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US\$1.00 = som 2,904.68

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
ANS	adjusted net savings
BEEPS	Business Environment and Enterprise Performance Survey
B40	bottom 40 percent of households in the income/expenditure distribution
CALISS	Central Asia's Labor and Skills Survey
CBU	Central Bank of Uzbekistan
CER	Center for Economic Reform
CIS	Commonwealth of Independent States
CPF	Country Partnership Framework
CSO	civil society organization
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
ECD	early childhood development
FDI	foreign direct investment
GDP	gross domestic product
GNI	gross national income
GNS	gross national savings
ICT	information and communication technology
IFMR	Institute for Macroeconomic Forecasting and Reform
ILO	International Labor Organization
IMF	International Monetary Fund
LITS	Life in Transition Survey
MiRPAL	Migration and Remittances Peer-Assisted Learning Network
MLSP	Ministry of Labor and Social Protection
NBFI	nonbank financial institution
NGO	nongovernmental organization
NNS	net national savings
OECD	Organisation for Economic Co-operation and Development
PSIA	Poverty and Social Impact Analysis
SCD	Systematic Country Diagnostic
SME	small and medium enterprise
SOE	state-owned enterprise
STEP	skills toward employability and productivity
TFP	total factor productivity

UFRD	Uzbekistan Fund for Reconstruction and Development
UNDP	United National Development Programme
VAT	value-added tax
WCA	Water Consumer Association
WTO	World Trade Organization
yoy	year over year

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Executive Summary

To establish a foundation for evidence-based policy making, data limitations must be overcome.

i. **This Systematic Country Diagnostic (SCD) explores how Uzbekistan can consolidate its recent achievements and accelerate progress on the twin goals of eradicating extreme poverty and promoting shared prosperity.** It uses a simple analytical framework to examine the relationship between growth, inclusion, and various dimensions of sustainability.¹ Uzbekistan has made considerable strides over the past decade, yet the analysis identifies critical challenges across these three dimensions that need to be overcome to ensure continued progress. Quality job creation emerges as a central, cross-cutting theme of the SCD, as productivity, wage, and employment dynamics drive development outcomes. Over the medium term, creating high-productivity, high-paying jobs for Uzbekistan’s growing population will be vital to sustaining economic growth, reinforcing social stability, and enabling further improvements in the welfare of households in the bottom 40 percent of the income distribution. Uzbekistan can expect to develop higher-paying jobs as it transitions from a factor-driven economy to an efficiency-driven economy. This SCD suggests that Uzbekistan has room to further develop its basic infrastructure, and that the regional downturn is an opportune time to gradually develop the market mechanisms needed for the creation of an efficiency-driven economy in the longer term.

ii. **Given the data constraints and the need for additional analysis, this SCD represents an early step in an ongoing strategic and analytical engagement with Uzbekistan, which at a later stage will require a more detailed analysis and assessment of various dimensions of economic development, based on additional data.** Important macro and micro-level data were unavailable, limiting the scope of the analysis and qualifying its conclusions. The SCD is therefore presented not as a comprehensive assessment of Uzbekistan’s development, but as an initial iteration to be updated, expanded, and complemented by further economic and sector work as part of the implementation of the Country Partnership Framework (CPF). It is hoped that further studies will benefit from greater access to more detailed data and analytical inputs, and that information management will remain a focus of collaboration between the World Bank team and the Uzbek authorities.

iii. **The SCD is organized into five chapters.** Chapter 1 frames the issues of poverty reduction and shared prosperity, and situates them in the context of Uzbekistan’s recent development. It reviews the status and drivers of progress in these areas, identifies analytical constraints, and highlights areas for further study. Chapter 2 describes the necessary conditions for sustaining rapid economic growth and robust quality job creation. It underscores the importance of expanding private-sector participation and investment in key economic sectors. Chapter 3 considers how a well-functioning labor market and access to essential public services can enhance the inclusiveness of growth. Chapter 4 analyzes threats to the sustainability of Uzbekistan’s recent gains over both the medium and the long term. Chapter 5 concludes by examining the constraints to growth and development revealed by the analysis, and it proposes a framework for prioritizing policy actions designed to address them.

¹ The SCD is a diagnostic tool designed to inform the CPF. It does not provide detailed recommendations for every sector of the economy or to present a comprehensive reform agenda.

Uzbekistan has made important progress in advancing the twin goals of poverty reduction and shared prosperity, although fully understanding the extent of recent gains and the drivers of further improvements will require additional analysis.

iv. Over the past decade Uzbekistan has maintained a high and stable economic growth rate and achieved gradual diversification by following an idiosyncratic, state-driven approach to development. Uzbekistan’s economy has not only grown rapidly, it has also proven highly resilient to external shocks. According to official estimates, annual GDP growth averaged 7.3 percent over the 2001–14 period. Meanwhile, per capita GNI rose from US\$2,020 in 2001 to US\$5,840 in 2014.² This is a notable achievement for the most populous country in Central Asia. Uzbekistan is home to more than 31 million people and has been adding about 600,000 jobs a year (in net terms). However, the country’s industrial sector has been developed with significant state support and protection from competition, while the economy has become less exposed to foreign trade. The government of Uzbekistan recognizes the need to bring more private-sector activity into the economy. Despite robust domestic job growth, Uzbekistan needs to pay more attention to increasing the creation of good jobs and, among other things, to accommodating a large number of returning migrant workers into local businesses. ^{3,4}

v. **According to official data based on national household surveys, the returns to Uzbekistan’s recent growth have been equitably distributed, and poverty has fallen dramatically over the past decade.** According to official statistics, between 2003 and 2012 the poverty rate declined from 27 percent to 15 percent, though the World Bank notes that the methodology for measuring poverty needs to be brought to international standards.⁵ This reduction in poverty appears to have been accompanied by equity gains, as the income of the bottom 40 percent of the income distribution is estimated to have grown at a slightly faster rate than that of the top 60 percent over the period 2008–13. However, there are concerns regarding the validity of the very high reported real growth rate in household incomes relative to the growth rate of the economy as a whole.

vi. **Between 2008 and 2012 rising labor income and small business profits drove poverty reduction and progress in shared prosperity.** Income from salaries and businesses are by far the main source of household earnings among the bottom 40 percent. Moreover, the importance of these income sources has increased significantly since 2008, while the role of pensions, social assistance programs, and other forms of income (including household production) has diminished.

vii. **Access to utilities has steadily increased among households in the bottom 40 percent, though substantial disparities remain between urban and rural areas.** Household surveys indicate that access to running water, landline telephones, and gas lines expanded between 2006 and 2010 across the entire

² These figures are presented in purchasing-power parity terms. In current U.S. dollars (Atlas method) GNI per capita rose from US\$560 in 2001 to US\$2,090 in 2014.

³ World Bank. 2013. “World Development Report on Jobs 2013.” Washington, DC: World Bank. The WDR sets out a flexible framework for identifying “good” jobs. It identifies good jobs as those that that are transformational, by either improving living standards, helping raise productivity, or strengthening social cohesion. “Good jobs” may mean different things for different countries, though in all cases good jobs are those that have spillovers, i.e., benefits to development that are greater than the benefits to the individual that is being employed. Appendix A provides further discussion.

⁴ For further discussion on migration, see World Bank. 2016. “World Bank Migration Factbook.” Washington, DC: World Bank.

⁵ The World Bank team believes that Uzbekistan’s official poverty estimate does not take into account nonfood items and the use value of assets. In 2000–01 the World Bank recommended a methodology of measuring poverty and computing a poverty line in Uzbekistan using 2,100 calories per person per day; however, in order to obtain robust poverty estimates the application of this methodology to Uzbekistan (now a lower-middle-income country) needs to be updated by correcting for spatial and time price differences, and including nonfood expenditures.

income distribution. However, more recent research has suggested that service quality and cost considerations may offset some of the benefits of greater access. For example, although many rural households now have running water, tariffs are high and service interruptions are common. Other research has shown that utility tariffs are regressive, as are investments in self-provided water and sanitation services.⁶

viii. **A detailed 2013 analysis using the CALISS dataset found that households in the bottom 40 percent had relatively lower labor force participation rates, especially among women and young men, and that lower-income earners were likely to have lower educational attainment and to work in the informal sector.** The CALISS found that the informal sector accounts for 54 percent of total employment, while the official estimate is about 38 percent in 2013.⁷

ix. **This analysis yields a number of important questions for further study.** First, how is Uzbekistan’s rapid economic growth affecting employment, productivity, and income dynamics? Second, why are so many adults, and especially women, not participating in the labor force? And third, what policy measures could expand access to higher-income job opportunities and encourage employment in the formal sector?

While Uzbekistan’s current growth model has delivered impressive progress in terms of economic and social development, sustaining robust growth will require a more flexible, private-sector-led approach.

x. **Uzbekistan’s unique state-driven development strategy has facilitated growth, resilience, and diversification, but the government recognizes that this model has its own limits.** The government has directly intervened to support specific industries and sectors. State support includes protection from competition, priority access to financing, and foreign exchange. While such a policy to support public investment for certain industries as part of a larger package of industrial policies has ensured high growth rates in supported sectors and greater diversification of the economy, it has limited the opportunities for similar growth in other sectors.

xi. **The state is supporting gradual improvements in the business environment.** In 2014–15, while state management of the economy remained prevalent, the government adopted some programs to improve the business environment, privatize “nonstrategic industries,” and introduce corporate governance in state-owned enterprises. In 2014–15 Uzbekistan’s ranking in *Doing Business* shot up to 87, from 141 in 2013–14, based primarily on improvements in starting a business, registering property, and getting credit

⁶ While the poverty and income statistics referred to earlier are generated by national surveys, data on access to utilities come from (i) the European Bank for Reconstruction and Development’s “Life in Transition Survey,” London: European Bank for Reconstruction and Development published in 2006 and 2010; (ii) “Social Impact Analysis of Water Supply and Sanitation Services in Central Asia: The Case of Uzbekistan.” Washington, DC: World Bank. 2015; and (iii) Central Asia Labor and Skills Survey (CALISS). The CALISS for Uzbekistan it was carried out in 2013, and surveyed 1,500 households and 8,622 individuals. See full description in World Bank. 2014. “The Skills Road: Skills for Employability in Uzbekistan” Washington, DC: World Bank. Box 1.

⁷ The CALISS informal employment survey includes those employed as individual entrepreneurs without establishing a legal entity, smallholder (*dehqan*) farms, and household members who work in these farms, and in 2013 comprised 80 percent of jobs in agriculture, 60 percent in industry, and 38 percent in the service sector. Official statistics use different definitions of informally employed workers from that of CALISS, which in 2013 counted those working without labor contracts in farms or households, including 3.5 percent in agriculture, 46.2 percent in services, and 41.4 percent in industry sectors. The government has made efforts in recent years to formalize much of the informal sector employment. According to a government survey in 2013, 80 percent of informal workers of all ages had not had tertiary education at some point in their lives.

indicators. Ensuring further sustainability of economic growth depends on the efficient implementation of measures to foster a supportive environment for private investment, competition, and innovation.

xii. **Annual gross domestic investment has averaged about 25 percent of GDP since 2008, of which about a third goes to the industrial sector and a fourth to transportation and communications services.** A previous growth decomposition exercise suggests that increases in the capital stock has been the dominant factor underpinning growth, supported by increases in the labor supply and the level of educational attainment. By contrast, total factor productivity has contributed a relatively small share to overall growth. Only 13 percent of the labor force is employed in industry, suggesting that a large share of state-funded investment in the economy benefits only a small part of the workforce.

xiii. **Sustaining the growth momentum and maximizing its impact on employment creation will require adjustments to Uzbekistan’s state-driven development strategy.** While data limitations condition these conclusions, there is evidence that further state-driven industrialization alone may not be sufficient to generate the high-productivity jobs required to support Uzbekistan’s growing population, or to incentivize the rapid and sustained increases in total factor productivity (TFP) that will be necessary to maintain growth over the long term. Private sector expansion goals require revisiting state industrial policies, further improvements in the business climate, the development of public infrastructure, and improvements in macroeconomic and financial-sector policies that would promote Uzbekistan’s attractiveness to foreign and domestic investors. In this context, a gradual process of economic liberalization will be necessary to embark on private-sector-led growth. The pace and sequencing of reforms will need to be managed carefully to minimize any negative short-term impacts on poverty that may arise from price adjustments or other measures.

xiv. **One implication of Uzbekistan’s state-driven approach to development has been that the approach has led to an economy that is less reliant on foreign trade.** While Uzbekistan’s total trade (exports and imports) have averaged 60 percent of GDP over the past 5 years, and while this rate is significant when one looks at the experiences of other countries, the total trade has been on a downward trend since 2008. In 2008 total trade stood at 83 percent of GDP, while that ratio dropped to 43 percent of GDP in 2015.

xv. **Maximizing the employment impact of growth will also require interventions on the supply side.** In particular, expanding and equalizing access to services will be essential to support entrepreneurship and encourage the growth of small and medium enterprises (SMEs). In addition, increasing citizen participation in the policy process would help the authorities define a development agenda that more effectively addresses the needs of the poor and marginalized.

xvi. **Uzbekistan’s agricultural sector is an example of gradual modernization in an area of significant economic opportunity.** The agricultural sector is likely to remain one of the key pillars of economic growth, job creation, and poverty reduction in rural areas. Agriculture value added has grown at an average annual rate of 6.5 percent since 2003. The strongest growth has come from crops other than wheat and cotton, notably from horticulture. Horticultural products are fast becoming the second largest agricultural export commodity group, after cotton (including cotton lint, linter, and oil). Already, land reforms have increased the economic space for private-sector agricultural activity, although the land available for such activity remains very limited. The government has taken new steps, such as crop diversification and mechanization, to modernize the agricultural sector, but there is more to be done as it links to wider economic reforms. The organized recruitment of a large number of people to contribute to cotton production poses certain risks linked to workers’ rights that need to be addressed.

xvii. **Uzbekistan’s government has recognized that the current economic governance system creates distinct institutional challenges to private-sector-driven growth. Since 2015 it has taken measures to reduce the state’s role and the number of state-owned enterprises (SOEs) in the economy,**

and to support private-sector development. The large share of SOEs in the economy creates institutional obstacles to competition in the marketplace, fragments business regulation, and limits the development of a regulatory environment that is conducive to private-sector growth and development. Given the areas of state involvement in the economy, these institutional obstacles also limit results-based management of public-sector service delivery. All these require improvements as part of the measures taken by the government to reduce institutional barriers to economic growth.

Equal access to economic opportunity will continue to be necessary for employment growth.

xviii. **The government has prioritized education spending, though enterprise surveys indicate the need to further enhance labor-force skills to meet labor market demand and the prospects for technological development.** Addressing the issues of enhancing the technical and vocational skills requires comprehensively improving the system of pre-primary and tertiary education, curricula and teaching methods, and the systems for monitoring educational quality.

xix. **Health services need further attention to avoid adverse consequences for labor productivity and equity.** The public health system suffers from weak accountability mechanisms. Health services are also unevenly distributed, and high out-of-pocket costs represent a serious burden on low-income households. In the future, the government will need to develop health insurance in order to relieve pressure on the private sector.

xx. **For those unable to access the labor market, social protection systems are available, but need further improvements.** Uzbekistan's social programs are based on categorical schemes of those in need. Pensions and social security systems benefit households at the bottom of the income distribution relatively less than those at the top, as in most other developing countries. Many social programs are administered at the local community level, and their effectiveness is subject to their capacity limitations.

xxi. **Stronger public accountability mechanisms would allow users to guide improvements in the provision of essential services.** Many of Uzbekistan's citizens have limited access to information on government policies that directly affect them, and few options to provide feedback on the services they receive. Consequently, civil servants and public agencies need to have stronger performance incentives.

Sustaining economic growth with equity over the medium and long term will require addressing significant environmental vulnerabilities and adjusting to a less favorable external economic environment.

xxii. **Over the last decade Uzbekistan has diversified away from its reliance on natural resources, but efficiency gains will be necessary in order to support an increasingly complex and sophisticated economy.** In the early 1990s natural resources constituted nearly 90 percent of GDP, but this share has since fallen to about 20 percent. The World Bank research on natural wealth accounting, which evaluates natural resource extraction and environmental damage against investments in human and physical capital, indicates that Uzbekistan's adjusted net savings rate was estimated as negative during its period of resource-dependent growth. The value-added from scarce natural resources needs to be improved to ensure higher contribution to the country's growth and development. For example, the critical importance of irrigation in agriculture necessitates large-scale investments to ensure higher efficiency and sustainability of water use, especially in light of the adverse effects of the upcoming global climate change.⁸ Similarly, a lack of investment in the energy sector has led to large demand and supply-side losses, which cost the country an

⁸ Food and Agriculture Organization, AQUASTAT website, Retrieved December 17, 2015 from: <http://www.fao.org/nr/water/aquastat/main/index.stm>

average of US\$1.5 billion per year.⁹ Moreover, the electricity tariff structure does not fully reflect the long-term cost of supply, leading to underinvestment in generation and transmission infrastructure. Efficiency improvements and switching to greater use of renewable sources of energy could reinforce energy security and better serve the demands of a growing economy.

The analysis presented in the SCD reveals 10 key constraints to improving poverty reduction and shared prosperity in Uzbekistan, each of which implies a corresponding opportunity to accelerate progress on the twin goals.

xxiii. **In order to prioritize policy and investment actions on these 10 constraints, they were organized according to their potential impact on the twin goals today.** Six filters were applied for prioritizing the actions on the 10 constraints. These filters comprised: the magnitude of the impact on the twin goals; reform potential; time horizon of impacts; links with the preconditions for a productive life; complementarities with other actions; and adequacy of the evidence base. With these filters the following sets of priorities emerged:

- a. *Those that ranked highly on at least four filters, including those with significant potential impact on the twin goals in the short to medium term, include:* (i) strengthening allocative efficiency and competition by removing market distortions; (ii) establishing a high-quality regulatory environment for firms; (iii) promoting reallocation of land towards more productive uses; (iv) modernizing public infrastructure; (v) addressing labor market weaknesses; (vi) mitigating spatial inequities in access to social services, especially drinking water and sanitation services; and (vii) promoting the sustainable use and management of natural resources.
- b. *Those that ranked highly on three filters or less, including those with potential for medium and longer term impact on the twin goals, include:* (i) widening access to pre-primary and tertiary education and ensuring access to quality health care; (ii) addressing inefficiencies in social protection; and (iii) making public administration more transparent and accountable.

xxiv. Data limitations are a cross-cutting issue in the SCD, and cultivating a more comprehensive understanding of the development challenges facing Uzbekistan will require improvements in information management and transparency. A strong evidentiary foundation will be vital in achieving an enduring policy consensus between the government and its development partners. This presents an opportunity for the World Bank Group to leverage its operational and analytical engagement to develop a more effective framework for productive collaboration with Uzbekistan.

⁹ World Bank. 2013. "Uzbekistan Energy/Power Sector Issues Note." Washington, DC: World Bank, June 2013, p.24-25.

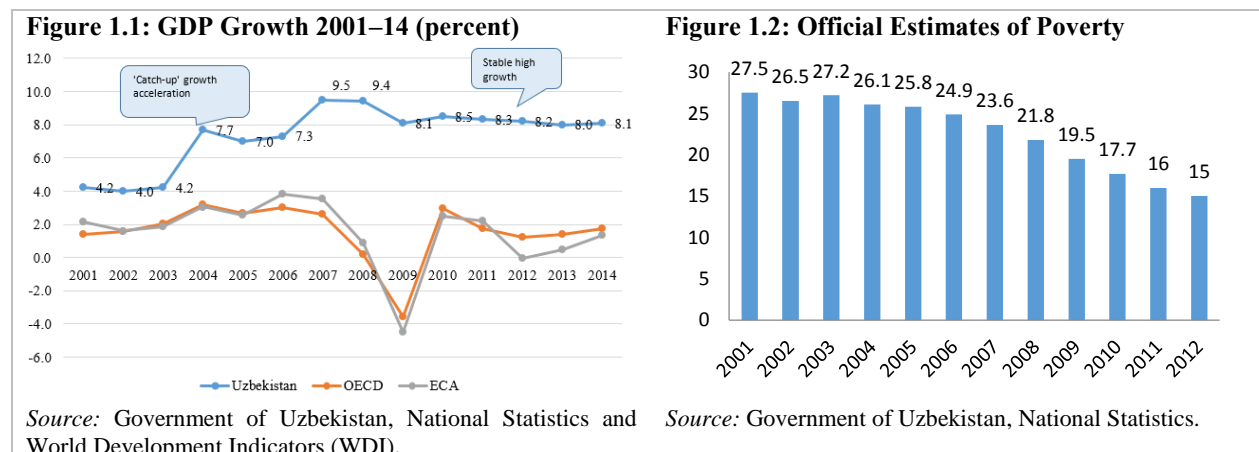
1. Framing of the Issues with Respect to Achieving the Twin Goals

This chapter summarizes what we know of Uzbekistan's recent development experience and seeks to understand ways in which future growth can continue to support progress on the twin goals of eradicating poverty and boosting shared prosperity. It concludes by highlighting that the job options—in both quantity and quality—offered to Uzbekistan's growing labor force will be a key determinant of such progress.

In a Nutshell: High Growth Has Delivered Tangible Progress

Uzbekistan has achieved high growth with rapid poverty reduction.

1.1 Uzbekistan's economy has grown at more than 8 percent per annum over the past decade. Among Commonwealth of Independent States (CIS) countries, Uzbekistan was the first to restore growth after independence in 1996, and to return to pre-independence levels of output (in 2001). Since then, its economy has expanded at an average annual rate of 7.3 percent (Figure 1.1), with two distinct growth episodes: steadily rising growth between 2001 and 2007 (6.3 percent on average), and stable high growth from 2008 to 2014 (8.4 percent on average). Uzbekistan has been a lower-middle-income country since 2009. Per capita gross national income stood at US\$2,090 in current dollars (Atlas method) in 2014 (up from US\$560 in 2001) and US\$5,840 in PPP terms in 2014 (up from US\$2,020 in 2001).



1.2 Economic growth appears to have gone hand in hand with poverty reduction. According to official statistics, the share of the population below the nationally defined poverty line fell from 27.5 percent in 2001 to 14.1 percent in 2013, and the country is on track to achieve the first national Millennium Development Goal by 2015 (Figure 1.2).¹⁰ While laudable under any circumstances, these headline figures are difficult to interpret, because the current methodology for estimating poverty, which relies on 2000–01 recommendations from the World Bank, needs to be adjusted to account for regional price differences and monthly inflation as well as to include nonfood expenditures.

1.3 Uzbekistan's high growth rates were achieved following a government-led strategy of economic transformation, which has come with certain opportunity costs in terms of economic efficiency, and social and environmental sustainability. During the 2000s, Uzbekistan's policy makers engineered a structural shift in the economy, leveraging the country's natural wealth and favorable terms

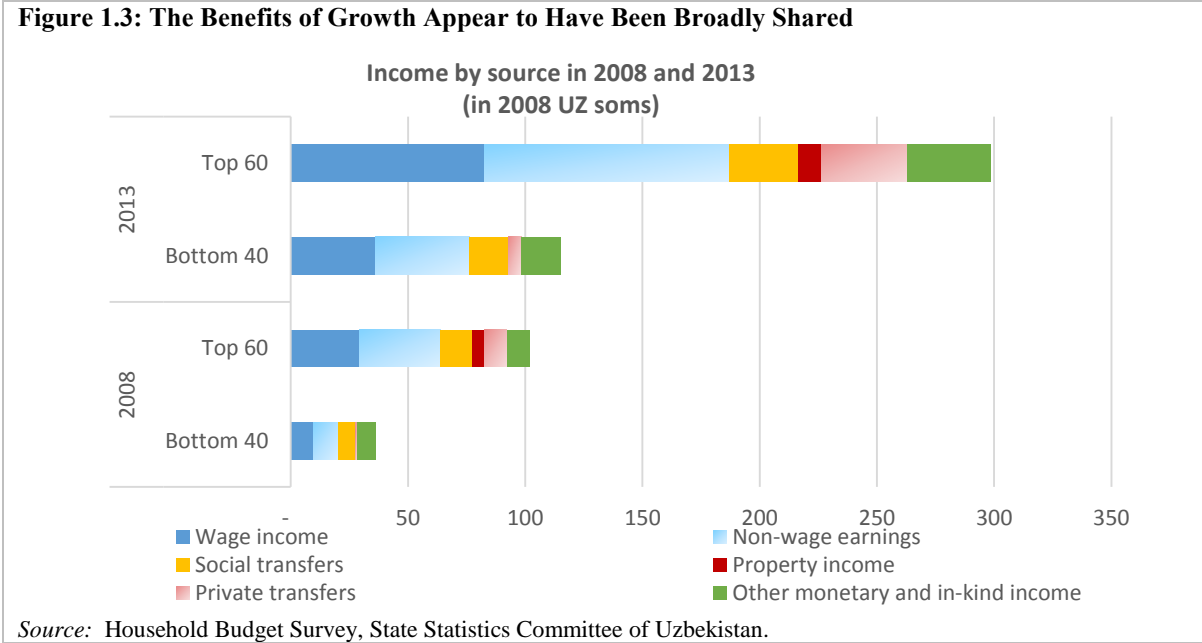
¹⁰ The Ministry of Economy measures poverty in terms of minimum food consumption of 2,100 kilocalories per person per day. The State Statistics Committee of Uzbekistan conducts regular household budget surveys, the raw data of which are not available to the public.

of trade to promote a transition from low value-added agriculture during Soviet times (mostly cotton) to minerals (including natural gas, copper, gold, uranium, etc.). They also drew on an “unorthodox” set of industrial policies based on protection of industries, subsidies, and directed credit with mandatory exchange of export proceeds at the official exchange rate, which were overvalued for the purpose of cheaper importing by state-owned enterprises (SOEs). This SCD will suggest that while these policies have supported GDP growth, they have also supported a capital-intensive approach to development, the other side of which is more limited opportunities for private-sector and small and medium enterprise (SME) growth, with relatively fewer benefits for the poor, and potential social and environmental challenges.

1.4 The elasticity of poverty reduction relative to gross GDP growth has been low. Given Uzbekistan’s record of high and stable GDP growth, one would have expected even faster poverty reduction, based on the experiences of comparators: in other words, the poverty elasticity of growth has been relatively low. From 2002 to 2013, per capita GDP grew 197.0 percent and poverty declined by 48.7 percent; over that period, a 1.0 percent increase in per capita GDP in Uzbekistan is associated with a 0.5 percent decrease in the poverty rate on average, which is significantly lower than the average for developing countries (where a 1 percent increase in per capita GDP is associated with a 3 percent decrease in the poverty rate). This observation is important for the design of future policies, as the government is keen to increase the efficiency of its efforts to reduce poverty.

Growth appears to have been inclusive, and access to services is becoming more equal.

1.5 Official statistics suggest that growth was broadly inclusive over the past decade. According to summary statistics provided by the government of Uzbekistan, incomes have risen and growth appears to have been equitable over the period 2008–12, with a slight increase in the share of total income earned by households in the bottom 40 percent of the income distribution (Figure 1.3).¹¹ The composition of income appears to have changed somewhat in this period, seen especially in the increased importance of private transfers for the bottom 40 percent. These figures, however, are difficult to interpret without access to the micro-data underpinning them, if only because they would imply that incomes grew over 2008–13 vastly in excess of overall GDP growth.



¹¹ The increase, however, is possibly insignificant from a statistical point of view.

1.6 **Inequality is low in Uzbekistan by international standards.** All societies are affected by income and consumption inequality, and Uzbekistan is no exception. Consumption per capita of the bottom 40 percent is less than half of that of the top 60 percent, and average consumption is higher by a factor of six between the bottom 10 percent and the top 10 percent of the population.¹² Nonetheless, the Gini coefficient (based on income) is 28.8 percent (2013) and is low compared to the global average, and moderate compared to other countries in the Europe and Central Asian region. Lower inequality can be a result of several factors—some positive, such as effective targeting of public transfers to the poor, and some negative, such as wage compression,¹³ possibly across the board.

1.7 **In addition to improvements in monetary welfare, there have been significant improvements in nonmonetary poverty as measured by access to basic services over the period 2006–10 in rural areas and among the bottom 40 percent of the population.** Poverty is multidimensional, and living standards are driven not only by income, but by access to basic physical and social infrastructure services. In the absence of household data with two time points, we rely on the Life in Transition Survey (LITS) data for 2006 and 2010 to obtain a dynamic perspective. As seen in Table 1.1, the rural population appears to have almost doubled their access to tap water and fixed telephone lines, and increased access to piped gas by 50 percent in this period. The bottom 40 percent of the population has seen the largest gains compared to the top 60 percent. These improvements point to the fact that the less well-off populations in rural areas were able to benefit from continued improvements, and that the gap is gradually closing.

Table 1.1: Access to Utilities by Groups and Sectors in 2006 and 2010
Percent of households in specific group

	Access to tap water		Access to fixed telephone line				Access to piped gas					
	Urban		Rural		Urban		Rural		Urban		Rural	
	2006	2010	2006	2010	2006	2010	2006	2010	2006	2010	2006	2010
Bottom 20%	79	96	15	45	35	55	2	13	92	93	53	88
Bottom 40%	83	93	16	43	38	54	4	13	93	96	54	89
Top 60%	87	90	30	57	59	58	11	16	97	99	64	90
Total	86	91	24	51	54	57	8	14	96	98	60	90

Source: EBRD LITS 2006 and 2010.

