is a significant challenge.** The basic service and utility infrastructure was largely constructed in Uzbekistan during the Soviet era. Many of these local systems have exhausted their useful lives and require extensive rehabilitation and renewal. Public expenditure has not kept pace with the requirements in asset replacement, maintenance, and system expansion. A lack of continuity of service is a common and serious issue across the country (figure 45). Communal heating systems are commonly interrupted, and electricity service interruptions are commonplace. Many systems supply water for less than 12 hours a day, in addition to unexpected outages, though the frequency of the latter has fallen since sector reforms were launched. While water quality in Tashkent and other large cities is generally compliant with national standards, up to 30 percent of water quality samples are not compliant in many district towns (especially in the Republic of Karakalpakstan). Service disruptions of all types are most prevalent in rural areas, district towns, and peri-urban areas. Beyond the economic impacts, the inequal access and quality characteristic of public services has recently become a frequent cause of social tension and discontent in Uzbekistan, particularly in view of the context of broader economic development, rising socioeconomic aspirations, increased citizen engagement, and demands for improved public services.

Figure 45. Services Outages and Interruptions, by Urban or Rural Location, Uzbekistan, 2018–21

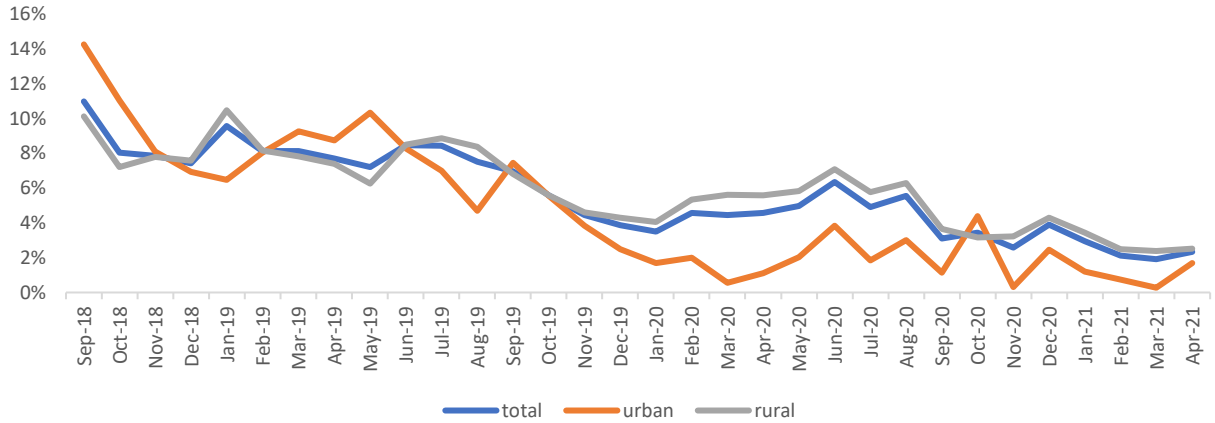
a. Disruptions in home heating



b. Hours of electricity outage, previous day



c. Unexpected water service disruption, previous month



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

153. **Sewerage services are underdeveloped outside a few urban areas, and existing systems are deteriorating.** Built in urban areas in the 1970s and 1980s and largely neglected since then, sewerage infrastructure is in poor condition and continues to deteriorate. In 2016, roughly 12 percent of the population (3.7 million people) was reportedly served by a centralized sewerage system, down from 17 percent in 2010. Most connections are clustered in Tashkent City and Tashkent Region. In other regions, only an average of 5 percent of the population is connected to a centralized sewerage system. Wastewater treatment facilities are also highly degraded or, in many cases, nonoperational, resulting in the pollution of surface water resources. The status of rural sanitation has largely been left to the initiative of households and communities. Most households in rural areas rely on self-built on-site sanitation, that is, dry pit latrines or, among households with indoor bathroom facilities, septic tanks with on-site disposal.

154. **State-administered utility prices pose challenges for the equitable and efficient use of resources and the private sector investments to improve services.** Relevant authorities in Uzbekistan have consistently identified utility tariff reform as a high priority since 2017. However, administered utility tariffs, including electricity, natural gas, heating, water supply, and sewerage services, pose a particular challenge to private sector investors, despite significant domestic and foreign investor interest in these services. Because they are typically set much lower than either cost recovery or (where relevant) export value, large fiscal subsidies (either implicit or direct) are required to maintain low fees. The low tariffs reduce the resources available for maintenance and investments to improve services, contributing to chronic underfinancing in the relevant sectors. As consumption of utilities rises with income, ongoing subsidies also result in a regressive distribution of public resources. For instance, about 70 percent of the value of subsidized electricity tariffs accrues to the richest 60 percent of the population (World Bank 2018b). However, even if they are inefficient, utility subsidies provide significant benefits to users through the lower prices. Raising tariffs without mitigation can also lead to an increase in the poverty rate because low-income people tend to spend a larger share of their budgets on the tariffs. The L2CU survey also shows that, in isolation, utility tariff liberalization is unpopular. Balancing social considerations and the fiscal burden of inefficient utility subsidies is expected to remain a critical reform challenge in years ahead.

Leaving nobody behind

155. **Ensuring that Uzbekistan's economic growth is inclusive requires clearly identifying people in need, reducing barriers to opportunity, and providing targeted support.** Especially in the context of fundamental reforms to the economic structure of the country, policy makers must be proactive in ensuring that all people can provide for basic needs, access good-quality public services, and have open pathways to good jobs. The existing social system already has many policies to promote inclusive growth. But some of these require substantial strengthening to guarantee effectiveness, while others are underused or ignored. Reforms are needed to remove policies that prevent more inclusive growth.

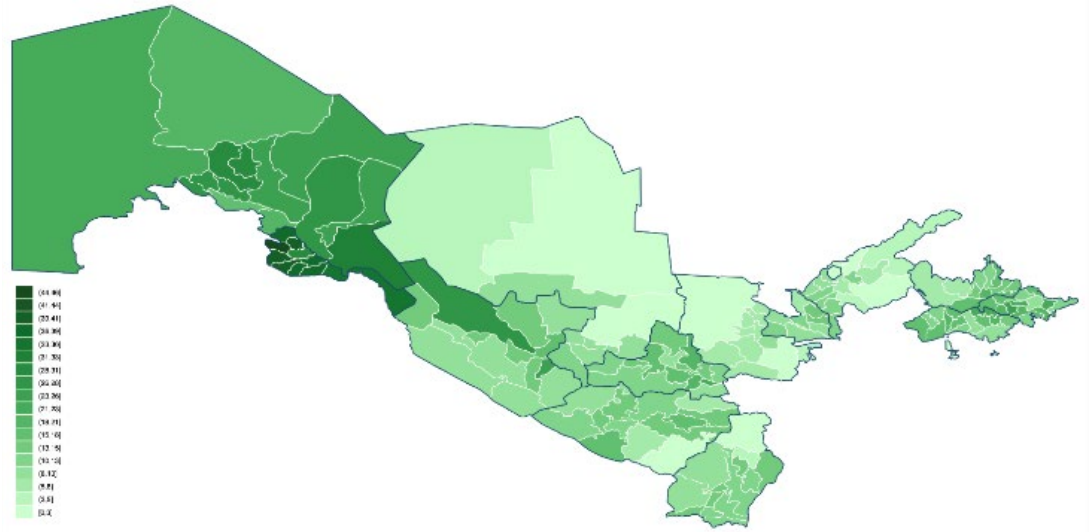
Inclusive labor market policies

156. **The struggle of the government and stakeholders to generate inclusive employment will define the success of the country's transition.** The slow pace of employment and wage growth has consistently limited the speed of poverty reduction and the expansion of the middle class in Uzbekistan. Many of the most promising avenues for reform involve reducing the market distortions that constrain the private sector, such as onerous regulatory burdens, state intervention in production processes, and high tax rates.

But equally vital is the proactive role of the state in realizing an inclusive labor market. Women, youth, people living with disabilities, the long-term unemployed, and other vulnerable groups are often at the end of the queue in the challenging labor market. In the coming phase of the country's transition, the quality of labor market regulation, combined with the effectiveness of social protection and labor activation policies, will be decisive in ensuring that reform benefits all people.

157. **Seasonal international migration supports substantial poverty reduction and may be further leveraged.** Emigration is an attractive pathway out of poverty and hardship for many households in Uzbekistan (map 2). For the bottom fifth of the population, remittances account for 11 percent of the total income on average. World Bank research finds that. within households, the push factors of migration include job loss, difficulty finding work, and high local unemployment rates (Seitz 2019a). As a result, remittances have a strong impact on poverty reduction. Without remittance income, the poverty rate in Uzbekistan might have risen from 9.5 percent to 16.8 percent in 2018 or to about 12.2 percent even if all current migrants were to find employment at the local prevailing median wage. But regulations on migration facilitation have in recent years substantially reduced the role of private sector operators, even while few migrants take advantage of government centers. Countries such as Indonesia and the Philippines that have capitalized on the opportunities presented by international migration have focused on capacity building to support international labor migrants. Such programs have often included intensive language training and in-demand skills acquisition; formal job matching services; training in legal rights and antitrafficking; family support programs; and policy reform to streamline travel, patent, and registration requirements. In Uzbekistan, another high priority area involves formalizing arrangements for recognizing host country pension contributions among migrants abroad.

Map 2. The Share of Households with at Least One Member Who Has Emigrated, 2018



Source: Small area estimates based on the baseline of L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

158. **The labor market faces a shortage of higher-education graduates.** The number of graduates from tertiary institutions is exceedingly small in Uzbekistan. However, wages and employment rates are considerably higher among individuals who obtain a tertiary degree than among those with secondary or vocational qualifications. Among higher-education graduates, 94 percent were employed within six months of educational completion in the 2017/18 academic year. While comparable data in the same year are unavailable for secondary or vocational graduates, a 2013 World Bank survey showed that the latter

had a 57 percent employment rate compared with 77 percent among higher-education graduates (Ajwad et al. 2014). Estimates from 2014 also show that the wage premium of higher-education graduates relative to graduates of secondary or vocational programs was 55 percent. The shortage of skilled labor (workers, engineers, and managers) among private sector firms is one of the most important constraints revealed in surveys and stakeholder consultations (World Bank 2018a).

159. **A large share of youth struggle to enter the labor force or obtain further education.** Unemployment rates are higher among youth, and employment outcomes are worse in terms of job security, social insurance, protection, and pay. Youth who are not in education, employment, or training represent 24.0 percent of youth ages 16–24 and 26.4 percent of individuals ages 16–29. The rate among young women is up to 38.2 percent, four times the rate among young men. To make a living, young people are compelled to take low-productivity, low paying jobs; qualitative studies suggest that below minimum wage compensation is common among youth (Gardiner and Goedhuys 2020). The discouragement rate as a share of the total population is also unusually high, reaching 10.0 percent among individuals ages 20–24 (compared with an average of 2.7 percent in the European Union). The share of youth out of work markedly increased during the pandemic, especially among the self-employed. These challenges suggest that Uzbekistan is at risk of missing the demographic dividend. As one of the youngest countries in the Europe and Central Asia region, Uzbekistan's growing working-age population represents a major opportunity to reduce poverty and increase shared prosperity. But to harness this chance, more abundant and remunerative employment opportunities are needed.

160. **The country is struggling with pervasive gender imbalances in employment arising at least in part because of norms and discrimination.** Labor force participation is 28 percentage points less among women than among men, nearly twice the average gap in high-income countries (15 percentage points) and much higher than in comparator countries, such as Russia (10 percentage points) and neighboring Kazakhstan (12 percentage points).[62] Women, particularly young women, are especially likely to be unemployed or out of the labor force entirely (figure 46). When asked why they were not job searching, 43 percent of women cite housework, compared with only 7 percent of men.[63] Gender norms in Uzbekistan often require women to assume responsibility for childcare and time-intensive household chores, such as fetching water, cooking, cleaning, working the garden, and caring for dependents.[64] But, despite low levels of labor force participation among women, L2CU respondents say that, on average, a lack of jobs among women is as pressing a challenge as the lack of jobs among men. The disconnect may derive in part from gender discrimination in hiring decisions, which is prevalent and economically significant. An audit study conducted in 2020 found that women were 185 percent more likely to get a callback in response to an application than men in woman-dominated professions, and men were 79 percent more likely to get a callback than women in man-dominated professions (Muradova and Seitz 2021). Such strong gender preferences contribute to segmentation of the labor market with respect to gender. In 2019, women made up a large majority of the workforce in social sectors, such as education (76 percent women) and health care (77 percent women). Meanwhile, men represented a large proportion of the workforce in more technical sectors with higher-than-average wages, such as construction (94 percent men), transportation and storage (93 percent), information and communication

[62] Similar estimates are evident in both L2CU data and the household budget survey.

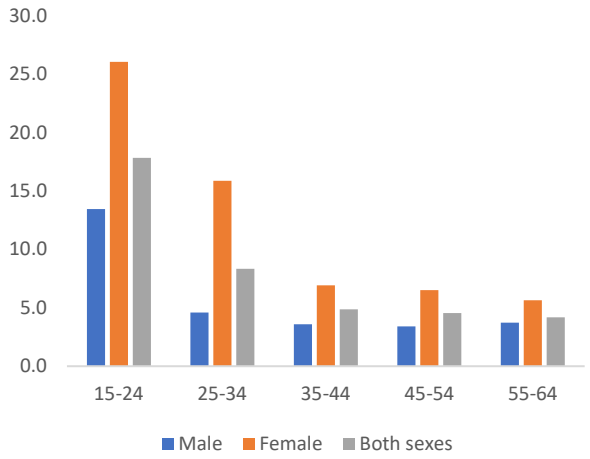
[63] Based on L2CU baseline data of September 2018.

[64] Nearly 100 percent of women and 90 percent of men in Uzbekistan believe that a woman should do household chores even if her husband is not working. See 2016 LiTS (Life in Transition Survey) (dashboard), European Bank for Reconstruction and Development, London, http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html.

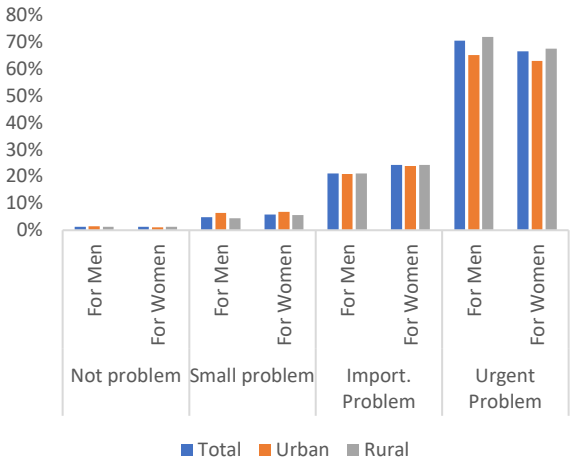
(68 percent), and financial and insurance activities (65 percent). Reforms to the labor code were proposed in 2019 envision reducing distortions that limit women's participation in subsectors of the economy.

Figure 46. Labor Market Challenges for Women vs. Men

a. Unemployment, 2018



b. Job availability



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

161. **Core unemployment-focused programs achieve only limited coverage despite many overlapping labor market programs.** The largest labor market programs in Uzbekistan currently are public works programs administered through employment centers and training programs delivered through the new network of training centers. The coverage of unemployment benefits reaches only about 1 percent of the registered unemployed, and there is no basic unemployment insurance system for workers in the event of job loss. Income and payroll taxes are flat, and high-income individuals have the same tax liability as a share of their incomes as individuals with lower incomes, incentivizing informality and contributing to inequality. In 2019, the government expanded labor market programs by introducing four new types of subsidies. These include one-off, separately funded programs that have been launched to support new entrepreneurs, especially among women and young people. These new programs are administered under several different institutions, including the Office of the President, the Republican Commission for Development of Youth Entrepreneurship, the Ministry of Mahalla and Family, and the Ministry of Finance.

