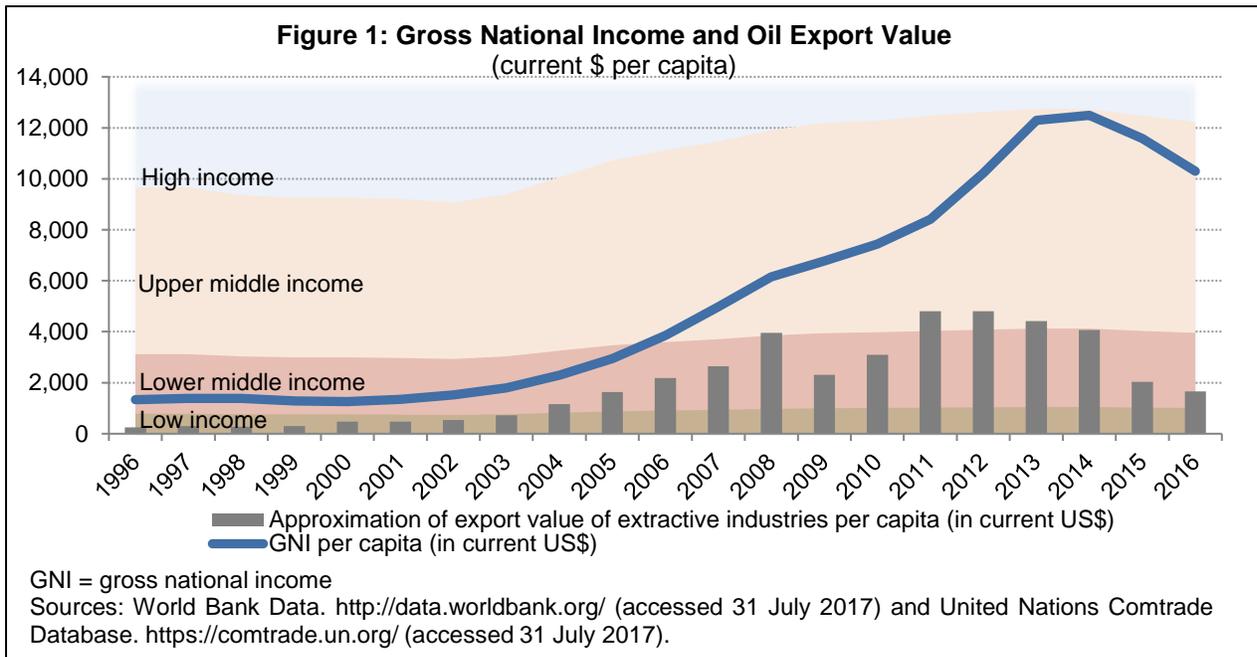


INCLUSIVE AND SUSTAINABLE GROWTH ASSESSMENT

A. Kazakhstan’s Main Challenges to Achieve Inclusive and Sustainable Economic Growth

1. Growth, Inequality, and Environmental Dynamics

1. Kazakhstan became an independent country in 1991 and faced considerable economic challenges throughout the 1990s. It then surged to become an upper middle-income country (UMIC) in 2006—fueled by windfall revenues from oil and other commodity exports—and became an economic power in Central Asia (Figure 1). Kazakhstan’s economy still depends on revenues from extractive industries. Agriculture and manufacturing output have declined as a share of gross domestic product (GDP) and employment, while new jobs were mostly created in services.



2. Quality of life has improved significantly since 1996, with rising incomes and decreasing unemployment rates (Table 1). The Human Development Index ranks Kazakhstan one of the highest in the region, at 56 in 2015—up 14 ranks from 2014. During the 2000–2009, poverty declined and rapid economic growth contributed to reducing the share of the population living below the poverty line from 41% in 2001 to 4% in 2009,¹ with the Gini coefficient improving from 0.36 in 2001 to 0.29 in 2010.² Even using a \$5 poverty line, i.e., by extending the definition to people vulnerable to poverty, the reduction remains significant, from about 80% in 2000 to less than 43% in 2009.³

3. Income inequality, as reported, largely remained at low levels; and transfers and subsidized public services in rural areas ensured good access to basic services, on average. However, inequality remains among sectors, between self-employed and salaried workers, and,

¹ Purchasing power parity adjusted \$2.5 per capita per day.

² World Bank. World Bank Open Data. <http://data.worldbank.org/> (accessed 31 July 2017).

³ I.S. Gill et al. 2014. *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC: World Bank; World Bank. 2013. *Beyond Oil: Kazakhstan's Path to Greater Prosperity through Diversifying*. Washington, DC.

especially, across regions. For example, monthly earnings in agriculture, where most of the self-employed are concentrated,⁴ were almost half the national average in 2016. Wages in extractive industries, with mostly male employees, are about triple the average wages in education and health care, which have predominately female workers. A large but decreasing share of self-employed—from 29.5% in 2014 to 22.4% in 2015 and 13.6% in 2016—is considered unproductively employed and earns less than the subsistence minimum. The subsistence minimum is low, at T21,612 per month in 2016 (\$63.2 per month or \$2.1 per day).⁵ The average monthly wage in 2016 also varied greatly across regions, from 6.2 times the subsistence level in Atyrau to only 2.2 times in South Kazakhstan. Kazakh citizens living below the minimum living standard are entitled to social transfers. Generally, 62% of households whose head is not part of the labor force receive some form of social assistance.⁶

Table 1: Selected Indicators on Incomes and Employment (%)

Category	1998	2005	2010	2015
Rural population	43.7	42.9	45.4	43.0
Unemployment rate	13.1	8.1	5.8	5.0
Index of real wages (1994 = 100)	116.1	237.3	334.0	395.5
Poverty rate	39.0	31.6	6.5	2.7

Source: Government of Kazakhstan, Ministry of National Economy, Committee on Statistics.

4. Kazakhstan struggles to balance regional disparities in the quality of road, energy, social, water, and sanitation infrastructure between a few economic centers and a vast periphery because of its large territory and the Soviet inheritance of single industry cities. Recent studies suggest that the quality and effectiveness of basic services lag other countries with comparable income levels (footnote 6). Although Kazakhstan has a higher level of urbanization than other Central Asian countries, only 57.0% of the population live in the 59 cities, oblast centers, and other urban settlements. The share of urban residents has remained virtually unchanged since 1993.

5. Kazakhstan has recorded low unemployment levels, below 5% since 2011.⁷ This excludes 28.9% of the working age population who are categorized as economically inactive, however, and includes 27.0% of self-employed persons who are often underemployed. Kazakhstan has the highest female labor force participation rate in Central Asia, but the gender wage gap continues to be a concern, with women earning only 68.1% of men's earnings.⁸ Women in Kazakhstan also face discrimination obtaining work in the same industries as men, and no laws protect women from sexual harassment in the workplace.⁹ In the political sphere, a huge gender gap exists. While most civil servants are women, they held only 27% of the seats in Parliament and 13% of ministerial posts in 2015. Although youth unemployment is officially low (3.5%), the share of youth who are not in education, employment, or training (NEET)¹⁰ is much higher, at 10.0% in the fourth quarter of 2016.