1.8 **However, gains in access to basic services may be partly mitigated by differences in service quality and cost.** Recent evidence collected through the World Bank Poverty and Social Impact Analysis (PSIA) on drinking water and sanitation service conditions in Uzbekistan suggests that the quality of utility service conditions can be highly unequal across population subgroups.¹⁴ For example, the proportion of households connected to piped water supply that were surveyed for this study and that received 24-hour service ranged from 90 percent in Tashkent to 3 percent in rural areas. In addition, the fraction of households reporting problems with the quality of water supply services varied from one-fifth in Tashkent to nearly four-fifths in South Karakalpakstan. In rural areas, a quarter of sampled households that are connected to a piped system still use water from rivers, lakes, and ponds due to utility services that are not yet effective. Of all households in the bottom 40 percent of the study sample, 70 percent relied on open-water sources

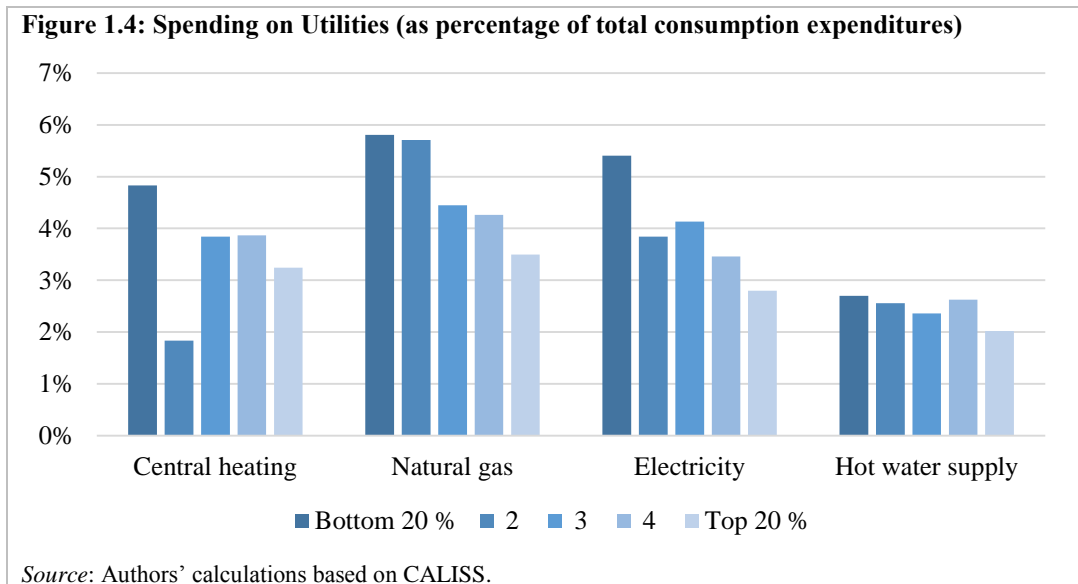
¹² Differences in consumption per capita are mostly driven by non-food consumption, with the greatest jump occurring in the top quintile of the population.

¹³ Wage compression in the case of Uzbekistan refers to generally low pay structures in both private and public firms, and in public services, which are not clearly linked to labor productivity or attracting the best talent/skills.

¹⁴ “Social Impact Analysis of Water Supply and Sanitation Services in Central Asia: The Case of Uzbekistan.” Washington, DC: World Bank 2015. This study henceforth also referred to as PSIA.

(such as springs, wells, etc.) for their drinking water needs, while this figure was 25 percent for all households in the distribution. Sanitation service conditions in Uzbekistan are also unequal.

1.9 **In turn, there is evidence that less affluent households spend a larger share of their income on utilities, possibly constituting a source of vulnerability and constraining their ability to allocate their incomes to other purposes, including transportation, higher education, etc.**¹⁵ The data show that for some utility services (gas and electricity) the households in the bottom deciles pay a larger share of their total budget compared to the top deciles. For other utilities (such as central heating), while the expenditures may be significant, there is no apparent pattern related to income (Figure 1.4).

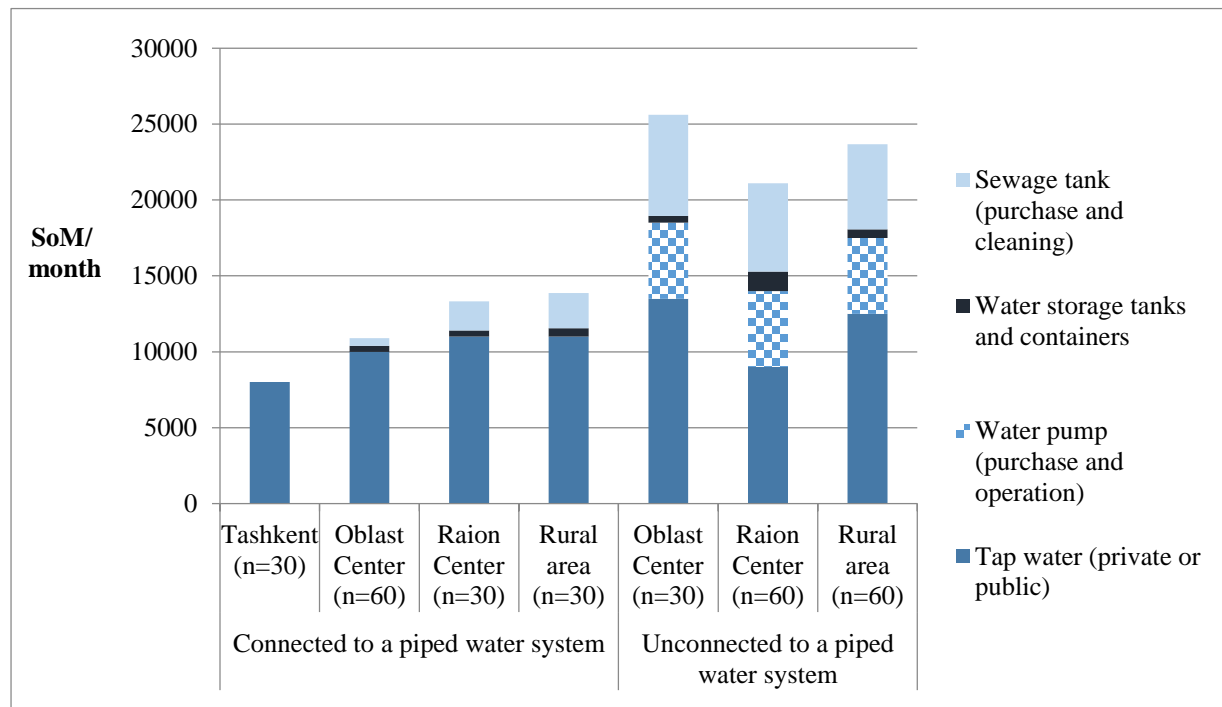


1.10 **Households in poorer areas tend to pay more for basic services and also experience productivity losses as a result of their low availability.** As many households with poor service conditions have to make their own arrangements for meeting their drinking water and sanitation needs, expenditure burdens for households outside Tashkent are often higher than in the capital (Figure 1.5). In some cases this is owed to higher spending on irrigation of larger land plots in rural areas. This excludes productivity losses due to time spent collecting water and caring for children affected by waterborne diseases.

¹⁵ The analysis is based on Central Asia's Labor and Skills Survey (CALISS), sometimes referenced as Jobs, Skills and Migration Survey, was conducted in Uzbekistan in the summer of 2013 and jointly financed by the World Bank and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The survey includes 1,500 households (8,622 individuals) from all provinces of Uzbekistan. The questionnaire collects (i) household level data on demographics, education, migration, remittances, government transfers, subjective poverty, and household expenditures (including on education, health, food, nonfood, utility, and fuel); and (ii) individual-level data on employment, work expectations, preparation for migration, language skills, and technical skill training. The CALISS survey is representative at both the national level and at urban and rural levels, and by international standards the size of the survey is adequate for analysis.

Figure 1.5: Approximate full monthly cost of meeting drinking water and sanitation needs (in SoM)

Per location and for households connected and unconnected to a piped water system to their dwelling. This includes billed costs as well as costs incurred for dealing with poor service conditions.



Note: Data are approximate. Where survey data were incomplete, data collected through focus group discussions were used. Figures should be regarded as approximate. *Connected to a piped water system* means networked water is available *inside* the household property (home or yard). *Unconnected* means that networked water is not available within the household property (either indoors or within a private yard) although it may have been available in the past.

Source: Household survey (n=300) conducted by the World Bank in 2014 as part of a study entitled, “Social Impact Analysis of Water Supply and Sanitation in Central Asia: the Case of Uzbekistan.” Washington, DC: World Bank 2015.

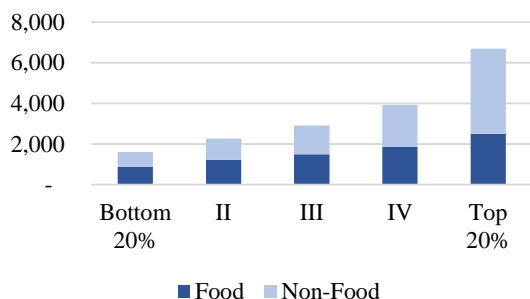
Jobs and Earnings Growth Have Played an Important Role in Reducing Poverty and Increasing the Well-Being of the B40

Earnings likely drive positive outcomes, though bottom 40 (B40) households stand out as having lower access to quality jobs.

1.11 **Poorer households can be distinguished from households that are more affluent by their larger household size, fewer earning adults, and fewer pensioners.** As seen in Figure 1.6b, households with lower welfare (as measured by consumption expenditures) have a greater number of household members, and among them more children and proportionately fewer working adults. This makes them vulnerable to shocks, especially if the main breadwinner suffers illness or an episode of unemployment. Also given that a larger share of the poor’s consumption expenditures are on food, any decrease in income can have severe consequences for these families.

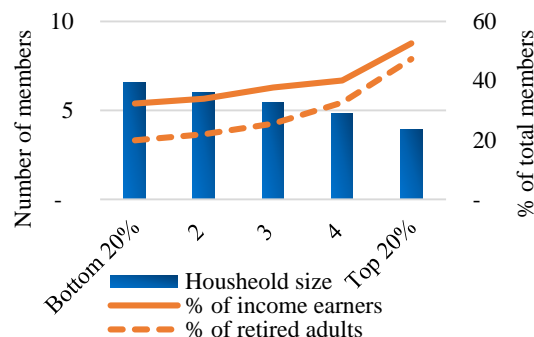
Figure 1.6: Consumption and Household Characteristics by Deciles, 2013

a. Consumption per capita, by population quintile (in thousands of SoM)



Source: Authors' calculations based on CALISS.

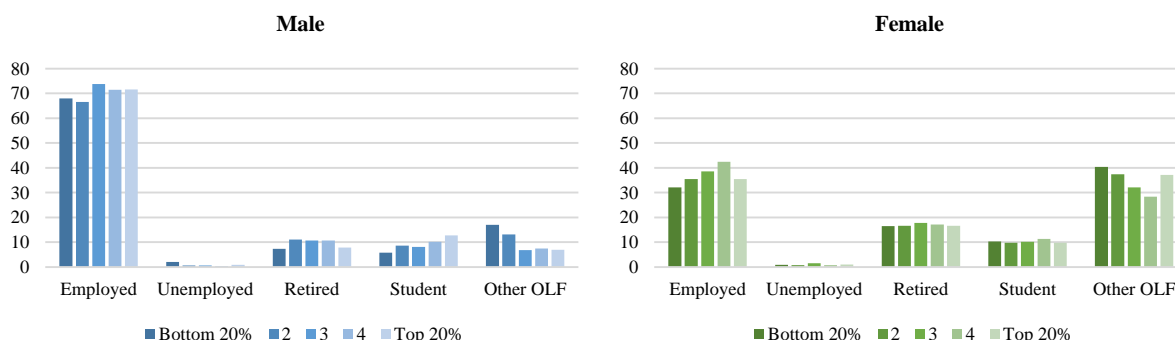
b. Household size and share of income earners and retirees in household, by quintile



Source: Authors' calculations based on CALISS.

1.12 **As family welfare rises, the share of adults employed increases, especially among women, indicating the importance of employment opportunities for household welfare.** Consistent with International Labor Organization (ILO) practices, the CALISS asks a question on “employment in the last two weeks,” based on which it is possible to derive the labor force status of household members above 15 years of age. The survey data suggest that a larger share of the population from the bottom quintiles, both males and females, are not employed (that is, are either unemployed or inactive), while the share of those employed gradually increases along welfare deciles (Figure 1.7). There is also a gender dimension to the labor market participation of household members. While the employment rate for women is much lower than for men across all income groups, the share of female adults who are outside of the labor force (which include being a homemaker and/or a discouraged worker) is much higher for the bottom 40 percent compared to the top 60 percent (51 percent versus 18 percent). However, the lower participation of poor women may be reflective of the lack of access to childcare or basic services, and the cost (in terms of time or money) to commute to jobs outside of their communities.

Figure 1.7: Labor Force Status of Population by Welfare Quintiles (percentage by gender)



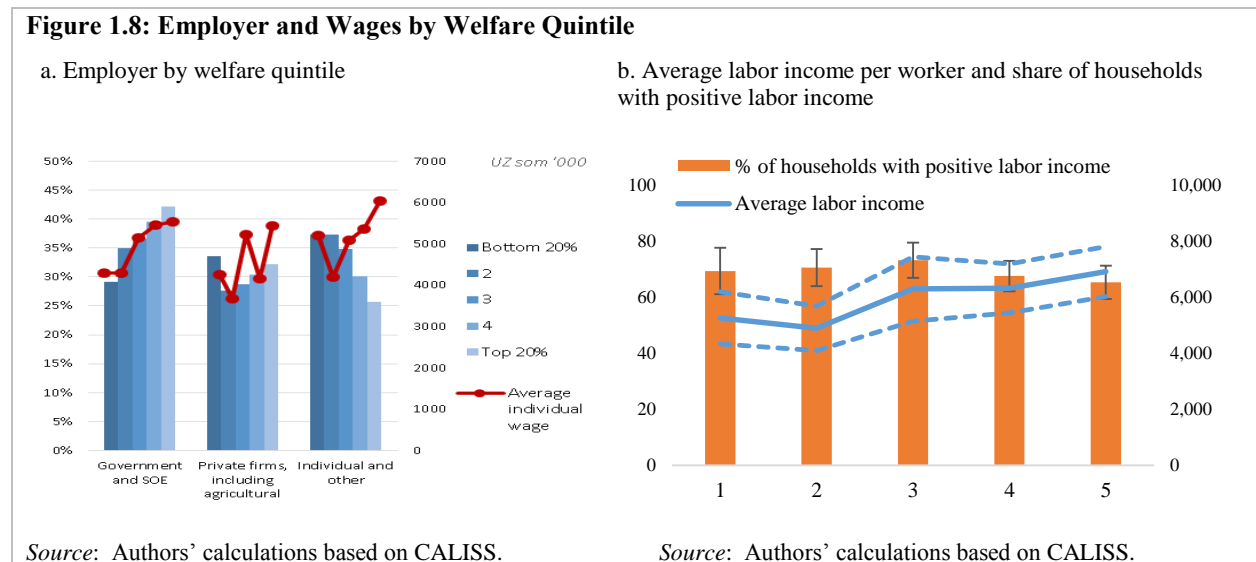
Source: Authors' calculations based on CALISS.

Source: Authors' calculations based on CALISS.

1.13 **Although differences are not stark in terms of employment sector and type of employer by quintile, they do exist and may explain some of the differences observed in welfare.** A larger share of employment of the upper quintiles is in the public sector (comprised of state administration and state-owned enterprises), whereas working individuals from the bottom quintiles are more likely to be self-employed and (to a lesser extent) in private firms, including in the agriculture sector. In urban areas, employment in private and individual organizations is primarily in the services and construction sectors. In rural areas, private and individual employment is dominated by the agricultural and services sectors. Overlaying

information about sector and type of employment for the bottom groups, it appears that the majority of less-well-off persons are individual farmers (*dehkans*) in rural areas, or self-employed service providers in urban areas. This could potentially indicate a link between low income and employment in the less productive and more informal agriculture and small-scale service sectors.

1.14 Labor earnings are not highly unequal, but employment opportunities are fewer among poorer families. As expected, more affluent persons have higher average labor income (by about 40 percent) as seen in Figure 1.8. This difference is partly driven by more hours worked. The top 60 percent work on average 43 hours per week, compared to 37.5 hours for the bottom 40 percent—that is, 15 percent more. Thus, the combination of fewer working adults, lower incomes, and fewer working hours makes it difficult for poorer families to rapidly improve their circumstances and reduce their vulnerability.



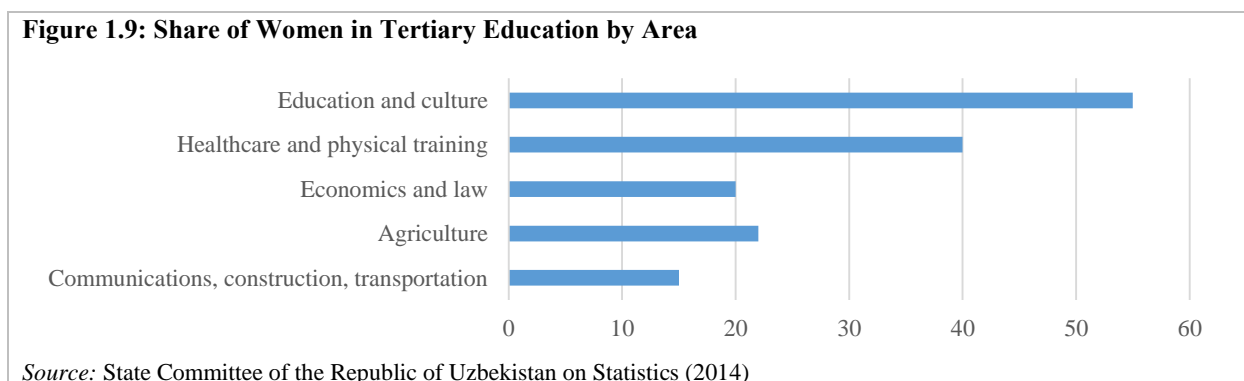
The importance of education and skills: better training commands higher earnings.

1.15 Although the population of Uzbekistan is well educated, the more affluent have higher educational attainment. Gross secondary enrollment rates in Uzbekistan are 105 percent (in 2011), which is much higher than the average of 77 percent for middle-income countries in 2013. The majority of heads of households have some type of secondary education. However, heads of household in the bottom 20 percent of the population mostly have secondary general degrees, whereas the more affluent are more likely to have secondary special or secondary technical degrees. Moreover, heads of household from the top 60 percent are much more likely to have higher education degrees compared to the bottom 40 percent. Whether this reflects access issues, lower spending on education, or other factors needs to be explored further. In the context of lower educational attainment of the bottom groups, this may lead to a vicious cycle of underinvestment in human capital for poor groups, thereby leading to lower social mobility. Lower income earning potential may be transmitted across generations, because according to CALISS the poorest 40 percent have significantly fewer children ages 6 to 18 years enrolled in school (79 percent), compared to the top 60 percent (87 percent of all children)¹⁶. These disparities increase when we compare the bottom 20 percent to the top income groups.

¹⁶ In Uzbekistan children start formal education from the age of seven years old, and primary and secondary education are compulsory and free. While the government's statistics do not offer enrollment rates by income strata, for the age group of 6-15 years old, it indicates a gross enrollment rate of 84 percent in 2015. This is largely consistent with the trend indicated by CALISS.

1.16 **There are also distinct gender patterns in access to education and selection of areas of specialization.** While primary education is attained equally by girls and boys, disparities emerge after grade 9, affecting girls over 15 years old. According to official statistics for the academic year 2010–11, young women make up almost 60 percent of all students in academic lyceums, and about 50 percent of students in professional colleges, but only 30 percent in universities and institutes. These disparities are attributed to relatively early marriage and the existence of gender stereotypes, but also by the costs for boys’ education being prioritized in the family budget, and the location of postsecondary and higher educational institutes, as girls are less likely to be sent to study away from home. There are also very clear patterns of gender distribution of selected specializations, with most girls choosing disciplines in the education and healthcare professions, which are lower paid (Figure 1.9), while the majority of boys opt for training programs in the transport and communications sectors, industry, and construction, as well as economics and law.¹⁷

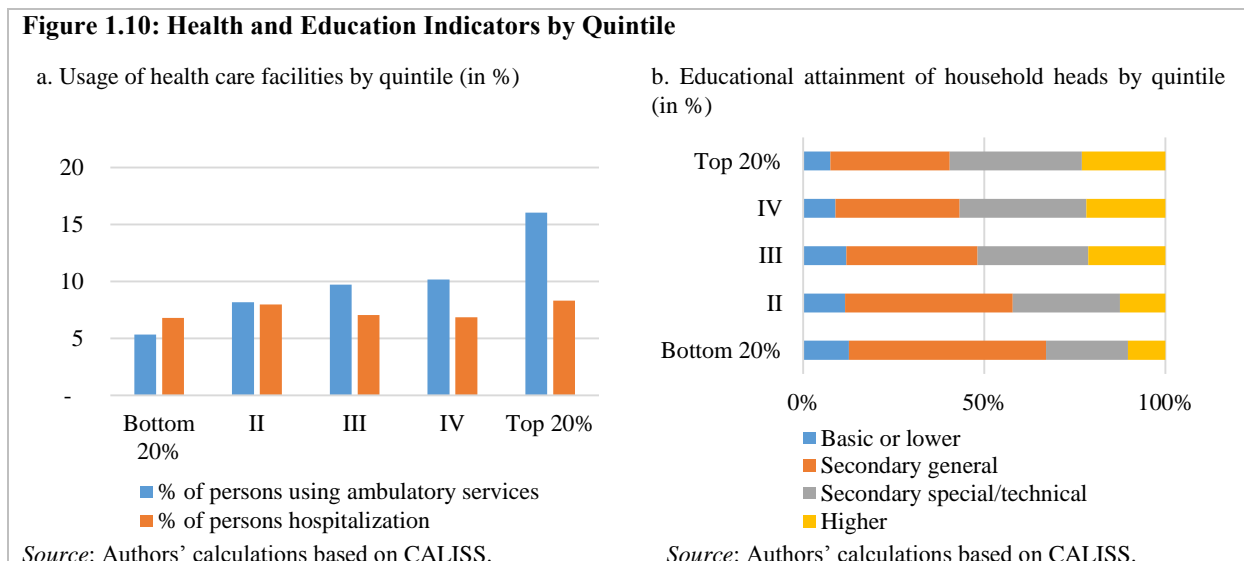
Figure 1.9: Share of Women in Tertiary Education by Area



1.17 **Differences in household investments in human capital could affect prospects for mobility.** Poorer households spend proportionately more on housing and utilities, while the wealthy spend significantly more on health and education (Figure 1.10). The overall amount of spending on human capital accumulation (for example, health care and education) appears to be a significant share of household expenditures for all income groups. However, expenditures by the top 10 percent on education and health care is 9 and 17 percent of total expenditures, respectively, totaling to 26 percent, compared to 16 percent of total expenditures for all consuming households on average. The high share of health care expenditures by the richest quintile reflects higher usage of primary care and specialist services, but also the higher costs associated with hospitalization (while hospitalization *rates* appear to be similar across welfare groups). Utility payments, which are mainly incurred by urban households and include expenditures on drinking water, hot water, central heating, gas, and electricity, are a significant share in total consumption expenditures. Though the top quintiles pay more in absolute terms for utility bills, the share of payments is larger for poorer households.

¹⁷ Asian Development Bank. 2014. “Uzbekistan Country Gender Assessment, Gender and Development, Central and West Asia.” Manila: Asian Development Bank, based on information from the State Committee of the Republic of Uzbekistan on Statistics.

Figure 1.10: Health and Education Indicators by Quintile



Beyond unemployment: job quality and participation are major issues.

1.18 **According to official statistics, in recent years Uzbekistan’s economy has created about 990,000 jobs a year in gross terms; factoring in routine job destruction would leave about 600,000 jobs a year in net terms.** With Uzbekistan’s working age population of about 18 million, and the number of employed 13 million, the number of jobs created according to official statistics has been sizable; it is important to note that official statistics do use a broad definition of employment, including part-time work, seasonal work, the self-employed, and those working on domestic farms. Further research is required to investigate the contribution of the various employment categories in the job creation and job destruction figures, and the relationships between these figures and the published growth rates of job creation and labor force.

1.19 **Uzbekistan’s official statistics show a low rate of unemployment.** According to the State Committee on Statistics the country’s unemployment rate was 5.1 percent in 2014. The unemployment rate for men was 5.2 percent and for women, 4.9 percent. The low unemployment rate partially reflects lower rates of labor force participation compared to countries with similar income levels; in addition, available evidence suggests that to address this issue a stronger focus should be put on the creation of jobs that are more productive and more secure.

1.20 **Uzbekistan’s low unemployment rate coexists with labor market challenges.** Indeed, available evidence suggests that seasonal jobs and part-time jobs do not fully provide incentives for the increase in levels of participation in the labor market. According to official statistics, about 78 percent of all jobs, including seasonal and part-time jobs, are located in private micro and small firms (Figure 1.10). According to the CALISS findings, about 54 percent of total employment was informal in 2013, while the official estimate was about 38 percent.¹⁸ Informal employment exists in the agriculture, industry, and service sectors.

¹⁸ The CALISS’s informal employment definition includes those employed as individual entrepreneurs without establishing a legal entity, as well as those employed in smallholder (*dehqan*) farms and household members that work in these farms; in 2013, informal employment comprised 80 percent of jobs in agriculture, 60 percent in industry, and 38 percent in the service sector. Official statistics use different definitions of informally-employed workers from that of CALISS; they count those working without labor contracts in farms or households; in 2013 they comprised 3.5 percent of jobs in agriculture, 41.4 percent in industry, and 46.2 percent in services. The government has made efforts in recent years to formalize much of the informal employment sector.

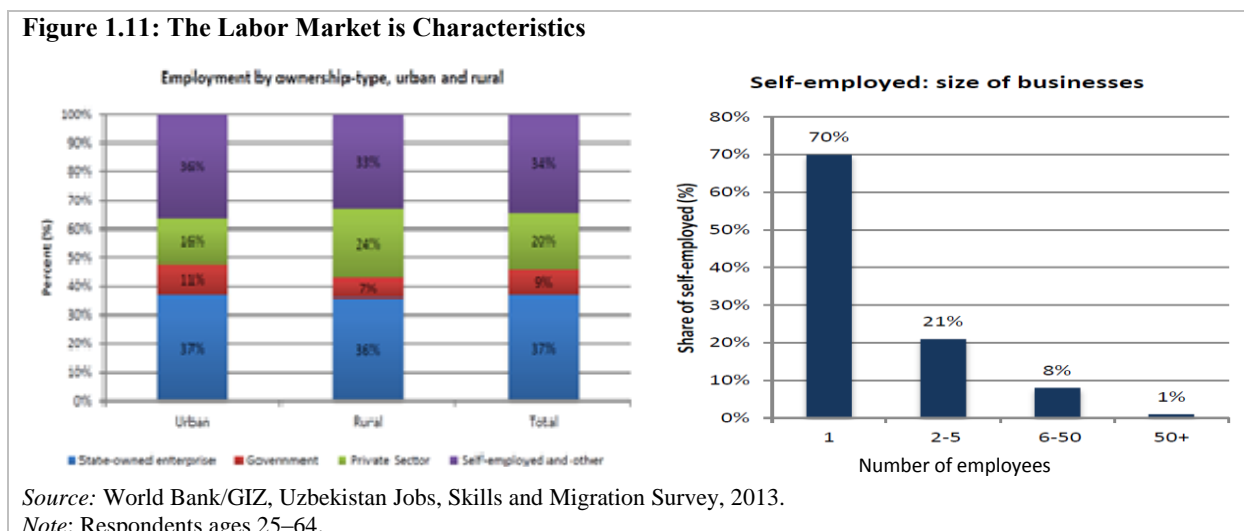
- i. According to CALISS, the people most likely to be engaged in the informal sector are men, rural residents, and individuals with lower educational attainment levels. One in three workers is self-employed; of these, 90 percent work in firms with fewer than six workers, and some 70 percent run businesses that do not employ any additional workers.
- ii. According to CALISS, in agriculture, more than half of individuals working are unpaid family workers, reflecting a rural underemployment problem. Underemployment in rural areas was already an issue in Soviet times, though it was masked by formal employment in collective farms. When collective farms were converted into individual units, the bulk of rural labor was *de facto* unemployed. Many poor people moved out of the rural areas to seek jobs in Uzbekistan's large cities (mostly Tashkent), or abroad. Attempts to bring jobs to rural areas were only partially successful. From 2009 to 2013, approximately 970,000 new jobs were created every year (on a gross basis), mainly in civil and public works, municipal and infrastructure improvements, construction and services, micro and small enterprises, and in-house/rural residence-based jobs (for example, by giving free cows to the poor). However, available evidence suggests that at least one-third of jobs created are not sustained over time, so only two-thirds of jobs created are in fact added on a net basis.

1.21 The government of Uzbekistan has recognized that future job creation efforts should be focused on higher-value-adding jobs.