162. **The lack of unemployment insurance reduces dynamism and the protection against job loss.** The lack of a traditional contributory unemployment insurance scheme is particularly problematic in the context of elevated unemployment and the challenges of economic transition. In its absence, unemployment benefits, though formally open to all who are not employed and looking for work, are rationed, and beneficiaries seldom receive any cash support during unemployment. According to the labor code, employers are required to provide one month of severance pay for every two years of service if a worker is laid off or dismissed. This is the primary source of financial support available to formal workers who lose their jobs. Together with relatively broad restrictions on ending employment contracts, a relatively high burden of social protection for workers is placed on employers, which risks discouraging formal hiring. Though a state-financed unemployment benefit program exists, coverage is minimal. In December 2019, unemployment benefits were provided to 57,800 of the approximately 1.33 million

registered unemployed (about 4.4 percent). Instead, the government relies heavily on non-transfer programs, such as job-matching services, public works, and retraining.

163. **Stronger labor market programs are needed to address the employment challenges associated with reform.** Upcoming reforms to reduce the state's footprint in the economy may temporarily cause higher unemployment, especially because of the privatization of SOEs. Responsive labor market programs are needed to ensure that workers receive the support they are entitled to and are reintegrated quickly into the labor force. Skills mismatches may also expand because the workers laid off from SOEs may not have the qualifications that a modern economy demands. Rapid modernization and the opening of the economy require modern skills and qualifications that are competitive not only within the country, but also outside. Support for a balance between labor supply and demand will be necessary, which means that demand-side support must complement passive and active labor market programs.

164. **Adjustments to taxes on labor income could incentivize employment and reduce the drivers of informality.** Formal low-income workers and high-income workers in Uzbekistan pay the same share of their incomes in taxes. The introduction of a new tax code in 2020 cemented earlier reforms that simplified the personal income tax to a flat rate of 12 percent for individuals and fixed social contributions made by employers on behalf of employees at a rate of 25 percent for budget entities and 12 percent for most other entities. The structure of personal income and payroll taxes reduces administrative complexity. However, because low-income people are more budget constrained than high-income people, the relative tax burden is larger among the former. Low-income people face an extreme trade-off between avoiding taxes and bearing a relatively high cost to switch to formal work, and the current tax structure increases income inequality and discourages employment formality. One alternative often used by governments concerned about disincentive effects is to structure income taxes and payroll contributions to rise gradually with income, with low rates on income up to the minimum wage, for instance, and gradually increasing rates at higher incomes.

165. **Complex occupational licensing and permit processes limit the inclusiveness of growth.** Labor mobility across businesses and sectors is limited by complex occupational licensing and certification requirements in Uzbekistan. As part of state-sponsored programs to promote more diverse local economic activities, reforms have been enacted to reduce licensing burdens. Some activity-specific licensing requirements (such as licenses to produce audiovisual works, realtor activities, and electronic equipment rentals) have been simplified in recent years, but others represent a constraint on greater labor market efficiency. Removing occupational barriers to entry, such as unnecessary licensing and certification, can increase inclusion and productivity, especially in services. Minimum education, licensing, and certification requirements are often necessary to protect health and safety. However, such procedures are associated with large costs if they hinder worker mobility and are abused for anticompetitive ends. Because compliance is often costly, including completing a tertiary degree or specialized training, heavy regulatory burdens often exclude poor people and individuals at the margins of the labor market. Uzbekistan's labor market remains heavily regulated in this area. It involves a comprehensive classifier system requiring higher education for as many a 70 percent of listed occupations.[65] The Organization for Economic Co-operation and Development and others find evidence of large improvements in inclusion and firm productivity if barriers to job entry are removed (Bambalaite, Nicoletti, and von Rüden 2020). Based on comparisons across jurisdictions, global estimates suggest that

[65] In 2020, the Presidential Administration ordered the reduction of higher education requirements with the goal of especially promoting employment among women and youth. In addition, a presidential decree in January 2021 called for the simplification or removal of 70 of 266 types of occupational licenses and 35 of 140 types of permits.

easing occupational entry regulations could add up to 2.5 percentage points of productivity on average, while greater labor reallocation could contribute up to 10 percent to employment growth in the most productive firms.

166. **More labor support programs and coordination with low-income benefit programs could also help reduce unemployment.** The shift to a more market-oriented economy fosters greater emphasis on worker skills. More emphasis on skills development, potentially leveraging the large network of employment support centers in the country, is essential for inclusive transformation of the economy and enhanced workforce competitiveness. The most successful transition countries promoted more extensive coordination and involvement of the private sector in the development of curricula and training initiatives to align human capital development programs more closely to the needs of employers. Coordination mechanisms between labor market programs and other low-income benefit schemes is also important. Current arrangements are not transparent, but often attempt to exclude participation in more than one support program. The unemployed thus often risk losing access or being denied needed assistance. As with other elements of the social protection system, graduation and transition between programs are fragmented in Uzbekistan, and there is little horizontal coordination among the agencies responsible for low-income benefits and other safety net programs in employment, training, economic development, and finance.

A strong social safety net and the identification of needs

167. **The government did not formally recognize the existence of poverty in Uzbekistan until recently**. Until 2021, the sole measure of diminished well-being monitored by the government authorities in Uzbekistan was low-income status, which was tied to food access based on a norm of 2,100 average kilocalories per person. Such a definition of a person's needs was relatively extreme when benchmarked against countries at similar levels of income. In practice, the measure was only occasionally published and was not actively integrated into social policies. At the same time, the legal notion of a minimum acceptable standard of living was based on another measure, the subsistence minimum. But this concept was undefined and like the measure of low income, was never applied in practice to social transfer programs.

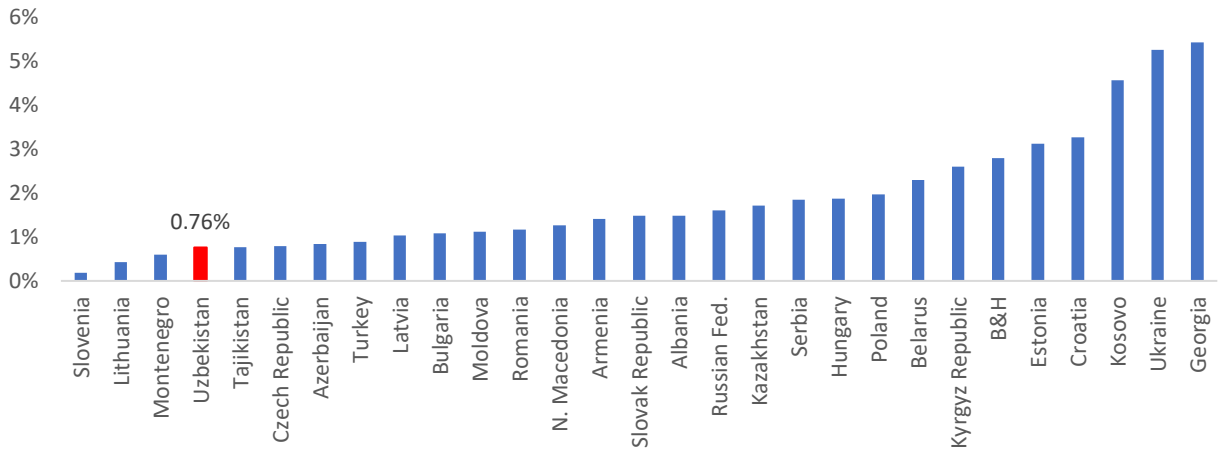
168. **In January 2020, the government announced plans to define, identify, and reduce poverty.** Following the announcement, the Ministry of Economy was restructured to implement this task and became the Ministry of Economic Development and Poverty Reduction. Later in 2020, a survey was launched to define a new provisional national poverty line at UBZ 440,000 per person per month based on the cost of the basic needs approach to estimation. The authorities committed to publishing updated estimates of the poverty rate beginning in early 2022 and developing policies that benefit the poor and encourage inclusive growth. However, systems to identify the number and characteristics of people who have insufficient means to obtain the necessities of life are only at the initial stage.

169. **Beyond the labor market programs described above, the relatively well-articulated social protection system is focused on transfers.** A combination of tax-funded and insurance-based cash transfers form the foundation of the social protection system in Uzbekistan. This is paired with only the modest provision of social care services and recently established active labor market programs. The system includes social insurance (contributory), social assistance (noncontributory), unemployment benefits, several active labor market programs, and social care services. According to official statistics, pensions account for 82.6 percent of social transfers, social benefits 13.3 percent, and scholarships 4.1 percent. Social insurance programs have by far the greatest coverage, especially contributory pensions, while social assistance (transfer) programs are the primary tools to ensure coverage of the poor. These

programs are being revamped. Transfer amounts have been increased to be consistent with the poverty line, and they system has been digitalized. The L2CU survey shows that social transfers (such as pensions and social assistance) have been crucial in stabilizing income fluctuations that disproportionately affect the vulnerable.

170. **The government spends less than regional peers on the poor and on households struggling with low incomes.** Social assistance spending in Uzbekistan amounted to roughly 0.76 percent of GDP in 2017, one of the lowest levels in the Europe and Central Asia region (figure 47). Targeted social assistance programs achieve substantial poverty reduction. But, when last assessed in 2018, they excluded more than half of poor families and continue to be constrained by limited funding. Within social assistance, the most important programs are means-tested assistance for low-income households. The number of households receiving low-income family allowances was on a downward trajectory throughout the 2000s and, by 2017, had fallen by almost half the number of beneficiaries reached in 2013. It then began a gradual increase and jumped sharply, to 1.2 million households in 2020, in response to the COVID-19 pandemic. Eligibility conditions and targeting errors result in the exclusion of poor households from adequate benefits. Still, in terms of generosity, the minimum social transfers followed an upward trajectory, rising steadily from 2010 onward before plateauing in 2019 (World Bank 2019c). The rising benefit amounts to a narrower population in need led to large differences in the financial well-being of households benefiting from social programs and households that were excluded. In 2018, about 63 percent of the poor were not reached by low-income allowances, but, among the poor receiving support, about one-half were soon living above the poverty line.[66]

Figure 47. Annual Social Assistance Spending, Share of GDP, 2017



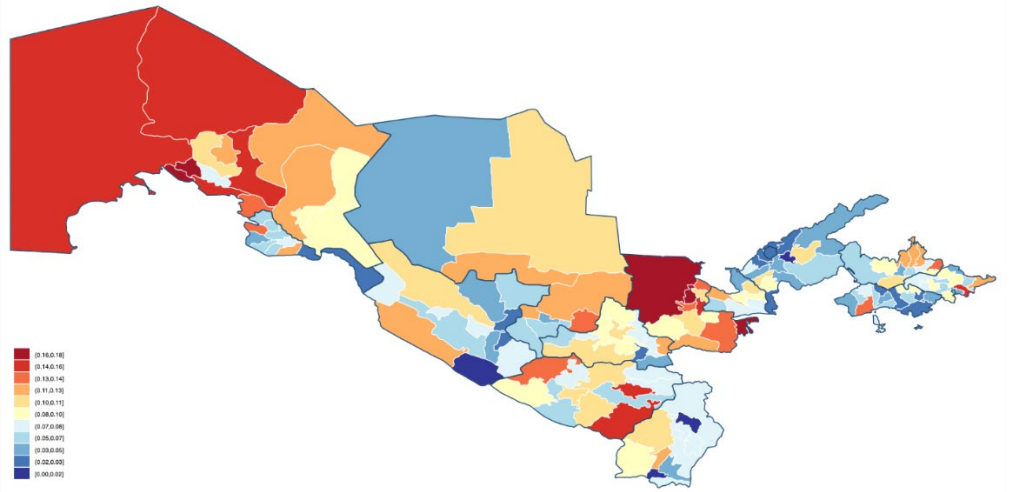
Source: 2017 data of ASPIRE (Atlas of Social Protection Indicators of Resilience and Equity) (dashboard), World Bank, Washington, DC, http://datatopics.worldbank.org/aspire/.

171. **Social assistance provision is concentrated in several clusters.** Mahallas in Jizzakh and Karakalpakstan, on average, have many more assistance beneficiaries than mahallas in other regions (map 3). Both regions are above average with respect to a range of social benefits, including the loss of breadwinner benefits, the loss of other social assistance benefits, the overall need for social assistance, and the unmet need for social assistance, according to local mahalla authorities. The region of Navoi, in contrast, has relatively low provision of social assistance, but relatively high unmet need, according to mahalla passport data (Seitz et al. 2020). Across all measures in this dimension, mahallas in Jizzakh,

[66] The poor are defined by the US$3.20 poverty line of lower-middle-income countries.

Karakalpakstan, and, to a lesser extent, Kashkadarya have a larger number of overlapping deprivations. In contrast, the city of Tashkent has relatively few people eligible or receiving social assistance, which is also consistent with estimates of average per capita consumption and income. By contrast, mahallas in the region of Tashkent are somewhat more often among those with many recipients of lost breadwinner benefits, but, among other types of benefits, there are similarly low levels as in Tashkent City. Across all measures in this dimension, mahallas in and around Tashkent are substantially less likely to be receiving social assistance benefits or identified as in need of them, followed by mahallas in Bukhara and Ferghana.

Map 3. Index of Social Assistance Provision and Reported Need



Source: World Bank calculations.

172. **The coverage of the elderly by the contributory pension has shrunk, and the coverage of social pensions is limited.** Pensions are the second most important source of income in Uzbekistan (after employment income). They account for about 83 percent of all transfers and between 16 percent and 18 percent of household income. Though total pension income is relatively flat in its contribution across the distribution of income, pension financing in Uzbekistan depends on an individual's work history. The large scale of informal employment, the prevalence of agricultural incomes, the narrow range of jobs with paid employment, and low earnings have led to a rise in the number of older people at risk of poverty and their exclusion from the pension system. The coverage of social pensions, that is, benefits for individuals with an insufficient work record and contributions to be eligible for a contributory pension, has remained narrow. Only individuals who have no family members to support them financially are eligible for the social pension. Nonetheless, the design of the pension system leads to some progressive redistribution. In 2019, more than 98 percent of pension benefits in Tashkent City, the most prosperous area in Uzbekistan, were paid from the extrabudgetary pension fund to which formal employees were obligated to contribute. In contrast, in Karakalpakstan and Surkhandarya, which have some of the highest poverty rates in the country, 61.5 percent and 74.2 percent of pensions, respectively, were paid out directly from the budget.[67]

173. **Both formal and informal social support are critical sources of resilience, but vulnerable groups such as woman-headed households often have less access.** Local self-governance systems, such as mahalla committees, are common across Uzbekistan, and citizens often rely on these local institutions to

[67] In 2019, the extrabudgetary pension fund was closed, and pension payments were incorporated into the general budget. Mandatory contributions have been significantly reduced as part of an ongoing pension reform process.

resolve issues, access public goods, and recover from crises. However, survey data show that woman-headed households do not benefit from community social capital to the same extent as man-headed households in paying to cover basic needs. Interventions to boost the connectivity of these households to other community members and gain access to financial, social, and other resources would help increase household resilience. This may involve greater efforts by neighborhood citizen assembly members to provide outreach and bring together community members in meetings and activities, such as participatory budgeting or participatory planning to inform government infrastructure investments in villages.

174. **Ongoing reforms aim to create a simpler and more effective system of social assistance with improved coverage and quality of services.** A single registry electronic information system was adopted nationwide in 2020 with the aim of simplifying processes and improving transparency and accountability in the management of the low-income family allowance. The program currently consists of three types of benefits: a child allowance for families with children (under age 2), a child allowance for families with children ages 2–14, and a low-income family allowance. Beneficiary eligibility is based on an income test and was previously conducted by mahallas. Since December 2020, the application, selection, and payment of beneficiaries have been managed through the single registry administered by the pension fund under the Ministry of Finance. The introduction of the single registry has simplified and automated some aspects of the delivery chain of the program, such as registration, eligibility determination, and payment.