⁴ In 2015, the agriculture sector represented 47.0% of total self-employed workers in Kazakhstan. In the same year, 70.4% of people employed in agriculture were self-employed. The strong link between self-employment and informal employment in agriculture makes it a mainly rural phenomenon. Almost half of the self-employed are concentrated in the southern regions of the country: South Kazakhstan, Zhambyl, and Almaty region are home to 48% of the self-employed.

⁵ Exchange rate of T342.16 = \$1 (2016 average): National Bank of Kazakhstan; Subsistence minimum 2016: Government of Kazakhstan, Ministry of National Economy, Committee on Statistics.

⁶ Organisation for Economic Co-operation and Development (OECD). 2016. *Multi-dimensional Review of Kazakhstan: Volume 1. Initial Assessment*. Paris.

⁷ International Labour Organization. <http://www.ilo.org>. (accessed 31 July 2017).

⁸ Government of Kazakhstan, Ministry of National Economy, Committee on Statistics.

⁹ World Bank. 2016. *Women, Business and the Law 2016: Getting to Equal*. Washington, DC.

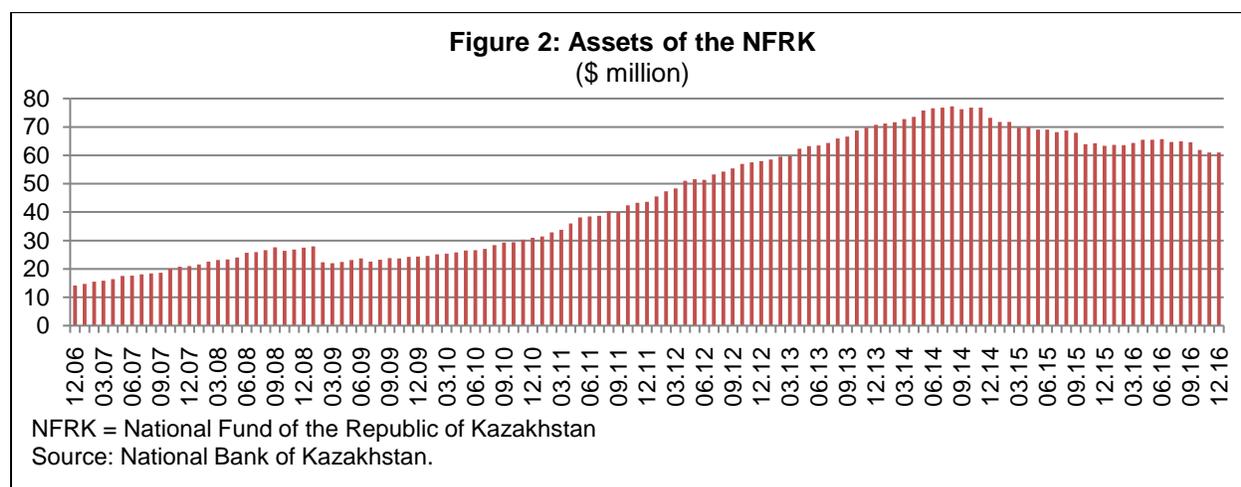
¹⁰ The NEET rate also considers youth being idle (not looking for a job or being registered). Government of Kazakhstan, Ministry of National Economy, Committee on Statistics.

6. Kazakhstan achieved most of the original and additional targets of the Millennium Development Goals, such as poverty reduction, access to primary education, promotion of gender equality, and improvement in children’s and maternal welfare before 2015.¹¹ Millennium Development Goal 7—ensure environmental sustainability—was only partially achieved.

7. Pollution increasingly limits the quality of life in Kazakhstan, especially in the cities. The main sources of air pollution in Kazakhstan are both stationary (e.g., the inefficient thermal energy sector, non-ferrous metallurgy, and oil and gas industry) and mobile (e.g., motor transport, especially in Almaty, in the absence of comprehensive public transport).¹² Another growing problem is solid waste, since about 97% of waste is dumped in landfills without processing.¹³ Per capita annual greenhouse gas emissions in Kazakhstan are significantly higher than its neighbors and countries of comparable GDP levels.¹⁴ The total power generation structure of Kazakhstan includes 69% power generated from coal-fired plants, 19% from gas, 2% from oil, 9% from hydropower plants, and less than 1% from renewables. Kazakhstan’s energy intensity is ranked 6th globally.¹⁵

2. Transition to a Diversified Economy

8. While growth led to a reduction in poverty and rising income levels, a series of economic shocks—the global financial crisis in 2008, the oil price drop in 2014, and the economic slowdown in major trading partners—revealed structural vulnerabilities in the economy. The achieved levels of economic development and inclusion are at risk. Kazakhstan established the National Fund of the Republic of Kazakhstan (NFRK) in 2001 to distribute oil rents across generations and smoothen macroeconomic shocks, but it has been used increasingly for the latter through loans and bond purchases of state-owned enterprises (SOEs) since 2014 (Figure 2).¹⁶



¹¹ United Nations. 2010. *2010 Millennium Development Goals in Kazakhstan*. Astana.

¹² United Nations Environment Programme. 2013. *Vehicle emissions, fuel quality standards and fuel economy policies in Kazakhstan: Stocktaking analytical report*. Nairobi.

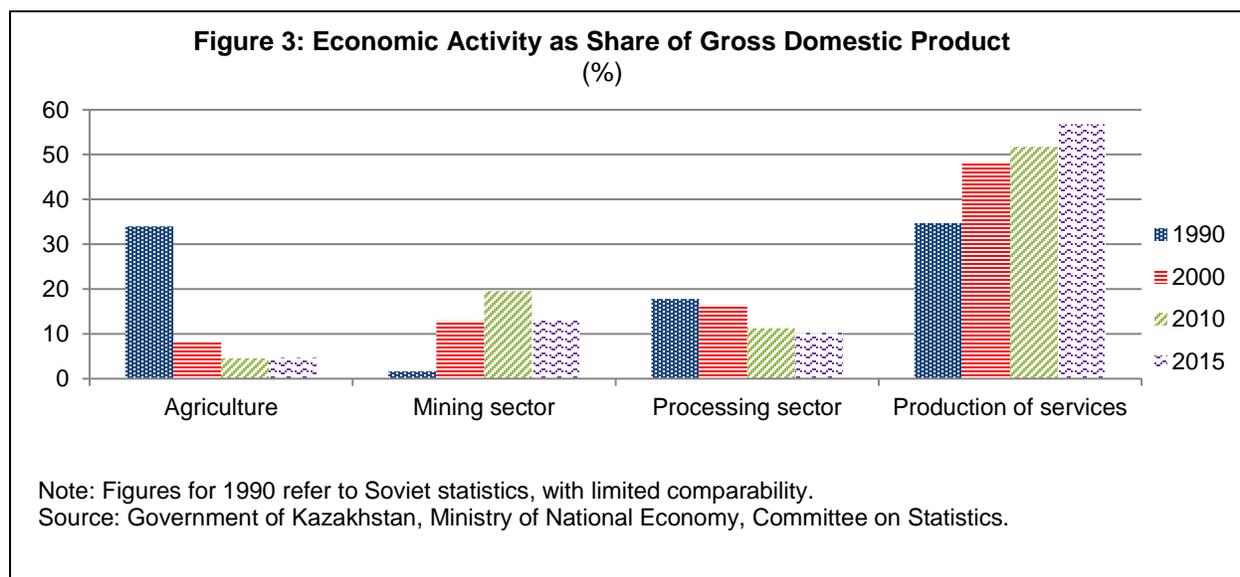
¹³ Government of Kazakhstan. 2014. *Program of Modernization of Management System of Municipal Solid Waste for 2014–2050*. Astana.

