Kazakhstan

ECONOMIC PERFORMANCE ASSESSMENT

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Sponsored by the Economic Growth office of USAID's Bureau of Economic Growth, Agriculture and Trade (EGAT), and implemented by Nathan Associates Inc. under Contract No. PCE-I-00-00-00013-00, Task Order 004, the Country Analytical Support (CAS) Project, 2004-2006, has developed a standard methodology for producing analytical reports to provide a clear and concise evaluation of economic growth performance in designated host countries. These reports are tailored to meet the needs of USAID missions and regional bureaus for country specific analysis. Each report contains:

- A synthesis of data drawn from numerous sources, including World Bank publications and other international data sets currently used by USAID for economic growth analysis, as well as accessible host-country data sources;

- International benchmarking to assess country performance in comparison to similar countries and groups of countries;

- An easy-to-read analytic narrative that highlights areas in which a country's performance is particularly strong or weak, thereby assisting in the identification of future programming priorities.

Under the CAS Project, Nathan Associates will also respond to mission requests for in-depth sector studies to examine more thoroughly particular issues identified by the data analysis in these country reports.

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HIGHLIGHTS OF KAZAKHSTAN'S PERFORMANCE

Economic Growth	Kazakhstan's growth has been strong in recent years, stimulated in large part by the oil sector. Real GDP growth averaged 10.4 percent from 2000-2004, a major improvement from negative and sluggish growth in the 1990s.
Poverty	Kazakhstan has made substantial progress in reducing poverty as poverty rates, as defined by the national poverty line, have fallen by half in the past five years. Further progress is necessary.
Economic Structure	The extraction and processing of raw materials, especially oil, are the lead sector in the economy in terms of output, while one-third of employment is in agriculture. Developing manufacturing is a key to future development.
Demography and Environment	After a period of decline, the Kazakh population has grown in the past several years. The Kazakh population is relatively young.
Gender	Kazakhstan does well on indicators of gender equity.
Fiscal and Monetary Policy	Fiscal policy is sound, as demonstrated by a budget surplus. Inflation is moderate, but needs to be closely monitored in light of large increases planned in government spending and rapid money supply growth.
Business Environment	Corruption in Kazakhstan is widespread and serves as an impediment to doing business. The pace of structural reforms has slowed, making Kazakhstan less attractive than other transition economies as a place to conduct business.
Financial Sector	Kazakhstan's banking system is relatively well developed, with high monetization rates and low interest rate spreads. Rapid credit expansion needs to be accompanied by improved financial market regulation and supervision.
External Sector	Kazakhstan's performance on the trade and investment components of the external sector is good, primarily because of oil exports and oil-related investments. At the same time, the country's heavy reliance on oil revenues leaves it vulnerable to a downturn in world oil prices; export diversification is desirable.
Economic Infrastructure	Infrastructure appears to be generally better developed in Kazakhstan than in the peer countries. At the same time, despite substantial progress, Kazakhstan lags far behind its peer countries in terms of communications sector development, and it needs to improve transportation, ports, and pipelines.
Health	Performance on life expectancy and other health indicators is poor, especially the life expectancy of men. Current government health expenditures are not sufficient to combat persistent problems.
Education	Kazakhstan's performance on education indicators is good. To sustain this performance, government education expenditures may need to rise.
Employment and Workforce	The high unemployment rate has been declining. The pace of decline is slower than would be expected for a country experiencing double-digit growth rates, however. Diversification into more labor-intensive sectors is needed.
Agriculture	Kazakh agriculture is a troubled sector, suffering from low productivity.

Note: The methodology used for comparative benchmarking is explained in the Appendix.

KAZAKHSTAN: NOTABLE STRENGTHS AND WEAKNESSES— SELECTED INDICATORS[a]

Indicator, by Topic	Notable Strength	Notable Weakness
Growth Performance		
Growth of labor productivity (%)	✓	
Real GDP growth (%)	✓	
Poverty and Inequality		
Poverty headcount (%) by national poverty line	✓	
Demography and Environment		
Adult literacy rate (%)	✓	
Fiscal and Monetary Policy		
Government budget balance (% of GDP)	✓	
Inflation (%)	✓	
Money supply growth (%)		✓
Business Environment		
Corruption perception index		✓
Regulatory quality index		✓
Rule of law index		✓
Financial Sector		
Domestic credit to private sector (% of GDP)	✓	
Interest rate spread (%, deposit minus lending rate)	✓	
Monetization (M2 as a % of GDP)	✓	
External Sector		
Concentration of exports (top three exports, 3-digit SITC, % exports)		✓
Debt service ratio (% exports)		✓
Exports growth, goods and services (%)	✓	
Foreign direct investment (% GDP)	✓	
Gross international reserves (months of imports)	✓	
Economic Infrastructure		
Internet users (per 1,000 people)		✓
Telephone density (lines per 1,000 people)		✓