175. **Universal pensions guaranteed and financed by the government for the elderly, survivors, and people with disabilities are a powerful tool for preventing extreme poverty.** The pensions are not tied to earnings or to the contributions paid, but, as a rule, are dependent on the duration of residence in the country and the availability of other sources of income. In the Nordic countries, such pensions involve a separate payment and consider the length of residence, marital status, labor pensions, and earnings or other income.[68] In Uzbekistan, the structural reform of the solidarity system through the introduction of a universal state pension or adding a base component to the insurance pension formula could replace existing social benefits among individuals without seniority, as well as solve the problem of the pension fund deficit that emerged after the tax reform.

176. **Pension systems can stimulate the formalization of employment.** In many European countries, contribution subsidies are used to encourage employers to recruit people with reduced competitiveness, such as people entering the labor market for the first time or returning after a long break. In Uzbekistan, such subsidies might be envisaged, for example, for graduates of educational institutions who do not have work experience. India's experience in subsidizing contributions is also instructive. India periodically runs campaigns to encourage employers to hire workers for at least a small salary to involve new participants in the pension system. The government provides a subsidy to cover the employer's contribution for employees who have been hired within the last three years, have not previously participated in any pension program, and have a salary that does not exceed the established threshold (SSA 2018).

177. **A stronger safety net and a focus on the needs of the poor will be vital to addressing Uzbekistan's current challenges, as well as those stemming from the transition process.** Lessons from other transition experiences show that even strong reform momentum can be derailed by a backlash arising from concentrated harms, unfairness, and dissatisfaction. Early investments in strengthening the safety net, alongside a healthy and inclusive labor market, are essential to ensuring that the transition is

[68] See MISSOC (Mutual Information System on Social Protection) (dashboard), European Commission, Luxembourg Institute of Socio-Economic Research, Esch-sur-Alzette, Luxembourg, https://www.missoc.org/missoc-database/comparative-tables/.

not inequitable or a source of social discontent. The authorities in Uzbekistan recently anchored their commitment to inclusive growth with a new national poverty line. It was developed as a fit-to-purpose tool to calibrate transfers, develop nonfinancial social support, and target interventions on those in greatest need. It will be vital that the authorities continuously identify the number and characteristics of people who have insufficient means to obtain the necessities of life. They must also undertake policy reforms that benefit the poor. The new framework will be most effective if it is used to guide the allocation of direct social support, consider the impact of reforms on the well-being of the poor, and encourage job creation that is poverty reducing.

Addressing inequality of opportunity

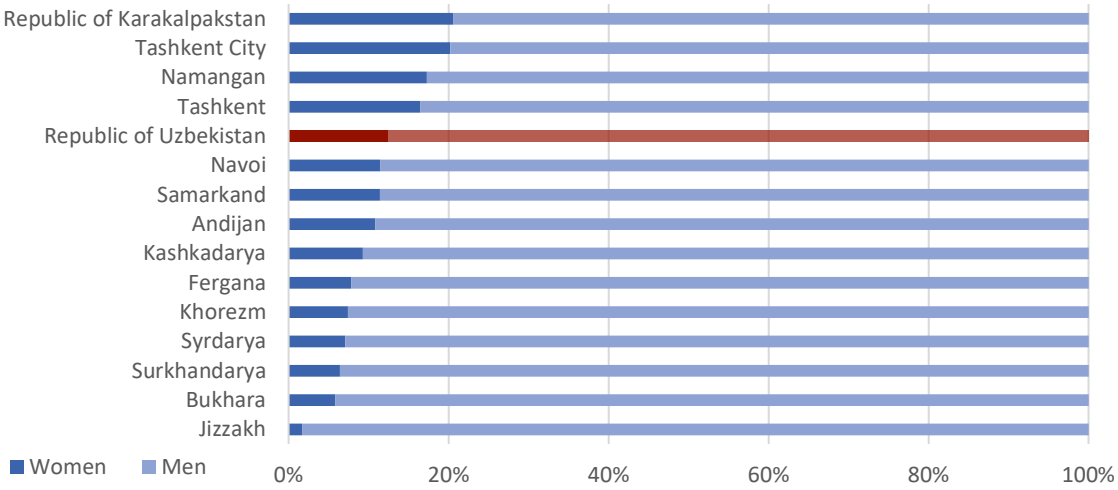
178. **Gender imbalances in access to services and opportunities are widespread.** There are large differences in educational and health endowments, economic opportunities, and voice and agency between women and men in Uzbekistan. The gender development index of Uzbekistan was calculated for the first time in 2013. Since then, women have only scored higher than men on the life expectancy indicator. The labor force participation rate is stuck at a much lower rate among women compared with men, with a gap of about 28 percentage points in 2018. In 2017, the Women's Committee of Uzbekistan, a public organization chaired by the deputy prime minister, identified "employment, creation of new jobs, development of business and entrepreneurial skills" as the key issues among women in small and larger cities and "social and municipal infrastructure, family, and home-based business development" as the key issues among rural women (ADB 2018, 2).

179. **Recent laws to guarantee gender equality and reduce gender-based violence are an important first step toward addressing imbalances.** Enacted in September 2019, the law on gender equality guarantees equal opportunities for women and men, employment nondiscrimination based on sex, and equal access to public services and participation in state and public affairs. The law to protect women from violence establishes a legal basis for police complaints motivated by gender-based violence, opening the door for the systematic protection of victims.[69] Previously, although violence against women was illegal under criminal law, no specific provisions existed for the registration of gender-based violence cases, nor for the specific measures recommended to support and protect women affected by gender-based violence. The passage of the new legislation establishes gender-based violence as a distinct type of criminal offense and sets out special requirements for the registration, processing, and enforcement of these cases.

180. **Women are underrepresented in high-level decision-making positions.** As of 2020, 29 percent of the Members of Parliament were women despite a quota requiring that women account for 30 percent of the candidate lists of political parties. Only 12.4 percent of judges were women in 2020 (figure 48). All 14 regional hokims were men. In May 2019, women held 12.3 percent of mahalla rais (chair) positions nationally. Both men and women strongly support quotas to ensure gender balance in government and the private sector. According to the L2CU survey, over 87 percent of respondents support the enforcement of quotas to ensure gender balance in private sector and government employment and among elected government officials.

[69] Data on gender-based violence are not available in Uzbekistan, but data on other Central Asian countries show a high prevalence.

Figure 48. Judges, by Sex and Region, January 2020

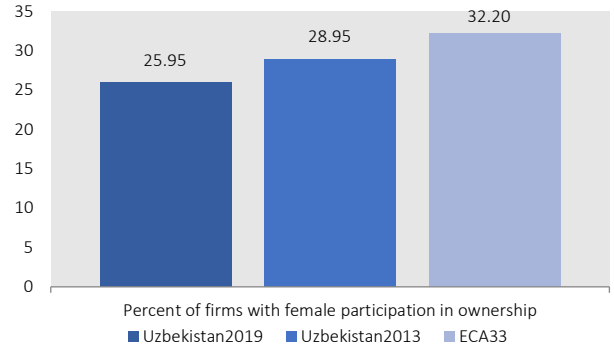


Source: State Committee on Statistics 2020.

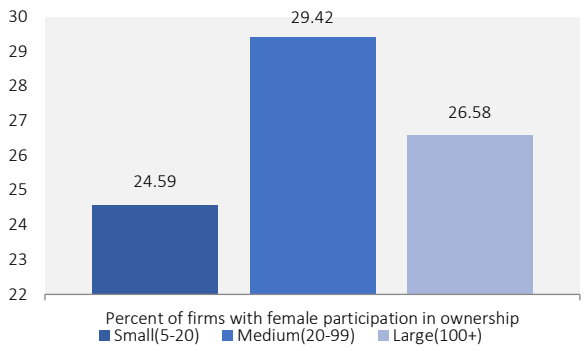
181. **Uzbekistan underperforms with respect to women's participation in business ownership and in high-level business management positions.** In 2019, only 3 percent of large firms had women in top management positions, rising to only about 15 percent among small firms. Only one-quarter of firms had women owners, lower than the average in Europe and Central Asia and in lower-middle-income countries by more than 6 and 11 percentage points, respectively. Medium and large firms have similarly low rates of women participating in ownership (29 percent and 27 percent, respectively) (figure 49). Women's ownership of firms is highest in Tashkent City (36 percent of firms in 2018) and Surkhandarya (33 percent) and lowest in Khorezm and the Republic of Karakalpakstan (around 11 percent). According to the State Committee on Statistics, 21.9 percent of firms nationwide were owned by women in 2018. In 2019, women held only 12 percent of top management positions, a 2.5 percentage point decline since 2013 and 5.8 percentage points below the average in the Europe and Central Asia region.

Figure 49. Women's Participation in Firm Ownership

a. Uzbekistan and selected country groups



b. By firm size



Source: Data of Enterprise Surveys (dashboard), World Bank, Washington, DC, https://www.enterprisesurveys.org/en/enterprisesurveys.

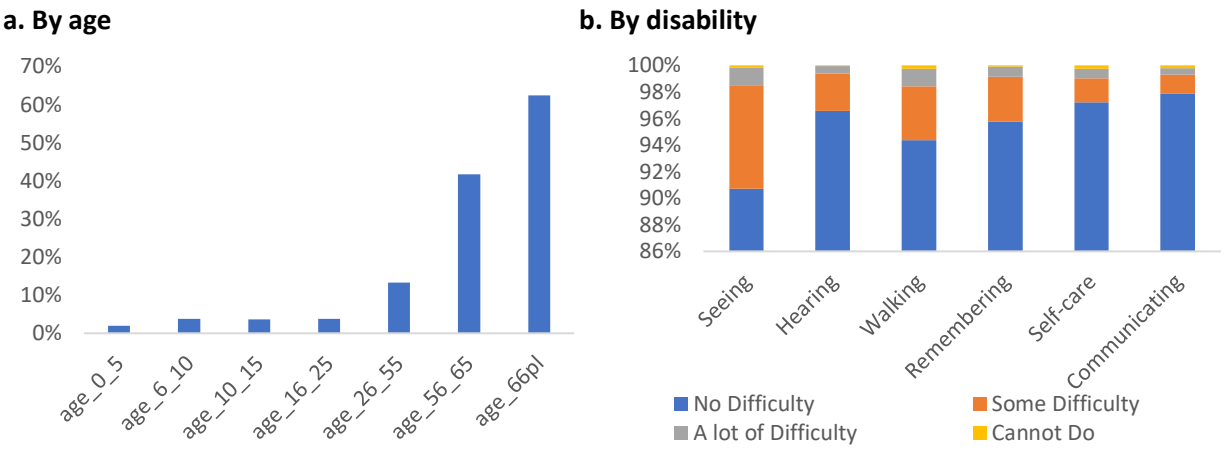
182. **Woman-headed households are disproportionately poor.** The L2CU survey found that 20 percent of households were headed by women. Three-quarters of these women were widowed, and one-third were ages 70 or older. Such households more frequently report an inability to pay for utilities and basic

needs (food, transportation, medicine, and so on). Average monthly income was approximately UZS 300,000 less among these households than among man-headed households, partly because of fewer employed household members and fewer sources of income. Woman-headed households were also more vulnerable to income fluctuations and economic shocks.

183. **People living with disabilities face significant challenges, but reforms have strengthened inclusive policies.** Uzbekistan adopted the United Nations Convention on the Rights of Persons with Disabilities in 2021, a major step to support inclusion.[70] Full implementation of the convention will be challenging. A recent survey among people living with disabilities shows that fewer than 60 percent find visiting essential public destinations easy.[71] Ready access to education is reported by 84 percent of these persons compared with 99 percent of persons without disabilities (UN DESA 2019). About 51 percent of the former and 97 percent of the latter report they have access to secondary education. The government has taken steps to support people living with disabilities, including a presidential decree, legislation to promote the inclusion of children with disabilities in education, and a law on the rights of persons with disabilities adopted in 2020. The new draft labor code also includes ambitious quotas for employment promotion and the expansion of equitable opportunities.

184. **The country has retained an outdated disability assessment system.** About 2.1 percent of the population was registered as living with disabilities in 2019. This is a much lower share than in other CIS countries. The discrepancy is likely caused by antiquated reporting systems. The authorities are committed to closing the statistical gap by introducing updated measures in surveys based on the standard questions of the Washington Group on Disability Statistics (figure 50). Data collected in the L2CU survey suggest that about 14 percent of the population is living with some form of disability, though often mild. The results highlight that there is a large overlap between disability status and the risks of age.

Figure 50. Measures of the Washington Group Questions on Disability



Sources: World Bank calculations; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu; WG (Washington Group on Disability Statistics) (website), WG, Hyattsville, MD, https://www.washingtongroup-disability.com/.

[70] The lower house of Parliament has approved ratification. As of early 2022, ratification by the Senate and Presidential Assent was expected soon.

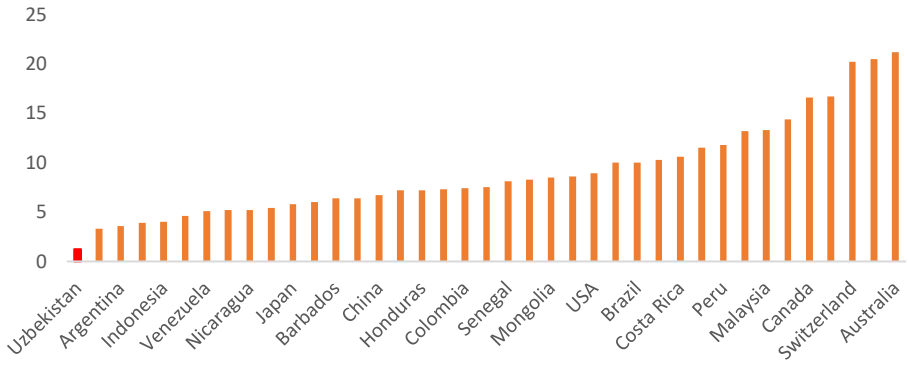
[71] The nationally representative Knowledge, Attitudes, Practices Survey was conducted as part of a United Nations initiative (UN DESA 2019). It covered 4,831 households (n = 3,049 households with persons with disabilities; n = 1,782 households with persons without disabilities).

185. **People living with disabilities face substantial challenges accessing housing, work, and public services** (UN DESA 2019). Although legislation regulates issues of accessibility to services and facilities, up to 40 percent of people living with disabilities report access difficulties. Although legislation makes health care services free of charge for persons with disabilities at all levels, 25 percent report difficulty receiving health care they require compared with only 10 percent of persons without disabilities (UN DESA 2019). People with disabilities are also three times more likely than those without disabilities to lack access to prescribed drugs.

Housing and the cost of living

186. **The reform of propiska regulations removes one of the most repressive policies pursued under the old economic model, but its legacy will take much longer to eliminate.** In the past, movement within Uzbekistan was restricted. It was illegal for individuals to buy housing or other real estate in the region or city of Tashkent if they were not already permanently registered there, nor could they apply for a job. The propiska system has contributed to a large mismatch today between where workers live and where economic growth is proceeding most rapidly. The system rules were especially binding in the case of the city and region of Tashkent, which enjoy the highest average wages and the highest employment rates in the country, and ultimately contributed to Uzbekistan's distinctively low rate of internal migration (figure 51). The elimination of the system has addressed one of the most deeply unpopular social policies that was retained from the previous economic model following the launch of reforms in 2017.[72]

Figure 51. Five-Year Raw Domestic Internal Migration Rates



Sources: Bell and Charles-Edwards 2013; L2CU (Listening to the Citizens of Uzbekistan) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/country/uzbekistan/brief/l2cu.