¹⁴ European Commission. Joint Research Centre and Netherlands Environmental Assessment Agency. Emission Database for Global Atmospheric Research. edgar.jrc.ec.europa.eu (accessed 31 July 2017).

¹⁵ Enerdata. 2017. *Global Energy Statistical Yearbook 2017*. Grenoble. The data are based on constant purchasing power parities, with Kazakhstan consuming 0.209 kilogram oil equivalent per \$ in 2005 prices.

¹⁶ The share of revenues being transferred from the National Fund of the Republic of Kazakhstan (NFRK) to the government budget reached 40% of total revenues in 2015, which led to a net drawdown of the NFRK.

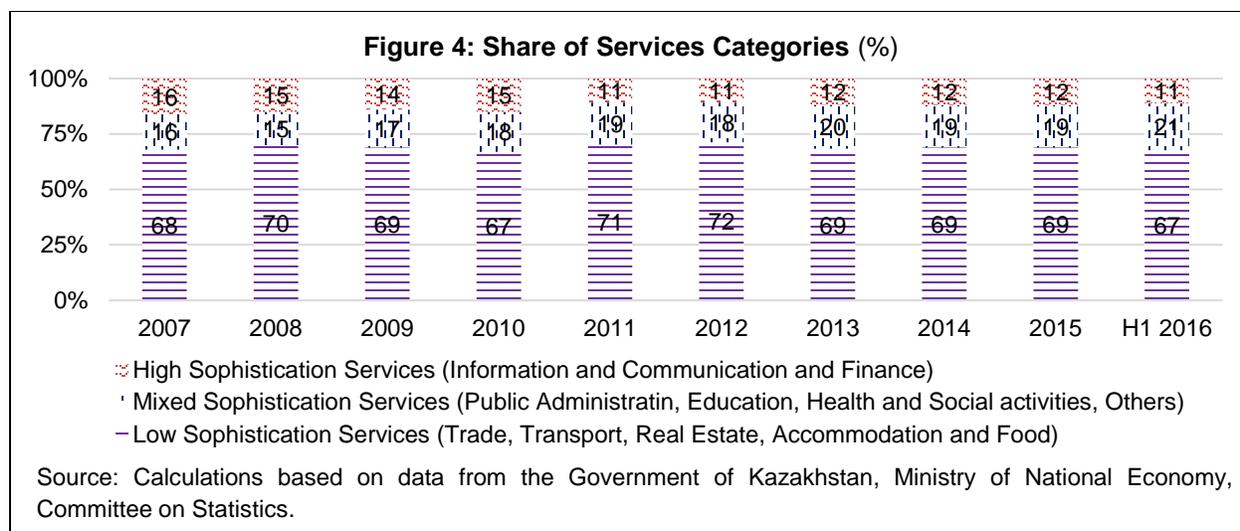
9. Structural transformation in Kazakhstan occurred with the shift from agriculture (34.0% of GDP in 1990 to 4.7% in 2015) to services (34.7% of GDP in 1990 to 56.8% in 2015). The share of industry only increased from 20.5% to 25.5% during the same period, however, with a shift from manufacturing toward mining (Figure 3). Manufacturing has not yet been able to drive productivity and employment growth, which is a precondition for diversifying domestic value addition and exports away from commodities. Nevertheless, some industries showed strong growth, e.g., paper production, vehicles, and transportation equipment.¹⁷



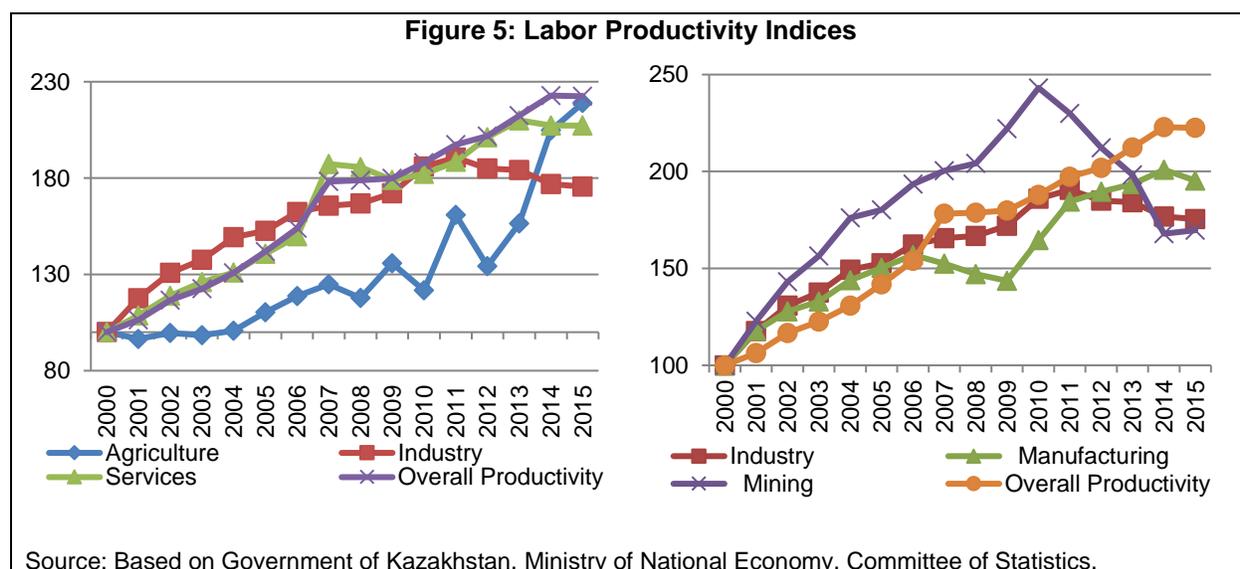
10. Efforts to diversify the economy away from commodities have helped to reduce the share of extractive industries in GDP from 19.5% in 2010 to 12.7% in 2015.¹⁸ If directly related services are added, however, extractive industries amount to about 30% of GDP—almost half of budget revenues and more than two-thirds of exports (footnote 6). Similarly, diversification of services toward highly sophisticated services with export potential has not occurred on a significant scale. Services with low sophistication still dominate, with a share of two-thirds of services in GDP, but modern services are catching up. Figure 4 distinguishes between services with low sophistication (trade, transport, and storage) and highly sophisticated services such as financial and communication services, which are often tradable services.