- i. Physical work and repetitive tasks are key characteristics of most jobs in Uzbekistan, and only half of all workers seem to learn new things on the job.¹⁹ Physical work is unsurprisingly common in the agricultural and industrial sectors, where the majority of tasks performed (56 percent) are repetitive in nature. Manual, repetitive tasks limit the scope for on-the-job learning, which is confirmed by survey respondents in all three sectors. Only about 41 percent of all respondents working in agriculture and 53 percent in industry state that they learn new things at least once a week. This share is slightly higher, at 61 percent, in services.
- ii. The use of computers on the job is relatively low, although computer use is slightly more common among younger employees in state-owned enterprises working in the service sector. In 2013 in Uzbekistan, 20 percent of workers reported using a computer, which is lower compared to other developing countries. In Uzbekistan, younger and middle-age workers are twice as likely to use computers (21 percent) as older workers (10 percent). The share of workers using computers is the highest in state-owned enterprises or the government (36 percent) and in the service sector (29 percent). Moreover, workers in richer households are considerably more likely to use computers at work than workers in poorer households, suggesting that higher-paying jobs are more likely to require computer use.

¹⁹ Physical work is defined as regularly lifting or pulling anything weighing at least 50 pounds (25 kilograms).

Figure 1.11: The Labor Market is Characteristics



1.22 **In turn, the current domestic labor market conditions may be driving both low levels of overall participation in the labor force, and migration rates.** To get a sense of the importance of Uzbekistan’s migration rate relative to other countries, we turn to a global data source to ensure comparability. According to the *World Bank Migration Factbook 2016*, which draws on United Nations data from 2013, the world migration rate (measured as the stock of emigrants living in a country relative to the home country population) is 3.4 percent, while the migration rate for developing countries is 3.1 percent. For Europe and Central Asia it is 12.2 percent, and for Uzbekistan it is 6 percent.²⁰ Among the migrating workers, the majority are young males.

1.23 **Participation in the labor force in Uzbekistan is lower for males and on par for females, compared to other middle-income countries.**²¹ The labor force participation rate for males (as a percentage of the male population aged 15-64) in 2014 was 79 in Uzbekistan, 82 on average in the middle income countries, and 75 for developing countries of the Europe and Central Asia region. For females (as a percentage of the female population aged 15-64) it was 51 for Uzbekistan and in the 51-52 range for both middle-income countries and developing countries of the Europe and Central Asia region. Compared to Organisation for Economic Co-operation and Development (OECD) countries, however, women in Uzbekistan are underrepresented in employment, and hence remain an “under-tapped” resource. Women comprise a large share of the country’s unpaid caregivers. As in many countries, in Uzbekistan women’s employment rates are below those of men since they remain the primary care-givers; furthermore, quality childcare services are lacking, especially in rural areas and small towns.

1.24 **The current structure of the tax regime favors micro and small enterprises, and provides an implicit rationale for enterprises to remain “small” employers.** Uzbekistan uses firm size as an important metric to define its tax rates, which also vary by sector. In tourism, for example, firms with fewer than 25 employees are in the “simplified” regime and pay a single tax based on turnover, while firms with more than 25 employees are in the “general” regime and pay full taxes on turnover and profit. The retail sector is entirely in the simplified regime, while in textiles and food processing, for example, the employment threshold for the general regime is 200. Tax compliance costs in the general regime remain higher than in the simplified regime for similar types of businesses. This practice creates an incentive for firms to remain under the threshold, leading to a variety of suboptimal practices, such as structuring a single

²⁰ World Bank. 2016. “World Bank Migration Factbook.” Washington, DC: World Bank.

²¹ World Bank. 2014. “World Development Indicators” Washington, DC: World Bank.

firm into multiple entities, shifting to informal (cash-based) recruitment/payment of employees, and underreporting of revenue.

1.25 **The 2013 World Development Report (WDR) introduced the concept of a “good” job, which seems very relevant for Uzbekistan.**²² Good jobs are those that provide positive spillovers to society, beyond the benefits they accrue to the individual jobholder. Good jobs are considered to be transformational, as they improve living standards, raise productivity, and/or strengthen social cohesion. The WDR also points out that good jobs are not necessarily the same in all types of economies. For example, in countries with agrarian sectors, good jobs will include those that increase agricultural productivity. Given the discussion thus far in this SCD, the need for a greater role for the private sector in the future, and the need for greater emphasis on the diversification of exports, one example of a “good” or transformational job for Uzbekistan may be a job in a private enterprise that supports exports. Based on the CALISS and other evidence, there is some indication that many of the jobs available to Uzbek workers are informal and low tech, and many of the jobs that are formal may pay well, but do rely on protected markets, and are therefore untested in their competitiveness. As such, these jobs may not withstand future competition. On the other hand, jobs in horticulture, although informal, can be considered as good jobs, as they diversify the economy and have potential for significant contribution to exports. The term “good jobs” in this SCD is used in the spirit of the 2013 WDR. As a working definition, good jobs for Uzbekistan can be considered those that contribute to the economic, social, and environmental sustainability of the country.

Recent Economic Performance and Outlook

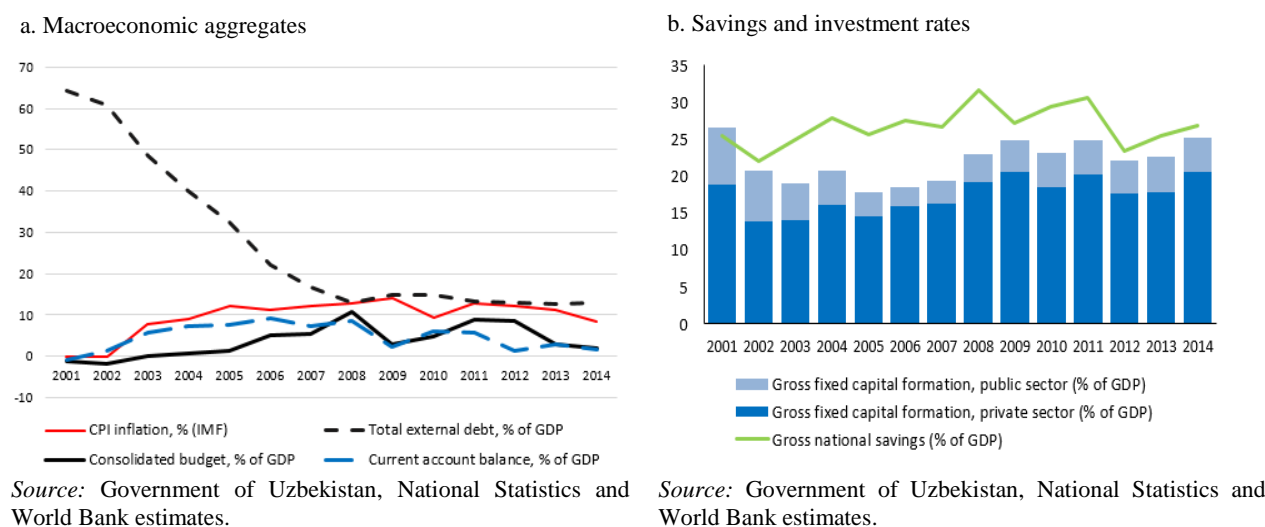
The macroeconomic policy has brought about positive outcomes despite inflation.

1.26 **Uzbekistan’s macroeconomic policies have maintained macroeconomic stability and helped generate savings in the hands of the state and of households.** Since independence, Uzbekistan has undertaken a fiscal adjustment and has stayed the course despite the turbulence in the global economy. It has turned a consolidated budget deficit into significant surpluses, decreased the country’s overwhelmingly public external debt (Figure 1.12a), and boosted domestic savings (Figure 1.12b). The very significant improvement in the consolidated budget is reflected in the surpluses generated in the external account (Figure 1.12a). According to IMF’s calculations²³, over the period 2005-14 the end-of-period inflation rate in Uzbekistan fell from double-digit values (12.3 percent) to a single-digit value (9.8 percent), and the official consumer price inflation was 7.3 percent on average. Some of the reasons for such a level of inflation are likely to be administered prices; regular increases of minimum wages, pensions, and social allowances since 2004; accommodative monetary policy; and a gradual depreciation of the national currency every year. In the past six years, loans to the economy have increased from 15 to 23 percent of GDP in support of state-funded investment projects. However, a declining rate of credit growth is likely to have contributed to the gradual decline in the inflation rate since 2012. While Uzbekistan’s positive current account reflects the country’s positive savings/investment balance, it also shows the significant resources that Uzbekistan has available to mobilize to meet its development objectives.

²² See Appendix 1.

²³ IMF. 2008. Article IV Consultation—Staff Report No. 08/235. Washington, DC: IMF; IMF. 2015. “Executive Board Concludes 2015 Article IV Consultation with Uzbekistan” Washington, DC: IMF; IMF. Press Release No. 15/414. Washington, DC: IMF.

Figure 1.12: Macroeconomic Outcomes



Recent developments expose some risks.

1.27 **In 2011–13, Uzbekistan’s economy grew at an average annual rate of 8.2 percent, owing to expansionary fiscal policies and measures to boost credit to the private sector, to counter the impact of a gradually worsening external environment.** The external environment had started to weaken: China’s economic growth began to slow, and the price of gold and other commodities had weakened, reducing Uzbekistan’s exports, the inflow of remittances, and the current account surplus. The government ran a fiscal surplus from 2011–13, and monetary policy was accommodative. The official consumer price inflation index was 6.8 percent year over year (yoy) in December 2013, although the IMF-estimated average Consumer Price Index (CPI) was 10.2 percent in 2013. The main sources of consumer inflation in 2011–13 were administrative price increases on gasoline, utilities, transport services, higher import tariffs and excise taxes on some food, and limited competition in the wholesale import trade of consumer goods. While Uzbekistan’s trade increased in US dollar terms over 2011–13, it continued to decline as a share of GDP (see Figure 4.5 in Chapter 4).

1.28 **Uzbekistan experienced a much larger external shock in 2014–15.** While the external shock in 2011–13 materialized as a decline of exports due to lower external demand from Uzbekistan’s main trading partners (together with a 32 percent yoy decline in remittances), 2014–15 saw a relatively deeper export decline, coupled with a decline in remittances in US dollar terms²⁴ by 40 percent yoy during 2015. Also, while official inflation (CPI) dropped from 6.1 percent yoy in December 2014 to 5.6 percent yoy in December 2015, the IMF-estimated CPI dropped from 9.8 percent in December 2014 to 9.3 percent by the end of 2015. The official nominal exchange rate of the Uzbek som to the US dollar has gradually depreciated by 16 percent from December 2014 to December 2015, while the Russian ruble depreciated by 30 percent yoy and the Kazakh tenge by 86 percent yoy over in the same period. Figure 2.6 in Chapter 2 reflects these dynamics. In all, the real exchange rate of the Uzbek som has appreciated in 2014–15 against the currencies of Uzbekistan’s main trading partners.

1.29 **In response to the worsening external environment, the government of Uzbekistan used its significant fiscal buffers to introduce a more aggressive countercyclical response in 2014–15.** The government increased public investment, made further cuts of business and personal income taxes, and increased the wages of civil servants and employees of state-owned enterprises. As a result, according to

²⁴ The 2014–15 shock was due to a sharper decline in commodities prices, especially oil and natural gas, and slower growth in China, in addition to deeper recession in Russia, compared to 2011–13. According to Uzbekistan’s official balance of payments statistics, remittance inflow was about 8.5 percent of GDP in 2014.

national statistics, economic growth was at 8.1 percent yoy in 2014, and at 8 percent in 2015. In 2015, construction was the leading growth sector, expanding by 17.8 percent yoy, followed by trade, catering, and other services, which grew by 11 percent yoy; agriculture by 6.8 percent; and industry by 5.8 percent in 2015. At the same time, economic balances have eroded, as can be expected, with increased reliance on buffers. Uzbekistan's consolidated fiscal balance and current account surpluses dropped in 2014 and 2015, and the total external debt is estimated to have increased slightly, from 13 percent of GDP in 2014 to 15.8 percent of GDP in 2015.

The outlook remains positive in a baseline scenario, but challenges need to be overcome.

1.30 **Based on the available evidence, the medium-term outlook for Uzbekistan is positive, despite the weakened external environment, owing to the government's track record of persistently tweaking the current policy framework. But there are increased downside risks, given the uncertainties surrounding the external environment and the gradual pace of structural reforms.** The external environment for the baseline scenario is shaped by the following factors: (i) commodity prices will continue to decline in 2016 and not recover significantly until 2018; (ii) Uzbekistan's main trading partners will maintain lower growth rates in 2016-18 than in 2011-2015, affecting the country's exports, investment, and GDP growth; (iii) a sharper US dollar appreciation and tighter global financing conditions as the United States will further raise external borrowing costs and reduce net foreign direct investment (FDI) inflows; and (iv) further official exchange rate depreciation of the Uzbek som to support lagging exports but at a cost of raising debt service on foreign currency obligations. On the policy front, the government is expected to continue using countercyclical fiscal policy tools and marginal structural reforms to mitigate the effects of a deteriorating external environment. High investment growth, stemming from the new public investment program adopted for 2015–19, and higher public spending on wages and pensions that keep increases ahead of inflation, are expected to form a cornerstone of fiscal policy. Industrialization, and import substitution policies are expected to continue, supporting domestic demand and also the current account. The government is expected to support the private sector by allocating more credit to small firms; continue tax cuts to enterprises and individuals; and continue to gradually improve the business environment. These policies, in addition to the new agriculture development program (for 2016-20) and the reallocation of some irrigated land from cotton to horticulture, are expected to contribute to growing investment and consumption, and to largely offset the lower external demand. The government is also expected to reduce some inefficiencies in the public sector, by improving corporate governance in SOEs, and by moving forward with selected privatizations.

1.31 **Given base year (2015) national statistics, the weakened external environment, and the current policy framework, the baseline medium term GDP growth is projected to slow to about 7 percent, i.e. almost one percentage point lower than recent growth performance, with increased downside risks.** Table 1.2 presents the baseline scenario for the medium-term outlook. Relative to previous years, the package of fiscal, private sector, and sectoral reform policies (especially the agriculture development program) are expected to help maintain agricultural growth between 6 and 7 percent per year, while the growth of the industrial and service sectors is expected to slow, owing to the slowdown of trading partners and the drop in remittances. The fiscal and external balances are expected to decrease but still remain positive, while total external debt is expected to increase from 15.8 percent of GDP in 2015 to about 19.7 percent of GDP in 2016-18. Slowing income growth and returning labor migrants are expected to slow the progress in reducing unemployment, poverty, and inequality over the near term. The national poverty rate is expected to remain at 13.6 percent in 2016-17. The official Gini coefficient is projected to remain unchanged through 2018 as an increase in the labor supply puts downward pressure on wages.

Table 1.2: Selected Economic Indicators and Baseline Projections for 2016-18

<i>In percent change, unless otherwise indicated</i>	2013	2014	2015p	2016*	2017*	2018*
GDP, at constant market prices	8.0	8.1	8.0	7.3	7.2	7.2
Private Consumption	4.8	5.8	-0.5	-0.3	3.5	5.0
Government Consumption	5.9	9.9	8.4	3.1	2.0	2.9
Gross Fixed Capital Investment	10.7	9.6	9.5	9.3	9.4	10.0
Exports, Goods, and Services	8.3	-5.1	-5.3	-2.8	0.2	2.6
Imports, Goods, and Services	5.9	-4.1	-13.4	-6.9	-5.3	1.1
GDP, at constant factor prices	9.4	8.0	9.0	7.5	7.2	7.2
Agriculture	6.8	6.9	6.8	6.6	6.5	6.5
Industry	6.0	5.7	5.8	4.5	4.0	4.2
Services	12.0	9.3	11.1	8.9	8.4	8.4
Inflation (Household Consumption Deflator)	10.2	10	10	9.0	8.0	8.0
Inflation (Consumer Price Index, official)	6.8	6.1	5.6	5.5
Current Account Balance, % of GDP	2.9	1.7	0.9	0.8	0.9	1.0
Fiscal Balance, % of GDP	2.5	2.0	0.4	0.3	0.6	0.7

Source: Government of Uzbekistan, National Statistics, World Bank staff calculations for 2013-15, and World Bank projections for 2016-18.

Notes: p-preliminary or expected growth of GDP, investment, export, import, agriculture, industry, and the current account balance figures are official preliminary estimates, the rest is Bank staff calculations); * -The years 2016-18 are projections based on official primary figures for the base year (2015).

1.32 The current policies under the baseline scenario may not be sufficient to guard against significant downside risks; a more ambitious reform agenda will be required to put the economy on more sustainable path, and to deliver the good jobs required. Over the past decade, increased exports of gas, gold, and other minerals, combined with high commodity prices, generated significant state revenues, which were used to finance large increases in investment, public sector salaries, pensions, and social allowances. Analysts have recognized that the weakened external environment for Central Asia is not likely to be a temporary phenomenon, but a “new normal” to last for several years. In the future, several components of this formula are expected to change. First, gas and mineral export volumes are likely to plateau, despite the gas increases that are expected in 2017-18, owing to the completion of the additional pipeline to China. Second, energy and metal commodity prices are not projected to return to the levels of the past decade in the near and medium term. Third, Uzbekistan’s largest trading partners--Russia, China, and Kazakhstan--are all likely to grow more slowly in the near and medium term. As such, the creation of good jobs will present a particular challenge going forward, as neither the extractive industries nor heavy industry are likely to generate the number of jobs needed to employ Uzbekistan’s growing labor force. Finally, climate change is likely to aggravate water, energy, and environmental constraints. In this context, Uzbekistan will need to boost domestic demand to absorb new productive capacity. This means that the government’s countercyclical fiscal policy responses to external shocks might not be sustainable in the longer term, and the government will have to radically improve the investment climate to boost domestic private investment and consumption, and to hedge against any downturn in agriculture, and against worsened performance of trading partners. Furthermore, the current approach to economic development needs adjusting, not only to keep delivering the number of jobs Uzbekistan requires, but the good jobs (as defined in the *2013 World Development Report*) that will come from higher productivity and will bring higher wages. To get to this higher level of development more ambitious structural reforms are required. These reforms include measures to improve the business climate and governance; strengthen the financial sector; reduce trade costs; further reduce taxes on firms and individuals; and introduce much stronger incentives for private investors and state-owned enterprises to adopt new technologies and management practices. Such a package of reforms would enhance Uzbekistan’s economic efficiency, productivity, and global competitiveness, and would further Uzbekistan’s quest to become an efficiency-driven economy. (See Box 2.4 for further discussion.)

Summary

1.33 **In summary, while aggregate figures point to considerable developmental progress made by Uzbekistan over the course of the past two decades, a more granular analysis reveals both (i) the need for additional research to better understand the various elements of Uzbekistan’s poverty reduction; and (ii) potential labor market challenges going forward.** First, on the measurement side, the uncertainty over how best to interpret official poverty statistics is a significant hindrance to benchmarking Uzbekistan’s performance on a core twin-goal metric. If official statistics do not capture nonfood items, there is a distinct possibility that *poverty*, as conventionally measured for cross-country comparisons, could be higher. Second, though this would need to be confirmed and investigated further, it appears that while labor earnings are key drivers for improved prosperity, the labor market may not be creating enough good jobs for Uzbekistan’s growing population, reflecting constraints on both the supply and demand sides of the market.

1.34 **The macroeconomic context for greater poverty reduction and shared prosperity in the future will be challenging, as the external environment will likely deteriorate in the medium term, and Uzbekistan will need to strengthen its structural reform efforts.** Indeed Uzbekistan’s macroeconomic policies have maintained macroeconomic stability and helped generate savings in the hands of the state and of households. But to maintain a high rate of economic growth, preserve its fiscal buffers, and generate the good jobs that the economy needs so that progress on poverty reduction and shared prosperity is maintained or accelerated, the government of Uzbekistan recognizes that it will need to accelerate structural economic reforms and gradually increase the exchange rate flexibility.

2. Critical Factors Driving Productivity, Private Investment, Entrepreneurship, and Growth

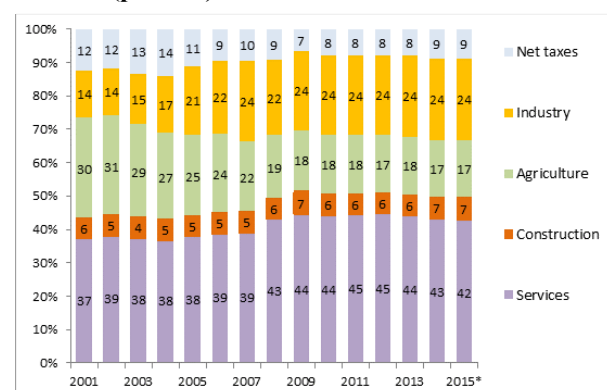
Although this remains an untested hypothesis, given data limitations, this Systemic Country Diagnostic (SCD) postulates that labor market weaknesses can partly explain the challenges that small and medium enterprises (SMEs) face in their operations in Uzbekistan. Indeed, although the country has managed to engineer structural change in the economy, the significant presence and intervention of the state in the economy may be constraining the potential for the private sector to drive growth through enhanced productivity, and thus to create additional good employment opportunities.

Structural Change, State Participation, and Intervention in the Markets

Uzbekistan has managed to diversify its economy with greater contributions from industry.

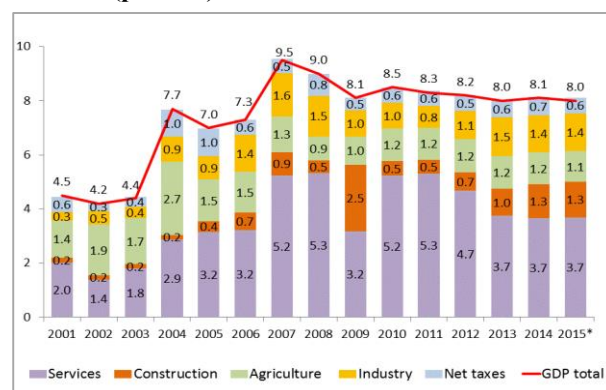
2.1 Since 2001, the Uzbek economy has undergone significant transformation, essentially characterized by greater contributions of industry and services (Figures 2.1 2.2). The share of value added originating from agriculture has fallen steadily, from 30 percent at the turn of the century to 17 percent in 2015. The balance has been essentially on account of industry (and, to a lesser extent, services), which have been a major focus of investment.

Figure 2.1: GDP Structure by Sectors of Economy, 2001–15 (percent)



Source: Government of Uzbekistan, National Statistics and World Bank calculations.

Figure 2.2: Sector Contributions to GDP Growth, 2001–15 (percent)

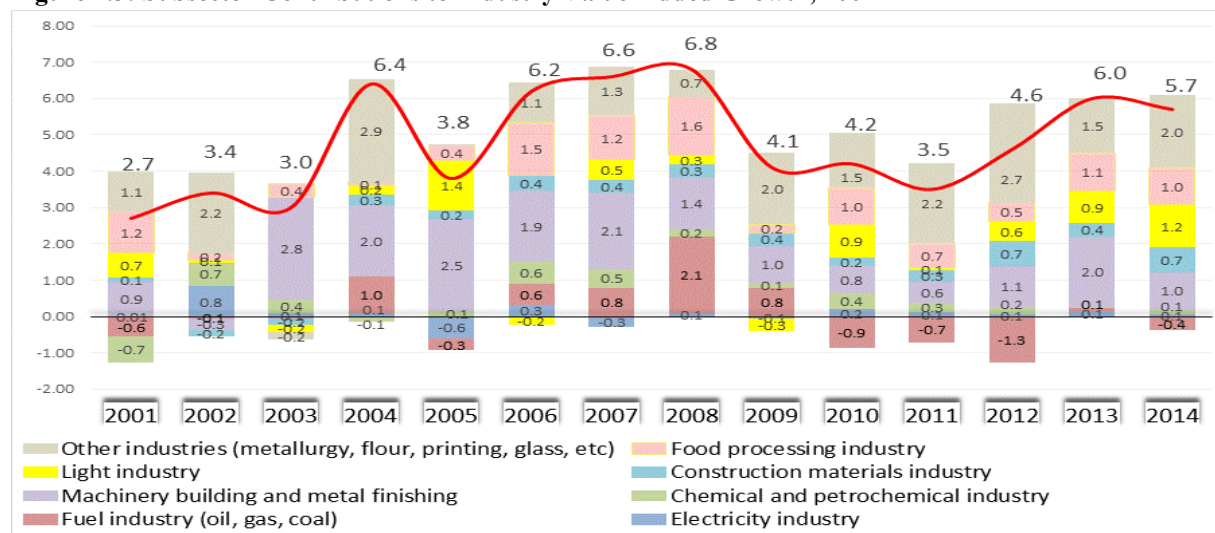


Source: Government of Uzbekistan, National Statistics and World Bank calculations.

2.2 While little granular information is available on the subsectoral breakdown of these trends, Uzbekistan seems to have a relatively diversified portfolio of industries. Indeed in recent years, industrial value-added growth appears to have been driven to a large extent by “other industries,” food processing, and light industry, while the contribution of fuel industries has been small or even negative (Figure 2.3).²⁵

²⁵ It is worth noting that these figures are subject to doubt given that the reported overall value-added growth rates for industry are inconsistent with a constant share of the sector in total value added.

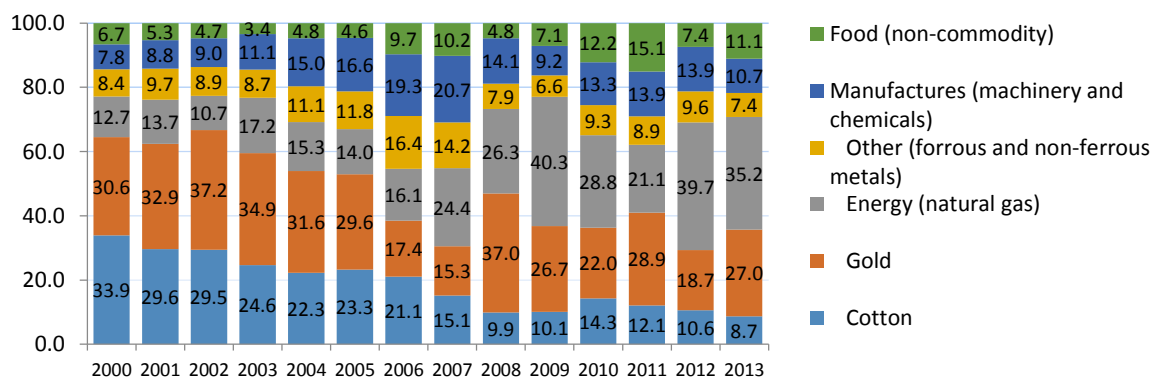
Figure 2.3: Subsector Contributions to Industry Value-Added Growth, 2001–14



Source: Government of Uzbekistan, National Statistics and World Bank calculations.

2.3 That being said, the relatively diverse composition of industrial output is not reflected in the structure of Uzbekistan’s exports. The share of agricultural exports to total-goods exports has fallen from about 40 percent at the turn of the century to 10 percent a decade later (Figure 2.4). The balance has been almost entirely on account of fuel and chemicals export growth (reflecting both higher volumes and higher prices). Natural resources and commodities²⁶ accounted for 74 percent of total merchandise exports on average in 2000–13 and 68 percent in 2014-15, while the non-commodity exports (e.g., cars, fertilizers, textiles, fruits and vegetables, etc.) increased from 14 percent in 2003 to 24 percent in 2014-15. The implication of this fact is that the non-exporting industries may not be competitive and value chains may not be integrated. While many industries are likely to have been developed for the purpose of import substitution, and infant industry strategies might argue for them to be protected so that they might mature, Uzbekistan will need to ensure that these industries become competitive in the future.

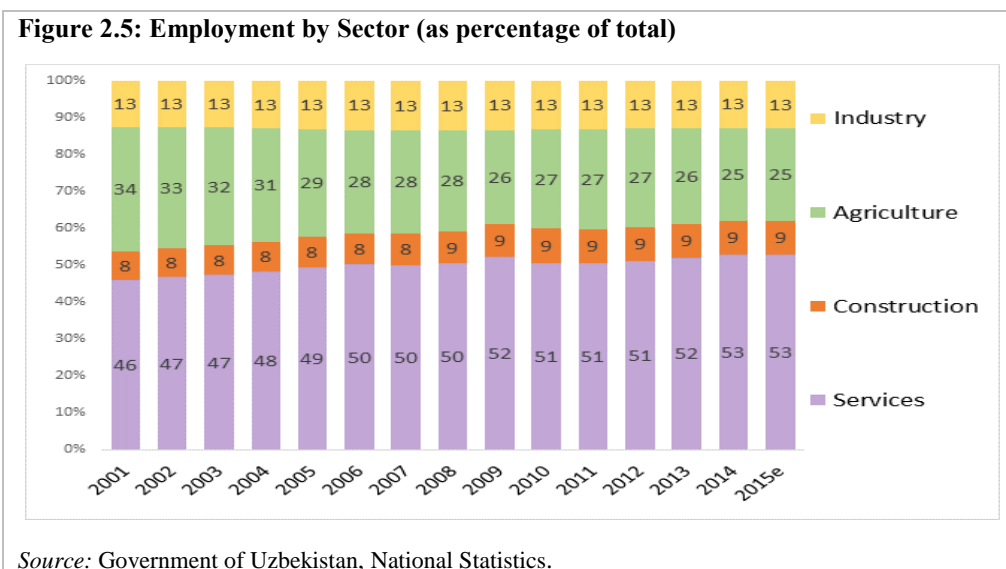
Figure 2.4: Composition of Merchandise Exports



Source: Government of Uzbekistan, National Statistics and World Bank calculations.

²⁶ Commodities are goods traded in large quantities on the organized international commodity exchanges and include mostly low-processed industrial and agricultural raw materials (ferrous and non-ferrous metals, hydrocarbon energy, cotton, wheat, etc.).