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[a] The chart identifies selective indicators for which Kazakhstan's performance is particularly strong or weak relative to the benchmark standards; details are discussed in the text. A separate Data Supplement for Kazakhstan presents a full tabulation of the data examined for this report, including the international benchmark data, along with technical notes on the data sources and definitions.

Indicator, by Topic	Notable Strength	Notable Weakness
Health		
Child immunization rate (%)	✓	
Life expectancy (years)		✓
Maternal mortality rate (deaths per 100,000)		✓
Public health expenditure (% of GDP)		✓
Education		
Expenditure per student, tertiary (% of per capita GDP)		✓
Youth literacy rate (%)	✓	
Employment and Workforce		
Rigidity of employment index	✓	
Agriculture		
Agriculture value added per worker (1995 USD)		✓
Cereal yield (kilograms per hectare)		✓

1. Introduction

This paper is one of a series of Economic Performance Assessments prepared for the EGAT Bureau to provide USAID missions and regional bureaus with a concise evaluation of a broad range of indicators relating to economic growth performance in designated host countries. The report draws on a variety of international data sources[1] and uses international benchmarking against reference group averages and comparator countries (Bulgaria, Romania, and Russia) to identify major constraints, trends, and opportunities for strengthening growth and reducing poverty.

The methodology used here is analogous to examining an automobile dashboard to see which gauges are signaling problems. Sometimes a blinking light has obvious implications—such as the need to fill the fuel tank. In other cases, it may be necessary to have a mechanic probe more deeply to assess the source of the trouble and determine the best course of action.[2] Similarly, the Economic Performance Assessment is based on an examination of key economic and social indicators, to see which ones are signaling problems. In some cases a "blinking" indicator has clear implications, while in other instances a detailed study may be needed to investigate the problems more fully and identify an appropriate course for programmatic action.

The analysis is organized around two mutually supportive goals: transformational growth and poverty reduction.[3] Rapid and broad-based growth is the most powerful instrument for poverty reduction. At the same time, measures aimed at reducing poverty and lessening inequality can help to underpin rapid and sustainable growth. These interactions create the potential for stimulating a virtuous cycle of economic transformation and human development.

Transformational growth requires a high level of investment and rising productivity. This is achieved by establishing a strong ***enabling environment for private sector development***, involving multiple elements: macroeconomic stability; a sound legal and regulatory system, including secure contract and property rights; effective control of corruption; a sound and efficient financial system; openness to trade and investment; sustainable debt management;

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[1] Sources include the latest data from USAID's internal Economic and Social Database (ESDB), and from readily accessible public information sources. The ESDB is compiled and maintained by the Development Information Service (DIS), under PPC/CDIE. It is accessible to staff through the USAID intranet.

[2] Sometimes, too, the problem is faulty wiring to the indicator—analogous here to faulty data.

[3] In USAID's white paper U.S. Foreign Aid: Meeting the Challenges of the Twenty-first Century (January 2004), transformational growth is a central strategic objective, both for its importance as a development goal, and because growth is the most powerful engine for poverty reduction.

investment in education, health, and workforce skills; infrastructure development; and sustainable use of natural resources.

In turn, the impact of growth on poverty depends on policies and programs that create opportunities and build capabilities for the poor. We call this the ***pro-poor growth environment***.[4] Here, too, many elements are involved, including effective education and health systems; policies facilitating job creation; agricultural development (in countries where the poor depend predominantly on farming); dismantling barriers to micro and small enterprise development; and progress toward gender equity.

The present evaluation of these conditions must be interpreted with caution, because a concise analysis of this sort cannot provide a definitive diagnosis of economic problems, or simple answers to questions about programmatic priorities. Instead, the aim of the analysis is to spot signs of serious problems for economic growth, based on a review of selected indicators, subject to limits of data availability and quality. The results should provide insight about potential paths for USAID intervention, to complement on-the-ground knowledge and further in-depth studies.