¹⁷ I.S. Gill et al. 2014. *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC. World Bank.

¹⁸ Based on Extractive Industries Transparency Initiative. <https://eiti.org> (accessed 31 July 2017).



11. While average labor productivity¹⁹ doubled from 2000 to 2015 (Figure 5),²⁰ it still lags other UMICs.²¹ Labor productivity in industry declined, partly because of a rise in employment beyond its output growth levels. In agriculture, employment declined, which led to large labor productivity gains from 2011 onward. Labor productivity in services has decreased since 2013, despite the increase in transport, communications, and financial services, since it was more than compensated by the fall in the labor productivity of the real estate and social services.²²



¹⁹ Labor productivity represents the output produced per unit of labor input, mostly measured in GDP in constant prices per hours worked. Labor productivity depends on the effectiveness of labor, which is determined by what is produced with the acquired productive capabilities. These capabilities are a combination of different skills but also depends on inputs such as physical capital, intangible fixed assets used in the production process, and the technical standard and organizational environment.

²⁰ Growth of GDP in constant 2005 tenge per employed.

²¹ The underlying reason might be the low unemployment rate. The World Bank report shows that Kazakhstan fell behind regional comparator countries in labor productivity improvements from 1990 to 2007. Footnote 3 and 6.

²² Government of Kazakhstan, Ministry of National Economy, Committee on Statistics.

12. To increase labor productivity in the long run and become resilient against oil price shocks, Kazakhstan needs to diversify its economy toward manufacturing and sophisticated services. This is particularly difficult since the economy suffers from symptoms of the Dutch disease—income from natural resource exports increases local prices and credit-led expansions in non-tradables, which leads to boom and bust cycles. A diversifying economy is incrementally acquiring productive capabilities. This makes it easier to adapt to a new environment and reduces the vulnerability to price shocks in a particular market. In addition, the more productive capabilities are acquired, the higher the value added can be in the country. This is a precondition for producing and exporting products of high sophistication, for which prices and demand are more stable than for products with low sophistication or commodities.

13. Kazakhstan exported 89 products with revealed comparative advantage (RCA), based on 2015 export data, ranking the country the 48th most complex exporter out of 141 countries.²³ Table 2 shows the export product categories in which Kazakhstan has an RCA from 1995 to 2010. According to these data, the export basket diversified until 2005. This trend reversed again until 2010, despite intentions to diversify the economy. The level of complexity of the export basket also reduced significantly from 1995 to 2010.²⁴ Reasons cited are:²⁵ (i) similar to other natural resource rich economies, commodity export booms were accompanied by real exchange rate appreciation and a marked expansion of credit-led non-tradable activities, at the expense of price competitiveness in most tradable sectors of the economy;²⁶ (ii) high reliance on oil revenues and hence weak incentives for the government to diversify the economy and increase tax returns when oil prices are high; (iii) an industrial policy that was too broad and did not consider existing productive capabilities; and (iv) weak incentives to innovate and improve the efficiency of SOEs owing to lack of sunset clauses and indirect subsidies.

²³ Observatory of Economic Complexity. Economic Complexity Rankings (2015). <http://atlas.media.mit.edu/en/rankings/country/> (accessed 31 July 2017).

²⁴ The country did not manage to increase export products with an RCA in technologically advanced sectors. Most of the products added to the export basket show low complexity.

²⁵ J. Felipe and C.A. Hidalgo. 2015. Economic diversification: implications for Kazakhstan. In J. Felipe, ed. *Development and Modern Industrial Policy in Practice: Issues and Country Experiences*. Cheltenham: ADB and Edward Elgar.

²⁶ Another reason might be that resource sectors are attracting the most skilled labor at the expense of other sectors.

Table 2: Kazakhstan's Export Diversification
(number of products exported with revealed comparative advantage, % of total exports)

Harmonized System Code 2 Product Categories	2000		2005		2010	
	Number	Share of exports (%)	Number	Share of exports (%)	Number	Share of exports (%)
Mineral	24	55.60	29	65.83	29	74.47
Metals	40	27.66	36	21.39	30	15.44
Chemical and allied industries	19	3.40	20	3.98	17	5.35
Vegetable	16	5.69	21	2.18	16	2.39
Stone and glass	6	3.69	8	1.93	6	0.84
Machinery and electrical	8	1.44	8	1.06	1	0.29
Raw hides, skins, leather, and furs	3	0.23	5	0.97	5	0.10
Textiles	10	0.72	9	0.90	6	0.30
Foodstuffs	4	0.35	8	0.66	8	0.28
Transportation	4	0.50	7	0.43	0	0.06
Animal	3	0.22	6	0.31	7	0.32
Miscellaneous	4	0.31	3	0.14	0	0.03
Plastics and rubbers	0	0.07	1	0.11	1	0.09
Wood	1	0.11	2	0.10	1	0.03
Footwear and headgear	1	0.01	1	0.02	0	0.00
Total	143	100.00	164	100.00	127	100.00

Source: J. Felipe and C.A. Hidalgo. 2015. Economic diversification: implications for Kazakhstan. In J. Felipe, ed. *Development and Modern Industrial Policy in Practice: Issues and Country Experiences*. Cheltenham, United Kingdom: Asian Development Bank and Edward Elgar.

14. Diversification of export products—beginning with those that require similar capabilities, such as the 89 products with RCA in 2015—is crucial for Kazakhstan's development on the way to a modern economy and to achieve the goals of Kazakhstan 2050. Future productivity growth will depend on translating investments, training, and research toward forming productive capabilities to produce tradable goods and services. Selecting the targeted industries has been attempted through various studies²⁷ and two strategies for industrial development.²⁸

15. **Regional diversification.** The two largest agglomerations—Almaty and Astana cities—and their surroundings are producing more diverse products and services than other regions (Table 3). Almaty and Astana have been the drivers of economic growth and nurtured the development of the services sector development, benefitting from exporting services to the rest of the country, especially to regions with oil, gas, and metal. Almaty is ahead of the other regions, with exports varying from low complexity minerals and food to complex chemicals and machinery. The second-best region by RCI, Almaty Province, is strong in processing, agriculture, production of metals (mainly iron and steel) as well as some machinery, plastics, and organic chemicals. In third place, Astana has only a third of Almaty's processing sector. The city has moderate economic complexity but contributes most to the services sector indicator. The largest processing sector is in Karagandy, but its exports are highly concentrated in a few product categories, so the region has low diversification.