2.4 **A key question is the extent to which this economic transformation has been conducive to more and better job creation.** Though detailed data is not available to assess the patterns and dynamics of job creation at the subsector or firm level, aggregate figures suggest that the industrial sector, though it has emerged as a key driver of growth, has not performed commensurately well in generating employment opportunities (Figure 2.5). Indeed while the share of industry in total value added expanded significantly between 2003 and 2014 (from 15 to 25 percent), the share of the sector in total employment has remained essentially flat at 13 percent, while that of services expanded considerably.²⁷



2.5 **The following research would need to be conducted with access to firm-and subsectoral- level data to better explain two observations.** The first is that, while Uzbekistan’s industrial base is diverse and some manufacturing exports have increased (e.g. cars, fertilizers, and textiles), the manufacturing firms outside of these few industries appear to be catering essentially to domestic markets—possibly highlighting their lack of competitiveness. Is this the case, and if so, why? The second observation is that although industry has increasingly driven economic growth, it has not created enough good jobs in the process. Is this the case, and if so, why? A potential explanation to be researched is that the lack of competitiveness and job creation possibly reflect weaknesses in (a) the business environment for private small and medium enterprises; and (b) investments focused mostly in capital-intensive industries.

Economic activity remains shaped by the strong role of the state, which has a risk of constraining the growth potential of the private sector in general.

2.6 **To a significant extent, economic transformation has been shaped by proactive state policies.** The range of industrial subsectors and their evolution over time is shown in Figure 2.3. These industries have been developed by proactive industrial policies.²⁸ Among other things, the overall package of industrial policies comprises tax holidays, exemption from import customs duties, easier access to capital for firms with state shares, domination of SOEs in priority industries, and access to basic infrastructure.

²⁷ However, it needs to be taken into account that due to many unbalanced incentives, including tax, the small and medium enterprises may underreport their number of employees in order to continue to use these incentives.

²⁸ In this report we refer to government policies aimed at supporting SOEs as *industrial policies*; for Uzbekistan some of these policies will be new ones, but some will be legacy policies from Soviet times. As such, this definition is not necessarily consistent with more modern market-oriented approaches to supporting enterprises.

2.7 **About 40 percent of economic activity is carried out by public entities.** Despite private-sector expansion, SOEs still play a major role in energy (power generation and transmission, oil and gas refining, transportation and distribution); metallurgy; mining (nonferrous metals and uranium); chemicals (fertilizer production and distribution); telecommunications (fixed telephony and data transmission); cotton-fiber production; machinery (the automotive industry (although not all subsectors); locomotive and aircraft production and repair; and transportation (airlines, railways, municipal public transportation, etc.). The government realizes that this ownership structure may contribute to inefficiencies in the economy, and has introduced a program aimed at increasing the efficiency of SOEs through privatization, and the strengthening of corporate governance and accountability.

2.8 **The operating environment for enterprises in prioritized sectors differs from that in the rest of the economy.** Enterprises in priority sectors benefit from preferential access to capital. Insufficient access to finance for the private sector until recently represented one of the major constraints, although there was remarkable progress in this area in 2014-15, as reflected in the *Doing Business 2016* ranking on access to credit, which is important for investment and job creation, and which improved, from the 105th to the 42nd position. Lending to SMEs grew in nominal terms by 32 percent in 2014, and credit to SMEs combined with microcredit in 2014 amounted to 44 percent of total bank loans according to Central Bank of Uzbekistan (CBU) data. This figure should be considered against the size of the sector: MSMEs in Uzbekistan accounted for 56.1 percent of GDP and employed 77.2 percent of the workforce in 2014.

2.9 **The banking sector remains sound, but financial intermediation is quite low despite accelerating growth of lending.** The banking sector appears adequately capitalized and maintains a high level of liquidity. A strong capital base and improved bank supervision and corporate governance in banks shielded the banking sector of Uzbekistan from consecutive waves of the global financial crisis, and all international rating agencies gave the Uzbek banking sector “stable” ratings. Credit to the economy was 23 percent of GDP in 2014. The state bank’s credit policy is influenced by the state investment program. Three fully state-owned banks have a sizable share in the banking sector, with their assets accounting for 40 percent of the banking sector assets in 2015, (down from 50 percent in 2011). The regulatory and supervisory framework needs further strengthening, and banks need to be relieved from performing noncore functions, and to further deepen financial intermediation. According to IMF, the banking system remains stable and well capitalized. A well-functioning financial system is crucial for private-sector development; the government recently announced its plans to sell some shares in state banks to private and foreign investors.

2.10 **The policy regime for the promotion of foreign direct investment (FDI) in Uzbekistan is linked to the strengthening of domestic capability in priority sectors.** Specifically, the government encourages foreign investors who can aid in localization or in building local production capacities and export potential. The current legislation provides a number of incentives for foreign investment, including tax breaks and exemptions from custom duties, especially in priority sectors. For instance, while tax incentives for foreign investment are mainly the same as for local enterprises participating in the investment, localization, or modernization programs, enterprises with significant foreign investment in priority sectors or regions can potentially negotiate special benefits on a case-by-case basis, including additional tax and customs incentives, government guarantees, and co-financing. Private sector SMEs and individuals also have certain tax incentives, e.g. one unified tax rate of 5–6 percent from SMEs revenue. In order to strengthen domestic capacity, there are requirements to use domestic products in manufacturing on enterprises with both domestic and foreign investments.

2.11 **External trade policies based on import substitution have been used to shield some sectors of the economy but may limit the realization of Uzbekistan’s large long-term export potential, in the absence of a long-term plan to phase them out.** While the government protects the interests of domestic firms, many branches of the economy remain dependent on imports. Uzbekistan’s trade policies, judged by import duty levels, are still among the most restrictive in the region, and Uzbekistan is not a member of the

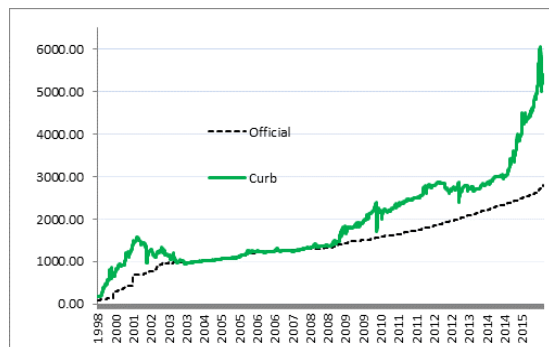
World Trade Organization. The simple average import tariff of 14 percent is high compared to the average rate of 6.5 percent for Kazakhstan, 4.4 percent for Tajikistan, and 3.3 percent for Kyrgyzstan. However, the actual payment of import duties in Uzbekistan is only 4 percent of total merchandise import in 2014-15, due to free trade zones and extensive exemption policies. In addition there are import excise taxes, levied only on imported goods and not on domestically produced goods. Thus, the effective taxation of some imports can reach more than 20 percent: VAT (which is rebated), plus the import tariff, plus the excise tax, plus a surcharge (on nonfood imports without a certificate of origin). Nontariff barriers as well as political and legal issues interfere considerably with trade.

2.12 The World Bank assessments show that the current foreign exchange policy poses challenges for private-sector-led growth. The government provides preferential treatments in terms of tariffs and convertibility at the official exchange rate to importers of equipment, machinery, and technology for priority sectors, and it comes at the cost of imports for non-priority sectors and consumer goods importers. The real exchange rate of Uzbek som has appreciated in 2014-15 against the currencies of Uzbekistan’s main trading partners. While the official nominal exchange rate of Uzbek som to the US dollar has gradually depreciated by 16 percent over 2015, the Russian ruble depreciated by 30 percent and the Kazakstan tenge by 86 percent to the US dollar over the same period. This implies that the competitiveness of all Uzbek exporters to these markets has been decreasing. According to the IMF staff report for the 2012 Article IV consultation, the existence of a parallel exchange rate in the unofficial foreign exchange market has posed challenges for economic growth, and it recently emphasized the importance of having greater exchange rate flexibility in order to address rising pressures on the current account; to moving gradually toward foreign exchange rate liberalization; and to eliminating exchange rate restrictions as appropriate. The authorities consider that the parallel exchange rate is not representative.

Private sector potential is further constrained by weaknesses in the business environment.

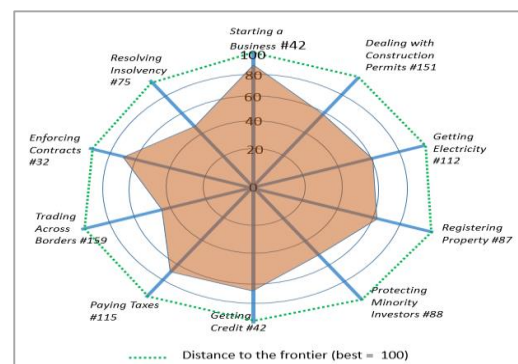
2.13 Surveys find that Uzbekistan’s investment climate is making gradual improvement over time, but the governance indicators remain low. Uzbekistan is among the world’s top 10 reformers in the *Doing Business 2016* report, advancing 16 spots from 2015, to the 87th position (Figure 2.7). Reforms in areas such as starting a business and paying taxes have led to very strong performance in these indicators, while Uzbekistan lags in others, such as trading across borders, resolving insolvency, and protecting investors. The findings also highlight weakness in the quality of delivery of regulations, particularly in the quality of judicial processes (Uzbekistan has an index of 7.5 out of 18) and quality of land administration (16.5 out of 30). These findings are consistent with the Business Environment and Enterprise Performance Survey 2014 (with 2013 data), which shows that the top-three leading obstacles are access to energy; practices of the informal sector; and high tax rates.

Figure 2.6: Exchange Rate, Som per U.S. Dollar, 1998–2015



Source: Uzbek authorities and World Bank calculations.

Figure 2.7: Uzbekistan in Doing Business Index, 2016

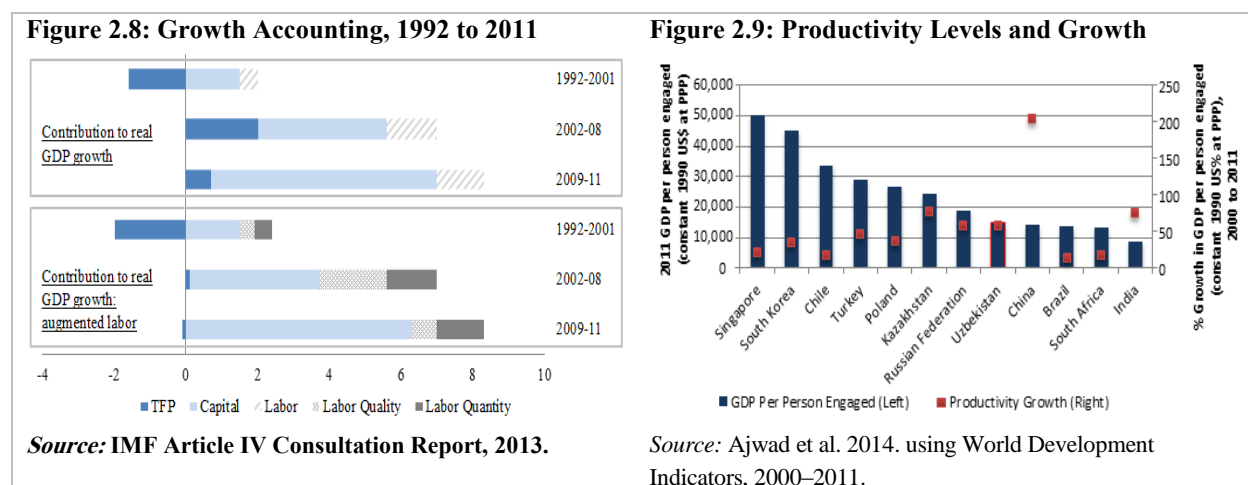


Source: World Bank Group.

Productivity Growth, Capital Accumulation, But Limited Gains from Efficiency

Uzbek firms, overall, appear to be underperforming in their ability to grow through productivity and efficiency gains.

2.14 **Growth accounting analysis suggests that, in the aggregate, Uzbekistan has relied heavily on capital accumulation to achieve economic growth, while the contribution from total factor productivity (TFP) has been lower.** A 2012 analysis from the IMF shows that the country’s capital stock has been the main driver of growth in recent years, with very modest contributions from either human capital or total factor productivity (see Figure 2.8 and 2.9). Human capital’s contributions to growth have been fairly constant during the past 10 years, accounting for around 1.3 to 1.4 percentage points. For the period 2002–2008, TFP’s contribution is close to 2 percent, while for 2009–11 it is close to 1 percent (see Box 2.1 for additional analysis). However, once the “quality” of human capital is accounted for, human capital’s contribution increases to around 3 percent (2002–2008), at the expense of TFP. TFP was negative during the first 10 years of independence and has been subdued for the following decade. Once skills have been matched to labor, TFP’s contribution is modest according to this analysis. Low aggregate TFP probably reflects allocative inefficiencies across sectors and firms. In sum, labor productivity growth (high by international standards) appears to have been achieved essentially through capital injections, pointing to constraints over the medium term in sustaining such growth.



2.15 **Uzbek firms need to catch up on indicators of innovation and competitiveness.** Data from the most recent round of the firm-level Business Environment and Enterprise Performance Survey (BEEPS, conducted in 2013) show cause for concern regarding the productivity and competitiveness of Uzbek firms.²⁹ A negligible percentage of Uzbek firms (less than 0.5 percent) reported any research and development spending in 2013, compared to rates in the range of 2–10 percent in their Europe and Central Asia (ECA) peers, as shown in Figure 2:10. Only 4 percent of local firms reported that they had introduced a new product or service in the past year, compared to a range of 12–40 percent of firms in other ECA countries. While some local firms import foreign machinery and equipment, they are not widely used to produce for export. The percentage of firms with an internationally recognized quality certification in Uzbekistan was 4 percent in 2013, much lower than the average in Eastern Europe and Central Asia (23 percent) and in all countries of the world (17.8 percent). Perhaps the most concerning figure is the low

²⁹ The BEEPS is a representative firm-level survey of private, formal firms. It excludes SOEs and informal firms.

incidence of exporting, a measure of international competitiveness.³⁰ Among the ECA peers shown here, the percentage of firms that export their products ranges from 5 to 25 percent, compared to only 3 percent of Uzbek firms.

Box 2.1: Alternative Estimates of Uzbekistan’s Total Factor (TFP)

The Institute of Forecasting and Macroeconomic Research (IFMR), a major macroeconomic research think tank in Uzbekistan) has estimated three variants of the Cobb-Douglas production function, using annual data with 14 observations. According to this analysis, for all three estimates (i) the TFP parameter improved from negative values (in 1991–96) to positive values and amounted to about 2.1 percent (which corresponds, in particular, with the TFP estimate for Kazakhstan for this period); (ii) in 2002–09, TFP growth was more significant and amounted to 2.5–3.5 percentage points, while the average growth of GDP was 7 percent. TFP has played an increasing role in the economic growth of Uzbekistan. The researchers make two observations about these estimates. First, in some years TFP turns out to be very high (1999–2000, 2004–07), but in others very low (2003, 2008, and 2009). The second is that using an investment variable instead of the changes in capita stock variable yields greater statistical significance than the capital stock variable; this raises a question about the reliability of the data, or lends credence to the hypothesis that fixed capital (especially in industry) has a high rate of depreciation.

Table B2.1.1 Uzbekistan: TFP Parameters, 1996–2009

Period	Annual average growth		Variants of TFP estimates			
	GDP	K	L	$\alpha=0.25$	$\alpha=0.39$	Investment Series
1996–2001	2.78	0.24	1.4	1.68	2.10	2.10
2002–2009	7.0	5.6	2.8	3.5	3.1	2.5

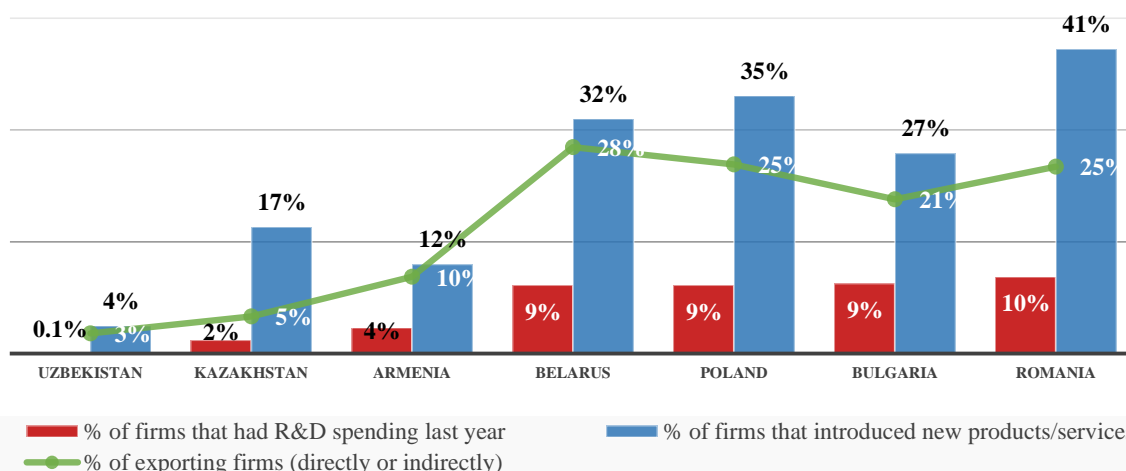
Source: “Economic Growth and Innovations: Theory, Practice, and Modeling” (Tashkent: Institute of Forecasting and Macroeconomic Research, 2010) as cited in Centre of Economic Research, “Improving the State Investment Policy in Uzbekistan: Mechanisms to Ensure Sustainable Development of the Real Sector” (Tashkent: Centre of Economic Research, 2009/10).

Notes: GDP = annual average GDP growth rate; L = annual average employment growth rate; K = annual average fixed capital growth rate. Variants 1, 2, and 3 differ by weight coefficients α and $(1 - \alpha)$. Variant 1: for K 0.25 and for L 0.75 (i.e., common in advanced high-income countries). Variant 2: for K 0.39 and for L 0.61 (i.e., common for developing countries in 2000–6. Variant 3: fixed capital (K) is replaced with investment (I), and instead of annual average growth of fixed capital (5.6 percent), the annual average growth of investment is used (11.5 percent). For I = 0.18 and for L = 0.82 (based on the results of econometric analysis specific for Uzbekistan).

2.16 Data from the 2008 and 2013 rounds of the BEEPS survey suggest only minor improvements in the performance of Uzbek firms along these dimensions. The percentage of firms that export rose very slightly (from 2 to 3 percent) between 2008 and 2013. Strikingly, the percentage of firms which report a product innovation actually fell from 21 percent to 4 percent between 2008 and 2013, raising doubts about the extent of progress being made on improving productivity and quality, and on moving up the value chain (Figure 2.10).

³⁰ We considered using sales and input data to examine more direct measures of performance, such as TFP and sales growth. However, summary analysis of the BEEPS dataset suggests that sales and retrospective sales growth data, as well as data on the levels of physical capital, are quite noisy. Further, in the absence of physical output measures, it is not possible to distinguish changes in productivity from changes in pricing. For these reasons, TFP and sales growth were not analyzed.

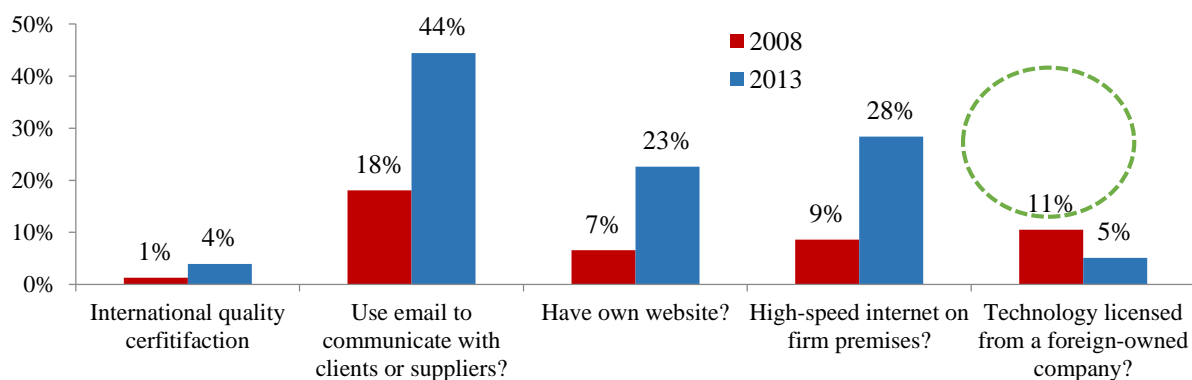
Figure 2.10: Uzbek Firms Compare Unfavorably on Indicators of Innovation and Exporting



Source: Authors' calculations based on BEEPS 2013.

2.17 There is some evidence of improvements in technology use by Uzbek firms, but there is still room for catching up. As shown in Figure 2.11, IT usage (having high-speed Internet connection and a website, and using email to communicate with clients) has become markedly more common among Uzbek firms in recent years. There has also been an increase in the share of firms with an international quality certificate, although at 4 percent, this share is still quite low. Acquiring the right to use advanced foreign technology can enable local firms to improve their productivity and product quality and compete better internationally. Worryingly, the share of firms reporting a foreign technology license has dropped significantly, from 11 percent to 5 percent. Moreover, even with the recent improvement in IT usage, Uzbek firms are lagging behind most of their peers in the ECA region. The share of Uzbek firms having a website and using email is far behind the ECA regional average. Similarly, the incidence of foreign technology licensing is about half the ECA average.

Figure 2.11: IT and Foreign Technology Use in Uzbek Firms



Source: Authors' calculations based on BEEPS 2013 and 2008.

Agriculture: Realizing Growth Potential through Transformation and Competitiveness

The agricultural sector will remain one of the key pillars of economic growth, job creation, and poverty reduction in rural areas. There are ways in which it can improve competitiveness, economic return and fiscal costs, job creation, intensification, diversification, and sustainability. To fully realize the growth potential, further transformation and adjustment will be required in agricultural production systems, in the organization of value chains, in the policy environment, and in private-sector orientation of the entire agro-food system.

2.18 Growth in the value of agricultural output has been robust since 2003, with average annual growth rates of 6.5 percent. The sector’s share in total GDP dropped from 28.8 percent in 2003 to 16.8 percent in 2015, as other economic sectors have grown even faster. Agriculture retains a critical role in the economy (see Table 2.1). It provides a living for the 49 percent of Uzbekistan’s population who live in rural areas, and accounts for 27 percent of total employment, the largest source of employment in the economy. Official statistics also show that the number of people employed in agriculture grew from 3.06 million in 2003 to 3.5 million in 2014, an increase of 14 percent. The agro-food system is also important for the employment of women and their inclusion in the economy, and the recent growth of the agro-food industry is providing new job opportunities, especially to women in rural areas³¹.

Table 2.1: Indicators of Agricultural Sector Growth, 2003–13
(In percent)

	Total Growth	Average Annual Growth
Agricultural GDP (current US\$)	245	22
Agricultural GDP (constant US\$)	90	8
Gross agricultural output (som; real prices, 2010=100)	153	14

Source: Uzbekistan Statistical Yearbook, World Development Indicators, and IMF reports

2.19 Closer examination shows important differences in the growth of different components of agriculture and their contribution to overall sector output. Cotton and wheat, which have been the main commodities of Uzbek agriculture, and which use 75–80 percent of cultivated land, exhibit differing patterns of growth. These are the most regulated components of agriculture, subject to production quotas and prices for inputs and outputs. There has been practically no increase in cotton production since 2008; at the same time the government has released cotton land for other uses. In contrast, the value of wheat production has increased since 2008 in response to increased yields, an increase in the amount of land under production, and rising producer prices (Figure 2.12). The ratio of wheat to cotton prices has also shifted in favor of wheat, particularly since 2008. Given that cotton now accounts for only 9 percent of total exports, this shift in production and prices suggests that self-sufficiency in wheat production may be assuming a higher priority relative to the traditional emphasis on cotton production, which reflects increased domestic cotton-processing capacities.

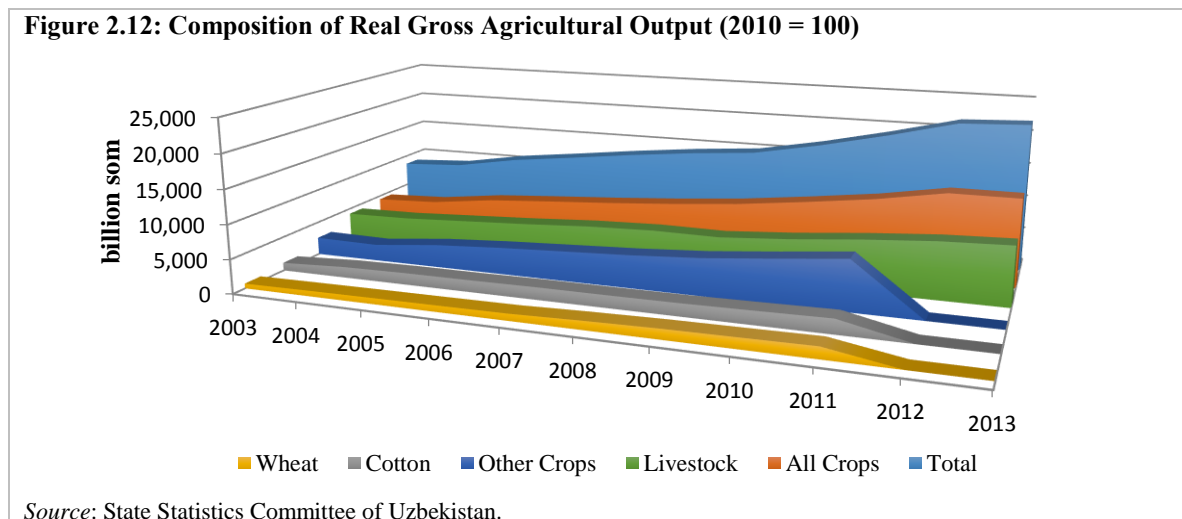
2.20 The strongest growth in agricultural output has come from crops other than wheat and cotton, notably from horticulture.³² Horticulture accounts for about 18 percent of the aggregate arable lands, in contrast to wheat and cotton (75–80 percent). However, with a growing domestic and export market, the area devoted to horticulture has increased steadily, primarily by displacing land used to grow cotton. Consequently, horticultural production has been increasing faster than the production of traditional

³¹ The government has adopted an agriculture development program for 2016-2020 (Presidential Resolution #pp-2460 of December 29, 2015) that, *inter alia*, reduces the amount of land planted in cotton and wheat; increases the amount of land used for horticultural crops; and includes the construction of refrigerated warehouses and facilities for horticulture harvest storage and processing, and livestock development.

³² World Bank. 2015. “Uzbekistan: Strengthening the Horticulture Value Chain.” Washington, DC: World Bank.

crops in recent years. The economic impact of the fruit and vegetables subsector is large, accounting for 50 percent of the value of crop output and over 35 percent of agriculture export value. Despite delayed returns and higher investment costs, horticultural crops generate revenues to farmers significantly higher than wheat and cotton. For instance, an individual *dehkan* farmer growing vegetables can generate a gross margin of SOM 4 million per hectare as compared to SOM 800,000 per hectare for wheat.

Figure 2.12: Composition of Real Gross Agricultural Output (2010 = 100)



2.21 Horticultural products are fast becoming the second largest agricultural export commodity group, after cotton (including cotton lint, linter, and oil). Horticultural export revenues have increased by more than four times, from about US\$373 million in 2006 to US\$1.5 billion in 2014. Uzbekistan is geographically well positioned to take advantage of the large and growing markets for horticultural products domestically and abroad. Uzbekistan’s main export markets are its neighboring Commonwealth of Independent States (CIS) republics (in particular Russia and Kazakhstan), and some European and Asian countries. Russia and Kazakhstan accounted for about 64 percent of Uzbek fruit and vegetable exports (around US\$1.0 billion) in 2014. However, Uzbekistan is far from fully realizing its potential in international markets. Meeting the quality and food safety requirements of the more stringent export markets remains a challenge.

2.22 While land reforms have increased the economic space for pure, private-sector agricultural activity, the land base available for such activity remains very limited. Private-sector activity is still dominated by the 4.7 million *dehkan* farms that generated 65 percent of gross agricultural output in 2014. These small farms own 12.9 percent of arable land and have an average size of less than 0.2 hectare, while the rest of arable land is used by large private farms. Part of the small farmers’ crop and horticultural production is for their own consumption, with any residual surplus sold on the local markets. While they also own more than 87 percent of cattle and small ruminants, and 63 percent of poultry, small herd size and the scarcity of land for grazing and forage production limits their ability to commercialize livestock production and raise livestock productivity. Many large private farmers are also investing in intensive horticulture and livestock production activities on their non-quota land.

2.23 With the rapid growth in horticultural production and exports, the government is now considering ways to reallocate more land to higher-return activities. This approach is based on an administrative reallocation of land in designated areas rather than a relaxation of production quotas and land use restrictions. “Optimal” use of arable land is now being sought through analysis of the potential for different farm activities in different agro-ecological zones, and a corresponding administrative reduction of land use restrictions and production quotas for cotton and wheat in areas where they are unprofitable. In

principle, this will release land for other crops and livestock activities, where private- sector initiatives can flourish.

2.24 The government has taken new steps, such as crop diversification and mechanization, to modernize the agricultural sector but there is more to be done as it links to wider economic reforms.