187. **The legacy of propiska is daunting.** Because of the low rates of domestic migration under propiska, there was little need for large expansions in infrastructure and housing in urban areas, which were off-limits to internal migrants. The slow pace of housing growth contributed to the high housing costs in the main urban areas, which represented a severe constraint on the free mobility of labor within

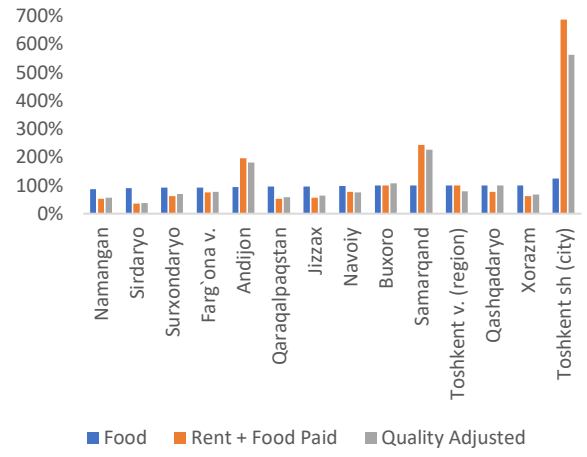
[72] In 2020, the propiska system was formally abolished by the government. In its place is a more efficient and enabling residence registration system. Except for Tashkent City, where new residents still receive temporary registrations, there are no longer any restrictions on permanent relocation within the country. Nearly impossible to obtain under the old propiska regime, obtaining residency in Tashkent is now a procedural formality that no longer poses a binding constraint on the movement and permanent relocation of people to Tashkent.

the country.[73] Recent analysis shows that, in 2018, urban housing costs pushed the cost of living up to as much as 550 percent of the national average; levels severely unaffordable for almost all rural residents. In this respect, Uzbekistan shares many challenges with other countries in which economic and demographic trends exert pressure to urbanize. In 2018, there were slightly fewer housing units than households in Uzbekistan (943 units for every 1,000 households). However, the shortfall was concentrated in only a few places. This was especially the case in the city of Tashkent, with 862 dwellings for every 1,000 households. After adjusting for housing characteristics, the cost-of-living in Andijon was 181 percent of the national average; in Samarkand, it was 226 percent; and, in the city of Tashkent, it was 550 percent. Absent legal and other restrictions, such a large disparity in housing costs would be expected to drive new construction in the areas most in demand. In the long run, these additional housing units would be expected to put downward pressure on the cost of housing prices, making housing comparatively more affordable for a larger number of people.

188. **But the pace of housing construction in the city of Tashkent and in the regions of Andijan and Samarkand is lower than or only slightly above the national average.** In 2018–21, about 80 percent of L2CU respondents said they prefer to increase the pace of urban housing construction. In areas with high housing demand, supply constraints were driving up costs (figures 52 and 53). In most countries, supply constraints in areas struggling with affordability and high housing prices stem largely from regulatory barriers limiting the amount and type of housing that can be added to the market. The barriers are often local, including zoning and land use restrictions, title and tenure security measures, building codes, restrictions on minimum unit size, and the inability to use land as collateral in development financing. Additionally, the removal of barriers to internal migration should advance, along with reforms of urban land use planning, the development of urban land markets, fiscal decentralization, and broader empowerment of local governments to address local infrastructure and services growth, all of which are critical for accommodating a rising urban population.

Figure 52. Cost of Living, by Region

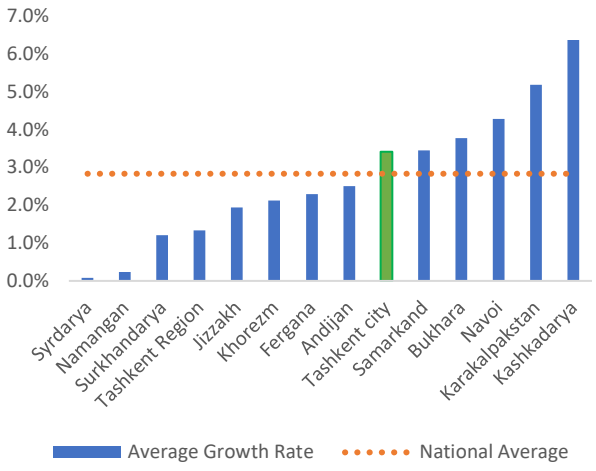
100 percent = national average



Source: Seitz 2020.

Figure 53. Average Growth in Housing, 2015–19

Square meters



Source: Seitz 2020.

189. **The small size of Uzbekistan's rental housing market limits the potential access to housing.** Inclusive growth in the highest demand areas requires a larger rental housing market, especially one

[73] High urban housing costs are among the most important constraints identified by respondents in the L2CU survey.

focused on ensuring affordable housing for low-income people. Current housing law requires that any beneficiary of state housing support must reside in the location where they seek support. This condition limits the mobility of low-income people because they must remain in one place to access benefits. A common alternative form of housing support provides vouchers that can be redeemed for private rental housing anywhere in the relevant jurisdiction. The portability designed into the program—allowing families to rent a unit of their choice in the private market—enables renters to move to locations where their potential incomes are higher. Recipients could relocate while retaining housing benefits for which they are eligible. The rental market is also stifled by imbalanced tax treatment. The use of and capital gains from land and housing are typically tax exempt in Uzbekistan, putting renters at significant financial disadvantage relative to owners. To ensure the vitality of a rental housing market, rental real estate should not carry a higher tax burden than other real estate.

Table PR3. Policy priorities for investing in people

Priority 1: Strengthening Human Capital	
13. Addressing gaps in education quality	• Establish rigorous measures of learning outcomes and teacher performance to support professional development and mentoring of teachers • Implement "Catch-up" learning programs to help students affected by school disruptions due to the COVID-19 pandemic • Modernize curriculum relating to digital skills, STEM, problem-solving, entrepreneurship, and socioemotional intelligence • Expand student support programs to help disadvantaged students • Support low-performing schools to catch-up with national averages • Implement an unbiased and evidence-based accreditation process creates a fair treatment of private sector participation in the education sector
14. Improving access to early childhood and tertiary education	• Expand access to quality early childhood development programs with a focus on rural communities and low-income families • Expand access to tertiary education to close gaps with peer countries • Embed tertiary education preferential support to low income and under-represented populations • Incentivize the rapid closure of gender gaps in tertiary degree programs, especially in fields such as STEM, business administration, and law
15. Strengthening the performance and affordability of the health system	• Update the basic health benefit package, including secondary care and outpatient medications, to address health affordability challenges • Modernize regulatory standards and medical education curricula to international good practice • Develop a health infrastructure investment strategy involving public and private participation to optimize hospitals and renew dated infrastructure • Start the transition to output-based financing and greater digitalization by overhauling health information and financing systems • Implement a countrywide maternal and infant mortality reduction strategy, eliminate nutrition deficits among children and low-income communities
16. Improving water and sanitation services	• Expand water and sanitation facilities, especially in poor and remote areas • Expand water metering to include production facilities, transmission, and distribution infrastructure • Develop and implement a long-term water and sanitation tariff adjustment plan centered on full cost recovery • Reform regulatory framework to enable greater private sector participation in the provision of water and sanitations services • Modernize drinking water and sewerage infrastructure supported by an effective (and sufficiently financed) maintenance strategy
Priority 2: Leaving Nobody Behind	
17. Improving poverty measurement, policy, and targeting	• Implement the national poverty reduction strategy and regularly publish poverty statistics to demonstrate implementation progress • Continuously review and adjust social protection, tax, spending, and employment policies that affect the poor and vulnerable • Engage citizens and civil society in poverty reduction activities. Improve analytical and research capacity on poverty, its drivers, and policy solutions. • Reduce supply chain bottlenecks that disproportionately affect the poor especially related to housing, food, and healthcare

18. Labor market policies that encourage inclusion	• Develop and implement a comprehensive unemployment insurance system • Modernize active labor market policies and ensure that all entitled jobseekers can enroll and obtain support and benefits. • Fully implement non-discrimination principles of the labor code
19. Increasing the coverage and adequacy of social safety nets	• Expand social assistance coverage and adequacy by implementing the National Social Protection Strategy • Reform the pensions system to expand coverage, adequacy, and fiscal sustainability • Expand basic social insurance coverage to workers in the informal economy • Develop a market-oriented low-income housing program, tied to sectoral and rental market reform

Part 5. A Sustainable and Resilient Future

Key Insights

If unchecked, Uzbekistan's environmentally unsustainable practices will jeopardize the country's social and economic future. Uzbekistan is among the countries that are most dependent on water and gas as resources. It is also highly sensitive to climate change. Despite this, the country is one of the world's most unsustainable and inefficient users of water and energy (figure 54). Driven primarily by inefficient management in agriculture, water withdrawal rates exceed 90 percent of the total renewable resource. Widespread land degradation had caused losses equivalent to 4 percent of GDP when last measured in 2016. Failure to address the inefficient management of natural resources in the face of a changing climate raises severe risks for the country's agricultural sector, on which the rural population—accounting for nearly 80 percent of the poor—is highly dependent.

As the world's fifth most intensive GHG emitter, Uzbekistan also faces risks from a global policy environment that is shifting rapidly in favor of climate action. The country's emissions intensity is more than twice the level of Central Asian peers, and 18 times the average in the Europe and Central Asia region. In the short term, as the European Union and, potentially, a broader coalition of high-income countries develop carbon border adjustment taxes, Uzbekistan's production may face barriers in key export markets. In the longer term, the global low-carbon transition may sharply reduce the value of primary export commodities, with significant financial implications, including from stranded assets.

Uzbekistan has chosen to couple its economic transition with a green transition. In 2019, the authorities announced a new commitment to a growth model that makes sustainable and efficient use of natural and energy resources, minimizes pollution, climate, and environmental impacts, and strengthens the resilience to natural disasters and climate change. This can help leverage the country's natural capital to deliver growth and jobs, while improving sustainability, resilience, and inclusion. Steps are already being taken in this direction. For example, the agricultural modernization strategy includes measures to promote agricultural diversification, invest more in climate change adaptation and mitigation and irrigation modernization, and strengthen land tenure security. The Ministry of Economic and Poverty Reduction has taken the leadership in advancing the agenda of the green transition. In 2021, the ministry launched a series of green growth policy dialogues, established a green growth planning unit, and began preparation of the draft Strategic Framework for Green Growth. Participation by the private sector in diversifying into green businesses (natural resource–based enterprises, natural and ecotourism, and so on) represents a relatively untapped opportunity for accelerating the green transition in Uzbekistan.

Uzbekistan is prone to a range of natural disasters. Earthquakes and floods are estimated to affect an average of 1.4 million people every year and have caused almost US$3 billion in losses (World Bank and UNDRR 2016). Climate change is expected to expose the country to greater risks from other natural disasters, especially droughts, floods, and landslides. Another major earthquake in Uzbekistan could have impacts on the scale of 30 percent of GDP. Although less than 15 percent of Uzbekistan's territory is considered at very high seismic risk, danger is concentrated in the Bukhara and Tashkent regions, home to more than half the country's population and 65 percent of GDP. Tashkent City ranks first among nine cities in Central Asia and the Caucasus in terms of earthquake hazard and the share of the population exposed to seismic risk. The Tashkent earthquake of 1966 flattened almost the entire city, resulting in losses equivalent to over US$10 billion (adjusted for inflation).

Managing resources more efficiently

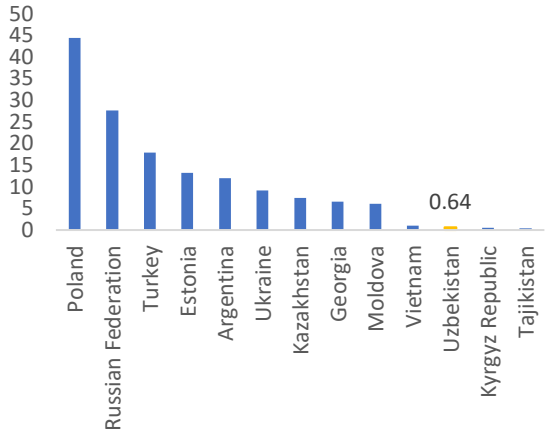
190. **Uzbekistan is rich in natural resources and highly reliant on them.** The country ranks among the top 30 countries in terms of energy and mineral reserves, including natural gas, gold, copper, uranium,

and coal. It has significant potential in renewable energy sources, such as solar, wind, and hydro, that can cater to the country's growing energy needs and transition to a clean and efficient energy economy. Estimates of 2018 suggest that the value of Uzbekistan's natural resources, at US$5,045 per capita (in 2018 prices), are second only to Kazakhstan in the Central Asia region and substantially above the average among lower-middle-income countries. Uzbekistan is highly reliant on natural resources for growth and income. Rents derived from natural resources are four times the average in lower-middle-income countries and 75 percent greater than the Europe and Central Asia regional average. Close to three-quarters of exports in 2019 came directly from natural resources: 46 percent from minerals (mostly gold), 18 percent from natural gas, and 9 percent from agricultural raw materials. The remainder of exports mainly involve resource-based (for example, food production) and energy-intensive manufacturing. Natural resources also contribute substantially to government revenues. Revenues from oil products, gas, and minerals are estimated to contribute around 15 percent of the state budget. Revenues deriving from state-run agriculture are likely also significant.[74]

Figure 54. Measures of Water Productivity and Energy Intensity

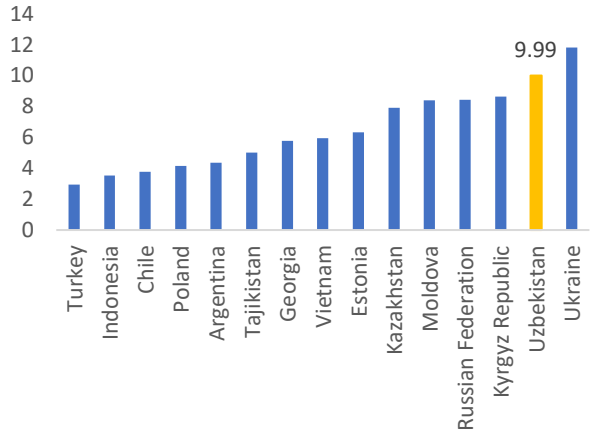
a. Water productivity

US$ GDP per m^3 of freshwater withdrawal



b. Energy intensity of primary energy

Megajoule/US$ 2011 purchasing power parity GDP



Source: World Development Indicators.

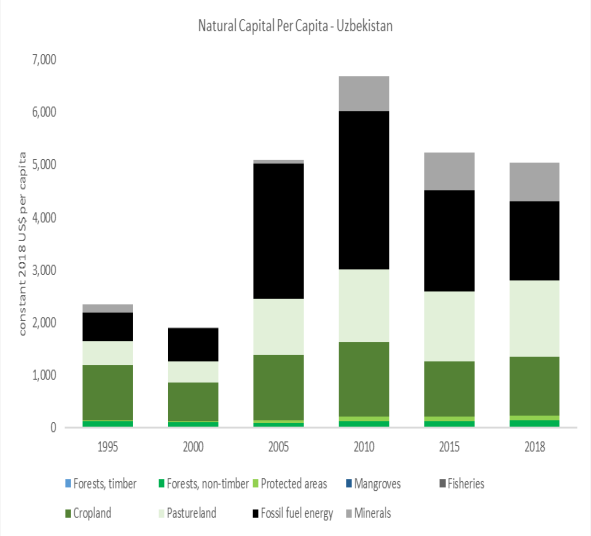
191. **Natural resources are particularly critical as a source of household income in rural Uzbekistan.** While much of the country's natural capital derives from fossil fuels and minerals, Uzbekistan also has significant wealth in cropland and pastureland. This wealth plays a critical role in supporting rural households, where some of the poorest people in the country live. The agriculture sector accounts for 27 percent of employment. More poor people work in the sector than any other. But the value of renewables per capita is lower in Uzbekistan than in many countries at similar income levels and geographic characteristics. Thus, the value of forests and protected lands, which are critical for preserving the value of croplands and strengthening resilience to climate change and natural disasters, accounts for only 4 percent of natural capital in Uzbekistan.

192. **Despite their importance to Uzbekistan, natural resources are not being managed efficiently.** After accounting for inflation, the value of natural capital in Uzbekistan declined by 13 percent between

[74] Data of USITC Dataweb (dashboard), United States International Trade Commission, Washington, DC, https://dataweb.usitc.gov/.