²⁷ For example: ADB. 2013. *Report to the Government of Kazakhstan: Policies for Industrial and Service Diversification in Asia in the 21st Century*. Manila; and World Bank. 2013. *Beyond Oil: Kazakhstan's Path to Greater Prosperity through Diversifying*. Washington, DC.

²⁸ Government of Kazakhstan. 2014. *State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015–2019*. Astana; and Government of Kazakhstan. 2010. *2010–2014 National Program of forced industrial and innovative development of the Republic of Kazakhstan and cancellation of certain decrees of the President of the Republic of Kazakhstan*. Astana.

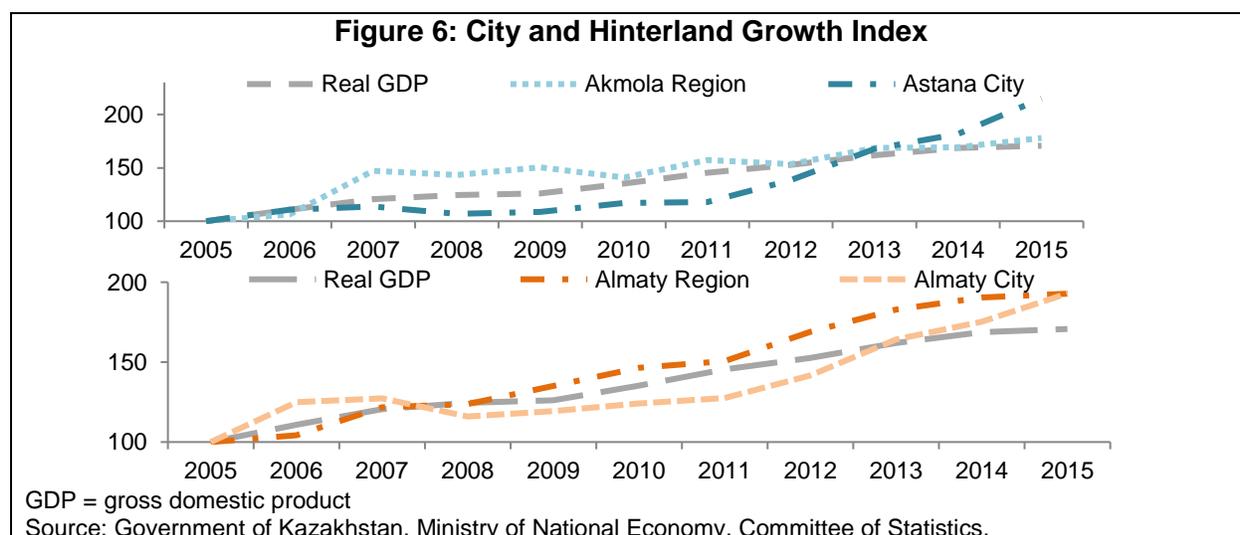
Table 3: Regional Capability, 2014

Regions	Complexity Dimension		Diversity Dimension	Industrialization Dimension
	Regional Economic Complexity Index	Contribution to Services Sector	Regional RCA (number of RCA)	Contribution to Processing Sector
Almaty	97	68	100	6
Almaty Province	100	22	60	44
Astana	72	100	11	1
Karagandy	42	11	15	100
Jambyl	74	7	38	36
Akmola	77	16	21	39
East Kazakhstan	30	14	38	64
Pavlodar	49	1	14	81
North Kazakhstan	85	4	16	21
South Kazakhstan	30	6	26	48
Kostanay	53	7	22	26
Atyrau	low	40	1	6
Mangystau	low	32	3	4
Aktobe	low	8	4	24
West Kazakhstan	low	10	2	7
Kyrgyzlordy	low	13	1	2

RCA = revealed comparative advantage.

Source: F. Farra et al. 2015. *Diversification of Kazakhstan's economy: A capability-based approach*. London: Whiteshield Partners.

16. The major cities and their hinterlands are developing at different speeds (Figure 6). Comparing 2003 with 2014, Almaty is increasingly specializing in a few complex sectors—mostly complex food products but also stone, glass, and metals—while reducing its productive capacities. In Astana, both specialization and diversity are reducing. The hinterlands, Almaty region and Akmola, are developing more complex and new productive capabilities. This suggests a shift of production from urban to rural areas for subsectors that are not increasingly specialized. This could lead to a reduction of economic density in the major cities because of the high costs of doing business (high costs of rents, commuting, and transportation of goods). Thus, the urban centers might not be able to drive economic growth as they did in the past for the processing sector. Urban planning can reduce the high cost of living in or access to urban centers, which reduces the labor cost for producers of tradable goods and services that cannot pass on high labor costs to consumers (e.g., in non-tradables). An example of this integrated approach is the Almaty–Bishkek Economic Corridor (ABEC) (see paragraph 40).



3. Key Impediments to Inclusive and Sustainable Growth

17. To accelerate economic diversification and promote regionally inclusive economic development, the following impediments were identified through country consultations conducted in 2016 and 2017:²⁹ (i) governance issues in the public sector, which has a large footprint in the economy, as well as high costs for transport and the underdeveloped financial sector, reduce the effectiveness of diversification efforts in Kazakhstan; (ii) limited access to quality services and infrastructure outside the main cities exacerbates regional and social inequalities; and (iii) the growth model remains unfriendly to the environment, and effects of climate change potentially aggravate spatial inequalities.

18. **Economic Structure.** SOEs dominate many subsectors, without sufficient incentives to improve the quality and efficiency of their services, while tariffs are partly below cost recovery levels. This deters private sector investment and private sector led dynamic and innovative growth.³⁰ It also influences SMEs' small contribution to GDP—only 25% in 2015. SMEs are mostly small, with 5% of value added coming from medium-sized enterprises. Most SMEs are sole proprietorship, often characterized by low labor productivity. The main constraints of the private sector were highlighted in the Global Competitiveness Report, 2016–2017:³¹ inflation (16.6),³² tax rates (13.0), corruption (12.8), access to financing (11.5),³³ tax regulations (8.9), and foreign currency regulations (7.2).

19. Private sector development is also hindered by insufficient transport and logistics infrastructure and procedures, which drive up production and trade costs for producers at the current value density and scale of production. During the CPS 2012–2016, the main road transport corridors have been improved³⁴ and plans for road infrastructure improvement were outlined in the Nurlı Zhol program,³⁵ but insufficient logistical infrastructure and cumbersome border crossing of goods and people keep transport costs high. Connectivity is supported by a well-developed railway network, which the World Economic Forum ranks 23rd among 108 countries (footnote 34). Kazakhstan's road infrastructure is ranked 108th among 140 countries. A major challenge will be the integration of national transport and transit priority programs with regional initiatives such as the People's Republic of China's One Belt One Road initiative. This would exploit the transit potential and benefit from the access to large volume transportation, to reduce the cost of exporting and importing goods.³⁶

20. The poor performance and governance of Kazakhstan's financial sector impede private sector development in non-resource based tradable goods and services. The private sector faces

²⁹ Several sector-related and overview consultation missions were conducted in 2016, including a mission of ADB's vice president (Operations 1). Further consultations were conducted in early 2017 with newly appointed cabinet ministers, including the minister of national economy (ADB governor).