The government has recently taken steps to realize growth potential—especially for cotton—but this is only a start. The successful modernization of agriculture in Uzbekistan will require a broadening and deepening of recent sectoral reforms; increasing the efficiency of resource use (especially in relation to water and land);³³ improving agricultural productivity; production intensification and diversification; decreasing production losses through improved access to markets, storage, cooling, and packing facilities; and the adoption of advanced technologies. It will also require access to an entrepreneurial financial sector; risk management services; a modernized and expanded agro-processing sector; and storage and logistics facilities (connectivity). In addition, the sector will require an enabling environment that catalyzes private-sector investment, provides suitable oversight in the area of food safety, and enables farmers and processors to access knowledge and support services to assist them in managing their expanding businesses and access to markets. Finally, the modernization of the agricultural sector will also require a realignment of the sector with the overall macro-economy. The current practices of directed government credits, fixed input and output prices, and control of sales and exports will require a gradual transition to services and resource allocations made by farmers and markets, as opposed to fulfillment of a government-set and financed plan. With scarce land and water assets, a growing population, climate change, and access to lucrative export markets, an in-depth modernization of the sector is indispensable to improving its performance through sustainable intensification and diversification, and to contributing to its integration into a more open and competitive economy while minimizing social disruptions. (See Box 2.2 for related social issues.)

2.25 Organized recruitment of large numbers of people to contribute to cotton production poses certain risks linked to workers' rights. The international community and civil society organizations have raised concerns about the use of child and forced labor in cotton harvesting. In response, the government of Uzbekistan has undertaken a number of policy measures (detailed in Box 2.2), which have resulted in improvement of the situation. ILO monitoring of child and forced labor in 2015 has confirmed that similar to the 2013 harvest, no systematic use of child labor has been found throughout the country, including in the areas of the Bank-supported projects, but organized recruitment of large numbers of people in a short period of time carries certain risks linked to workers' rights.

³³ While not limited to only increasing resource efficiency, strengthening the role of Water User Associations (WUAs) increases the governance and transparency of water use, for example. Also, reforms that would introduce volumetric water pricing would put a price on water—important for allocation decisions such as prioritizing water for the highest value-added crops.

Box 2.2: Improving Labor Relations in Uzbekistan

In 2013, the World Bank's Inspection Panel received a complaint alleging that the Bank-financed Rural Enterprise Support Project was causing harm to people forced to pick cotton. To address the concerns raised in the complaint, the World Bank has intensified its dialogue with the government of Uzbekistan on labor relations in cotton sectors, and adopted a multipronged approach to the issue. Specific measures introduced in this regard include (i) leading a continuous country dialogue and collaboration with international and multilateral agencies and donors to address these issues; (ii) performing sector analytic work and policy dialogue to promote diversification away from cotton and the mechanization of cotton harvesting; (iii) strengthening project-level mitigation measures and binding provisions, including implementing third-party monitoring, and a feedback mechanism to help address child and forced-labor issues in connection with the project activities or within the project area; and (iv) promoting crop diversification and intensification, and supporting agricultural mechanization through a number of investment operations.

This comprehensive effort to address the issue of child and forced labor in cotton harvesting has received wide support and endorsement from development partners and community-based organizations. The government of Uzbekistan has made significant progress in eliminating child labor in the cotton sector, and in reducing the risks of forced labor. International Labor Organization (ILO) conventions related to child and forced labor were signed and ratified, and respective provisions promulgated in national legislation. Cotton harvesting was included in the official List of Hazardous Occupations, which cannot be practiced by people younger than 18. The Coordination Council on Child Labor prevention was set up in 2013. The Government has requested the ILO to provide support for the implementation of Convention No. 105 on Forced Labor, by signing the Decent Work Country Programme for 2014-2016. In 2015, the Government committed to ensuring that medical and school facilities remain open during the harvest, and the Cabinet of Ministers adopted the plan of measures against child and forced labor.

The ILO, in collaboration with the Coordination Council, led efforts on third-party monitoring and on setting up a multi-tiered feedback mechanism during the 2015 cotton harvest, covering 10 provinces of the country. National monitoring teams, which covered the remaining three provinces, were also trained by the ILO and applied the same methodology. The monitoring has confirmed that the use of children in the cotton harvest has become very rare and sporadic, and is considered socially unacceptable. The organized recruitment of adults to pick cotton is widespread, but large numbers of citizens seem to be willing recruits and see the harvest as an opportunity. Yet, in the context of large-scale mobilization in short timeframes, certain indicators of forced labor have been observed. To continue this work, the Government of Uzbekistan has now developed an Action Plan for Improving Labor Conditions, Employment and Social Protection of Workers in the Agricultural Sector in 2016-2018, approved by the Prime Minister in December 2015.

Public Infrastructure Issues —A Binding Constraint for Growth and Job Creation

Connectivity bottlenecks constitute an important barrier for maintaining rapid economic growth.

2.26 Uzbekistan faces sizable infrastructure needs. Investments in water and transport infrastructure have lagged, with a large part of networks in a significant state of neglect,³⁴ while the energy sector operates with significant losses and inefficiencies that cost the economy approximately US\$1.5 billion per year.³⁵ Poor

³⁴ Rastogi, C., Gwilliam, K., Olievski, V., Butler, M., Aliyev, S. 2013. "Modernizing the Transport Sector: A Backbone to Economic Growth and Trade Competitiveness" Washington, DC: World Bank; Rastogi, C., Gwilliam, K., Olievski, V., Butler, Buré, J., Aliyev, S. 2013. "Uzbekistan at a Crossroads: Towards Sustainability in the Transport Sector" Report No.66658-UZ, Washington, DC: World Bank. See also Center of Economic Research, 2013. "Urbanization in Central Asia: Challenges, Issues, and Prospects." Tashkent: Center for Economic Research.

³⁵ In 2010, the country lost US\$1.2 billion (2.6 percent of GDP) in potential gas export revenues or 26,000 GWh of additional generation due to low efficiency of gas-fired plants. Total electricity transmission and distribution (T&D) losses are estimated to be 20 percent of net generation, with the cost of excess losses at US\$340 million (0.8 percent of GDP). World Bank. 2013. "Uzbekistan Energy/Power Sector Issues Note," Report No. ACS4146. Washington, DC: World Bank, June 2013,p.24-25.

water and irrigation infrastructure is costing the country up to 8 percent of GDP a year.³⁶ An estimated US\$31 billion is needed to restore, rehabilitate, and build canals, on-farm irrigation, pump stations, reservoirs, and drains.³⁷ Much of Uzbekistan's irrigation system needs improved maintenance in order to enhance the quality of service delivery, so as to increase low agricultural productivity and farm income, which in turn can allow for greater cost recovery. Uzbekistan's power generation and distribution infrastructures have improved since the Soviet era, but remain vulnerable to weather conditions (which will be exacerbated by the effects of climate change: see Section 4). It is common during the winter for several areas in the rural regions to experience regular and long electricity shortages and interruptions. In the capital, Tashkent, the power is off for one to two hours a day during the winter, while in some larger towns it can be off for up to six hours a day. Some villages occasionally have no power for weeks, and nearly 40 percent of available generation capacity (12,400 MW) is past service life, or will be at the end of service life by 2017.³⁸ Moreover, many of the district heating systems, originally installed in the 1950s through the 1970s, are no longer fit for purpose and are suffering from insufficient maintenance. The country's railroads and highways are also in need of repair. Only 38 percent of the country's rail lines are electrified, and regional and local roads require modernization. Moreover, the country's access to information and communications (ICT) infrastructure is low: only 1.2 per 100 people have broadband, and only 6.7 per 100 people have a fixed telephone line. Uzbekistan's telecom market can be characterized as somewhat competitive, with limited fixed and mobile broadband infrastructure. Its international Internet connectivity can be upgraded—and has benefited from recent improvements—but the price of bandwidth is expensive. The country may be linked with each of its neighbors, but it lacks direct access to cost-effective data transit services, essential for low-cost and high-quality Internet services.

2.27 Connectivity constraints are particularly binding for firms. As Uzbekistan is a double-landlocked country, economic growth and the flow of benefits to the poor in terms of income and jobs will require significant improvement of trade and logistics infrastructure and services. The primary market for Uzbekistan's export trade will continue to be concentrated in the region. While this allows for simpler, more robust supply chains as well as lower delivery costs, the quality of enabling transport infrastructure and logistics services will continue to be an important determinant of the comparative advantage of the country. More adequate connectivity would enhance productivity, reduce transport time and costs, and enhance access to markets. This would eventually have an effect on prices for consumers, employment, and household income. However, in its 2014 *Connecting to Compete* report on global logistics, the World Bank ranked Uzbekistan 129 out of 160 countries, with a score of 2.39 (on a scale where 1.0 represents the worst logistics and 5.0 the best). According to the report, Uzbekistan's infrastructure ranked 148 globally. ICT access and penetration rates are low. In order to leverage its central position in the region and to act as a transit, logistics, and corporate hub for Central Asia, transport infrastructure, specifically will be key (see Box 2.3).

2.28 The high cost of transporting commodities and consumer goods adversely affects the profitability of the SME sector. Entrepreneurs and farmers in the three provinces of the Fergana Valley reported that transport costs could represent anywhere between 10 and 200 percent of the cost of production. When freight needs to be transported outside the valley or when supplies come from abroad, costs vary significantly during weather-related road closures. Similarly, while the road-based infrastructure within the Fergana, Namangan, and Andijan provinces is generally reliable and accessible, transport links to travel outside these provinces is inadequate and requires several transshipments, which further increases selling costs.

³⁶ See De Jong, I., Debroux, L. 2013. "Irrigation and Water Resources," Washington, DC: World Bank. Mimeo.

³⁷ Ibid.

³⁸ World Bank. 2013. "Uzbekistan Energy/Power Sector Issues Note," Washington, DC: World Bank, June 2013, p.18.

Box 2.3: Effects of Transport Connectivity

A rich literature exists to assess the effects of improving transport connectivity on economic development outcomes. While transport alone cannot reduce poverty, the construction of roads, railways, and inland waterways, or the improvement of existing infrastructure, serve a pervasive role in boosting household income and reducing income inequality (Booth et al. 2000). From a distributional perspective, the economic literature in general supports the hypothesis that investment in transport infrastructure may have a significant impact on the poorest sectors of society, by enhancing their chances to access employment and investment opportunities, markets, and basic services in education and health, and other livelihood outcomes.

For example, in road projects, the poverty reduction impacts stem primarily from enhancements of the income of the poor both from farm and nonfarm employment (Webb 2013; Jacoby and Minten 2009; and Dercon et al. 2008) as well as access to social services and markets (Mu and Van de Walle 2007; Khandker, Bakht, and Koolwal 2006). Improving the quality of a road reduces the time and costs associated with transportation. As a result, demand for transportation increases, resulting in more trips along the improved road as well as lower prices for transported goods. At the household level, real consumption increases as a result of both lower prices for consumer goods and increased earnings from employment and business opportunities due to the intervention. At the firm level, lower transportation costs mean increased real returns on investment, which in turn transforms into higher levels of investment. These impacts lead to economic growth and reduced poverty (NORC 2013).

Evidence from around the world confirms these potential benefits. Two studies conducted in China, for example, show how proximity to the railway can be positively correlated with GDP per capita by as much as 33 percent after the railway began to operate. Similarly, improvements in the access to all-weather local roads in Vietnam, Peru, Bangladesh, and Morocco have resulted in positive schooling and health outcomes for rural population groups. Finally, highway investments in India, Spain, and the United States have helped to close the economic gap between the lagging regions and the more developed ones. Hence, transport has a critical role in alleviating those constraints that impede economic development, regional convergence, and poverty reduction.

What Would It Take for Uzbekistan to Transition to the Next Stage of Development?

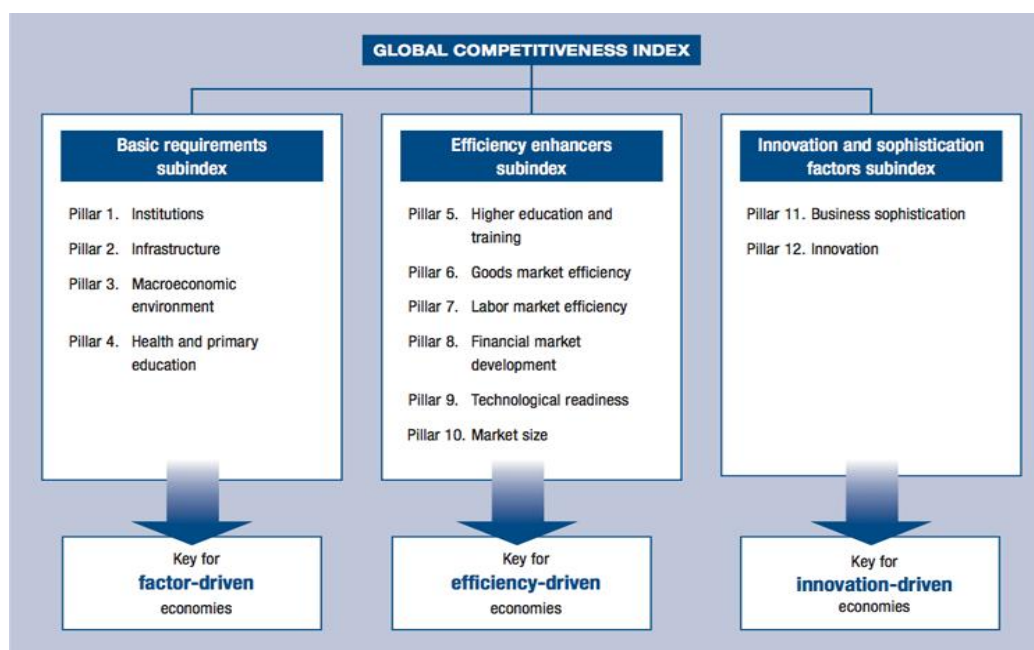
2.29 Today, Uzbekistan is possibly in transition between a “factor-driven” economy to an “efficiency-driven” one in the World Economic Forum’s classification of economies, with GDP per capita of about US\$2,133 in 2015. Nonetheless, based on the discussion in this report, Uzbekistan still exhibits gaps in basic requirements, including lagging public infrastructure, and institutions that remain insufficiently responsive to business needs (see Figure 2.13).

2.30 The ability for Uzbekistan to transition to the next level of development would require changes to the current development model. The government’s strategy may have allowed Uzbekistan’s economy to remain resilient to global and regional shocks and to engineer intersectoral shifts in production (from agriculture to industry and services). Yet this strategy is likely to be insufficient to promote the second level of transformation (typically associated with more inclusive outcomes), based on efficiency and technology absorption in sectors with comparative advantages in international trade. Like other East Asian countries that have gradually allowed market forces to emerge, so too will Uzbekistan need to take the same steps as it overcomes challenges in almost all dimensions of efficiency enhancers that involve some measure of liberalization of goods markets, labor markets, and financial markets.

2.31 As Uzbekistan moves to build up its efficiency enhancers, it will need to compensate for possible negative short-term impacts on poverty. Implicit in the need to gain market efficiency is the need to allow prices to vary and to reflect economic (and sometimes social) costs. Liberalizing prices in industry may have a direct impact on consumers and on employment. As a consequence, the phasing (what to liberalize when) and pacing (how quickly to liberalize) of the reforms will need to be managed carefully so as to minimize any short-term impact on poverty that may come through price adjustments or other reforms.

Box 2.4: Uzbekistan in Transition to the Next Stage of Development

The World Economic Forum (WEF), which produces the yearly Global Competitiveness Index, assesses policy priorities for countries and opportunities to enhance their competitiveness, taking into account the broad stages of development in which countries find themselves. The WEF places factor-driven economies in the first stage of development. Their value added comes mostly from the mobilization of endowments with outcomes dependent on (i) the availability and abundance of these endowments; and (ii) the presence of basic requirements (macroeconomic stability, basic physical and human capital) (see Figure 2.13). Such economies are characterized by low productivity and wages. At the second stage of development, the economic growth is primarily driven by improvements in the efficiency with which production is organized, and product quality. The final stage of development corresponds to innovation-driven economies, where firms compete mostly through producing new and unique products at the highest possible level of efficiency. Policy priorities and drivers of competitiveness vary at each stage of development.



Summary

2.32 **In this chapter, several assertions and hypotheses were advanced about how Uzbekistan's economy has developed, and commensurately, how the approach to development might be adjusted in the future.** These assertions and hypotheses could be investigated further in the medium term. The assertions are as follows:

2.33 **The contribution of total factor productivity (TFP) to GDP growth has been small in recent years.** Labor productivity outside the industrial sector is low, and that accounts for low wages in agriculture and in many services, as well as for out-migration and low labor force participation rates. As in other countries, state programs to support industrial development do not create enough competitive pressures.

2.34 **As a consequence of these assertions, this SCD makes the following proposition:** that Uzbekistan's development strategy needs adjustments to focus more on factors of increasing efficiency and TFP, while continuing to improve the quality of institutions and infrastructure that will drive the creation of good jobs and growth of wages and incomes. The improvements in the business and regulatory

environment and in macroeconomic policy (including a more flexible foreign exchange policy) will lead to increases in productive domestic investment and FDI that will transfer productive technology and create more good jobs. More investment and higher wages will increase the participation rate in the economy.

2.35 Given the magnitude of the employment challenge going forward, Uzbekistan will need to sustain high levels of growth in a way that maximizes the creation of good jobs. To date the country has achieved high rates of economic growth but needs additional measures in ways that may ensure (i) sustainable growth going forward, economically, socially and environmentally; and (ii) fostering the types of improvements in labor market opportunities needed for inclusive growth.

2.36 Going forward, good jobs will need to come from private-sector development³⁹. While state intervention in the economy can play an important role in supporting structural transformation, it can also, at a later stage, act as a disincentive for private-sector participation and development. Uzbekistan is likely to be at a point today where the transition from a state-led to a private-sector-led development strategy needs to be engineered in order for efficiency gains in production to drive growth and employment going forward.

³⁹ According to official statistics, about 78 percent of all jobs are in micro and small business.

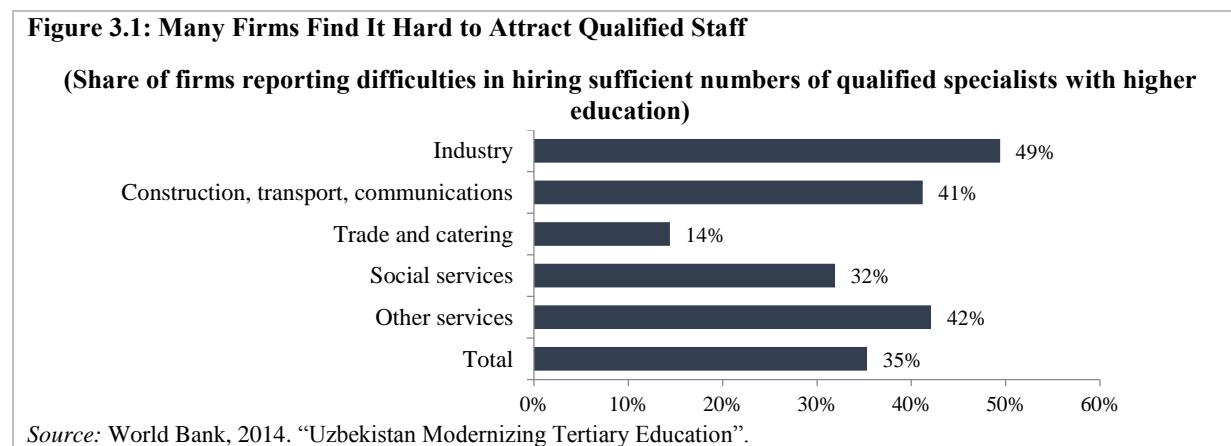
3. Critical Factors Determining the Inclusiveness of Growth

While progress on the twin goals will be driven, in part, by the ability of the economy to deliver more and better jobs, a necessary complement to this strategy will need to come from policies that (i) increase and equalize the ability for Uzbek citizens to take advantage of greater labor market opportunities; (ii) provide safety nets to those left behind as well as basic services to all; and (iii) promote greater responsiveness of public services to the needs of the population.

Education and Skills: Insufficiently Linked to Market Needs

The education system needs to improve its ability to supply the skills demanded by firms.

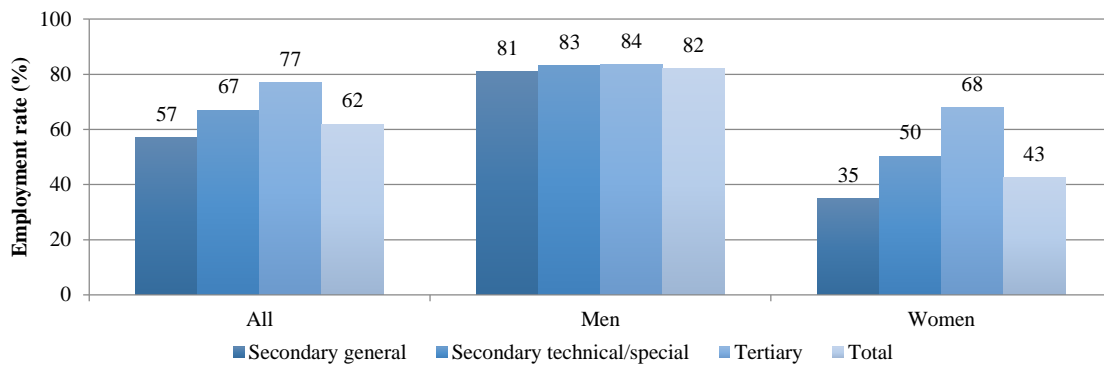
3.1 **Employers in Uzbekistan report that inadequate skills in the workforce pose significant obstacles to firm growth.** A 2008 survey of Uzbekistan’s employers revealed that 73 percent of firms identify inadequate skills of the country’s workers as an obstacle to doing business—up from 60 percent in 2005. More than one-third of firms (35 percent) indicated that employee skills posed a “major” or “very severe” obstacle to growth. A 2013 survey found that industrial enterprises were the most likely to have difficulty finding the right skills among the available workforce, with nearly half (49 percent) reporting a lack of sufficient numbers of qualified specialists with a higher education degree (Figure 3.1).⁴⁰



3.2 **Employment prospects are stronger for individuals with university and secondary special and technical education, although the gap is more pronounced among women.** While individuals who have completed a secondary special or technical, or tertiary, education enjoy high employment rates, individuals who have only completed secondary general are less likely to be employed (Figure 3.2). Overall, according to the CALISS, the employment rate among persons with tertiary education is 77 percent, compared to 57 percent for persons with secondary general education. This positive correlation is mostly driven by employment outcomes for women, however. Among men, employment rates vary from 81 percent for persons with secondary general education to 84 percent for persons with tertiary education. In addition, workers with a tertiary education on average earn a 55 percent higher wage than similar workers with a secondary education.

⁴⁰ The findings in this paragraph are from World Bank. 2014. “Modernizing Tertiary Education,” Washington, DC: World Bank. It relies on the 2005 and 2008 BEEPS data, as well as an employer survey commissioned in 2013 for the higher education report.

Figure 3.2: Tertiary and Secondary Special/Technical Graduates Have Better Labor Market Outcomes

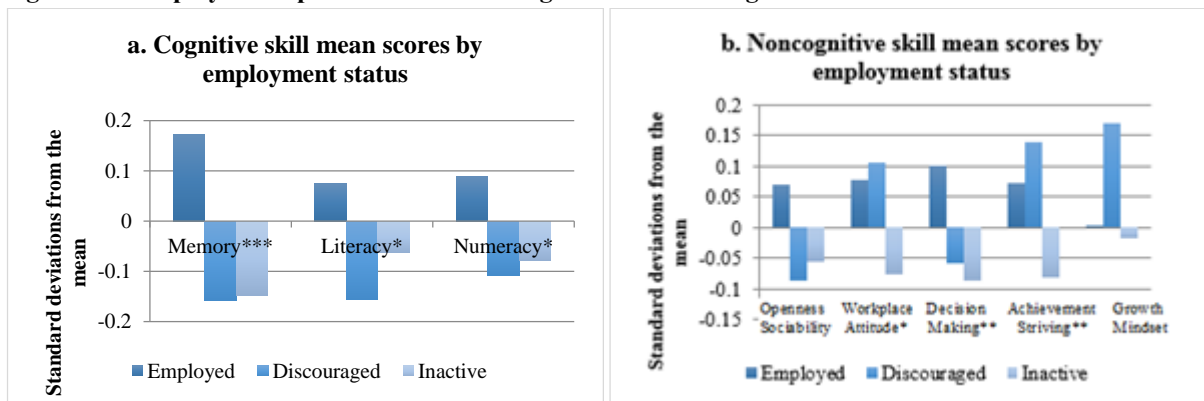


Source: Ajwad et al. 2014. using CALISS 2013.
 Note: Respondents ages 25–64.

3.3 In turn, employed people have better cognitive and noncognitive skills than inactive people do. Employed workers performed better on memory, literacy, and numeracy tests than inactive individuals, with the gap between particularly wide for the memory test. Most of the noncognitive scores for employed individuals are higher than scores for inactive individuals (Figure 3.3). Of particular note are the differences in decision making and achievement striving.

3.4 Likewise, those people discouraged from participating in the labor market have significantly lower cognitive skills and—to a certain extent—noncognitive skills than the employed. In fact, those who are discouraged from participating in the labor market possess similar cognitive skills as inactive individuals. In terms of noncognitive skills, interestingly, among discouraged individuals decision making in particular seems to be low, while self-reported workplace attitude and achievement striving do not seem problematic. The skill gaps among discouraged individuals results may, in part, explain why such individuals face difficulties finding a job. Of course, skills alone do not explain labor market discouragement. Individuals may exit the labor force for a variety of reasons, including high reservation wages, immobility, a lack of the connections needed to secure jobs, or simply unrealistic expectations. However, low skill levels among the discouraged are particularly noteworthy because youth are overrepresented in the discouraged population, and given the youth bulge in Uzbekistan, the mismatch in skills raises the stakes for policy makers.

Figure 3.3: Employed People Exhibit Better Cognitive and Noncognitive Skills



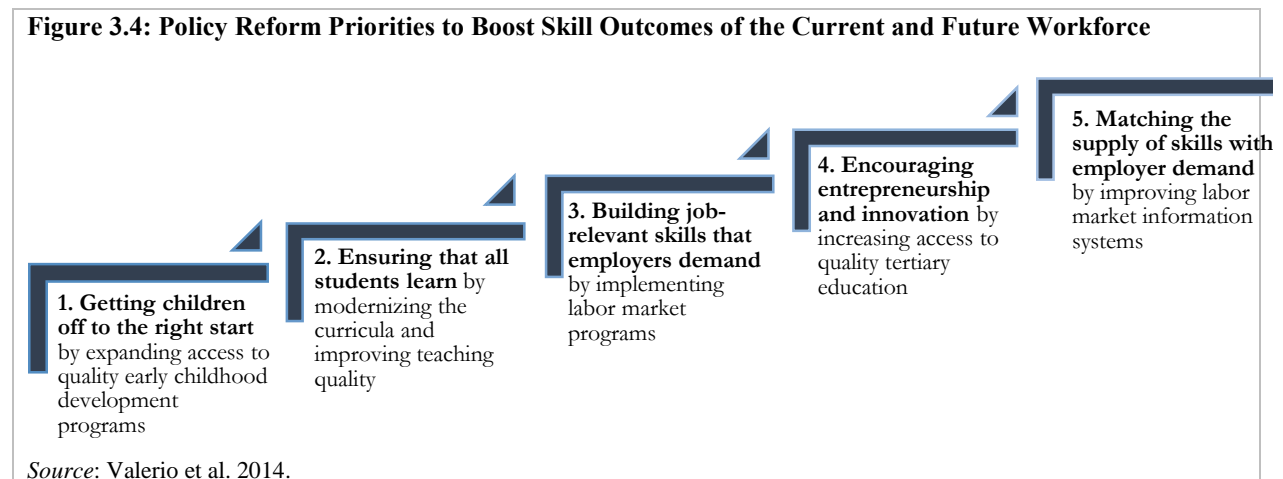
Source: Ajwad et al. 2014. using CALISS 2013.

Source: Ajwad et al. 2014. using CALISS 2013.

Opportunities to address the mismatch between skills supply and demand are captured in five STEP priorities.

3.5 Policies to improve the supply of job-related skills (and the employment prospects that come with them) can be informed by the Skills Toward Employability and Productivity (STEP) framework within the government’s strategic vision. The STEP framework brings together evidence and practical experience from diverse areas—from research on the determinants of early childhood development and learning outcomes to policy experiences in reforming vocational and technical education systems and labor markets.⁴¹ A recent World Bank report (*The Skills Road*, Ajwad et al. 2014) recommends five policy goals to improve the skills of the current and future workforce in Uzbekistan (Figure 3.4):

- Getting children off to a right start, by expanding access to quality early childhood development (ECD) programs;
- Modernizing curricula and improving teaching quality in order to address the weak link between educational attainment and cognitive and noncognitive skills
- Implementing selective active labor market programs, with a particular focus on discouraged workers and women, and incentivizing firms to provide training to workers
- Encouraging entrepreneurship and innovation by increasing access to tertiary education of higher quality (with a focus on market-valued skills)
- Improving labor market information systems (improving information about vacancies for jobseekers and help in securing jobs through job signaling)



3.6 Uzbekistan needs to expand access to quality ECD programs to enhance cognitive and noncognitive skills development from an early age. In Uzbekistan, only 26 percent of preschool age children were enrolled in ECD programs in 2011, which is far below the enrollment rate of OECD countries (86 percent); Russia (90 percent); and neighboring countries such as Kazakhstan (48 percent). Getting children off to the right start, with quality ECD, can improve their ability to develop, later in life, the technical, cognitive, and noncognitive skills that are conducive to higher productivity and flexibility in the work environment; it is also a cost-effective investment. The government of Uzbekistan commits significant resources to children’s early learning, but the current model for provision of pre-primary education presents high costs and limited flexibility in the type of early childhood care and education (ECCE) available. An

⁴¹ Valerio, A., M. L. Sanchez Puerta, G. Pierre, T. Rajadel, and S. Monroy Taborda. 2014. “STEP Skills Measurement: Snapshot 2014.” Washington, DC: World Bank.

expansion in coverage of ECCE should include measures to reduce delivery costs by exploring alternative forms of service delivery, such as a half-day model.