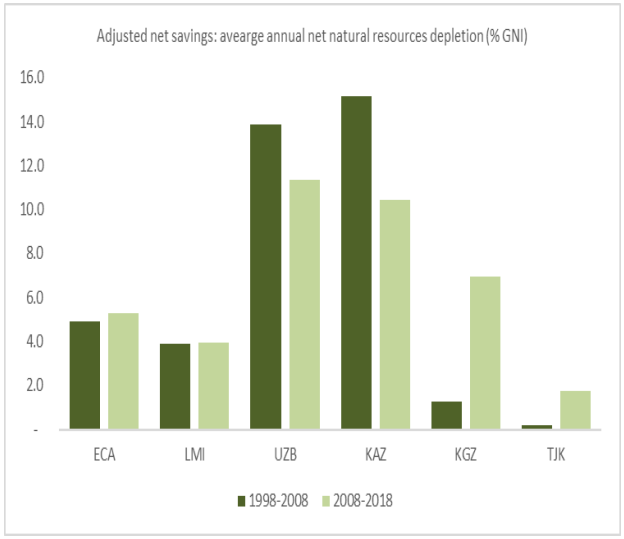
2010 and 2018 (figure 55). The declining natural capital has occurred partly because of volatile energy and mineral prices, but stagnant productivity in croplands and pasturelands is a significant driver. The value of renewable sources of natural capital fell by 7 percent over this period, and the country rates as one of the world's most unsustainable users of water.[75] Agricultural land productivity ranks well below the average among lower-middle-income countries.[76] Recent estimates of energy usage and environmental degradation suggest that the adjusted net savings in Uzbekistan have been negative since 2012 (figure 56). A comparison with countries in the Asia-Pacific region shows Uzbekistan falling behind in material, energy, and water resource use efficiency.[77]

Figure 55. Natural Capital per Capita, by Main Source



Source: World Development Indicators.

Figure 56. Annual Average Net Natural Resource Depletion, Share of Gross National Income, by Decade



Source: World Development Indicators.

193. **Agriculture in Uzbekistan is among the least water-efficient in the world and accounts for almost 90 percent of freshwater withdrawals in the country.** Around 80 percent of agricultural production depends on irrigation in Uzbekistan. In terms of average water productivity, Uzbekistan ranks among the bottom 20 countries, producing only US$0.6 per m^3, compared with a global average of US$15 per m^3 (about 250 times greater).[78] As a water scarce country, Uzbekistan's inefficient water use is highly unsustainable. The country has only 22 percent of the region's renewable freshwater resources, and water availability per capita is 57 percent of the regional average. Over 80 percent of Uzbekistan's water originates in upstream countries, and the country is vulnerable to upstream changes in hydrology and water resource developments that impinge on regional water sharing agreements, as well as projected

[75] Based on the measurement of the ratio of total water withdrawals (m^3) to renewable resources.

[76] Gross production value as a share of total agricultural land.

[77] Uzbekistan is less resource efficient than the Asia-Pacific regional average in material resource use (4.42 kilogram/US$, 2010 GDP versus 2.04 kilogram/US$, 2010 GDP regionally, 2016 data); energy use (238.69 per kilogram of oil equivalent US$ GDP versus 133.63 per kilogram of oil equivalent US$ GDP regionally, 2015 data); and, water productivity (2.131 m^3/US$ versus 0.118 m^3/US$ regionally, latest data). See Resource Efficiency (Helpdesk), United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, https://sdghelpdesk.unescap.org/knowledge-hub/thematic-area/resource-efficiency.

[78] AQUASTAT (Global Information System on Water and Agriculture) (dashboard), Food and Agriculture Organization of the United Nations, Rome, https://www.fao.org/aquastat/en/.

changes in climate. Uzbekistan is projected to become one of 33 countries most severely affected by water scarcity by 2040.

194. **Although projections are uncertain, Uzbekistan is expected to experience chronic meteorological drought by the 2090s**. Average annual precipitation has not shown statistically significant changes in recent decades (Hu et al. 2019). Individual climate prediction models vary between a 30 percent reduction in annual precipitation and a 20 percent increase. However, global trends indicate that the intensity of sub-daily extreme rainfall events increases with temperature and the total precipitation deposited during an extreme five-day event could increase slightly (0 percent–20 percent, depending on the emissions pathway) (Westra et al. 2014). Severe meteorological drought could occur in 87 percent of all years by the 2090s under Representative Concentration Pathway 8.5, with risks generally higher in the west of Uzbekistan. Climate change may lead to severe water shortages along the Amu Darya and Syr Darya rivers by the 2040s and 2050s because of temperature rise and more rapid glacier melt. Studies suggest that temperature rises of 2.2°C and 3.1°C by the 2050s in mountainous areas of Tajikistan could reduce glacial mass by 36 percent–45 percent relative to today. As glaciers recede, seasonal patterns of river flow are expected to change, with peak flows shifting from the summer to the spring (USAID 2018). Climate change leading to extreme heat and drought, flooding, landslide, and wildfire also has significant impacts on energy generation potential. Climate warming has reduced snow cover and increased evaporation, and the country is experiencing water and energy shortage, especially from hydro resources.

195. **Land degradation is associated with high costs for rural communities and the national economy.** Ecosystem productivity in Uzbekistan has been declining for decades. Soil degradation has increased because of intensive grazing, unsustainable agricultural practices, poor water management, and the degradation of forest belts. Between 2001 and 2009, changes in land use and land cover led to a loss of US$0.85 billion in ecosystem services (equivalent to 3 percent of GDP in 2009) (Mirzabaev et al. 2016). In 2016, land degradation costs alone amounted to 4 percent of GDP, and the cost of inaction was five times the cost of action, that is, land degradation is being caused by failure to protect land rather than by active destruction of land (Quillérou et al. 2016). Soil salinization affects more than 50 percent of irrigated lands, and shallow groundwater affects 24 percent of irrigated lands.[79] This affects crop yields and leads to the deterioration of ecosystems. Approximately 300,000 hectares of irrigated land have been abandoned because of salinization.

196. **About half of gross agricultural output is produced by the livestock sector, but the future of this sector is threatened by unsustainable practices and fodder supply constraints.** Rather than through greater farm productivity, growth in the livestock sector has largely been the result of a highly fragmented and rapid increase in livestock numbers, scattered among thousands of small farms and rural households. This growth pattern in the livestock sector has created a large environmental footprint and rising demand for feed. International norms of forage area per livestock unit are 1.0 hectare of irrigated land and 2.5 hectares of rainfed land for feed or pasture production. In Kazakhstan, each bull-calf gets 5 hectares of pasture for fattening. Uzbekistan's forage area per unit declined from 0.022 hectares in 2015 to 0.015 hectares in 2018. Animal productivity on both large and dehqon farms is low, and there are widespread knowledge gaps in basic animal care methods. Investments in animal health and veterinary services are low, creating risks for human health and food safety. The state agricultural system also lowers livestock productivity. Thus, mandatory wheat growing restrictions have severely constrained the conversion of production from wheat feed to more productive and nutritious corn feed.

[79] Shallow groundwater is typically around two meters below the surface.

197. **Irrigation efficiency is low.** Government irrigation organizations remained intact following independence, but their capacity has eroded because of reduced funding, aging staff, and deteriorating technical capability. Individual farmers are increasingly taking the responsibility for on-farm and field irrigation operations through water user associations. But performance has been mixed because of insufficient training and technical support. Many irrigation schemes are incapable of delivering adequate and timely irrigation water to farmers because of aging and poorly maintained and operated infrastructure, both on- and off-farm, which has led to reduced crop yields and production (box 11). Existing financing models for irrigation sector investments and service delivery are the domain of public funding and heavily subsidized. This leads to fiscal constraints, perverse incentives, and underfunding. Water tariffs are far below cost recovery levels, leading to inefficient resource use, deferred maintenance, and insufficient investment.

Box 11. Water Infrastructure Safety

Dams are a critical part of the water management infrastructure needed to meet increasing demands for water, food, energy, and flood control. In May 2020, Sarboda Dam in Uzbekistan failed, impacting around 100,000 people in Kazakhstan and Uzbekistan. Given that Sarboda was a relatively new dam, this highlighted growing concerns about the safety and sustainable operation of hydraulic structures. Many dams in the region are maintained and operated by one country, but for the benefit of several countries (water supply, hydropower, flood mitigation, and so on). This is especially true of transboundary rivers in Central Asia, which require constructive cooperation among the region's countries, prioritizing technical aspects, such as the development of mutually beneficial procedures on early warning, joint action during emergencies, and rehabilitation.

198. **The Aral Sea is one of the biggest environmental challenges of our time.** Once the world's fourth largest lake and a major source of income from fisheries and tourism, it has been drying up since the 1960s because of projects that diverted the Syr Darya and Amu Darya rivers for excessive withdrawal of water for cotton irrigation.[80] The Aral Sea area has now shrunk to only 10 percent of its original size (NASA Earth Observatory 2012). This has triggered a complex set of environmental, climatic, socioeconomic, and demographic problems that impact the lives and well-being of millions of people in Kazakhstan and Uzbekistan. An estimated 40,000–60,000 fishermen have lost their livelihoods. The former seabed, now mostly desert, extends for over 50,000 square kilometers. The South Aral Sea in Uzbekistan is a frequent source of dust storms carrying about 15 million–75 million tons of salt and dust each year (UNECE 2020) (box 12). There is an associated high incidence of anemia, asthma, and tuberculosis in the entire Central Asia region.

[80] The dominant driver of lake shrinkage (over 80 percent) is irrigation withdrawals in the Syr Darya and Amy Darya basins.

Box 12. Restoring the South Aral Sea

Decreasing water inflows to the Aral Sea from the Amu Darya and Syr Darya rivers in the 1950s and 1960s led to a rapid reduction in the size and desertification of the seabed area. Central Asia became a global hotspot for sand and dust storms with high salt concentration that further intensified seabed degradation and desertification processes. This impacted livelihoods and the health of former seashore communities, such as Karakalpakstan and Khorezm that border Uzbekistan's South Aral Sea region. Soil particles from the exposed seabed are carried hundreds of kilometers and can cause significant mortality and loss of life expectancy from respiratory and cardiovascular disease. In 2001, economic losses from sand and dust storms were valued at US$145 million a year in the region.

To address these issues, the Kokaral dike was constructed in 2005. This divided the sea into the North Aral Sea fed by the Syr Darya River and the South Aral Sea (comprising the East and West Aral Sea and delta lakes) fed by the Amu Darya River. Dam construction revived the North Aral Sea. The sea level rose; salinity improved; and there was a drastic enhancement in water availability for productive purposes, such as irrigated agriculture, fisheries, and industry.

In the South Aral Sea, further hydrological studies are needed to identify restoration options, particularly on the western side. Partial restoration of the East Aral Sea and its delta lakes is possible through improvements in overall water resource conservation and management. Partial restoration of the West Aral Sea is more problematic because of the highly degraded seabed, legacy soil pollution, and high evapotranspiration, making it more complex and costly to restore than the North Aral Sea. However, cost-effective adaptation measures for the East and West Aral Seas and delta lakes are likely to include modernizing existing irrigation and drainage systems and expanding high efficiency on-farm irrigation technologies, such as drip irrigation; restoring open water bodies and constructing water control systems; applying deficit irrigation; promoting evapotranspiration approaches for water rights; and allocations. Evapotranspiration remote sensing focuses on actual water consumption and encourages more efficient use of water, increased return flows, and the adoption of water-saving technologies. It can help improve the sustainability of the water resource system in agricultural and urban areas (for example, China has adopted this approach at the national scale through World Bank–supported projects).

Once water resource management options have been identified, soil retention and landscape restoration measures can be introduced. Simulations have highlighted the benefits of planting vegetation (shrubs and trees) and grasses to reduce erosion and sediment suspension. Karakalpakstan, for example, could capture benefits estimated at US$618 million to US$1.03 billion through landscape restoration efforts over a 20-year horizon, equivalent to an average of US$44 million per year or about 2.1 percent of provincial GDP. Around 83 percent of this benefit is accrued through on-site restoration of the Aralkum Desert in Uzbekistan. The conservatively estimated cost-benefit ratio, which does not account for all sand and dust storm damage or all restoration benefits, is 1.5. This establishes the feasibility and justification of afforestation interventions in impacted areas. Such measures can contribute to Uzbekistan's Nationally Determined Contribution, and pledges under the United Nations Decade of Ecosystems Restoration and the Bonn Challenge to restore 500,000 hectares of degraded and deforested landscapes over 10 years, a target that was met in 2020.

199. **Improving Uzbekistan's low forest cover could generate ecological benefits and support rural livelihoods**. While Uzbekistan has relatively low forest-cover, with only about 8.6 percent of forest land in 2020, this has been growing.[81] Forests provide critical habitats for biodiversity and essential environmental benefits such as water regulation, carbon sequestration, and social and climate resilience. Almost all forests supply fuelwood for local communities in Uzbekistan, though often unsustainably.

[81] The largest forest areas (of more than 3 million hectares) are in cold desert areas and consist mainly of low saxaul forests with woodland characteristics. Submontane and mountain forests account for more than 300,000 hectares of forest area and include broadleaf (for instance, pistachio, walnut) and juniper (archa) forests. There are around 95,000 hectares of riparian forests (or tugai forests) along the larger river belts of the country.

Restoring terrestrial resources and using them more sustainably can help combat desertification and land degradation and improve livelihoods for at least 50 percent of the population. Every dollar invested in sustainable landscape restoration can yield four dollars in returns over a 30-year period (Mirzabaev et al. 2016; Quillérou et al. 2016). Landscapes also have potential to support decarbonization efforts and may represent a win-win opportunity.

200. **Although Uzbekistan lacks a national strategy in resource efficiency, the country made more significant commitments to addressing climate change during meetings at the 2021 United Nations Climate Change Conference.** Environmental protection expenditures are extremely low, accounting for 0.06 percent of government expenditure on average from 2012 to 2019 (excluding off-budget funds). Administrative fines are also low, and the economic benefits of illegal activity typically outweigh the size of the fine. Uzbekistan has begun raising its ambitions, including through a revision in 2021 of its Nationally Determined Contribution under the Paris Climate Accords. The updated contribution commits to a 35 percent reduction relative to 2010 in emissions per unit of GDP by 2030. Although this represents a large increase relative to the 10 percent commitment in the original Nationally Determined Contribution, the target is relatively modest given the country's high baseline carbon intensity. Also at the United Nations conference, Uzbekistan signed the Declaration on Forest and Land Use, through which 130 countries have committed to working together to halt and reverse forest loss and land degradation by 2030.

Decarbonization

201. **Uzbekistan is the fifth most intensive GHG emitter in the world.**[82] Despite falling over the last two decades, Uzbekistan's emissions intensity is more than twice the level of Central Asian peers and 18 times the average in the Europe and Central Asia region (figure 57, panel a). Uzbekistan's GHG emissions are dominated by the energy sector, which contributes 79 percent of total emissions (figure 57, panel c). Emissions from the agricultural sector account for a significantly higher share of emissions in Uzbekistan than they do in the region overall (around 15 percent versus 9 percent), and, in 2018, enteric fermentation and manure management accounted for 84 percent of the CO_2 emissions of Uzbekistan's agriculture. The energy sector is dominated by domestically produced natural gas, which provides 82 percent of the total energy supply and 87 percent of the electricity produced.[83] The natural gas for domestic consumption is subsidized at 50 percent of the prevailing rate of Uzbekistan's regional gas exports. However, the energy sector has identified climate mitigation actions to upgrade power generation capacities, deploy renewable energy sources, eliminate leaks and flaring in the oil and gas sector, and reduce transmission losses.