³⁰ Government of Kazakhstan. 2014. *State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015–2019*. Astana.

³¹ World Economic Forum. 2016. *The Global Competitiveness Report, 2016–2017*. Geneva.

³² From the list of factors, respondents were asked to select the five most problematic for doing business in their country and to rank them from 1 (most problematic) to 5. The score corresponds to the responses weighted according to their rankings.

³³ Only 19.2% of firms have a bank loan or line of credit; 86.7% of loans require collateral with on average 196.4% of the total loan amount.

³⁴ World Economic Forum. The Global Competitiveness Report 2010–2011 ranked Kazakhstan 124th of 139 countries.

³⁵ Government of Kazakhstan. 2015. *State Program of Infrastructure Development "Nurlı Zhol" for 2015–2019*. Astana.

³⁶ Rail transit time between sea ports in the People's Republic of China and Western Europe is 10–12 days, for which turnover is projected to reach 500,000 containers per year by 2020. See W. Shepard. 2016. *How The New Silk Road Made Freight Trains 'Sexy' Again*. 6 December.

high costs and limited financing options, especially for long-term projects, because (i) legacy and hidden nonperforming loans threaten banks' capital adequacy, and nonperforming loans have not been addressed comprehensively and transparently; (ii) sizable foreign currency liabilities of the banking sector increase solvency risks if exchange rate volatility returns; (iii) subsidized government lending through commercial banks is undermining the new interest rate targeting monetary policy and creating distortions in money markets, while holding back capital and debt market development; (iv) high interest rate margins persist because of weak appraisal and risk management capabilities for credit, liquidity, and interest rate risk; and (v) underdeveloped capital and debt markets constrain the maturity transformation role of the financial sector, which makes the provision of long-term financing options disproportionately costly. This limits the ability to adopt viable public–private partnerships (PPPs) and other financing mechanisms for infrastructure projects.

21. **Services and infrastructure.** Limited access to quality services and infrastructure outside the main cities exacerbates regional social and economic inequalities. Kazakhstan's urban infrastructure requires significant rehabilitation and modernization.³⁷ Most of the water supply, wastewater, district heating, and urban road infrastructure of secondary provincial centers have deteriorated, with similar conditions in smaller towns and agglomerations.³⁸ For example, most regions³⁹ show good indicators for access to water services, but these services are often poor quality outside Almaty and Astana. Access to sanitation services also remains a problem, with five regions reporting access below 50%. A major institutional challenge is the lack of a single national agency responsible for policy coordination across the urban sector or responsible for water supply and sanitation. Service delivery and investment in the subsectors are the responsibility of regional and local governments, which often lack financial sustainability and creditworthiness to access investments.

22. Low agricultural productivity and poor sector governance limit income opportunities for the rural population, and impede rural growth and inclusion. Agricultural output shrank to less than 4.9% of GDP in 2015, while the sector employs 18.0% of the workforce. Agricultural output remains volatile and depends largely on weather conditions, given the limited use of modern technology. The sector is highly subsidized through budget outlays and KazAgro state holding, with its various subsidiaries. Subsidies amounted to T157.3 billion, or 5.7% of the total gross output of the sector in 2015. The potential of the sector to drive growth in rural areas and develop exportable food products through value chains has not been exploited, mainly because of lack of availability of water for irrigation.⁴⁰ The main bottlenecks are (i) seasonally and spatially uneven distribution; (ii) reducing inflows from transboundary rivers, which supply 44% of the water supply; (iii) inadequate storage and control infrastructure; and (iv) generally inefficient water management. Transmission losses during water delivery reach about 50%. Hydro-melioration infrastructure has been abandoned, with over 40% of water distribution canals in a poor state—making timely water availability a binding constraint for agricultural productivity.

23. The quality of social services constrains equitable development, especially outside the main cities. Kazakhstan has been implementing a wide range of health reform initiatives since the 1990s, but with mixed results. Although certain improvements in population health have been observed, such as reduced maternal and infant mortality and increasing life expectancy, these need to be distributed more equitably across regions. For example, urban centers have 46 doctors

³⁷ Including water supply and sanitation, solid waste management, urban transport, and district heating.

³⁸ Government of Kazakhstan. 2014. *Resolution No. 728: Regional Development Program 2020*. Astana.

³⁹ The only exception is Mangistau oblast with an access rate of 89.6%.

⁴⁰ Water consumption is split 68% for agriculture, 27% for industry, and 5% in the utilities sector.

per 10,000 people while rural areas have only 11 per 10,000 people. This leads to large differences in health outcomes such as maternal mortality, which ranges from 4.1 per 100,000 in Karaganda to 25.0 deaths per 100,000 births in Atyrau and Akmola oblasts.⁴¹ Further, education outcomes are not on a par with other UMICs. While Kazakhstan has an educated labor force thanks to continuously high enrollment and attainment levels, the quality of the education is becoming a constraint, especially in rural areas. The Organisation for Economic Co-operation and Development (OECD) PISA 2012 report ranked Kazakhstan 49th in mathematics, 52nd in science, and 63rd in reading out of 65 countries.⁴² The profile of the labor market shows the highest demand for lower level skills and low demand for high-level skills, but enrolment patterns show the opposite trend.⁴³

24. **Environment.** Intensive energy use generates detrimental environmental impacts and overall economic growth is vulnerable to adverse effects of climate change. The high rates of economic growth before the oil price drop created externalities such as environmental pollution through industrial and household waste, a coal-based energy mix with a virtual absence of renewable sources of energy,⁴⁴ and a generally high energy intensity—ranked 6th globally (footnote 16)—due to inefficiencies and subsidies. Pollution increasingly limits quality of life in Kazakhstan, especially in cities, with rising levels of air pollution from stationary and mobile sources, as well as growing concern over solid waste. The rural poor suffer the most from these effects, as their income does not allow for costly substitutes or relocation. The frequency and magnitude of extreme climatic events such as heatwaves, heavy snow, and sleet, as well as flood is expected to rise. While Kazakhstan has low vulnerability to climate change, agriculture, water resources, and transport are vulnerable to risks associated with uncertain changes in future precipitation, rising aridity, and extreme weather events.

B. Government Strategy to Support Inclusive and Sustainable Growth

25. **New Development Strategy Kazakhstan-2050.** To address these key impediments, the government adopted the National Development Strategy, Kazakhstan-2050,⁴⁵ which aims to transform the country into a knowledge-based and diversified economy—driven by the private sector—through widespread economic, social, and political reforms. The overarching goal of this strategy is for Kazakhstan to become one of the 30 most advanced economies in the world based on income and quality of life. Improved quality of life is aimed to be achieved through an efficient and sustainable economy, clean environment, accessible high-quality education and public health care, equal opportunities for men and women, and a productive labor force. This strategy provides the framework for the 10-year development plans, state programs and plans, as well as sector strategies, which are frequently adjusted to respond to new challenges. This section outlines relevant strategic documents.