3.7 Students can get more from the education they receive with better curricula and teaching methods. While the country has achieved universal access to general education and completion rates are good, there is room for improvement in the quality and relevance of education received (with more focus on problem-solving, critical thinking, communication, and interpersonal skills). Developing modern curricula and teaching methods would strengthen the link between educational attainment and cognitive and noncognitive skills. Empirical evidence for Uzbekistan clearly shows that stronger cognitive and noncognitive skills enable workers to obtain better jobs.

3.8 Education and labor market reforms—such as public-private partnerships on business-friendly curriculum development, support for on-the-job training and apprenticeship programs, and improved labor market diagnostics—can also benefit international migrants. Such programs could increase Uzbek migrants’ ability to apply their skills abroad (if only by making such qualifications more visible to employers). In turn, migrants would be able to expand their skills abroad and to apply them in the domestic market upon their return. This is particularly important given the large number of migrant workers in sectors such as construction, and those with secondary or technical education, and the fact that mid-skilled workers are often at the highest risk of brain waste.⁴²

3.9 To improve the link between migrants’ skills and labor market needs abroad, the quality of workers’ skills, and the visibility of those skills, the government of Uzbekistan could pursue a three-pronged strategy. First, develop partnerships with ministries of labor and business leaders in key destination countries and sectors, to identify skills needs and raise the profile of Uzbek laborers. Second, conduct labor market diagnostics to identify sectors with a demand for laborers, both domestically and abroad. And third, invest in improved vocational and technical training programs.

3.10 One way for policy makers to encourage entrepreneurship and innovation is to increase access to tertiary education. Increasing access to quality tertiary education is essential for the development of a highly-skilled workforce that is entrepreneurial and innovative. This is likely to become more important as the economy evolves and demands more non-routine skills, as observed in other middle- and high-income countries. A recent World Bank report has highlighted some of the key policies that can address problems associated with access to tertiary education.⁴³ They include increasing the number of spaces available to entering cohorts, especially women, and differentiating degree and non-degree programs so that short-term technical and occupational courses can offer more immediate response to the skills demanded.

3.11 To ensure quality at the tertiary level, measuring the skills produced is important. The development of an independent quality assurance agency is critical for a modern higher education system. The existing State Testing Center in Uzbekistan can be further equipped to perform this role. In addition, individual institutions of higher education should perform “internal” quality assurance through so-called quality enhancement cells based partly on self-assessments and peer reviews by other higher education institutions. Introducing some elements of the Bologna Process, which aims to make academic degrees and quality assurance standards more comparable and compatible across Europe, would provide a structure for quality enhancement and systems integration that could allow the quality assurance system in Uzbekistan to achieve globally recognized operating standards.

⁴² World Bank. 2013. “Uzbekistan Improving Early Childhood Care and Education.” Report No. 71930-UZ. Washington, DC: World Bank.

⁴³ World Bank. 2014. “Uzbekistan Modernizing Tertiary Education.” Report No. 88606-UZ. Washington, DC: World Bank.

3.12 Graduates of tertiary educational institutions should be equipped with market-relevant skills. This requires a three-pronged approach. First, regular and independent market surveys should monitor the skills requirements in the labor market. Second, partnerships with both domestic and foreign academic institutions (research partnerships, faculty exchanges, and training programs) as well as domestic and foreign industry (modernizing curricula, laboratories, innovation platforms, research, and joint business development) can help strengthen the links between higher education institutions and the labor market. Third, more generally, ensuring high-quality equipment in relevant and priority technical fields, together with modern curricula, trained faculty and staff, and related university-industry linkages is crucial.

3.13 Uzbekistan needs to match the supply of skills with employer demand, by improving labor market information systems. Such matching systems can help convert skills into actual employment and productivity. A key reform priority could be to improve labor market information systems to ease the transition from school to work. In Uzbekistan, more than half of all respondents (58 percent) indicated that they do not feel they are able to learn about job vacancies. Asymmetric information between job seekers and employers affect students' educational choices, firms' selection of workers, and/or the time that it takes to fill vacancies.⁴⁴ Facilitating the flow of information would be important, especially for youth and first-time job-seekers, because it will help to dismantle the current rigid manpower-planned system in which the number of university slots is determined based on the number of government jobs available for graduates.

3.14 A number of modernizing countries have successfully implemented labor market information systems designed to dismantle planned-manpower education structures. In Poland, for example, employment observatories were introduced to provide information on job availability, wages, career prospects, and hiring expectations.⁴⁵ The key concept behind employment observatories is that information about major industries, recent growth areas, occupations experiencing shortages, and qualifications needed for jobs, can help people make more informed choices about their courses and careers. The data managed by employment observatories include (i) administrative data from public employment offices on unemployment, vacancies, and active labor market programs; (ii) data from the national statistics office, including labor force survey and household survey information, usually disaggregated by region; and (iii) data from special-topic surveys (usually "sociological"). Employment observatories use multimedia platforms to disseminate information, ranging from traditional paper-based information to YouTube videos and text messaging. The information is disseminated at irregular intervals, dictated by the speed with which the information is processed.

3.15 One of the difficulties facing the Uzbek government is the lack of data to evaluate the effectiveness of education. While enrollment rates in primary and secondary schools are high, the quality of the education system is unknown. Policy makers are unable to hold schools accountable, or to reform schools that are failing. A national system able to measure learning through standardized assessments would help the government track the effectiveness of education across the country. By 2020, if such a system were in place and working well, the government could consider moving to one of the international student assessment systems—Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), or Progress in International Reading and Literacy Study (PIRLS)—enabling comparisons across OECD countries and others. At the global level, countries are increasingly carrying out national learning tests, as well as participating more in regionally and

⁴⁴ Jensen, R. 2010. "The (Perceived) Returns to Education and the Demand for Schooling." *Quarterly Journal of Economics* 125 (2): 515–48; Kaas, L. and C. Manger. 2010. "Ethnic Discrimination in Germany's Labor Market: A Field Experiment." IZA Discussion Paper 4741, Institute for the Study of Labor, Bonn, Germany.

⁴⁵ Arias, O. S., C. Sánchez-Páramo, M. E. Dávalos, I. Santos, E. R. Tiongson, C. Gruen, N. de Andrade Falcão, G. Saoivici, and C. A. Cancho. 2014. "Back to Work: Growing with Jobs in Europe and Central Asia." Washington, DC: World Bank.

internationally benchmarked learning assessments. The use of quality data and information systems for policy making and planning is becoming commonplace in many countries worldwide.

Health Services Quality and Efficiency: Substantial Margins for Improvements.

3.16 Overall public expenditures on health care are on par with middle-income countries. Uzbekistan's public financing of health care (equivalent to 3.8–4.0 percent of GDP in 2014–15) is the same as the average in middle-income countries and twice as high as the average in lower-middle-income countries. Good health care increases returns to human capital and empowers people to actively participate in the labor market and to generate income. However, the lack of insurance markets means that ramping up private spending for health care (equivalent to 2.8 percent of GDP) is unlikely. The government may need to consider bringing down the burden of out of pocket expenses (OOPs) for the poor. One way to do this is to introduce health insurance to cover most private-sector needs and reduce some of public-sector spending, so that the government can use some of those resources to help the poor reduce their OOPs.

3.17 The efficiency and effectiveness of health care could be improved. Detection rates of key diseases such as hypertension and tuberculosis are low, and hospitals are unnecessarily large and fragmented. Allocative efficiency could be improved by improving primary health care. If strengthened, this first stage of medical intervention could help reduce the number of people needing hospital care and shift incentives toward improving detection and introducing preventative measures, such as tobacco cessation and the introduction of statins. An inadequate situation of primary and secondary healthcare units limits the access to adequate health services, specifically for the rural population. Health service provision is constrained as well by the lack of quality standards for health professionals and the lack of incentives. While the Ministry of Health (MoH) has started these reforms, much is left to be done, including integrating care pathways, strengthening the management of risk factors around cardiovascular disease, the organization and delivery of healthcare services, hospital optimization plans, revision of medical education, continuous professional development of health workers, and quality assurance mechanisms.

3.18 From a planning perspective, health outcomes and deliverables would probably need to shift from the currently centrally planned system to a model of accountability with performance contracts and incentives. A shift toward activity and performance-based payments for health services, as opposed to block budget allocations, could result in significant savings and also improve outcomes. Hospitals should operate under financial sustainability, effective monitoring of diseases, and quality management frameworks.

3.19 As with education, better data are needed to inform health care policies. The MoH needs strengthening in terms of both hard and soft infrastructure. Data systems need to be put in place; staff training programs need to be introduced; and basic infrastructure—both within the ministry and in the agencies and bodies it oversees—need upgrading. A comprehensive health care strategy is needed, and alongside this, an information system so that the strategy can be monitored, evaluated, and updated. At the outset, these new measures and expenditures will push up overall health spending. In the medium to long term, however, they should improve the effectiveness of the health care system, resulting in better health outcomes at a lower overall cost.

3.20 Social Protection: More Can Be Done to Target the Most Vulnerable.

Social protection programs can be more effective in targeting the most vulnerable.

3.21 Despite Uzbekistan's significant commitment to the social protection sector, there is a need for further reforms to ensure the greater efficiency and effectiveness of the system. Priorities of the reform should be as follows: (i) assessing policy objectives and efficiency of the current cash-transfer programs with a view of consolidation and/or greater coordination; (ii) developing complementarity

between the labor-market programs and assistance programs; (iii) investing in systems of administration and information management systems to support effective functioning of all programs; (iv) streamlining of the roles and responsibilities of *Mahallyas* vis-à-vis the Ministry of Labor and Social Protection (MLSP) in the selection of needy families, and in the provision of other services; and (v) reforming the national pension system to ensure its fiscal sustainability, fairness, access to ease of making contributions, and effective universal coverage.

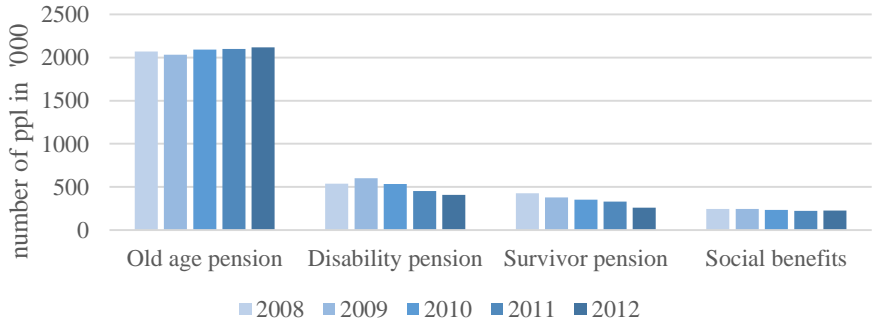
Social programs are in need of better targeting, and are dominated by social insurance schemes.

3.22 **By far the largest government transfer program in terms of coverage of the population is old age pension.** Close to 40 percent of all families have a pensioner as a member, while coverage of other social programs is less than 10 percent. There is no significant difference in the coverage of pensions across quintiles: across groups the share ranges from 36 to 42 percent. Unlike the old age pension, the coverage of benefits for small children and for needy families with children is larger among the bottom quintiles compared to the top groups. However, there is also some degree of leakage observed, as some top deciles benefit from those programs. (See Box 3.1 and Tables 3.1 and 3.2 for related material on social transfers.)

Box 3.1: Number of Individuals Receiving Social Transfers, 2008–12

According to data from the State Statistics Committee (SSC) of Uzbekistan, there were 2.1 million individuals receiving an old age pension in 2012. The number of pensioners increased between 2008 and 2012, while the number of disability, survivor, and social benefit recipients has been declining. The number of social benefit recipients declined, from 245,000 in 2008 to 225,000 by 2012. The statistics help to understand the magnitude of the different programs.

Table B3.1.1 Number of Individuals Receiving Transfers



Source: State Statistical Committee of Uzbekistan, 2013.

Table 3.1: Coverage of Selected Government Transfers

	Quintiles of per capita consumption					
	Total	Q1	Q2	Q3	Q4	Q5
Old age pension	39	38	42	39	39	36
Years of experience pension	9	12	9	7	8	8
Maternity leave	2	2	3	1	2	1
Disability pension	9	10	10	7	10	6
Survivors pension	1	2	2	1	1	1
Social pension	1	3	2	1	1	1
Birth allowance	4	5	4	5	5	1
Small children benefit	9	13	11	12	6	5
Compensation to needy families	3	5	3	2	2	2
Other allowance	1	0	2	1	1	1

Source: Authors' calculations based on CALISS.

Notes: Program coverage is the portion of population in each group that receives the transfer.

3.23 **Moreover, while the distribution of pension beneficiaries is equal across quintiles, the value of average per capita pension is higher for top wealth groups.** The old age pension is an important source of income for all households and represents the bulk of all government transfers (both in terms of coverage and total budget). Lower per capita amounts of pension could be partially explained by larger household size in the bottom quintiles. However, given a link between higher wages and pensions, households in the top quintiles tend to have higher pensions after retirement. In contrast, in the survivor, social pension, and compensation to needy families programs the value of benefits is higher for groups in the bottom quintiles, indicating the importance of the benefits in the budgets of vulnerable households.

Table 3.2: Mean Per Capita Value of Transfer (beneficiary households only, in SoM)

	Quintiles of per capita consumption					
	Total	Q1	Q2	Q3	Q4	Q5
Old age pension	741.4	430.4	582.2	772.9	901.2	1,048.8
Years of experience pension	770.3	554.3	739.8	837.2	892.9	957.2
Illness benefit	227.5	n.a.	n.a.	n.a.	177.8	286.5
Maternity leave	144.6	126.4	123.8	177.5	197.9	117.0
Disability pension	410.8	377.9	374.8	375.0	393.5	592.4
Survivors pension	506.5	588.0	280.6	736.6	680.7	264.0
Social pension	131.4	105.2	211.7	90.9	88.7	73.9
Birth allowance	25.0	24.1	35.0	19.9	24.2	21.1
Small children benefit	212.5	187.2	211.2	253.4	241.5	144.1
Compensation to needy families	145.1	157.2	220.0	112.5	93.8	105.3
Other allowance	358.2	145.1	114.7	731.5	170.6	616.4

Source: Authors' calculations based on CALISS.

Notes: Table entries are the average per capita transfer received. It excludes households that did not receive a transfer.

3.24 **Although there are a number of schemes that directly or indirectly support the poor, their amounts are modest, and their coverage and budgetary allocations have fallen steadily over time.** The Low Income Allowance is a scheme with the primary focus on poverty, but its coverage has fallen significantly in recent years and it currently has a limited reach of only about 80,000 beneficiary families in 2010 (see Table 3.3), effectively becoming a residual poverty relief scheme. Benefits are paid for six months and families need to reapply. Expenditures on this scheme have fallen significantly since the 1990s, and were only 0.1 percent of GDP in 2009. There is also a Childcare (Maternity) Allowance that pays benefits to poor families with children aged up to two years, as long as the mother is not working (Table 3.4). It is provided for up to one year after the birth of a child, with the equivalent of double the minimum

wage. Additionally, a Family Allowance is provided to poor families with children ages 2 to 4 years. The benefit is paid at half the minimum wage for one child, 80 percent of the minimum wage for two children, and 120 percent for three. The level of expenditure on various child benefits has fallen significantly over the past 20 years, from around 4 percent of GDP in 1994—when the schemes were universal and provided to all children—to 1.24 percent of GDP in 2011.

Table 3.3: Coverage of Selected Government Transfers

	Quintiles of per capita consumption					
	Total	Q1	Q2	Q3	Q4	Q5
Children benefit	9	13	11	12	6	5
Low-income allowance	3	5	3	2	2	2

Source: Authors' calculations based on CALISS.

Notes: Program coverage is the portion of population in each group that receives the transfer.

3.25 The administrative responsibility over these schemes is shared between the MLSP and the local communities (*Mahallas*). The latter assist with identification of the poor families in the villages. Eligibility criteria have not always been clear, however the government reports that actions in 2013 and 2014 have begun to address these constraints. The quality of targeting, for example, of general poverty through the Low Income Allowance program is not bad, as 68 percent of all benefits go to the bottom two quintiles. Effectively, *Mahallas* are performing a form of rationing rather than accurate identification, by selecting a small number of poor families from a much larger number. Overall, *Mahallas* often find this task a significant challenge since they have many other responsibilities and may need to travel long distances to fulfill the duties associated with the programs; this especially concerns adjustments in targeting priorities. Local offices of MLSP support *Mahallas*, but staff resources are often insufficient to undertake all tasks effectively. There has been minimal investment so far in building effective administrative systems or using new technologies; all systems are largely paper-based, which reduces efficiencies and makes management and monitoring more challenging. As a result, there are no effective regional budget reallocation mechanisms.

Table 3.4: Benefit Incidence (targeting accuracy of transfer)

	Quintiles of per capita consumption					
	Total	Q1	Q2	Q3	Q4	Q5
Children benefit	100	23.9	22.8	31.9	14.1	7.3
Low-income allowance	100	40.3	27.8	11.4	9.2	11.3

Source: Authors' calculations based on CALISS.

Notes: Benefits' incidence is the transfer amount received by the group as a percentage of total transfers received by the population.

Further Progress Is Needed in Enhancing Transparency and Accountability to the Public

3.26 Public institutions need to be more transparent and accountable to the public they are meant to serve. Uzbekistan has a highly centralized decision-making system.⁴⁶ There is a need to better link performance appraisal of public officials and the quality of services they deliver to the population. More broadly, citizens, in turn, need more access to information on government policies and performance. The World Bank's Worldwide Governance Indicators consistently show that Uzbekistan has a lot of room for

⁴⁶ United Nations. 2014. "UN Common Country Assessment," Tashkent: United National Common System in Uzbekistan.

improving government effectiveness, public accountability, and transparency.⁴⁷ The Government of Uzbekistan recognizes the need to reach out to its citizens, and since 2012, through a series of policy decisions, an e-governance master plan was introduced, making e-government tools mandatory for public administration bodies. All ministries are working on improving information management systems, many have set up websites and hotline centers, and there are initiatives that are experimenting with the use of ICT tools, e-participation, and open data. The Law on Transparency of Government Bodies, introduced in 2014, sets additional requirements for enhancing the transparency and accessibility of information.

3.27 Public procurement needs further improvement in order to deliver the most effective possible public investment outcomes and services. The legal framework is fragmented, and there is no institutional framework. Large procurement evaluation committees (consisting of 11 to 15 ministers) dilute accountability and lead to delays. Modernizing public procurement will require strong commitment to enacting a public procurement law in line with good international practices. Creating an independent complaint review mechanism would improve trust in the public procurement system and ensure predictability of procurement outcomes.

3.28 An early target in Uzbekistan's efforts to modernize public-sector governance is complementing the existing internal accountability of public officials with external accountability to citizens. The Uzbek authorities could score an early win by establishing proactive citizen feedback mechanisms on public service delivery, possibly with innovative solutions using mobile technologies. This would identify the bottlenecks and key issues both spatially and across sectors. In addition, reaching out to citizens would help decrease the perception of corruption and increase trust in government. Finally, it would help create a service culture among Uzbek civil servants.

3.29 Once the elements of external accountability are introduced, internal accountability can be improved by shifting the focus from process and rules to delivering results. Uzbek public administration could benefit from performance management tools such as key performance indicators, performance contracts, and creating institutional incentives for public officials to deliver high-quality services. This should be complemented by investing in the right skill mix of public officials, to further enhance service delivery.

3.30 In a medium to long-term perspective, the government could consider further devolving some service delivery authority to local governments, or to territorial divisions of central government entities. Such delegation of decision-making would allow the government to make more informed and faster decisions pertaining to service delivery. Such reforms require a gradual approach, and should be complemented with organizational and capacity-building initiatives for lower government levels.

⁴⁷ World Bank. Worldwide Governance Indicators, (<http://info.worldbank.org/governance/wgi/index.aspx#home>) report aggregate and individual governance indicators for 215 countries, including Uzbekistan, over the period 1996–2014, for six dimensions of governance: political stability, voice and accountability, government effectiveness, regulatory quality, rule of law, and control of corruption.

3.31 **There is scope to leverage information and communication technology (ICT) to expand voice and accountability.** The government is working toward leveraging ICT in order to improve the transparency of government service delivery. The offering of e-government services is still limited in Uzbekistan, but the government is keen to expand e-services: The president’s resolution of 2012 urged all 120 public agencies to put more policy focus on e-government. Its goal is to achieve the full potential of e-government by 2020. However, as of 2012, the UN’s e-government index ranked Uzbekistan relatively lower than some comparator countries (Table 3.5).

Country	Ranking (UN e-Government index, 2012)
Malaysia	40
Bulgaria	60
Romania	62
Moldova	69
Uzbekistan	91
Thailand	92

Source: Authors’ calculations based on United Nations Department of Economic and Social Affairs (UNDESA) 2012

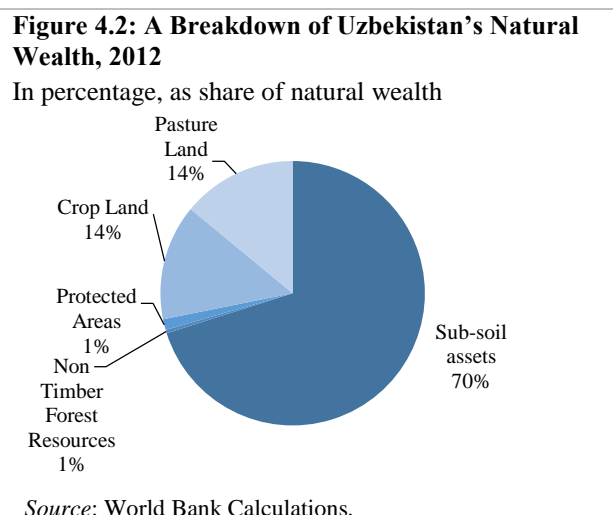
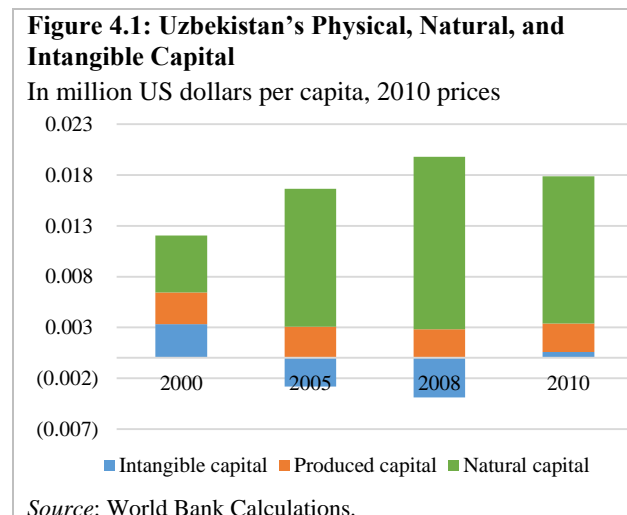
4. How Sustainable Is the Current Pattern of Growth, Distribution, and Social Inclusion?

Sustaining progress over the medium to long term will require addressing significant environmental vulnerability, avoiding inequities, and adjusting to a less favorable external economic environment. This includes risks to managing natural resources such as energy, land, and water, and the effects of climate change. It includes the development of offsetting mechanisms to reduce trade shocks from Russia and open new markets in China, and measures to reduce debt burdens. Labor participation rates by women and young men need to be considered as well as regional differences in income and access to basic services.

Environmental Risks

Managing and safeguarding natural resources

4.1 A breakdown of Uzbekistan’s assets into natural, physical, and intangible capital illustrates how important the country’s natural resources are. Currently, natural wealth, and in particular the country’s subsoil assets (which make up over 70 percent of natural wealth), is the largest source of Uzbekistan’s wealth (Figure 4.1 and Figure 4.2). Natural wealth has increased its importance over time, while produced capital is not as large as it could be, suggesting that more investment is needed. One of the findings of the recent *Diversified Development* World Bank report is that while resource-rich ECA countries have the capability to finance investments in the form of large mineral revenues, the stock of public capital has actually decreased. More worryingly, once the efficiency of investment is factored in, investment levels fall to even lower levels.⁴⁸



4.2 **Natural wealth accounting for Uzbekistan calls for investment in other forms of wealth.**⁴⁹ Gross national savings (GNS), an indication of national capacity to finance domestic investment, has generally been high in Uzbekistan. Net national savings (NNS)—a measure that takes into account the depreciation of capital by subtracting the consumption of fixed capital—is also high. However, once the

⁴⁸ See World Bank. 2014. “Diversified Development.” Washington, DC: World Bank.

⁴⁹ A full description of the methodology and background on wealth accounting can be found in World Bank. 2012. “Where Is the Wealth of Nations?” Washington, DC: World Bank.

depletion of energy resources and environmental degradation are taken into account, adjusted net savings (ANS) become negative: the country is missing opportunities to save this resource for future generations.⁵⁰

4.3 Ensuring that mineral and energy wealth is transferred to another form of wealth is a core component of the environmental sustainability argument. This is extremely pertinent for Uzbekistan. While natural resources play an important role in the country's current growth model, a focus on greater resource efficiency and economic diversification would result in less pressure on scarce natural resources and reduce risks to sustainability. The government has recognized the importance of this, and established the Fund for Reconstruction and Development of Uzbekistan to reallocate part of extractive industries revenues into investments aimed at the expansion of export-oriented and import-substituting production capacities, and the development of critical infrastructure.

4.4 Shifting wealth also means moving to its highest value added. Resources need to move to the most productive areas of the economy (allocative efficiency) and be used optimally (technical efficiency). For example, while there has been progress, the efficiency of water and electricity usage remains low. China's energy usage, as measured by GDP per unit of energy is twice as efficient, and its water usage is at least 18 times more productive (Figure 4.3b). Water supply and energy prices barely cover the marginal cost of production, and are well below the average long-run cost needed to ensure that the operating and maintenance costs of essential infrastructure are met. Improved efficiency could limit the currently high levels of waste, which could then be sold or exported in the case of energy, attracting useful foreign exchange reserves.

Water resources management

4.5 Improvements in water usage can lead to greater water security. This includes improvements in infrastructure and data collection systems to monitor usage and efficiency. Water use in the past, and to a certain degree today, is largely inefficient. For example, irrigation efficiencies are on par with countries that use open-canal gravity irrigation schemes, but the high water use per GDP is less than efficient.⁵¹ The associated costs are high as a result of the fact that over a quarter of irrigated lands depend on irrigation pumps, and a much larger proportion depend on drainage pumps. Close to 60 percent of the entire Ministry of Agriculture and Water Resources budget is allocated to payments for electricity to power irrigation and drainage pumping stations. Electricity use for irrigation pumps accounts for 16 percent of national electricity generation and is one of the key reasons for Uzbekistan being classified as one of the most water- and energy-intensive countries in the world, with one of the highest levels of water and electricity consumption per unit GDP.⁵²

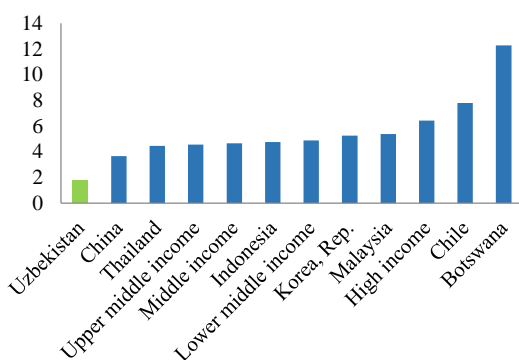
⁵⁰ Mineral depletion data are unavailable for Uzbekistan. Given the high levels of gold and copper exports, Uzbekistan's ANS could be even lower.

⁵¹ Total average inflow into Uzbekistan from Kyrgyzstan and Tajikistan is estimated at 102.19 km³/year. Return flow on the Uzbek territory is an estimated 32.4 km³/year, of which 21.5 km³/year is in the Amu Darya river basin and 10.9 km³/year in the Syr Darya river basin. This total comprises 30.9 km³/year of drainage flow from irrigated areas. About 37 percent or 12 km³/year ends up in natural depressions (Arnasay, Parsankul, Sarykamish, and Lake Sudochie), from which most water evaporates.

⁵² Enerdata, Energy intensity of GDP at constant purchasing power parities, Global Statistical Energy Review 2010; De Jong, I., Debroux, L. 2013. "Irrigation and Water Resources." Washington, DC: World Bank.