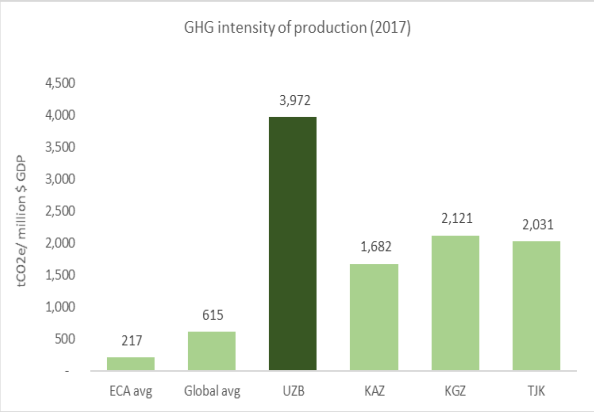
202. **Uzbekistan's share of fugitive emissions is among the highest in the world.** Fugitive emissions have grown from 25 percent of emissions in 1990 to 36 percent in 2017 and are three times the regional average.[84] Improving infrastructure quality and management, particularly in gas storage, will be critical to reducing fugitive emissions. So, too, will be addressing the problem of gas flaring. Uzbekistan is among the top 35 flaring countries in the world. Approximately 600 million cubic meters of gas was wastefully flared in 2019, according to the latest satellite estimates from the World Bank–managed Global Gas

[82] Excluding land use change and forestry; economies with higher GHG intensity are the Central African Republic, Chad, Afghanistan, and Mali.
[83] 2018 data, Data and Statistics (dashboard), International Energy Agency, Paris, https://www.iea.org/data-and-statistics.
[84] Climate Watch (dashboard), World Ressources Institute, Washington, DC, https://www.climatewatchdata.org/.

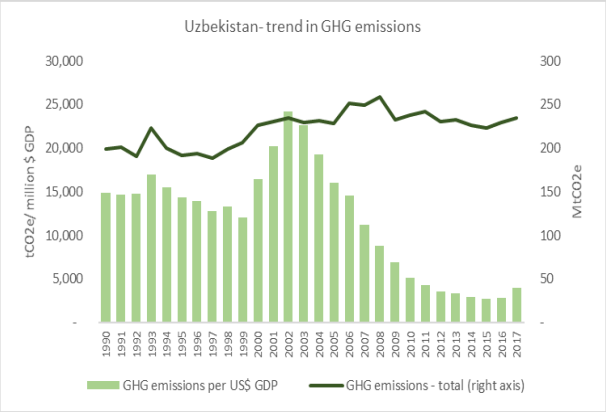
Flaring Reduction Partnership.[85] This is equivalent to 1.5 million tons of carbon dioxide equivalent a year. Uzbekistan has one of the highest flaring intensities globally, with around 40 m^3 of gas flared per barrel of oil produced, 10 times the global average flaring intensity.

Figure 57. Greenhouse Gas Emissions, Uzbekistan, 2017

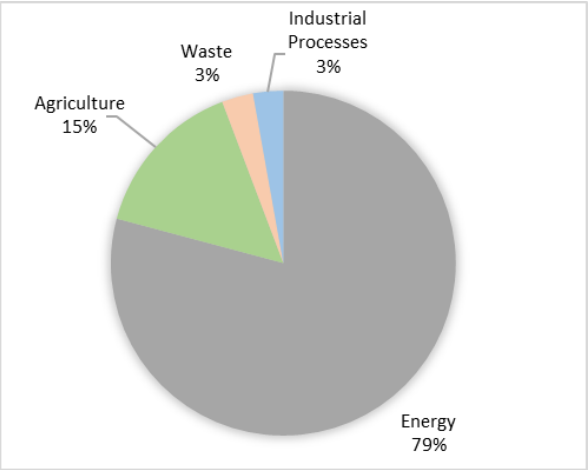
a. GHG intensity of production



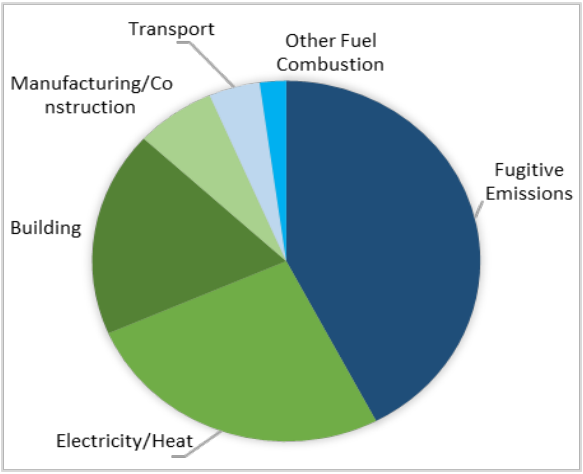
b. Trends in GHG emissions



c. Sources of overall GHG emissions



d. GHG emissions from energy



Source: Analysis based on data of Climate Watch (dashboard), World Resources Institute, Washington, DC, https://www.climatewatchdata.org/.

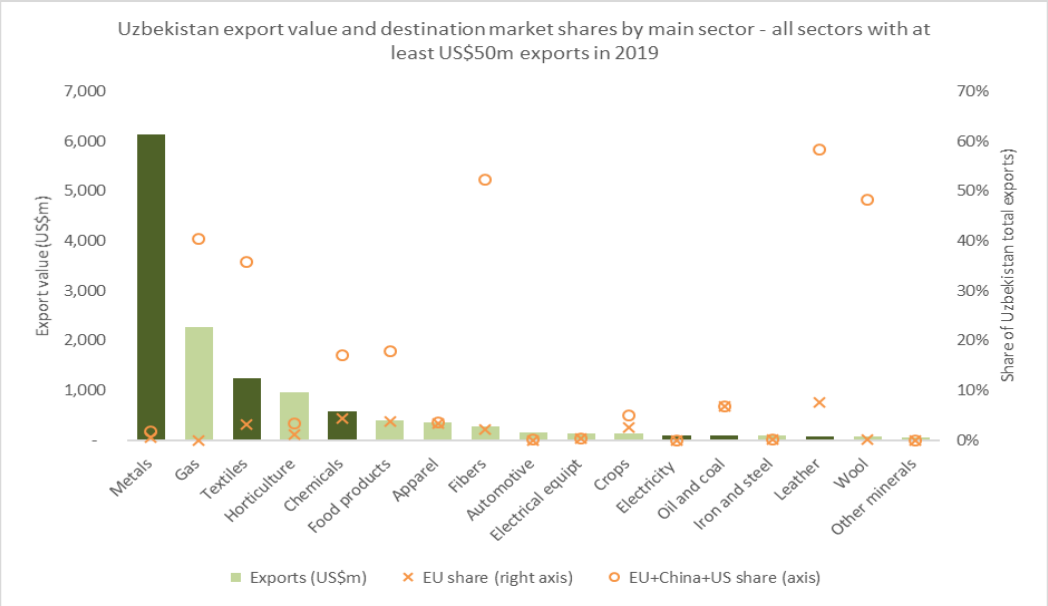
203. **Changes in global climate policies and in consumer preferences could reduce demand for Uzbekistan's natural gas.** Reduced revenues from natural gas exports would have significant implications in foreign exchange. Natural gas accounts for more than US$2.5 billion of exports, around 17.5 percent of total exports (figure 58). This would affect government revenue. The contribution of oil, gas, and mining together is estimated at around 15 percent of state budget revenue.[86] The reduction in world demand could also risk stranding significant assets. The value of natural gas assets is around 80 percent of annual

[85] GGFR (Global Gas Flaring Reduction Partnership) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/programs/gasflaringreduction.

[86] Data of ITA (International Trade Administration) (website), US Department of Commerce, Washington, DC, https://www.trade.gov/.

GDP (in 2018 US dollars).[87] The government is seeking sustainable energy transition pathways and decarbonization because of depleting natural gas resources and overdependency on gas. Old gas-fired generation units are being replaced with new combined cycle gas turbines to reduce demand pressure and rationalize gas consumption for power. Insufficient capital investment in new gas exploration and production and network modernization poses gas supply challenges.

Figure 58. Exports and Potential Exposure to Carbon Border Taxes



Sources: World Bank calculations; data of WITS (World Integrated Trade Solution) (database), World Bank, Washington, DC, http://wits.worldbank.org/WITS/.
Note: Dark shaded sectors are energy intensive and potentially subject to carbon border taxes.

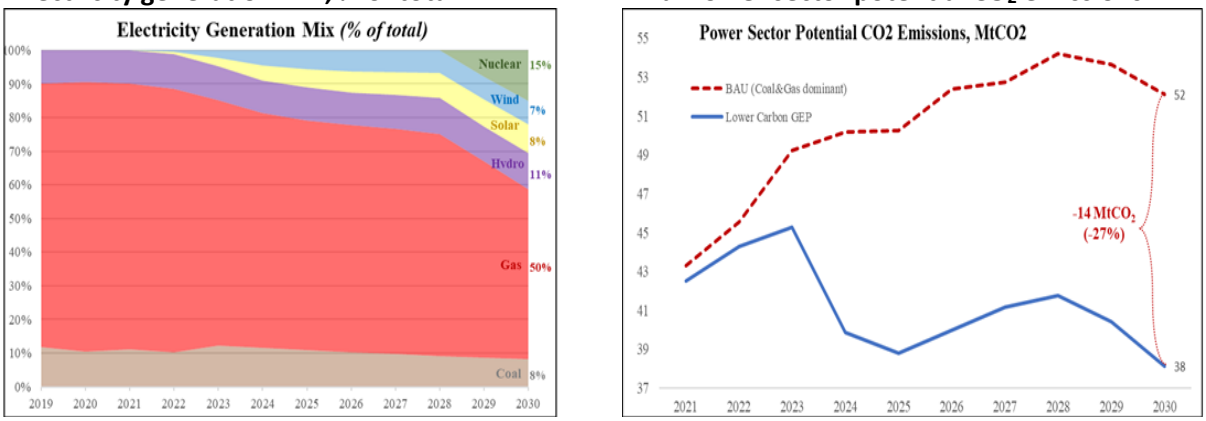
204. **There is substantial potential for renewable energy to reduce the use of natural gas and other fossil fuels.** Except for hydropower, renewables are not yet exploited on a large scale in Uzbekistan. In April 2020, the government approved a 2020–30 generation expansion plan that includes the development of 5,000 megawatts and 3,000 megawatts of solar and wind power, respectively, increasing the share of solar and wind in the power generation capacity mix from 0.2 percent to 25.0 percent in 2019–30 and reducing the share of natural gas and coal generation capacity from 76 percent and 9 percent to 46 percent and 5 percent, respectively (figure 59). Such large-scale deployment of renewable energy generation can diversify the fossil fuel–dominated energy mix and free up gas production to achieve resource optimization. Together with fuel-switching and the improved efficiency of the generation mix, this will reduce CO_2 emissions by around 14 million tons over 2020–30 compared with the business-as-usual scenario with inefficient gas and coal-dominant generation. Meeting such an ambitious renewable target will require strong support to mobilize capital rapidly. In this, the private sector could play a potentially decisive role in support of fresh renewable energy markets and the facilitation of the adoption of new technologies that can be used to fight climate change, underpinned by green finance solutions. A successful transition will require grid integration of intermittent power, a strengthened procurement capacity of public institutions, and support by the government at the transaction level for greater private

[87] Data of CWON (Changing Wealth of Nations) (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/publication/changing-wealth-of-nations/data; WDI (World Development Indicators) (dashboard), World Bank, Washington, DC, https://datatopics.worldbank.org/world-development-indicators/.

sector participation. Challenges such as the inadequacy of the institutional framework for renewable energy development, the subsidized pricing of competitive power sources, and the financial weakness of unbundled Uzbekenergo companies will also need to be addressed.

Figure 59. Electricity Generation Expansion Plan, 2030

a. Electricity generation mix, % of total **b. Power sector potential CO_2 emissions**



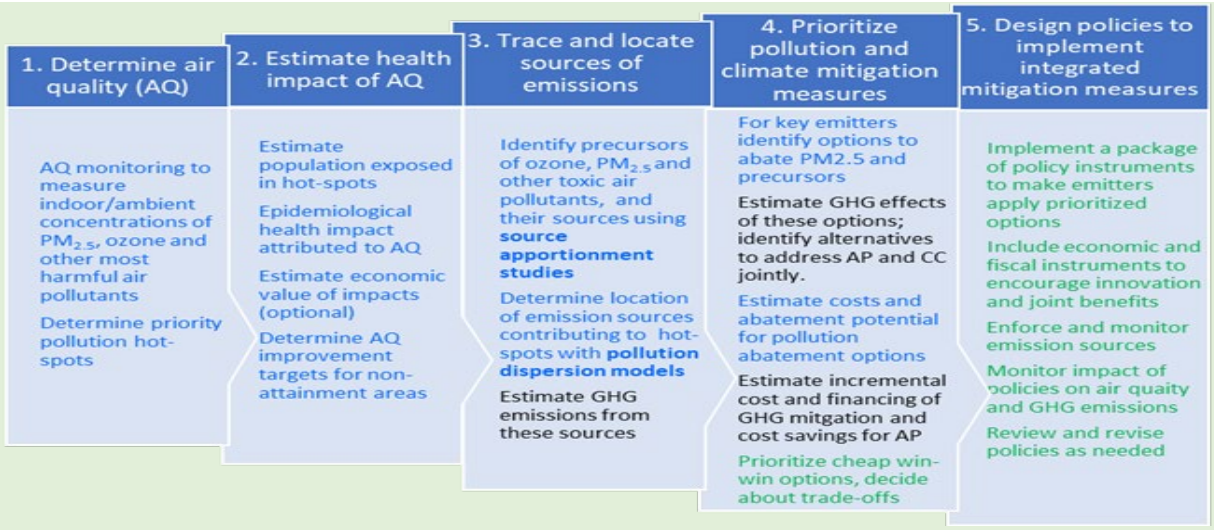
Source: World Bank calculations based on the government Generation Expansion Plan.

205. **A systematic framework has not yet been established to address the threat of climate change.** The Strategy for the Transition to Green Economy for 2019–30, adopted in October 2019, is considered the central policy document for the implementation of the government's commitments under the Paris Accords. A new strategy is under development, but it has not yet been approved. The absence of an integrated legislative and policy framework and of a coordination mechanism is among the main institutional obstacles limiting the government's policy actions to combat climate change (box 13). A lack of regular GHG inventory accounting and reporting is also an impediment to sound mitigation policy development. The most recent inventory report was submitted to the secretariat of the United Nations Framework Convention on Climate Change in 2016 and contained data to only 2012. Building the capacity of the government to undertake regular inventories, a requirement under the convention, and include all gases, such as sulfur hexafluoride, perfluorocarbons, and emissions related to waste incineration, will support an effective response to climate change.

Box 13. An Integrated Approach to Addressing Air Pollution and Climate Change

Both climate change and air pollution have gained prominence in the global policy agenda. The focus of the management of the two issues has recently shifted to treating them synergies rather than separate environmental problems. Sequencing and trade-offs are key challenges for achieving win-wins in developing countries, which are struggling with limited resources and institutional and technical capacities to handle multiple goals simultaneously.[a] While, in the long term, phasing out fossil fuels will reduce air pollution, climate policies during transition may increase air pollution in the absence of targeted air pollution policies. In the absence of climate policies, some air pollution policies may build up a liability of carbon-intensive assets that will be costly to retire. The integrated policy approach transcends the exclusive focus on co-benefits and win-win opportunities (figure B13.1). It requires that targeted climate and air quality regulations be implemented jointly and that their design account for synergies and trade-offs.

Figure B13.1. Five Steps of Integrated Air Quality and Climate Change Management



Source: Peszko 2021.

Economic and fiscal incentives can play a key role in stimulating new, cheap, and sustainable ways of mitigating both air pollution and climate change. For example, incorporating environmental costs into the price of fossil fuels through carbon pricing and pollution pricing could be an effective and efficient way to reduce GHG emissions and air pollution, while raising much needed government revenue. This approach is being studied in other countries, including Kazakhstan. The government of Uzbekistan could initiate air quality monitoring gap analysis and identify air pollution hotspots.