⁴¹ OECD. 2016. *Multi-dimensional Review of Kazakhstan: Volume 1. Initial Assessment*. Paris.

⁴² OECD. 2014. *PISA 2012 Results: What Students Know and Can Do – Student Performance in Mathematics, Reading and Science (Volume I, Revised edition, February 2014)*. Paris.

⁴³ According to estimates from the International Analytical Centre on Employment issues, the proportion of vacancies for skilled craftsmen needed in the labor market was as high as 95.0% in 2013. However, the proportion of students enrolling in training for craft professions is declining (from 51.0% of TVET students in 1991 to 19.4% of TVET students in 2015). See IAC. 2016. *National Report on the State and Development of the Educational System of the Republic of Kazakhstan*. Astana.

⁴⁴ As of January 2016, the total installed power generation capacity of Kazakhstan was 21,307 megawatts, of which 87.0% was based on fossil fuels. Another 12.0% of generation was from hydropower plants, while generation from wind and solar accounted only for 0.6% of total installed capacity.

⁴⁵ Government of Kazakhstan. 2012. *Kazakhstan 2050 Strategy*. Astana.

26. **Third Modernization of the Economy.** On 30 January 2017, the President of Kazakhstan announced the third modernization plan, with the goal to make the economy technologically competitive. The five main objectives are (i) accelerated technological modernization of the economy; (ii) improvement and expansion of the business environment; (iii) macroeconomic stability; (iv) improving the quality of human capital; and (v) institutional change, security, and the fight against corruption.

27. **100 Steps on Five Institutional Reforms Program and Nurly Zhol Infrastructure Development Program.** The government embarked on an ambitious “100 Steps” institutional reform program to improve the civil service, advance the rule of law, accelerate industrialization and economic growth, strengthen national identity and unity, and increase government accountability. After the oil price change in August 2015, the government reinforced its anti-crisis package, reprioritized capital expenditures, and launched the Nurly Zhol infrastructure development program, 2015–2019.⁴⁶ The program focuses on infrastructure to improve transport and logistics,⁴⁷ energy, housing, and utilities, and supports SMEs and other business activities. Under Nurly Zhol, the government optimizes population resettlement through managed migration following the General Scheme of Kazakhstan’s territorial organization, approved in December 2013.⁴⁸ Nurly Zhol is aligned to the One Belt One Road initiative, with five out of six routes passing through Kazakhstan.

28. **Green economy concept.** The concept⁴⁹ outlines the intention, framework, and targets for improvements in environmental performance across the energy, water, agriculture, and waste sectors toward 2050. Climate change mitigation and adaptation targets include (i) increasing the share of renewables in electricity generation to 3% by 2020, 30% by 2030, and 50% by 2050; (ii) decreasing the energy intensity of GDP relative to 2010 levels by 25% in 2020, 30% in 2030, and 50% by 2050; (iii) decreasing carbon dioxide emissions from the power sector from 2013 levels by 15% in 2030 and 40% by 2050; (iv) eliminating water deficiency in river basins 2030; and (v) reducing the costs of irrigation water.

29. **Revisited State Program for Industrial and Innovative Development, 2015–2019.** In September 2016, a new version of the state program, 2015–2019 was adopted. This program highlights the importance of the generation of tax revenue, since oil prices are expected to remain low, and the gradual shift to non-resource sectors. The target of an increased share of manufacturing was replaced by a target for labor productivity. The focus shifts from protecting manufacturers to promoting specific export-oriented enterprises through the National Chamber of Entrepreneurs, as well as implementing large transformative projects together with development partners and the private sector. The program also recognizes the importance of regional integration with Kazakhstan’s Central Asian neighbors to develop regional value chains.

30. **Sustainable Development Goals.** The Sustainable Development Goals (SDGs) for 2016–2030 are included in several strategic documents, particularly the 100 Steps program.⁵⁰ A

⁴⁶ Effective 6 April 2015 by Presidential Decree No. 1050.

⁴⁷ The Nurly Zhol program proposes “hub-and-spoke” connectivity of Astana with regional centers via a road network of 6,700 kilometers by 2020. Established bilateral road transport agreements with main trading partners allow door-to-door transportation of goods under the TIR Carnets without stops at the national borders.

⁴⁸ The program aims to develop five macro-regions as centers that will be connected through improved transport infrastructure—Almaty, Astana, Aktobe, Shymkent, and Ust-Kamenogorsk.

⁴⁹ Government of Kazakhstan. 2013. *Concept for the Transition of the Republic of Kazakhstan to Green Economy*. Astana.

⁵⁰ A Rapid Integrated Assessment of Kazakhstan’s readiness for implementing and monitoring the SDGs found overlaps between national and sectoral plans and SDG targets, with 56% of the 126 targets covered, and some gaps in policies and data.

United Nations report identified four accelerating factors, apart from education, to implement the SDGs: (i) reforms in domestic governance, particularly local governance; (ii) policies to reduce social inequalities, particularly for women and children; (iii) measures to diversify the economy to reduce reliance on natural resources, and engage the private sector; and (iv) greening Kazakhstan's growth by eliminating subsidies for fossil fuel and water use.

C. Implications for ADB's Partnership

31. **Responsiveness to changing needs as an upper middle-income country.** ADB is committed to supporting the government in the implementation of its development strategies. It can assist in covering future investment needs in transport, energy, and municipal infrastructure, which are estimated to exceed \$200 billion by 2040.⁵¹ ADB is also ready to provide broader support beyond financing infrastructure projects. It can help with private sector investments and development, knowledge transfer, innovation, and capacity building to drive the diversification agenda, complement public sector investment projects, and offer a comprehensive approach to sustainable sector reforms and inclusive and climate-proofed infrastructure that can be scaled up with the country's own resources. ADB's regional perspective and experience can enhance the benefits of domestic projects, e.g., through the Central Asian Regional Economic Cooperation (CAREC) transport and economic corridors such as the Almaty-Bishkek Economic Corridor (ABEC). ADB interventions also help create regional public goods, with positive externalities in the region.

32. **Future directions.** The analysis prepared, in this paper, consultations with key stakeholders, the CPS, 2012–2016 final review and its validation conducted by ADB's Independent Evaluation Department, helped identify the new strategic directions of ADB's support going forward.⁵² ADB interventions will be aligned with Kazakhstan's development strategies and other development partners' interventions,⁵³ and will assist in closing gaps to achieve global obligations under the SDGs agenda. The CPS is demand-driven, focused, and selective, yet flexible and adaptive to changing circumstances. It will add additional value to operations by providing enhanced knowledge support and domestic as well as regional public goods. The CPS addresses three fundamental issues for achieving Kazakhstan's development targets, which are aligned with the SDGs: First, to help lessen the dependency on commodity exports, it will support economic diversification by promoting private sector development and improving access to finance. Second, to help reduce inequalities, ADB will help Kazakhstan realize quality infrastructure and improve the quality of public and social services. Third, to lessen vulnerabilities associated with climate change, ADB will support achieving sustainable growth in line with the country's greenhouse gas mitigation targets and commitments to improve resilience to climate change.