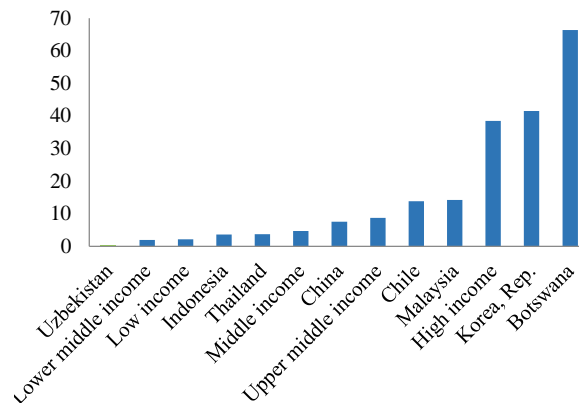
Figure 4.3: Efficiency Comparisons: Uzbekistan and Comparators

a. GDP per unit of energy use (constant 2005 PPP \$ per kg of oil equivalent)



Source: World Bank calculations

b. Water productivity, total (constant 2005 US\$ GDP per cubic meter of total freshwater withdrawal)



Source: World Bank calculations

4.6 The country is also one of the most vulnerable in Central Asia, with over 80 percent of the country’s water originating in neighboring countries. Given the high level of water dependency, according to World Bank assessment, Uzbekistan needs to capture the mutual benefits of trans-boundary management and monitoring of water resources. Doing so is urgent; if current trends in water usage continue, the country will reach water scarcity levels by 2030 (corresponding to annual renewable water availability of below 1,700 cubic meters).⁵³ Existing practices will not enable agriculture to reach its full potential, nor will it ensure water availability for other sectors or households.

4.7 Improving water productivity would require the introduction of volumetric fees for water supply services in addition to investment in infrastructure; the necessary reforms to improve accountability and water management; and agricultural modernization to improve the value of production.⁵⁴ Currently, the network of users and providers has created an environment in which responsibilities and incentives to improve productivity are unclear.⁵⁵ At the same time, water consumer associations (WCAs) can be heavily influenced by local authorities, and are often related to cotton and wheat quotas.⁵⁶ An unreliable supply of water to WCAs due to the lack of a strong legal basis for more contractual relationships with district-level state water authorities undermines their ability to deliver water to their members and removes any incentive to improve productivity. On the part of consumers, there is willingness to pay for better water delivery service.⁵⁷

Linking water and land reform

4.8 Gains in irrigation efficiency can lead to improved land-use quality. Villages and farmers surrounding the Aral Sea have witnessed severe drought, water shortages, and water salinity issues. Using

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ World Bank. 2015. “Social Impact Analysis of Water Supply and Sanitation Services in Central Asia: The Case of Uzbekistan.” Washington, DC: World Bank.

⁵⁶ De Jong, I., Debroux, L. 2013. “Irrigation and Water Resources.” Washington, DC: World Bank. Mimeo.

⁵⁷ Ibid.

less water for major crops (such as cotton) would reduce these impacts through greater efficiency measures.⁵⁸

4.9 Livelihoods and economic growth are dependent on the preservation of land. Land provides 17 million rural dwellers with a form of income, enables the country to be self-sufficient in food, and provides goods that make up a large share of the country's exports. The country is in need of a comprehensive strategy for water and land resources. An integrated approach would help the government balance the resources needed to manage land for agricultural use, preserve the nation's biodiversity, and plan for more sustainable cities (projected to add 3 million new residents by 2030). At present, land management is disorganized, and in the absence of an automated and electronic monitoring system it is subject to inconsistent data, frequent changes, and subjective decision making.⁵⁹

Forests

4.10 The preservation and expansion of Uzbekistan's forests has many direct and indirect benefits. They support rural livelihoods and help reduce flood risk, protect fragile soils, mitigate climate change, and conserve biodiversity. Forested landscapes cover only 11 percent of Uzbekistan's territory, yet these landscapes are essential for promoting rural livelihoods, generating ecosystem services, and mitigating the risks posed by climate change. Forests can be categorized into three geographic types, each providing distinct environmental and livelihood benefits. First, desert-like plains cover nearly 80 percent of the country and have the lowest population density. Current forestry activities in the desert zone include the afforestation of the dry Aral Sea bed to reduce erosion and stabilize shifting sand. Second, *tugai* forests are found in the riparian zones of flood plains and river valleys, where they provide timber and other forest products, stabilize embankments, and purify the water flowing into rivers. Third, mountain forests in the southern region of the country support substantial biodiversity, protect headwaters, and generate rural income.⁶⁰

The impacts of climate change

4.11 The impacts of climate change are already being felt. The dry, hot season is already longer, there is more variability in rainfall and snow reserves, and glaciers are shrinking.⁶¹ These changes are expected to intensify, resulting in a more acute water deficit under the combined effect of reduced runoff and higher evaporation in the plains and foothills. (By 2050, the water flow in the Syr Darya River Basin will potentially decrease by 2 to 5 percent, and in the Amu Darya River Basin by 10 to 15 percent, scenario A2.)⁶² In addition, extreme weather events-- droughts that are causing huge damages to agriculture, heat

⁵⁸ Large-scale irrigation development during Soviet times has had a devastating impact on the Aral Sea. In the early 1900s, the Aral Sea was the fourth largest inland lake in the world. By 2005, it had lost more than half of its surface area, exposing nearly 30,000 square kilometers of lake bed, and depleting nearly three-quarters of its volume.

⁵⁹ Childress, M. 2013. "Land Resources: Reforming Information Systems and Institutions for Growth and Governance." Washington, DC: World Bank.

⁶⁰ This paragraph draws from Botman, E., 2012. "Forest Rehabilitation In The Republic Of Uzbekistan." International Union of Forest Research Organizations. www.Iufro.Org/Download/File/7408/5123/Uzbekistan_Pdf/. Accessed 11 May 2016.

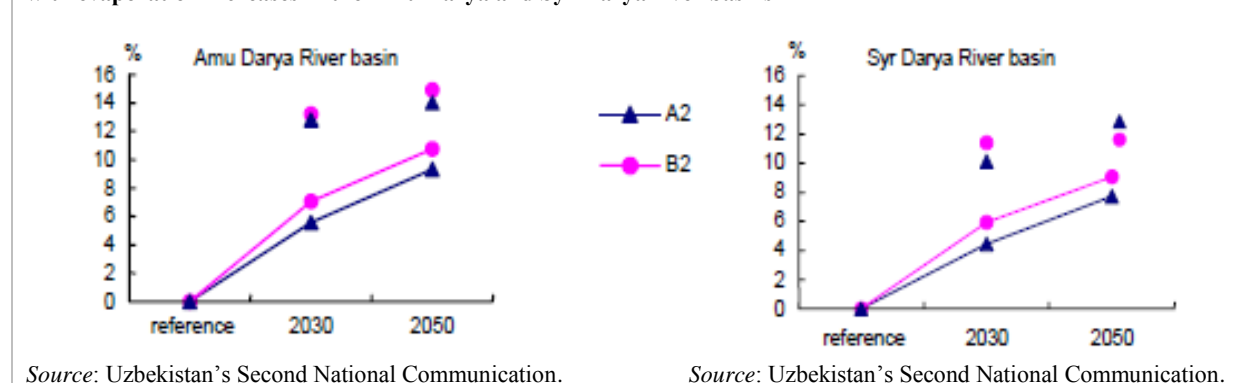
⁶¹ United Nations Framework Convention on Climate Change. 2008. "Second National Communication of the Republic of Uzbekistan to the UNFCCC." New York: United Nations Framework Convention on Climate Change.

⁶² The A2 storyline and scenario family describes a very heterogeneous world. The underlying theme is self-reliance and preservation of local identities. Fertility patterns across regions converge very slowly, which results in a continuously increasing population. Economic development is primarily regionally oriented, and per capita economic growth and technological change more fragmented and slower than in other storylines. The B2 storyline and scenario family describes a world in which the emphasis is on local solutions to economic, social, and environmental

waves, mud flows, and landslides--are expected to become more frequent. Using data from six climate models, Uzbekistan's Second National Communication (2008) projects that increased evaporation combined with increasing temperatures could lead to water loss in Uzbekistan's irrigation zones, which, in turn, would lead to increases in average irrigation requirements of 5 percent by 2030 and 7 to 10 percent by 2050 (averaged across two emissions scenarios). Figure 4.44.4 illustrates the projected increase in irrigation demand associated with higher evaporation for the Amu Darya and Syr Darya river basins in 2030 and 2050, compared to the baseline period of 1961 to 1990.

Figure 4.4: Irrigation Demand Is Set to Increase Significantly

Projected increase in mean and maximum irrigation rates to compensate for losses of agricultural crop yield associated with evaporation increases in the Amu Darya and Syr Darya river basins



4.12 Increased temperature variability will place greater pressure on the energy infrastructure.

On the demand side, a change in the minimum and maximum temperatures indicates possible shifts in demand from cooling to heating (and from winter to summer), and greater use in irrigation and other temperature-sensitive sectors. Decreases of summer precipitation and increases in temperature can lower output and efficiencies of both hydro and thermal energy, creating a supply-demand gap. More frequent droughts and higher temperatures, coupled with the country's dependency on transnational water resources, may endanger further energy productivity (since less water limits the ability to cool thermal power plants). During the 2003 heat wave in Europe, several days of blackouts occurred in many countries. It would be useful to assess the vulnerability of the current energy infrastructure to changes in climate. Given that nearly 40% of the infrastructure will come to the end of its service life in 2017, this type of consideration would help planning for the next few decades in a robust way.

Table 4.1: Water Footprint and Value Generated for Sample Crops

	Price ('000 SOM) per ton	Water (m ³) footprint per ton	SOM per m ³ of water
Fergana grapes	1,500	2,400	625
Fergana cotton	750	4,426	169
Samarkand apples	1,500	820	1,829
Samarkand wheat	350	2,068	169

Source: Mekonnen and Hoekstra 2010.

4.13 A shift to horticultural crops would save water and produce higher value added than cotton.

A recent study by Aldaya, Munoz, and Hoekstra (2010) estimated that about 4,426 cubic meters of water

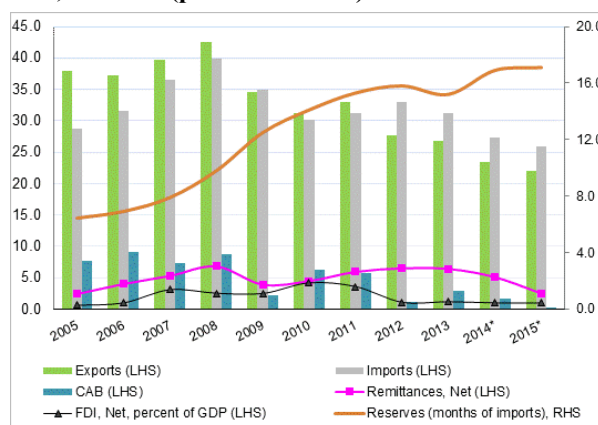
sustainability. It is a world with a continuously increasing global population, at a rate lower than A2; intermediate levels of economic development; and less rapid and more diverse technological change than in the more progressive (A1 and B1) storylines. While this scenario is also oriented toward environmental protection and social equity, it focuses on the local and regional levels.

are required to grow a ton of cotton; correspondingly about 2,068 cubic meters of water are required for wheat.⁶³ Although specific numbers are not available for Uzbekistan, a study of global water footprints using similar methodologies (Mekonnen and Hoekstra, 2010) suggests that horticultural products require substantially less water than cotton and in some cases less than wheat.⁶⁴ For example, grapes require, on average, 2,400 cubic meters of water per ton, while apples require about 820 cubic meters. New orchards in Uzbekistan generally employ more efficient drip irrigation technologies and therefore use less water than international average values would suggest. In economic terms, based on these conservative estimates, a cubic meter of water used to irrigate grapes in Fergana generates SOM 625 compared to SOM 169 for cotton. A cubic meter of water in Samarkand used to grow apples generates SOM 1,829 compared to SOM 169 for wheat (Table 4.1).

Macroeconomic Sustainability and Risks

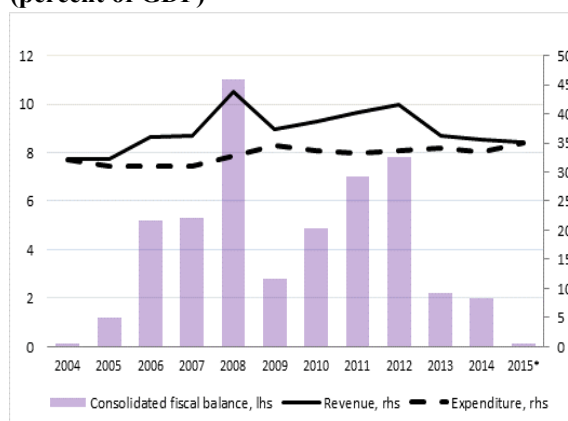
4.14 Uzbekistan’s largest macroeconomic risks stem from external factors. Uzbekistan’s total trade (merchandise exports and imports) has averaged 60 percent of GDP in the past five years (Figures 4.5 and 4.6), but is on a declining trend since 2009. While Uzbekistan’s traditional trading partner has been the Russian Federation, the economy has been gradually orienting more and more toward China. In 2014, the steady increase in exports to China matched the steady decline in exports to Russia. The year 2015 is the first year the share of exports to China surpassed exports to Russia. Yet the challenging performance of the Russian economy and the lower growth rates of the Chinese economy have both led to a reduction to Uzbekistan’s sizable current account surplus; it averaged 4 percent of GDP in 2005–14 but is expected to decline to 0.2 percent of GDP in 2015 according to World Bank assessment. Net remittances from Uzbekistan’s migrant workers are expected to decline from an average of 5.6 percent of GDP in 2005–14 to about 3 percent of GDP in 2015. Net FDI has also declined significantly in Uzbekistan, down from 4 percent of GDP in 2007–11 to 1 percent of GDP in 2012–15. International reserves are expected to increase to about 17 months of imports in 2015.⁶⁵

Figure 4.5: Exports, Imports, Remittances, and FDI, 2005–15 (percent of GDP)



Source: Uzbek authorities and World Bank database.

Figure 4.6: Consolidated Budget, 2004–15 (percent of GDP)



Source: Uzbek authorities.

Note: “lhs” is left-hand-scale; “rhs” is right-hand-scale.

⁶³ Aldaya, M. M., G. Munoz, and A. Y. Hoekstra. 2010. “Water Footprint of Cotton, Wheat and Rice Production in Central Asia,” Value of Water Research Report Series no. 41. Delft, Netherlands: UNESCO-IHE.

⁶⁴ Childress, M., and A.Y. Hoekstra. 2010. “The Green, Blue and Grey Water Footprint of Crops and Derived Crop Products”, vol. 1, main report, Value of Water Research Report Series no. 47, Delft, Netherlands: UNESCO-IHE.

⁶⁵ IMF. 2015. “Executive Board Concludes 2015 Article IV Consultation with Uzbekistan.” Washington, DC: IMF.

4.15 Uzbekistan has been maintaining prudent fiscal policies, which have helped it reduce its external debt burden. Uzbekistan’s central government expenditures have amounted to about a third of GDP over the past 10 years, during which time the government has been running consolidated fiscal balance surpluses. Good fiscal performance has led to a reduction in external public and publicly guaranteed debt from 41 percent of GDP in 2003 to 14 percent of GDP in 2015. The government has repaid its domestic debt.⁶⁶

Inclusion and Social Risks

4.16 Uzbekistan’s primary inclusion and social risks come from the need for more good jobs and for further gains in equitable service provision. Three categories of individuals are at risk of being excluded from the gains made in the economy:

- i. *Females with low rates of participation in the labor force.* By far the largest inclusion risk (actually, the risk of exclusion) in Uzbekistan is the female participation in the labor force. While there are many reasons for exclusion, the exclusion of women severely limits the size and the quality of the labor force. For example, the PSIA survey data showed that adult females in some rural areas overwhelmingly bear the burden of household water collection—representing a significant opportunity cost.
- ii. *Young men with low rates of participation in the labor force.* This is the second-largest category of individuals that have a low participation rate in the labor force.
- iii. *Individuals living in lower per capita income oblasts.* A review of per capita income by oblast has shown significant differences in income between Tashkent City and Navoi Oblast and other oblasts. While inter-temporal comparisons are not available, persistent differences in income, coupled with difficult regulations on labor mobility, suggest risks of exclusion.

4.17 Strengthened accountability for public service providers would be needed to improve unequal access to basic service provisions for households at the lower end of the income distribution. As discussed in Chapter 1, Uzbekistan has made significant gains in the supply of utilities services across the country. However, as in many countries, differences in the level of wealth across households and regions still do exist; these differences could undermine Uzbekistan’s social fabric if disparities in utility service conditions as suggested by the PSIA are not closed. Despite the progress made to date, the lack of transparency and limited accountability of public service providers to the people of Uzbekistan could diminish their credibility and lower trust in public institutions. For instance, nearly a quarter of the households connected to a piped water supply system surveyed as part of the PSIA claimed they had witnessed complains regarding the poor delivery of drinking water and sanitation services. Strengthening or establishing reliable mechanisms for citizens to provide feedback on the performance of public service providers, and ensuring that service providers are able to respond, are needed to enhance trust and achieve service outcomes.

⁶⁶ Can be extended to include risks from SOEs and financial sector risks.

5. Prioritization

As recognized in the government's recent reform announcements, unleashing Uzbekistan's full (and considerable) potential for higher growth and greater inclusiveness would require the current government approach to economic development to evolve into one that makes it easier for firms—especially SMEs—to operate, formalize, grow, and compete, as well as for economic agents to allocate labor and capital more freely and capture the full returns from such provision. This would require gradually and methodically reducing the state's direct participation in the economy and refocusing its role on regulating market mechanisms. At the same time, Uzbekistan's economic authorities could expand the production frontier of the economy further, through (i) redirecting public investment toward strategic infrastructure; (ii) targeting the constraints that currently inhibit greater labor market participation, especially of youth and women; and (iii) broadly equalizing access to key opportunities (including education and health care, but also other public services).

All of these reforms would need to take place, moreover, in a context that ensures gains are not achieved at the expense of future generations, and that the social costs of adjustments are adequately mitigated. Indeed, the transition toward greater reliance on market mechanisms would inevitably come with social costs that would need to be adequately anticipated and mitigated. Additionally, future approaches to development would need to better balance the interests of future generations, and the vulnerable populations that are more dependent on natural resources for their livelihoods.

However, the key to designing robust policy responses tailored to Uzbekistan's unique challenges lies in comprehensive data collection and analysis, including administrative and sector-specific statistics, as well as national accounts and household data. With these improvements in data availability, the design of policy options can be improved.

The following chapter proceeds in two stages: first, it lists the 10 most critical constraints to achieving faster progress on the twin goals, as derived from the SCD analysis; and second, it offers a prioritization framework to guide the Government and the World Bank's thinking on priorities for reform and investment.

The World Bank's View of Binding Constraints and Policy Directions

5.1 Based on available information and analysis, this SCD has made the following key observations and/or inferences about the growth trajectory of Uzbekistan, and the characteristics/dynamics of relatively poorer households:

- i. *Uzbekistan's growth trajectory will be constrained in the absence of market-friendly reforms.* Uzbekistan has achieved consistent and fast growth through structural transformation, and directing resources (from natural wealth) to specific sectors of the economy. However, for such growth to be sustained (more diversified sources, less dependence on natural resources), and to translate it into good jobs creation, the potential of private firms will need to be unleashed, which in turn would require reforms and changes in economic policy. To get at a more granular understanding of constraints, however, access to subsector (or ideally firm-level) data on employment and production over time will be required, as well as a better understanding of the political economy of the decision-making process (particularly as it relates to economic governance).
- ii. *Given current demographic trends, a major challenge will be to create more and better jobs for the Uzbek population.* On the supply side, given the limited potential for the public sector to create such jobs, enhancing the ability of small and medium size firms to be created, to grow,

- and to formalize, will be key. On the demand side it will also be important to ensure that future entrants into the labor market are equipped with the skills required to access good jobs.
- iii. *There is still scope for Uzbekistan to improve on basic requirements.* Enhancements in macroeconomic and financial sector policies, institutional and public-sector governance reforms, and investments in infrastructure would be required for (a) resources (including financial) to move more freely toward sectors with greater productivity growth potential (and for wages to rise with higher labor productivity), and (b) investment—domestic and foreign—to increase and be channeled into productive activities.
 - iv. *However, the transmission mechanisms (and bottlenecks) between growth and income gains of the bottom 40 remain unclear, and this affects policy design.* Regarding why the poor may have not benefitted as much as in other countries from the high growth rate, there are several hypotheses that need to be accepted, or rejected, with deeper analysis:
 - a. Growth has essentially been driven in subsectors that are capital-intensive and not labor-intensive, such that the transmission channel of growth to welfare via wages has been weak;
 - b. A large share of the population is either outside of the labor force, underemployed, or engaged in informal activities whose potential for value addition, expansion, or productivity gains is low;
 - c. There are pockets of poverty that have spatial, demographic, and occupational dimensions, with most poor people living in remote rural areas, working as smallholder producers, with large families and few income earners.
 - v. *Increasing female participation in the labor force would mechanically increase incomes in a way that would be biased in favor of lower-income households.* While we know that female participation is significantly lower than male participation in the labor force, the reasons behind such low participation are not well understood.

5.2 Given this analysis, the SCD has identified 10 key constraints to advancing the twin goals in Uzbekistan, and opportunities for addressing them. The 10 constraints/opportunities are presented in Table 5.1. The table also summarizes the policy actions (as identified in the SCD) that could be considered to make progress in each of these areas.

5.3 Although they are identified separately, many of these policy actions are eminently complementary, within and across broad themes. For instance it is obvious that the employment creation gains from measures aimed to increase private sector development would be expanded by a parallel focus on the supply side of the labor market. Likewise there are clear complementarities between the objectives of increasing agricultural productivity and rural livelihoods, and that of promoting more sustainable management of natural resources. More and better infrastructure would be important to market access for competitive sectors, FDI linkages, and technology transfers. Finally and fundamentally, progress in the area of good governance would leverage gains achievable in virtually all other areas (from infrastructure development to private sector promotion and social service delivery).

Table 5.1: Constraints, Outcomes, and Actions

Key Constraints	Outcomes Sought	Specific Policy Recommendations
<p>A. Market distortions for allocative efficiency and competition</p>	<ul style="list-style-type: none"> - Greater private investment, firm creation, and growth - Formalization of the economy - Greater FDI and technology transfers - Greater economic diversification - More and better job creation 	<ul style="list-style-type: none"> →Remove foreign exchange surrender requirements →Remove local currency control regime →Remove Forex currency and tax monitoring (noncore) functions from banks' operations →Reform SOEs to promote more transparent/accountable governance and develop a strategic framework for privatization →Decrease public participation in banks and NBFIs →Relax lending requirements to promote SME A2F → Introduce transparent criteria for SOE reform →Decrease taxes on formal enterprises, reduce exemptions, and strengthen tax administration →Rebalance taxation from direct to indirect →Review the competition policy framework, specify policies that reinforce dominance or limit entry, and empower the Competition Authority
<p>B. Regulatory barriers to firm operations that are impeding small firm size growth and formalization</p>	<ul style="list-style-type: none"> - Greater private investment, firm creation, and growth - Formalization of the economy - Greater FDI and technology transfers - Greater economic diversification - More and better job creation 	<ul style="list-style-type: none"> →Improve access of SMEs to credit, electricity, and land → Simplify procedures for SMEs to register, obtain building permits and electricity, and pay taxes →Improve investor protection and strengthen corporate governance frameworks →Focus on effective implementation of existing regulations, while lowering the potential for discretion
<p>C. Sub-optimal allocation of resources (land, labor, capital), which is hampering faster growth of agricultural productivity and rural incomes</p>	<ul style="list-style-type: none"> - Greater overall growth - Higher agricultural productivity / rural incomes - More / better rural employment - Decreased environmental degradation / depletion - Increased climate resilience - Greater economic diversification 	<ul style="list-style-type: none"> →Gradually phase out the administrative allocation of land for cotton and wheat cultivation → Phase out the quota / subsidy system for cotton →Minimize the deployment of non-agricultural manpower for cotton harvesting →Support value-chain development in horticulture →Support R&D on climate adaptation measures
<p>D. Infrastructure bottlenecks, particularly connective issues limiting competitiveness</p>	<ul style="list-style-type: none"> - Greater private investment and job creation - Greater FDI and technology transfers - Greater economic diversification - Geographic spillovers and internal mobility - Improved access to services 	<ul style="list-style-type: none"> →Carry out comprehensive public expenditure and public investment management reviews →Develop efficiency and performance criteria for public infrastructure →Develop/adopt fiscal rules and streamline UFRD resource utilization

Key Constraints	Outcomes Sought	Specific Policy Recommendations
		<ul style="list-style-type: none"> → Redirect public investment from SOEs to public infrastructure (National Quality Infrastructure) → Develop road, rail, and communication infrastructure with particular focus on: <ul style="list-style-type: none"> - road and rail rehabilitation (especially regional and rural) - incentivizing truck fleet upgrading - trade logistics infrastructure upgrading
<p>E. Low accountability of public officials affecting the quality of service delivery and inclusive growth</p>	<ul style="list-style-type: none"> - Improved quality of services (to households and firms) - Improved access to services - Improved efficiency of service delivery 	<ul style="list-style-type: none"> → Expand the use of results-based agreements (e.g. performance contracts) for officials and institutions in the public sector → Develop citizen engagement / participation tools, including access to information and citizen feedback, especially for local services
<p>F. Labor market weaknesses characterized by low participation rates and a high level of informal employment</p>	<ul style="list-style-type: none"> - Higher growth - Reduced poverty / vulnerability - More formal employment 	<ul style="list-style-type: none"> → Develop labor market information systems to address discouragement and minimize skills/jobs mismatches → Implement Active Labor Market programs focusing specifically on youth and women → Remove local currency control regime to boost formal participation of the private sector in economic activity
<p>G. Low/inequitable access to quality pre-primary and tertiary education</p>	<ul style="list-style-type: none"> - Improved access to services - Improved jobs outcomes - Higher labor productivity 	<ul style="list-style-type: none"> → Expand access to pre-primary education → Refocus high-school curricula toward non-cognitive skills → Develop tools to consistently monitor / benchmark educational outcomes and system performance → Introduce policy to increase access to tertiary education → Expand mechanisms for citizen engagement in schools
<p>H. Spatial inequities in public service provision and possibly overall low value for money of public spending</p>	<ul style="list-style-type: none"> - Improved access to services - Decreased poverty / vulnerability - Improved quality of services 	<ul style="list-style-type: none"> → Invest in primary health care provision with a focus on detection → Decentralize health care planning, with greater focus on performance-based funding for health services and fiscal sustainability of hospitals → Improve quality of healthcare services via quality assurance and improvement frameworks → Build awareness of standards and outcomes, and establish feedback mechanisms for primary health care facilities

Key Constraints	Outcomes Sought	Specific Policy Recommendations
		<ul style="list-style-type: none"> → Improve the quality, access to and financial sustainability of selected rural hospitals → Provide financial protection to populations vulnerable to high-cost health expenditures → Revise current financing models for drinking water and sanitation services, and strengthen consumer engagement in their delivery.
<p>I. Lack of targeting in social protection programs resulting in large exposure to shocks and inefficient public spending</p>	<ul style="list-style-type: none"> - Decreased poverty /vulnerability - Increased fiscal space 	<ul style="list-style-type: none"> → Streamline procedures for allocating social protection benefits at the community level with clear/targeted eligibility criteria → Address the reasons behind high out-of-pocket expenditures in health (including low public-sector wages)
<p>J. Unsustainable use of natural resources on which livelihoods and key economic sectors depend</p>	<ul style="list-style-type: none"> - Decreased poverty / vulnerability - Higher growth in the long term - Decreased poverty through sustained livelihoods - Improved health 	<ul style="list-style-type: none"> → Bring energy prices gradually in line with long-run costs of production → Invest in energy infrastructure upgrading and maintenance → Introduce volumetric fees for irrigation water supply → Invest in upgrading the water distribution infrastructure, particularly for irrigation → Improve the governance of Water Consumer Associations

Filtering Priorities

5.4 **The purpose of the prioritization process is to identify, among the priorities listed above, those that are most important and likely to drive inclusive and sustainable growth in Uzbekistan.** In order to do so, this SCD adopts a simple “filtering” process using the following criteria:

- Magnitude of expected impacts on twin goals;
- Actual potential for (medium-term) reform, including a suitable reform approach with government;
- Adequateness of balance between short-term and longer-term impacts;
- Extent to which essential preconditions for a productive life are addressed (such as ensuring “basic minimum standard of living for all”);
- Existence of linkages / complementary effects;
- Soundness of the evidence base, both for identifying the problem and for suggesting solutions (including on political feasibility).