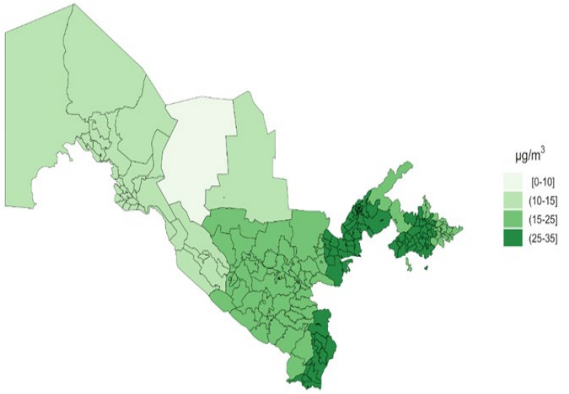
a. Some air pollutants are climate coolants. Several hazardous local air pollutants are major health hazards, but harmless to the climate. Low-carbon energy transition is a long-term, deep structural transformation that will take decades, while smog causes thousands of premature deaths in the most polluted cities every year. Significant improvements in air quality can be achieved relatively quickly and cheaply but may extend the economic life of carbon-intensive assets and increase fossil fuel use.

206. **Urban sprawl and the resulting inefficient urban patterns increase the country's GHG emissions. I**f the internationally comparable definitions of urban areas are used, cities in Uzbekistan are among the least efficiently organized in the Europe and Central Asia region. Urban agglomerations in Uzbekistan have irregular shapes, a high proportion of territory with low population density, and sparse street networks. All these indicate inefficient land use and inadequate infrastructure provision in cities. This makes commutes to work and school longer; services, including health care, less accessible; and public transport less economically viable. It also leads to greater reliance on personal transport and longer driving distances, thereby increasing the per capita CO_2 footprint. International experience shows that denser and more compact urban environments produce substantially less emissions. Comparing Atlanta and Barcelona epitomizes this concern: the two cities have comparable populations, but a 20-fold difference in size, which results in an even bigger difference in emissions per capita (Bertaud and Richardson 2016). Sustainable urbanization and more compact urban growth are a priority of national development strategy and the sustainable urbanization strategy adopted in 2021.

207. **Air pollution is elevated.** Carbon-intensive production system and desertification in Aralkum are substantial contributors to air pollution. Elevated levels of air pollution have significant negative impacts, notably on health. Mortality associated with ambient air pollution is estimated at about 26,700 deaths annually or 13 percent of total mortality (8.6 percent–17.4 percent) (figure 60). While official data are limited, concentrations of PM10 and PM2.5 often exceed World Health Organization guidelines across

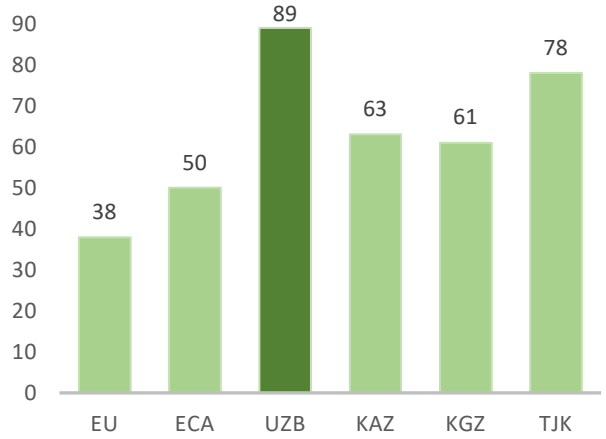
large parts of the country (UNECE 2020; WHO 2021) (map 4). The average annual exposure to PM2.5 pollution in Uzbekistan is estimated at 34.8 ug/m^3 compared with 20.3 ug/m^3 in Kazakhstan and 24.1 ug/m^3 in the Kyrgyz Republic.[88] Available data indicate that, in Tashkent in 2011–14, the annual average concentration of PM2.5 was at 29.4 ug/m^3. PM2.5 concentrations have been reaching 49 ug/m^3 in winter (Amonov and Nishonov 2020). Among the ongoing efforts to address air pollution in the Aral Sea area is a large-scale government campaign to stabilize the sea bottom. Launched in 2018, the effort is expected to reduce sand and dust storms significantly.[89] No air quality standards on fine dust or automatic monitoring for PM10 and PM2.5 currently exist in the country. Emission limits for specific plants are generally less stringent than European Union standards based on best available technologies, and fines for noncompliance are low.

Map 4. Average Annual Air Pollution Exposure, PM2.5 Concentrations, 2016



Source: SEDAC (Socioeconomic Data and Applications Center) (dashboard), Center for International Earth Science Information Network, Columbia Climate School, Columbia University, New York, https://sedac.ciesin.columbia.edu/.
Note: PM2.5 levels > 10 are considered harmful to human health; > 35 are considered extremely harmful.

Figure 60. Mortality Rate from Household and Ambient Air Pollution, per 100,000 Population



Source: 2019 data, GBD Results Tool (dashboard), Global Burden of Disease Study, Global Health Data Exchange, Institute for Health Metrics and Evaluation, Seattle, http://ghdx.healthdata.org/gbd-results-tool.

208. **Renewable energy is a promising alternative in Uzbekistan for both more reliable energy services and greater private sector growth in the energy sector.** The estimated technical potential of renewables (3,494 terawatt-hours) is significantly higher than the current demand for electricity (61.2 terawatt-hours) (table 3). They are increasingly becoming economically competitive, but utilization of this potential is minimal. Neglected in earlier years because of the abundance and ease of harnessing natural gas reserves, the sector has only recently emerged as a priority. Technical and institutional challenges limit the uptake of renewable energy, including gaps in the institutional framework for renewable energy development, continued subsidies in the pricing of existing nonrenewable-based energy services, and the financial weakness of SOEs operating in this sector, which are among the largest SOEs in the country. Since 2017, reforms have accelerated to create new legal and regulatory frameworks, reduce energy subsidies, and establish supportive policies to attract private investment in renewable energy. There has been

[88] State of Global Air 2020 (dashboard), Health Effects Institute, Boston, https://www.stateofglobalair.org/.
[89] A joint World Bank–State Forestry Committee study measures and economically values sand and dust storm damage and provides empirical data on the benefits and challenges of desert reforestation, including recommendations. See Akramkhanov et al. (2021).

considerable private sector interest in Uzbekistan's renewable energy sector. Large solar energy generation projects are under development through public-private partnerships.

Table 3. Estimated Technical Potential for Renewable Energy Resources, Electricity Production

Resource	*Technical potential, gigawatt-hours/year*	*Used potential, gigawatt-hours/year*
Solar energy	2,058,000	2
Large and medium hydropower	20,934	1,650
Small hydropower	5,931	200
Wind	1,366,560	0
Biomass	1,496	0
Total electricity generation	3,493,921	1,850

Source: World Bank estimates based on government data.

209. **Industrial regions are at a high risk of legacy contamination and extensive water and soil pollution.** Most surface water bodies are moderately polluted based on Uzbekistan's water pollution index. Pollution is largely caused by chemical, oil, manufacturing, and metallurgical industries that lack wastewater treatment facilities. The situation is deteriorating. Soil pollution prevention measures are lacking, and environmental remediation costs are high. Furthermore, data on waste generation and management are estimated and incomplete. Municipal solid waste sorting and chemical management have not been introduced into national policy, and the hazardous waste classifications applied are incompatible with international practice. Specialized services for medical waste collection and treatment are not available. Uzhydromet publishes a variety of daily, monthly, quarterly, and annual information products mainly targeted at government agencies, including different types of bulletins and reports on its air quality, surface water quality and soil pollution monitoring activities. Except for the daily environmental bulletin on air pollution in Tashkent City, no other environmental monitoring information is made publicly available.

210. **Uzbekistan's sustainable transition requires a more effective legal and regulatory environmental system.** Economic and fiscal incentives can play an important role in policy packages to stimulate innovation and the discovery of new, cheap, and sustainable ways to transition to a green and circular economy (box 14). The proposed environmental code is based on the polluter pays principle aimed at charging polluters and emitters for the damage their actions cause the environment, climate, and others, for instance, through pollution and carbon taxes. Such fees reduce environmental and climate harm in the least costly way by encouraging changes in behavior and technologies that reduce pollution and carbon emission. In the short run, they can be more effective than relying solely on regulation for reducing pollution and carbon emissions and can generate significant joint economic and environmental benefits. However, in the medium term, an analysis of least cost policy options, including eventual environment tax reforms for joint economic and environmental benefits, could be considered in line with the new environmental code and the concept of Uzbekistan's transition to a green economy in 2019–30.

Box 14. Opportunities for Adopting a Circular Economy Approach in Uzbekistan

The circular economy is a pathway to green growth. Historically, companies, governments, and consumers have used and discarded resources and products in ever greater quantities, while low-cost debt financing has supercharged economic expansion. A linear model supporting this trajectory has been described as take, make, waste. A growing number of companies built around a circular economy approach is exploring innovation in this area, with a focus on sustainable production, minimal waste and pollution, and extensive recycling and reuse to close the loop of manufacturing and consumption. The circular economy is based on the principles of designing

out waste and pollution, keeping products and materials in use, and regenerating natural systems.[a] It addresses mounting resource-related challenges in business and economies and could generate economic growth and substantial net material cost savings, create jobs, and reduce environmental impacts, including carbon emissions.[b]

Pursuing circular economy objectives will entail costs and trade-offs. The circular economy will create benefits, including (a) a reduction in environmental damage associated with material cycles and climate change mitigation; (b) a reduction in material resource supply shocks at both macro- and microeconomic scales; (c) increased competitiveness driven by a reduction in costs, improvement in efficiencies along the supply chain, and innovation; and (d) job creation in new sectors. However, the adoption of circular economy principles represents a technology shock that would undoubtedly result in winners and losers across economies, sectors, territories, and economic actors. In identifying the appropriate policies to support the circular economy and respond to its impacts, policy makers must understand how changes in resource use, efficiency in production and value addition, and the recycling and reuse of waste are likely to play out in the microeconomics of firms and sectors and in the macroeconomics of trade, output, employment, and consumption.

Circular economy Initiatives in Uzbekistan. The Strategy for the Transition to Green Economy for 2019–30 clearly indicates a recognition of the importance of clean, green, and resilient economic growth. This puts Uzbekistan on the forefront in Central Asia in a global trend that should allow room for developing and benefiting from innovative technologies and new management approaches. The significance of making such a transition is even greater in the context of the COVID-19 recovery by strengthening resilience, resource efficiency, and job creation.

In March 2020, the World Bank launched a technical assistance activity funded by the Korea Green Growth Trust Fund to promote the circular economy in Uzbekistan. The activity involves working with the government on analysis, capacity building, and knowledge exchange to promote the introduction of the circular economy as a pathway to green growth. An associated study is reviewing the national circular economy baseline to recommend a national vision, action options, and financing options in one selected sector or value chain in Uzbekistan. In March 2021, the first phase of the study was completed based on a methodology derived from international experience and broad consultations with ministries and agencies. The agriculture-food value chain was selected for the study in May 2021 to assess sector-specific circular economy opportunities, actions, and projects, their impacts and benefits, barriers to adoption, institutional arrangements, eventual policy reforms, and green finance options. A circular economy action plan in the agriculture-food value chain has been drafted, and consultations with the government and concerned stakeholders will be held during 2022.

In December 2020, the United Nations Industrial Development Organization and the Ministry of Economic Development and Poverty Reduction of Uzbekistan signed a joint declaration for an initial project period of four years. The joint declaration commits to promoting cooperation in the green industry, a circular economy, renewable energy and energy efficiency, agro-industrial clusters, and light industry modernization. The aim is to contribute to inclusive, sustainable industrial development and the 2030 Agenda for Sustainable Development.

a. See "Let's Build a Circular Economy," Ellen Macarthur Foundation, Cowes, UK, https://ellenmacarthurfoundation.org/.
b. The benefits of the circular economy include US$700 billion annual material cost savings in the rapidly moving consumer goods industry at the global level, that is, about 20 percent of the material input costs incurred by the industry (EMF 2013]. This would involve eliminating the remaining 45 percent of global GHG emissions from the production of goods in five key areas—cement, aluminum, steel, plastics, and food—by 2050 to achieve the United Nations climate goal (EMF 2021).

211. **A transition to a greener economy could create spatial disparities that require careful management.** The shifts in sectoral employment that will accompany the green transition will likely be uneven**.** These sectoral shifts will have strong spatial implications and are not restricted to the energy sector. For example, while the government's agricultural modernization strategy will bear large dividends in productivity gains and climate and environmental benefits, the diversification away from cotton will

disproportionately impact rural women who made up 65 percent of the fieldworkers during the 2020 cotton harvest. However, the transition of the cotton sector from cotton production to higher value cotton garment and textile manufacturing also has the potential to create millions of decent jobs for women. Nonetheless, the location of these jobs will likely be quite different from the location of the jobs lost in cotton harvesting, and the skills requirements to do the new jobs will surely also be different. The government therefore recently adopted measures, including subsidies for the creation of new employment positions, that should help mitigate worker displacements in the cotton sector. But more comprehensive policies in training and skills development, labor mobility, and local economic development will be needed to support the people and places facing the biggest challenges of the transition.

212. **Uzbekistan has continued the program of structural reforms across the energy sector.** The government recognizes that energy sector sustainability is crucial for the security of supply chains, the operation of the economy, and service delivery that institutions, businesses, and citizens rely on every day. The government has embarked on ambitious energy sector reforms that envisage introducing market-based principles in sector management and operations and diversification in energy resources and use in line with the clean energy transition and decarbonization strategies. Energy services are also essential in supporting the delivery of health care and public services during the current COVID-19 pandemic and in stimulating economic recovery and job creation in the post-COVID-19 period. Despite the impacts of COVID-19, broader sector reforms continue to advance. The government is also committed to pursuing reform initiatives and reducing energy intensity and GHG emissions in line with the Paris Accords and the Nationally Determined Contribution targets.

Strengthening the resilience to natural and climate-induced disasters

213. **Over 20 percent of the population resides in buildings with high seismic vulnerability.** Investments are needed in critical assets and infrastructure to reduce exposure to disaster risks. Priority investments, such as the seismic retrofitting of critical public and private buildings, energy, and transportation systems, are urgently needed to support sustainable urbanization. Tashkent continues to be at risk of a repeat of the 1966 earthquake.

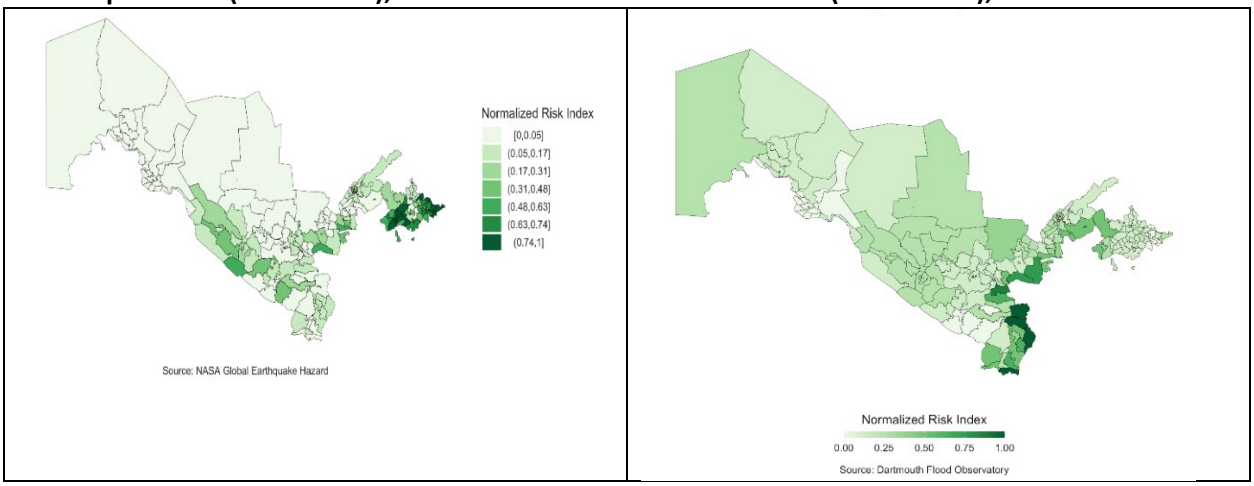
214. **Flood risk is greatest in the more densely populated parts of the country.** There is a substantial concentration of flood risk in the highly fertile and populated fluvial transfer and deposition zones in the Ferghana Valley. Urban centers and their surrounding sprawls are also at high risk of floods. The established city cores are affected by aging infrastructure, poorly maintained drains, and loss of greenery and pervious surface, while unplanned urban sprawls are affected by lack of drainage systems and residential expansions in areas at risk (for instance, floodplains). It is estimated that a major flood in any of the most vulnerable areas of the country would likely impact about 5 percent of GDP. In Tashkent, many public buildings and assets are also in flood risk zones, affecting approximately 34 percent of the major roads, 18 percent of schools, and 23 percent of hospitals. Annual flood damage related to pluvial flooding is estimated at around US$40.3 million a year, and flooding is a recurring annual occurrence.