33. **Economic Diversification.** ADB will help promote economic diversification by improving access to finance and private sector development and investments to support the production of tradable goods and services, helping to decrease the dependency on commodity exports. ADB will also support Kazakhstan to increase access to finance for SMEs through commercial banks. Deeper sector reforms are needed to strengthen the financial sector and encourage bank lending. ADB can support sector governance to improve resilience against external shocks by helping to

⁵¹ ADB. 2014. *Kazakhstan: Alternative Urban Infrastructure Financing Modalities*. Consultant's report. Manila (TA 8366-KAZ).

⁵² ADB. 2017. *Country Partnership Strategy Final Review Validation: Kazakhstan, 2012–2016*. Manila.

⁵³ Development Coordination Matrix (accessible from the list of linked documents in Appendix 2).

resolve asset quality issues of commercial banks, strengthen regulatory oversight, reform direct funding schemes, and support the development of capital and insurance markets.

34. **Private sector operations.** ADB will make considerable efforts to expand its private sector operations in several sectors, depending on local demand and emerging opportunities. It will promote entrepreneurship and the development of SMEs, in line with government targets. ADB will assist Kazakhstan in implementing SOE reforms through commercialization and privatization, serving as an honest broker and investing in developing the private sector. ADB will consider investing in the equity of banks, nonbank financial institutions, private equity funds, and private companies, with a focus on supporting infrastructure development. ADB will also provide continued support for trade finance by providing guarantees and loans to local banks, aiming at closing market gaps and promoting the international trade of Kazakh companies.

35. **Access to quality infrastructure and services.** ADB will help improve access to quality infrastructure across the country and the delivery of public and social services through infrastructure investments as well as support to regulatory, institutional, and corporate governance reforms to reduce spatial inequalities. ADB will help promote quality services that are sustainable, efficient, and economically viable. To remove the infrastructure bottlenecks to competitiveness and diversification, ADB will continue to develop infrastructure with a focus on sustainability, inclusiveness, and revenue potential, to help lay the foundations for improving labor productivity. Addressing infrastructure bottlenecks will help reduce spatial inequalities across Kazakhstan's regions while improving infrastructure in emerging agglomerations that drives economic growth. ADB will continue supporting the implementation of government programs such as those promoting transport, affordable housing, municipal service delivery, agriculture and irrigation, education, and health. Interventions will also include regionally important infrastructure through the CAREC Program.⁵⁴

366. **Green growth.** ADB will support greener growth in line with the country's greenhouse gas mitigation efforts and commitments to improve climate resilience, to lessen vulnerabilities associated with climate change.⁵⁵ The potential for energy saving in Kazakhstan is estimated to be up to 30%, but decisive policies are necessary and old technologies and equipment will need to be phased out. ADB will support the government in its ambitious targets to diversify its energy mix away from coal-based energy generation to renewable sources. ADB will support achieving mitigation and adaptation goals through (i) investing in efficient low-carbon and alternative electricity and heat production and transmission, as well as green transport, (ii) expanding and modernizing climate-proofed infrastructure, and (iii) developing and introducing innovative technologies and financial products for climate resilience and energy efficiency. ADB will also engage in the following crosscutting areas:

37. **Knowledge solutions.** In response to the rapidly increasing knowledge demand and the need to enhance the knowledge content of operations, ADB will strengthen the ongoing joint Knowledge Experience and Exchange Program with the government. To assist with research, capacity building, and policy dialogue, ADB will forge knowledge partnerships with selected local universities and support the creation of applied knowledge centers.

⁵⁴ CAREC. 2016. "Unlocking the Potential of Railways: A Railway Strategy for CAREC, 2017–2030" and "Safely Connected: A Regional Road Safety Strategy for CAREC Countries, 2017–2030." Endorsed at the 15th CAREC Ministerial Conference, Islamabad, Pakistan, 26 October.

⁵⁵ Interventions to promote green growth include investing in efficient low-carbon energy and transport, modernizing climate-proofed infrastructure, and introducing new technologies and specific green financial products.

37. **Regional cooperation and integration and Almaty–Bishkek Economic Corridor.** Kazakhstan is an active member of the CAREC Program. It will continue to benefit from CAREC investments in transport, energy, and trade facilitation and policy support, and a broader development agenda, as being outlined in the upcoming new long-term strategy for CAREC. ADB is pilot testing its support to cross-border economic corridors with the Almaty-Bishkek Economic Corridor (ABEC), with the aim of creating cross-sector linkages to exploit synergies and promoting economic diversification. The ABEC transforms the area around the two cities into one integrated economic space where the exchange of ideas and movement of people is fast, easy, and free of barriers. This facilitates the sharing and coordination of resources. It also allows businesses to operate on a larger scale, face more competition, and eventually specialize and reach a scale that enables the twin cities to reach markets outside the region in competition with other agglomerations. Kazakhstan and the Kyrgyz Republic have agreed to coordinate the ABEC at the highest level through an Intergovernmental Council, chaired by the two prime ministers, and ADB will support the ABEC's continued development through technical assistance and investment projects.

39. **Support to project finance and public–private partnerships (PPP).** Kazakhstan places high priority on the use of PPPs to improve the delivery of public services, and has made rapid progress in readying itself for PPPs.⁵⁶ Local governments, which provide many basic public services, do not yet have the resources to fill skill gaps and undertake the analysis required to prepare and manage PPPs. ADB can help bring PPPs to international standards.⁵⁷ Financing instruments based on lending against the cash flow of a project that is legally and economically self-contained within a special purpose vehicle, has not yet been developed or tested in Kazakhstan. ADB can help the development of the risk-bearing and pricing capacity of banks as well as the development of capital markets in Kazakhstan for them to become a meaningful source of infrastructure financing.

40. **Gender mainstreaming.** ADB will address gender disparities in access to opportunities, through (i) enhancing the business climate and access to credit for women entrepreneurs; (ii) gender-fair occupational skills training; and (iii) modeling programs and policies that protect women workers from workplace discrimination, sexual harassment, and gender-based wage disparities. Projects that improve the quality of municipal services, especially in water and sanitation, heating and other energy services, and transportation, can help address women's time poverty.

⁵⁶ Government of Kazakhstan. 2015. Public-Private Partnership (PPP) Law. Astana.

⁵⁷ ADB presents a PPP operational framework as comprising four pillars: advocacy and capacity development (pillar 1), enabling environment (pillar 2), project development (pillar 3), and project financing (pillar 4). ADB. 2012. *Public–Private Partnership Operational Plan, 2012–2020*. Manila.