5.5 The outcome of this filtering exercise is presented in Table 5.2: According to this filtering, constraints / opportunities that meet at least four of the criteria (shown in red in the table) include the following:

- *Removing market distortions undermining allocative efficiency and competition (Constraint A).* Efforts in these areas would have a large impact in the short run—given the untapped potential for private investment, and productivity gains that would derive from more market-based approaches. They would also have direct and significant impacts on the twin goals via higher aggregate growth, and greater and better labor opportunities for those currently at the lower end of the income distribution. *Examples of needs for additional analysis are: a comparison of sub-sector growth drivers, productivity, and competitiveness analysis; analysis of options to mitigate convertibility challenges and to unify exchange rates; de juris and de facto analysis of SOE vs private-sector regulatory environments; challenges to SME growth; the nature of credit constraints on the private sector; and implications of a worsening external environment on non-performing loans (NPLs).* *Examples of data gaps are firm surveys, without which the extent of government openness to far-reaching reform is difficult to assess.*
- *Removing regulatory barriers to firm operations (Constraint B).* Reforms to this end would likewise have a significant impact in the short run, by increasing the scope for private investment and job creation, while also presenting a greater likelihood of reform, as they would be less likely to affect (and be resisted by) vested interests. A key issue, however, is to what extent the potential for more business-friendly rules and regulations (along with more predictable implementation) to unleash private investment and firm creation would be fully realized in the continued presence of market distortions. *Examples of the need for additional analyses, further to the aforementioned ones on productivity and competitiveness and on the regulatory environment, are business environment and enterprise differences by ownership, subsector, size, and location. Additionally, knowledge of public-sector technical and organizational capabilities for designing reforms and for operating in a less regulated environment has not been assessed.*
- *Promoting a reallocation of land toward more productive uses (Constraint C).* Such a reallocation would have a significant impact on the twin goals in the short term, given the rural nature of poverty in Uzbekistan and the large productivity gains that could be derived, with

- commensurate increases in rural incomes. However, progress on this front would challenge significant vested interests (although significant progress has been made in the policy dialogue around cotton-sector reform and agricultural modernization). *An example of a knowledge gap is simply, and fundamentally, what are the tradeoffs--from a macroeconomic, political economy perspective and social perspective--of mechanizing cotton harvesting, or increasing the share of land used for horticulture. Additionally, better information on higher value-added crops is needed on supply-side linkages and markets for horticultural products, and information on the impacts of climate change on water availability, soil erosion, and crops.*
- *Modernizing infrastructure (Constraint D) is an area where significant gains could be realized. Not only would investments in connective infrastructure support private investment (and job creation) but they would also facilitate the delivery of services and internal labor mobility. The associated efficiency gains would also reduce business costs and reduce the pressure (and reliance) on natural resources. Moreover, given Uzbekistan's sound fiscal position, this is an area where action can be taken without imposing difficult arbitrages. Examples of the need for additional analyses are: the exact bottlenecks posed by infrastructure gaps in specific sectors (in terms of business costs, social costs, etc.), and options for public-private partnership (PPP) vs. public provision. Additionally, there is a need for more information on the economic benefits from increased connectivity and trade; from improved travel time; and from improved infrastructure, which leads to prioritizing areas with largest economic potential.*
 - *Addressing labor market weaknesses (Constraint F) would have a large impact on the twin goals (including preconditions for a productive life), and importantly complement other actions targeting the demand side of employment. Given the emphasis of Uzbek authorities on job creation, and despite sensitivities surrounding the question of labor deployment in cotton harvesting, the potential for reform is also significant. An example of the need for additional analysis in this area is the limited understanding of the reasons for low labor force participation of females and of young men.*
 - *Mitigating spatial inequities in access to social services (Constraint H), especially drinking water and sanitation conditions. This could have a large impact on the twin goals and address preconditions for a productive life, although the effects would be mostly indirect and would materialize over the medium run. The following examples of the need for additional analyses in this area highlight the need for systematic data collection on consumer experiences with social service delivery, service quality, and reliability; and to assess the impact of poor service delivery on vulnerable population groups. This data would allow for the formulation of hypotheses for improving service delivery and reducing the likelihood that social groups are systematically excluded from development. Additionally, information on the economic benefits of prevention is needed—by disease, as well as information on service quality and reliability in hospitals (e.g. wait times, length of stay, costs); assessment of standardization among hospitals; assessment of any feedback mechanisms to improve service quality; tariff assessment for drinking water and sanitation services; development of new financial models for operation and maintenance (O&M) cost recovery; and inclusion of Water Consumer Associations and other key stakeholders.*
 - *Promoting sustainable use and management of natural resources (Constraint J), is essential for achieving the twin goals (both inclusive growth and poverty reduction), and more importantly for sustaining them over the long run, with significant complementarities and reform potential. Examples of the need for additional analysis are the following: While we expect that allocative and technical efficiency gains are possible in water, energy, and land management in the short run, and that they ensure the longer-term possibility of sharing these*

intergenerational benefits, additional work is needed to design and implement these changes in the Uzbek context. Additionally, energy tariff assessment and financial assessment with a view of O&M cost recovery; assessment and prioritization of key energy infrastructure necessary to meet current and future demand; assessment and prioritization of major losses; assessment of current water allocation needs, and economic value of output; prioritization based on the highest value-added; assessment of key water infrastructure necessary to meet current and future demand based on the allocative efficiency assessment above; and information on the responsibilities of WCAs and capacity and training-needs assessment.

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

- *Making public administration more transparent and accountable* would complement efforts in virtually all other areas (from the business environment to service delivery), although the impact on the twin goals would probably materialize in the medium term and in diffuse fashion.
- *Widening access to pre-primary and tertiary education (as well as quality issues overall)* would help stimulate the supply side of employment with strong complementarities although the effect, by nature of the intervention, would probably materialize over the longer run.
- *Ensuring access to quality health care*, thus improving health outcomes of the population, will increase labor participation, supply, productivity, economic prosperity, and growth.
- *Addressing inefficiencies in social protection programs* could have a large impact on the twin goals (particularly poverty eradication); materialize in the short run; and help meet the basic preconditions for all to lead productive lives. However, the extent to which a solid evidence base exists to build an engagement with the authorities is unclear.

Table 5.2: Setting Priorities: Assessing the Impacts of Reforms and Alleviating Constraints

Filter >> Constraint	Impact on twin goals			Reform potential			Time horizon of impacts			Precondition?		Completeness			Evidence base		
	Small	Medium	Large	Low	Medium	High	Short	Medium	Long	Yes	No	Weak	Medium	Strong	Weak	Medium	Strong
A: Market distortions for allocative efficiency and competition			X	X			X				X			X			X
B: Regulatory barriers to firm operations that are impeding small firm size growth and formalization			X			X	X				X		X				X
C: Sub-optimal allocation of land hampering faster growth of agricultural productivity and rural incomes			X		X		X			X			X				X
D: Infrastructure bottlenecks, particularly connective issues limiting competitiveness			X			X		X			X			X			X
E: Low accountability of administration affecting the quality of service delivery and inclusive growth	X				X			X			X			X		X	
F: Labor market weaknesses characterized by low participation rates, a high level of informal employment, and mandated deployment (cotton)			X			X		X		X				X		X	
G: Low/inequitable access to quality pre-primary and tertiary education	X				X				X	X				X			X
H: Spatial inequities in public service provision, especially drinking water and sanitation services, and possibly overall low value for money of public spending			X			X		X		X			X			X	
I: Lack of targeting in social protection programs resulting in large exposure to shocks and inefficient public spending			X		X		X			X			X			X	
J: Unsustainable use of natural resources on which livelihoods and key economic sectors depend			X			X			X	X				X			X

Source: World Bank. 2014. "Systematic Country Diagnostics: An Overview of Current Thinking". Washington, DC: Mimeo.

5.7 **The outcome of the filtering exercise should be taken as indicative, as a tool to support further strategic discussions, and be updated in light of new evidence.** Applying a different set of criteria and/or different thresholds would result in a reordering of priorities. Moreover, knowledge gaps—resulting from absent data and/or analysis—are also significant. Therefore, addressing such knowledge gaps, including on political economy drivers of reform, should be seen as an overarching, cross-cutting priority.

Addressing the need for additional data and analysis

5.8 **While there is a significant amount of analytical work for Uzbekistan (see Appendix 1), some important analytical needs were identified during the preparation of this SCD.** The SCD report relies on a large number of analytical pieces and strategy papers already produced by the World Bank, by the Uzbek government; think tanks (the Center for Economic Research and the Institute for Forecasting and Macroeconomic Research); and other development partners like the United Nations Development Programme (UNDP) and the IMF. This information is used to better understand the mechanisms behind recent poverty and shared prosperity trends, as well as ways to boost shared prosperity in a sustainable way. Nevertheless, the following analytical needs were identified:

- *B40 and poverty.* Despite the richness of the CALISS data, a lack of time-series and household-level data hindered any analysis of the dynamics of poverty; these dynamics are not well understood. In addition, the linkage between natural resource degradation and poverty is not well established by empirical evidence.
- *Macro aggregates.* There is a need to understand the quality and coverage of the macro aggregates as well as how wages and productivity work at the sector level. In addition, there is a need to know how labor markets work in light of the (binding) constraint on labor mobility. At present, the Bank does not have access to sectoral wages, investment, value added, SOE value-added, etc.
- *SOEs.* How (in)efficient are SOEs? How profitable are SOEs?
- *Governance and political economy.* The team does not possess any analysis that sheds light on the management of SOEs or relationships among political stakeholders in major sectors of the economy. There is still very little analysis of public-sector performance.
- *Agriculture.* Since this is a sector where it is suspected that many of the poor are, it would be important to understand the political-economy effects of reform in this sector. Cotton is a known foreign exchange earner, and wheat plays an important role in food security. If Uzbekistan were to diversify out of these crops, what would be the implications of this for the economy, households, and the government?
- *Social inclusion and citizen voice.* There is a lack of systematic data collection on consumer experiences with social service delivery, the impact of poor service delivery on vulnerable population groups, and how this might lead to their systematic social exclusion from development. In addition, there is a need for more information on how citizens can stimulate change by voicing concerns, and which citizens are marginalized from efforts to improve accountability and responsiveness.
- *Fragility.* There is a need for more information on stressors for conflict and religious extremism, how this differs across different parts of the country, and what is driving these stressors.

- *Climate change impacts and linkages.* What are the main impacts and risks related to water resources (in terms of changing runoff due to precipitation and melt-off), agriculture, and temperature? There would be value in knowing these impacts (at finer subsectoral, geographical resolution, and with shorter timescales, perhaps using transition scenarios) on key sectors, with similar analyses for detailed sectoral adaptation recommendations. For example, there would be value in preparing more elaborate suitability maps for forest species. In the agricultural sector, considering the recommendation of switching from cotton to other crops, there would be value in similar suitability analyses, with an overlay focused on food security and export/income considerations.
- *Urbanization, cities, and integration.* More information is needed on the quality of housing stock and other public services in most cities, as different surveys appear to have somewhat conflicting trends. Also, better understanding of what economic opportunities lie in medium-sized cities would support improved regional planning. Since urban infrastructure is in poor condition, it is also more vulnerable to the impacts of climate change. How should cities develop and be integrated to achieve greater economic output and efficiency, and to address the issues surrounding the impact of climate change (e.g. on water and energy consumption)? These are some of the underlying principles of sustainable cities.

The Way Forward

5.9 This SCD has suggested that Uzbekistan needs to focus its economic and social policies to create more good jobs in the medium term, and that these jobs should be based on higher labor productivity and should contribute to the economic, social, and environmental sustainability of the economy. The report documents that Uzbekistan has created a fair number of jobs over the past 15 years. In fact, the number of jobs created were enough for labor income and small business profits to drive poverty reduction and progress in shared prosperity. This is quite an achievement. However, the report also shows that many in Uzbekistan that work do so informally, that according to CALISS informal employment comprises more than half the labor force, and that the earnings of informal workers are typically lower than the earnings of formal workers. The report also shows the need for further research to understand the reasons behind the relatively lower labor participation rate of women and younger men in the labor force. The rationale of arguing for more and higher-paying jobs is that Uzbekistan needs to create good jobs that pay enough to attract people who are not currently employed, either in Uzbekistan or outside.

5.10 Where will more good jobs come from? Clearly increasing the total amount of investment in the economy is a viable option for Uzbekistan, as the country is saving more than it is investing. New investment could go to new enterprises in new sectors, or it can go to existing enterprises as they invest in adjacent sectors or in new technologies in their quest to become more efficient in what they are already doing. Enterprises can also become more efficient as they modernize processes or engage in cost-cutting exercises. All these activities aim to increase efficiency in the use of resources (be that capital or labor), and to raise productivity. In the medium and longer term, of course, building up the quality of human capital also increases labor productivity.

5.11 The report builds a case for greater efficiency on the basis of the limited available evidence, and observations about global development experience. It is important to recall the evidence that appears throughout the report:

- Analysis of total factor productivity (TFP) has suggested that the TFP of Uzbekistan's economy is low. One interpretation of this finding is that enterprises are not cutting costs, or are not

jumping to new subsectors, either because the cost of doing so is too large or because they feel no pressure on their bottom line.

- Analysis of the stages of development, according to an approach developed by the World Economic Forum (WEF), suggests that Uzbekistan may be transitioning from a factor-based approach to development (having relied on the introduction of labor and capital in the economy to generate growth) to an efficiency-based approach to development, which requires greater reliance on markets to bring discipline to investment decisions and to allocate resources.
- Where feasible, benchmarking exercises (in energy use, water, and efficiency) have shown that Uzbekistan has room to catch up with comparators in the use of energy, and efficiency of basic services.
- Policy makers in many countries are keen to emulate the Chinese approach to development, and cite the presence of state support for productive sectors as an important feature of that model. However, a more appropriate interpretation of China's approach to development is to view it as sequenced steps of experiments in the introduction of markets, and a gradual liberalization of the economy. Each step and each opportunity provides an opportunity for learning, and for course correction.

5.12 Uzbekistan's approach to industrialization with state support is part of a strategy of capital accumulation and growth; further research is needed to understand the efficiency and competitiveness of the industries that have been developed, and the sustainability of the jobs that have been created in light of the need to reduce state support and to access global markets. Yet even with limited evidence, the SCD has argued that Uzbekistan needs to gradually liberalize its economy in order to allow markets to support efficient decisions on the part of investors (public or private).⁶⁷ Why? There are two complementary reasons. First, because to date, the overwhelming share of investment in the economy is done by state-owned enterprises, and evidence of their competitiveness needs to be developed. Second, given this lack of evidence, and given that a host of new investment is warranted to maintain economic growth and create higher-productivity jobs, it seems more prudent to envision new investment to come from the private sector. Yet, in order to obtain a significant increase in private investment, some fundamental preconditions regarding the ability of markets to function, of prices to be determined freely, and of returns to investment to be accrued to investors need to be met.

5.13 The challenge then for Uzbekistan is how to gradually liberalize its economy over the medium term, and how to do so while lessening the impact on the poor and bottom 40 percent of households. These questions are fundamental but are beyond the scope of this report. Several factors will need to be considered. One is how to bring efficiencies to state-owned enterprises. Selective privatization, stronger governance, and hard budget constraints are options. Yet prices will need to be adjusted, and this will affect the welfare of households as well as the profitability of many sectors of the economy. Job losses will also affect households directly. Addressing the issue of the foreign exchange regime and restrictions will also be a critical step to attract more domestic and foreign investment. But the impact can be inflationary, though this may be a one-time adjustment to a new equilibrium. To benefit from liberalizing the foreign exchange

⁶⁷ Lack of comparable data at the sub-sector level has prevented a detailed analysis of how the industrial, agricultural, and service subsectors have benefitted from public and private investment, and an analysis of how competitive the sectors are and how productive labor is, as well as an analysis of the performance of state/private sector or large / SME differentiations. Having access to such data would have allowed for further analysis of how particular subsectors of Uzbekistan's economy have raised their productivity.

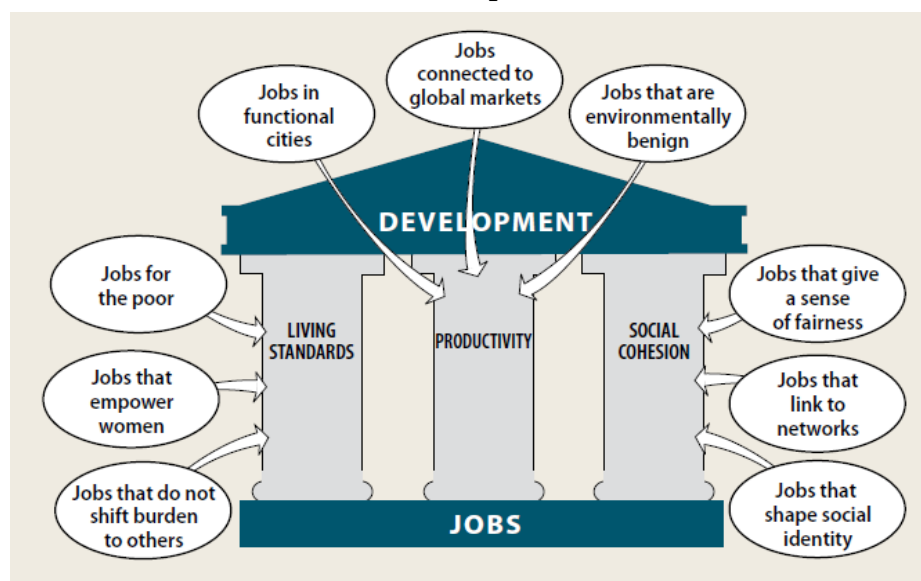
regime, the economy, especially SMEs, will need to be able to respond, and to benefit from an improving domestic business environment. Economic literature suggests that liberalization of the external current account can be done before liberalization of the capital account. Uzbekistan may wish to explore this option as a first step. Uzbekistan will need to take a gradualist approach, and to experiment in introducing the economy to markets.

5.14 Market economies do rely heavily on institutions to maintain competition, to provide access to participants, and to ensure that markets work for the wellbeing of society. Market failures are also abundant, and policy makers often play an active role in correcting them. But beyond the need for institutions to evolve to support markets, tables 5.1 and 5.2 point to the need for policy changes that can bring greater efficiency to the economy, more voice and greater accountability, greater poverty reduction, and improved well-being of the bottom 40 percent of households. The gradual improvement in institutional quality is critical, and is a natural evolution for Uzbekistan. This SCD has sought to point out that, in the Bank's view, this evolution should allow markets to function in Uzbekistan in order to make as much progress in the next 15 years as it has in the past 15 years.

Appendix A: The Notion of a Good Job

The notion of a “good” job is set out in the *2013 World Development Report on Jobs*.⁶⁸ According to the report, good jobs are those that provide positive spillovers to society, beyond the benefits they accrue to the individual job-holder. Good jobs are considered to be transformational as they improve living standards, raise productivity, and/or strengthen social cohesion. All these types of jobs contribute to development by more than the returns to the individual. The figure below illustrates a framework of transformational jobs. Given discussion in this SCD about the need for a greater role for the private sector in Uzbekistan and the need for greater emphasis on the diversification of exports, an example of a “good” or transformational job for Uzbekistan is a job in a private enterprise that exports.

Figure A1.1: Some Jobs Do More for Development



Source: World Bank Calculations.

The report also points out that good jobs are not necessarily the same for all types of economies. For example, in countries with agrarian sectors, good jobs will include those that increase agricultural productivity. In countries that are urbanizing, job opportunities for women are also important, as these can have a positive impact on the household allocation of resources. In these countries, jobs that deepen global integration, especially in higher value-added exports, are also good for development. Good jobs will be different for countries with natural endowments—in these countries, jobs that support export diversification can have a strong payoff for development. Table A1.1 (next page) provides examples of good jobs and of jobs that have negative spillovers, and that, all else being equal, are less desirable from a development perspective.

⁶⁸ This appendix is based on the overview section of the World Bank. 2013. “World Development Report on Jobs 2013.” Washington, DC: World Bank, and especially on the parts that draw on Chapters 1 and 6 of the report.

Table A1.1: Examples of Good Jobs of Relevance to Uzbekistan

Jobs challenge	What are good jobs for development?
Agrarian economies	More productive smallholder farming Urban jobs connected to global markets
Urbanizing countries	Jobs providing opportunities for women Jobs moving the country up the export ladder Jobs not leading to excessive congestion Jobs integrating rural migrants
Resource-rich countries	Jobs supporting export diversification Jobs not subsidized through transfers
Small island nations	Jobs connected to global markets Jobs not undermining fragile ecosystems
Countries with high youth unemployment	Jobs not supported through rents Jobs not allocated on the basis of connections
Formalizing countries	Jobs with affordable social benefits Jobs not creating gaps in social protection coverage

Source: Adapted from World Bank 2014. "World Development Report 2014.", fig. 14, p. 20.

Appendix B: List of References

- Aldaya, M. M., G. Munoz, and A. Y. Hoekstra. 2010. "Water Footprint of Cotton, Wheat and Rice Production in Central Asia." Value of Water Research Report Series no. 41. Delft, Netherlands: UNESCO-IHE.
- Ajwad, M., Abdulloev, I., Audy, R., Hut, S., de Laat, J., Kheyfets, I., Larrison, J., Nikoloski, Z., and Torracchi, f. 2014. "The Skills Road: Skills for Employability in Uzbekistan." World Bank. Washington, DC
- Arias, O. S., C. Sánchez-Páramo, M. E. Dávalos, I. Santos, E. R. Tiongson, C. Gruen, N. de Andrade Falcão, G. Saoivici, and C. A. Cancho. 2014. "Back to Work: Growing with Jobs in Europe and Central Asia." Washington, DC: World Bank.
- Asian Development Bank. 2014. Uzbekistan Country Gender Assessment, Gender and Development, Central and West Asia. Manila: Asian Development Bank, based on information from the State Committee of the Republic of Uzbekistan on Statistics.
- Booth, D., L. Hanmer, and E. Lovell. 2000. "Poverty and Transport. A report prepared for the World Bank in collaboration with DFID." Overseas Development Institute. London. United Kingdom.
- Botman, E., 2012. "Forest Rehabilitation In The Republic Of Uzbekistan." International Union of Forest Research Organizations. www.Iufro.Org/Download/File/7408/5123/Uzekistan_Pdf/. Accessed 11 May 2016.
- Centre of Economic Research. 2009. "Improving the State Investment Policy in Uzbekistan: Mechanisms to Ensure Sustainable Development of the Real Sector." Tashkent: Center for Economic Research.
- Center of Economic Research. 2013. "Urbanization in Central Asia: Challenges, Issues and Prospects." Tashkent: Center for Economic Research.
- Childress, M. 2013. "Land Resources: Reforming Information Systems and Institutions for Growth and Governance." Washington, DC: World Bank.
- Childress, M., and A.Y. Hoekstra. 2010. "The Green, Blue and Grey Water Footprint of Crops and Derived Crop Products," vol. 1, main report, Value of Water Research Report Series no. 47. Delft, Netherlands: UNESCO-IHE.
- Dercon, S., J. Hoddinott, Gilligan, D., and T. Woldehanna. 2008. "The impact of agricultural extension and roads on poverty and consumption growth in fifteen Ethiopian villages." IFPRI Discussion Paper 00840. December 2008. Washington, DC: IFPRI
- De Jong, I., Debroux, L. 2013. "Irrigation and Water Resources." Washington, DC: World Bank. Mimeo.
- Enerdata. 2010. "Energy Intensity of GDP at Constant Purchasing Power Parities." Global Statistical Energy Review 2010. <http://www.enerdata.net/enerdatauk/press-and-publication/publications/world-energy-statistics-supply-and-demand.php>

- European Bank for Reconstruction and Development. 2006 and 2010. “Life in Transition Survey.” London: European Bank for Reconstruction and Development.
- Food and Agriculture Organization, AQUASTAT website, Retrieved December 17, 2015 from: <http://www.fao.org/nr/water/aquastat/main/index.stm>
- International Monetary Fund. 2008. Article IV Consultation—Staff Report No. 08/235. Washington, DC: IMF.
- International Monetary Fund. 2013. “Republic of Uzbekistan 2012 Article IV Consultation.” IMF Country Report no. 13/278. Washington, DC: IMF.
- International Monetary Fund. 2015. “Executive Board Concludes 2015 Article IV Consultation with Uzbekistan.” Press Release No. 15/414.” Washington, DC: IMF.
- Jacoby, H.G. and B. Minten. 2009. “On Measuring the Benefits of Lower Transport Costs.” *Journal of Development Economics* 89: 28-38.
- Jensen, R. 2010. “The (Perceived) Returns to Education and the Demand for Schooling.” *Quarterly Journal of Economics* 125 (2): 515–48.
- Kaas, L. and C. Manger. 2010. “Ethnic Discrimination in Germany’s Labor Market: A Field Experiment.” IZA Discussion Paper 4741. Institute for the Study of Labor, Bonn, Germany.
- Khandker, S., Z. Bakht, and G. Koolwal. 2006. “The Poverty Impact of Rural Roads: Evidence from Bangladesh.” World Bank Policy Research Working Paper 3875. Washington, DC: World Bank.
- Mu, R. and D. van de Walle. 2007. “Rural roads and poor area development in Vietnam,” Policy Research Working Paper 4340. Washington, DC: World Bank.
- Rastogi, C., Gwilliam, K., Olievski, V., Butler, M., Aliyev, S. 2013. “Modernizing the Transport Sector: A Backbone to Economic Growth and Trade Competitiveness.” Washington, DC: World Bank.
- Rastogi, C., Gwilliam, K., Olievski, V., Butler, Buré, J., Aliyev, S. 2013. “Uzbekistan at a Crossroads: Towards Sustainability in the Transport Sector.” Washington, DC: World Bank.
- United Nations. 2014. “UN Common Country Assessment.” Tashkent: United National Common System in Uzbekistan.
- United Nations E-Government Survey 2012: E-Government for the People United Nations Department of Economic and Social Affairs (UNDESA). 2012.
- United Nations Framework Convention on Climate Change. 2008. “Second National Communication of the Republic of Uzbekistan to the UNFCCC” New York: United Nations Framework Convention on Climate Change.
- Valerio, A., M. L. Sanchez Puerta, G. Pierre, T. Rajadel, and S. Monroy Taborda. 2014. “STEP Skills Measurement: Snapshot 2014.” Washington, DC: World Bank

- Webb, R. 2013. “Conexión y despegue rural”. Lima, PE, Instituto del Perú, Universidad San Martín de Porres.
- World Bank. Worldwide Governance Indicators.
<http://info.worldbank.org/governance/wgi/index.aspx#home>
- World Bank. 2012. “Where is the Wealth of Nations?” Washington, DC: World Bank.
- World Bank. 2013. “Uzbekistan Energy/Power Sector Issues Note.” Report No. ACS4146. Washington, DC: World Bank.
- World Bank and GIZ. 2013. Uzbekistan Jobs, Skills and Migration Survey, 2013, presented in The Skills Road: “Skills for Employability in Uzbekistan.” Washington, DC: World Bank.
- World Bank. 2013. “World Development Report on Jobs 2013.” Washington, DC: World Bank.
- World Bank. 2013. “Uzbekistan Improving Early Childhood Care and Education.” Washington, DC: World Bank.
- World Bank. 2014. “Systematic Country Diagnostics: An Overview of Current Thinking.” Washington, DC: Mimeo.
- World Bank. 2014. “Diversified Development.” Washington, DC: World Bank.
- World Bank. 2014. “World Development Indicators.” Washington, DC: World Bank.
- World Bank. 2014. “Uzbekistan Modernizing Tertiary Education.” Washington, DC: World Bank.
- World Bank. 2015. “Uzbekistan: Strengthening the Horticulture Value Chain.” Washington, DC: World Bank.
- World Bank. 2015. “Social Impact Analysis of Water Supply and Sanitation Services in Central Asia: The Case of Uzbekistan.” Washington, DC: World Bank.
- World Bank. 2016. Doing Business 2016. Washington, DC: World Bank.
- World Bank. 2016. World Bank Migration Factbook. Washington, DC: World Bank.

Appendix C: Selected Indicators for Uzbekistan and Various Income Groups

Indicator	Low income	Middle income	Lower-middle income	Upper-middle income	High income	Uzbekistan
Economic						
GNI per capita, Atlas method (current US\$)	628.6	4,666.3	2,011.9	7,901.3	38,274.3	2,090
GDP growth (annual %)	6.3	4.8	5.7	4.6	1.7	8.0
Inflation, consumer prices (annual %)	4.3	3.5	5.1	3.0	1.0	6.7
Exports of Goods and Services (% of GDP)	24.3	27.2	25.7	27.7	30.2*	24
Foreign direct investment, net inflows (% of GDP)	4.4	2.6	2.1	2.8	1.7	2.0
Gross domestic savings (% of GDP)	10.1	30.4	23.2	32.8	20.9*	25
Gross fixed capital formation (% of GDP)	25.1	29.4	25.1	30.9	20.2*	24
Structural						
Agriculture VA in GDP	31.8	9.8	16.8	7.3	1.6*	17
Population ages 0-14 (% of total)	42.8	26.6	31.3	20.9	17.3	28.9
Population ages 15-64 (% of total)	53.8	66.8	63.5	70.8	66.6	66.8
Population ages 65 and above (% of total)	3.4	6.6	5.2	8.3	16.0	4.3
Population growth (annual %)	2.7	1.2	1.5	0.8	0.6	1.5
Urban population (% of total)	29.8	49.0	38.5	61.8	80.7	51
Social and environmental						
Mortality rate, infant (per 1,000 live births)	53.1	31.2	40.0	15.2	5.8	34.4
Life expectancy at birth, total (years)	60.8	70.3	67.0	74.3	79.1	68.0
School enrollment, primary (% net)	79.9	89.7	87.2	94.1	95.5	89.8
Fertility rate, total (births per woman)	4.9	2.4	2.9	1.9	1.7	2.5
CO2 emissions (kg per 2005 US\$ of GDP)	0.7	1.4	1.4	1.4	0.4	4.9
Infrastructure and logistics						
Telephone lines (per 100 people)	0.9	10.2	4.9	17.6	39.9	6.9
Railways, goods transported (million ton-km)	...	2,695.0	...	5,641.5	9,597.0	22,482
Logistics performance index: Overall (1=low to 5=high)	2.4	2.7	2.6	2.8	3.5	2.5
Fixed broadband Internet subscribers (per 100 people)	0.2	4.3	2.4	11.7*	28.0	0.5

Source: World Development Indicators (update as of 12/22/2015).

Notes: Indicators of year 2014, unless otherwise noted: * 2013; ** 2011; *** 2015.