215. **The flood risks are greater because of climate change.** Eastern Uzbekistan is generally at the mercy of the flood and water risk management activities of its upstream neighbors on the Syr Darya and Amu Darya rivers. The high mountain regions face significant risks of flash floods, debris flows, glacial lake outburst floods, and landslides and avalanches. Climate change is increasing these risks through a combination of more extreme precipitation events, glacier melt, and slope destabilization through

permafrost melt. In addition, peak river flows because of snowmelt are expected to shift up to one month earlier in the year, which could increase the likelihood that extreme rainfall events coincide with high soil moisture and base flows in rivers, further increasing flood, mudflow, and landslide risks. Because of significant water resource management infrastructure, floods are less common in the flat arid plains of western and central Uzbekistan. However, much of this infrastructure is aging and not well maintained. Moreover, because major infrastructure is mostly located upstream of human settlements, there remains a high residual risk, as demonstrated by the 2020 failure of the Sardoba Dam.

Map 5. Earthquake and Flood Risks

a. Earthquake risk (normalized), 1976–2002 **b. Flood risk (normalized), 1985–2020**



Sources: DFO (Dartmouth Flood Observatory) (dashboard), Community Surface Dynamics Modeling System, Institute of Arctic and Alpine Research, University of Colorado, Boulder, CO, https://floodobservatory.colorado.edu/index.html; Global Earthquake Hazard Frequency and Distribution (dashboard), National Aeronautics and Space Administration, Washington, DC, https://data.nasa.gov/dataset/Global-Earthquake-Hazard-Frequency-and-Distributio/9gd5-eshq.

216. **Already highly exposed to disaster risks such as earthquakes, floods, and droughts, Uzbekistan faces substantial additional risk from climate change.** Uzbekistan is projected to see average temperatures rise significantly above global averages by the end of this century. An increase of between 1.4°C and 4.8°C in the average temperature is projected by the 2090s relative to a 1986–2005 baseline. By the 2090s, temperatures could begin regularly exceeding the 35^{O}C heat index threshold, a measure of temperature and humidity with significant risks to human health. Uzbekistan ranks 96th in 181 countries in the 2019 ND-GAIN index of climate vulnerability.[90] It is among the top 20 countries in drought exposure and faces above-average levels of flood hazard and a substantial hazard of wildfires (European Commission 2021). This exposure is offset by proportionately low levels of vulnerability and moderate levels of coping capacity. Average annual air temperatures in Uzbekistan have risen steadily and significantly over the past century. From 1950 to 2013, temperatures rose at an average rate of 0.27°C per decade, and the drying of the Aral Sea has made a minor contribution to climate warming in the local vicinity (Sharma et al. 2018).

[90] The ND-GAIN index summarizes a country's vulnerability to climate change and other global challenges, in combination with the country's readiness to improve resilience. It aims to help businesses and the public sector prioritize investments for a more efficient response to the immediate global challenges ahead. See ND-GAIN Country Index (University of Notre Dame Global Adaptation Index) (dashboard), University of Notre Dame, Notre Dame, IN, https://gain.nd.edu/our-work/country-index/.

217. **Without support to adapt, Uzbekistan's poor and marginalized communities are likely to be affected most by climate change.** In addition to their fiscal and economic impacts, natural and climate-induced disasters would also directly affect the poorest and most marginalized communities. Projected impacts on agricultural yields are likely to affect the living standards of these people disproportionately. The dependence on irrigated agriculture and projected changes in climate could threaten food security (Zhao et al. 2019). Households spend a relatively high proportion of their income on food, 47.3 percent in 2016.[91] This leaves poorer groups relatively exposed to rising food prices. Major crops could see yields reduced by 25 percent–63 percent by the 2050s relative to a 2000–09 baseline. Irrigated agriculture is vulnerable to projected declines in water availability that is a major threat to the livelihoods of a large population of agricultural laborers (Bekchanov and Lamers 2016).

218. **Vulnerable groups, such as the poor, woman-headed households, and ethnic minorities are disproportionately affected by shocks.** Woman-headed households, which make up 20 percent of Uzbek households, have lower incomes than man-headed households and are already 30 percent–50 percent less likely to be able to afford utilities or food. These households rely on coping mechanisms, such as reducing food consumption, selling assets, or taking out loans, to meet their basic needs. Natural disasters and climate shocks, which often destroy homes and assets or impact agricultural yields and income-earning opportunities, are likely to worsen existing vulnerabilities among these household and eliminate existing coping mechanisms. Climate variability can also create more direct impacts. For example, persons living with disabilities spend more time collecting water than people without disabilities, and reduced rainfall will exacerbate this burden. Ethnic minority groups, such as the Karakalpak in the Aral Sea region, can no longer rely on fishing as a livelihood and suffer negative health outcomes because of dust storms and reduced access to clean drinking water.

219. **Risk transfer instruments in Uzbekistan are limited.** The insurance industry is relatively shallow and underdeveloped in Uzbekistan, and local firms retain large levels of catastrophic risk despite having low capability to pay out in the event of a large disaster. Catastrophe insurance penetration currently stands at 10 percent of households. The remaining uninsured homeowners will require financial support from the government in the case of a major disaster. There is limited international reinsurance purchases by local insurance companies, and risk management practices require strengthening. These challenges are compounded by outdated technical regulatory frameworks and insufficient regulatory oversight (World Bank. 2020a).

[91] Data of the State Committee on Statistics.

Table PR4. Policy priorities for a sustainable and resilient future

Priority 1: Managing resources more efficiently	
20. Improving water management	• Prioritize public investments that expand metering, modernize irrigation infrastructure, improve water efficiency, and increase climate resilience • Develop a new water code based on modern permitting and water rights and pricing mechanisms that encourage water usage limits • Develop regulations that enable equal water access rights and non-discrimination among groups and between public and private users • Improve the legal environment to support increased private sector involvement in irrigation and investments in digital agriculture technologies
21. Conserving and improving land	• Improve legal and regulatory environment for more public and private investment in climate-smart agricultural technologies, land and resource conservation, and investments in climate change resilience • Implement a national forest development and landscape restoration program that includes a framework for more nature-based job opportunities and livelihoods, with emphasis on areas that are critically vulnerable (e.g., Aral seabed, transboundary areas) • Implement long-term landscape and watershed restoration strategy for economic management of forests, public support and private sector involvement in land restoration, and nature-based tourism
Priority 2: Decarbonization	
22. Modernizing and decarbonizing the energy sector	• Complete market reforms to fully liberalize energy sectors, improve sector regulation, and modernize infrastructure • Develop and implement a sustainable financing strategy for renewable energy and more efficient power generation • Consider establishing carbon pricing and taxation to reduce GHG emissions and build capacity for routine GHG inventory and reporting
23. Broader institutional reforms to support decarbonization in the economy	• Implement circular economy policies that are supported by strong institutional improvement and financing plans • Implement a national low-carbon urban development plan focused on lower GHG emissions and more green private sector investments
Priority 3: Strengthening resilience to natural and climate-induced disasters	
24. More effective natural disaster management	• Develop a comprehensive disaster risk financing strategy with strong risk identification and management plans, assessments of government contingent liabilities, and capacity building measures. • Expand social protection system to support disaster responses and ensure uninterrupted benefits during disasters. • Strengthen preparedness for emergency response, including through strategic investment in critical public infrastructure resilience (e.g., first responders' facilities, hospitals, schools); • Modernize hydrometeorological services, including service delivery and business planning, the development of early warning systems and design disaster preparedness plans with community involvement • Deepen the catastrophe insurance market

Part 6. Conclusions and the Way Forward

220. **Uzbekistan's transition is only at the initial stage, and success is not guaranteed**. This SCD argues that Uzbekistan should focus on the most important outcomes to achieve an inclusive transition, while avoiding the pitfalls that have undermined efforts elsewhere in the world. Success will require strong performance along four development pathways: a stronger private sector response, a more effective and accountable state, better investments in people, and a more environmentally sustainable growth model.

221. **The actions taken by the state are especially important in encouraging the transition process.** The transformation of the state is both essential and complex because of the many roles that the state currently plays in the economy—in allocating factors of production, as a producer through SOEs, and as a large investor, consumer, and regulator. It is also an administrator that develops, enacts, and implements Uzbekistan's ambitious agenda of change on behalf of Uzbekistan's people. Success in every high-level outcome depends largely on changes required of the state.

222. **Table 4 lists the 13 policy priorities that emerge from the analysis in this SCD.** Each policy priority is supported by a list of critical reform recommendations drawn from assessments of lessons learned by other transition economies; detailed analytical assessments conducted by the government, the World Bank technical teams, other development partners, and consultations with stakeholders in preparing this SCD. Important features that are relevant to the implementation of each action are assessed at low, medium, and high relevance along three dimensions, as follows:

- **Delivering quick results**: actions that are relatively easy to implement quickly and that generate rapid and tangible results, such as more jobs, higher incomes, expanded markets, or improved social protection.
- **Transition**: actions that are foundational prerequisites for the market transition.
- **Path dependency**: critical actions that are costly to reverse, have systemic influence over future policy, or take time to generate important, but long-term benefits.

Table 4. Policy Recommendations

Pathway 1: A Strong Private Sector Response	
Goals	**Key Reform Priorities**
1. Improving the allocation of land, labor, and finance	• Developing land markets • Improving labor market efficiency and equity • Establishing deeper and more efficient capital markets
2. Increasing competition	• Improving the legal/regulatory framework for competition • Liberalizing market entry and trade • Making compliance easier and fairer
3. Expanding the private sector's outward orientation	• Adopting trade and investment policies that favor global integration • Strengthening global connections
4. Establishing strong private sector support services	• Establish more effective support programs to increase firm growth and productivity
5. Accelerating agricultural market reforms	• Enhance the role of markets in agriculture • End interference in the agricultural market • Refocus public spending and investment around market-led agriculture
Pathway 2: An Enabling State	
Desired Outcomes	**Key Reform Priorities**
6. Accelerating the state's transition from producer to market enabler	• Fewer and better performing SOEs • A stronger legal and regulatory environment • Improving the impact of public investments
7. Addressing infrastructure gaps	• Leveraging the private sector for connectivity • Improving infrastructure planning and execution • Strengthening the regulatory environment
8. Increasing public accountability and public sector performance	• Reducing corruption • Decentralizing government functions • Increasing public accountability • Improving the process of policymaking
Pathway 3: Investing in People	
Desired Outcomes	**Key Reform Priorities**
9. Strengthening human capital	• Addressing gaps in education quality • Improving access to early childhood and tertiary education • Strengthening the performance and affordability of the health system • Improving water and sanitation services
10. Leaving no one behind	• Improving poverty measurement, policy, and targeting • Labor market policies that encourage inclusion • Increasing the coverage and adequacy of social safety nets
Pathway 4: A Sustainable and Resilient Future	
Desired Outcomes	**Key Reform Priorities**
11. Managing resources more efficiently	• Improving water management • Conserving and improving land
12. Decarbonization	• Modernizing and decarbonizing the energy sector • Broader institutional reforms to support decarbonization in the economy
13. Strengthening resilience to natural and climate-induced disasters	• More effective natural disaster management

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Appendix A. Team Composition

Core team

Vinayak Nagaraj	TTL, World Bank
William H. Seitz	TTL, World Bank
Aimilios Chatzinikolaou	TTL, IFC
Zafar Khashimov	TTL, IFC
Kazumasa Oba	TTL, IFC
Sadjida Tashpulatova	TTL, IFC
Zarema Akhmatova	TTL, IFC
Gianfillipo Carboni	TTL, IFC
Olanrewaju Malik Kassim	TTL, IFC

Contributing authors

Dilshod Khidirov	Agriculture
Sergiy Zorya	Agriculture
Teklu Tesfaye	Agriculture
Sandjar Saidkhodjaev	Digital
Ayesha Y. Vawda	Education
Diego Ambasz	Education
Husein Abdul-Hamid	Education
Janssen Teixeira	Education
Nodira Meliboeva	Education
Ferhat Esen	Energy
Maksud Safarov	Energy
Pedzi Makumbe	Energy
Mitsunori Motohashi	Energy
Banu Setlur	Environment
John-Bryant Collier	Environment
Leela Raina	Environment
Nodira Akhmedkhodjaeva	Environment
Paola Agostini	Environment
Wei-Jen Leow	Environment
Andreja Marusic	FCI
Davit Babasyan	FCI
Eva Gutierrez	FCI
Gaukhar Ospanova	FCI
Mariana Iootty De Paiva Dias	FCI
Martin Melecky	FCI
Paulo Correa	FCI
Sakshi Varma (IFC)	FCI
Stefka Slavova	FCI
Yerali Beksultan	FCI
Arman Vatyan	Governance
Elbek Yusupov	Governance
Fasliddin Rakhimov	Governance
Natalia Manuilova	Governance
Nurbek Kurmanaliev	Governance
Quamrul Hasan	Governance

Reviewers and Advisors

Asli Demirgüç-Kunt
Danny Leipziger
Hideki Mori
Indermit S. Gill
Lilia Burunciuc
Mandeep Bains
Mathew Verghis
Nurbek Darvishev
Salman Zaidi
Samuel Freiji-Rodriguez
Sandeep Mahajan
Sebastian Eckardt
Sir Suma Chakrabarti
Soumya Mitra

Country Management

Aida Mamyrkhanova
Animesh Srivastava
Antonio Nunez
Bermet Abazganova
Eldor Khalitov
Elena Klementyeva
Gulnora Kamilova
Irina Nizamova
Jane Ebinger
Mirzo Ibragimov
Paul Vallely
Rakhymzhan Assangaziyev
Serdar Jepbarov
Shakhnoza Ayupova
Shoista Zakirova
Susanna Hayrapetyan
Suzy H. Yoon
Yuriy Sarukhanyan

Raul Felix Junquera-Varela	Governance
Waleed Haider Malik	Governance
Elvira Anadolu	Health
Iqboljon Ahadjonov	Health
Mohirjon Ahmedov	Health
Eskender Trushin	MTI
Ivailo Izvorski	MTI
Chiu Niu	Poverty and Equity
Sevilya Muradova	Poverty and Equity
Audrey Sacks	Social and Urban
Dmitry Sivaev	Social and Urban
Gulrano Tlepova	Social and Urban
Ildus Kamilov	Social and Urban
Nadege Orlova	Social and Urban
Robert Wrobel	Social and Urban
Rosanna Nitti	Social and Urban
Tolmasbek Boltayev	Social and Urban
Wael Zakout	Social and Urban
Maddalena Honorati	SPJ
Marina Novikova	SPJ
Oleksiy Sluchynskyy	SPJ
Mansur Bustoni	Transport
Sevara Melibaeva	Transport
Azad Abdulhamid	Water
Khairy Al-Jamal	Water
Shavkat Rakhmatullaev	Water