The remainder of the report discusses the most important results of the diagnostic analysis, in three sections: Overview of the Economy; Private Sector Enabling Environment; and Pro-Poor Growth Environment. Table 1-1 summarizes the topic coverage. The Appendix provides a brief explanation of the criteria used for selecting indicators, the benchmarking methodology, and a table showing the full set of indicators examined for this report.

Table 1-1
Topic Coverage

Overview of the Economy	Private Sector–Enabling Environment	Pro-Poor Growth Environment
• Growth Performance • Poverty and Inequality • Economic Structure • Demographic and Environmental Conditions • Gender	• Fiscal and Monetary Policy • Business Environment • Financial sector • External sector • Economic Infrastructure • Science and Technology	• Health • Education • Employment and Workforce • Agriculture

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[4] A comprehensive poverty reduction strategy also requires programs to reduce the *vulnerability* of the poor to natural and economic shocks. This aspect is not covered in the template because the focus is economic growth programs. In addition, it is difficult to find meaningful and readily available indicators of vulnerability to use in the template.

2. Overview of the Economy

This section reviews basic information on Kazakhstan's macroeconomic performance, poverty and inequality, economic structure, demographic and environmental conditions, and indicators of gender equity.[1] Some of the indicators cited here are descriptive rather than analytical, and are included to provide context for the performance analysis.

GROWTH PERFORMANCE

Kazakh growth performance in the past several years has been impressive. After several years of sharp contraction before and after the country's independence in 1991 and sluggish expansion in the late 1990s, Kazakh economic growth averaged 10.4 percent in the period 2000–2004. Oil exports, with world prices rising and total oil production increasing, have driven growth. Oil production has risen at an average of 15 percent annually between 2000 and 2004, thanks largely to significant foreign investment. As a result, Kazakhstan's oil exports rose from 524,000 barrels per day (bpd) in 2000 to 997,000 bpd in 2004.[2] This exceeded the range predicted by the GDP growth regression (Figure 2-1, Real GDP Growth). At the same time, though, high economic growth rates were not unusual for low middle income former Soviet republics (LMI-FSR). For example, in the 2000–2004 period, the economies of Armenia and Azerbaijan expanded at roughly the same pace, with Azerbaijan also having oil as its number one export.

Measured in current U.S. dollars, per capita GDP more than doubled from 2000 through 2004, reaching $2,715. Kazakhstan exceeds the averages in the low middle-income (LMI) countries ($1,917), and the LMI-FSR ($2,130). Kazakhstan also outperforms these comparator groups when GDP per capita is measured in PPP terms. Kazakhstan's per capita GDP in PPP terms stood at $7,418 in 2004, compared to an average of $6,910 in the LMI-FSR and $5,573 in LMI countries. At the same time, Kazakh per capita GDP measured in current dollars remains substantially below the levels found in Bulgaria ($3,074), Romania ($3,207), and Russia ($4,093), and this is true when measured in PPP terms as well.

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[1] The Data Supplement provides a full tabulation of the data for Kazakhstan and the international benchmarks, including indicators not discussed in the text, as well as technical notes for each indicator.

[2] Data are from the U.S. Department. of Energy's Energy Information Administration. See http://www.eia.doe.gov/emeu/cabs/kazak.html#oil.

Figure 2-1

Real GDP Growth, percent

Driven largely by oil exports, Kazakhstan's real growth is strong by all benchmark comparisons

Time Series

Year	Kazakhstan Data
2000	9.8
2001	13.5
2002	9.8
2003	9.3
2004	9.4
Summary for 2000–2004	
Five-year average	10.4
Trend growth rate	N/A

Kazakhstan Global Standing

Highest-five average — 21.2

KAZ

Lowest-five average — -2.9

Legend: Expected value and margin of error; 5-year average

Bar chart values: Kazakhstan 9.4 (7.6), LMI-FSR 9.8, Low-Middle Income 5.1, Bulgaria 5.7, Romania 8.3, Russia 7.1

Source: IMF World Economic Outlook database   CAS Code: 11p3

Economic growth in Kazakhstan benefited from a virtuous circle in which rising employment increased domestic demand, which helped lower unemployment further. However, in terms of basic growth, most of the contribution to growth came from increased labor productivity. Labor productivity averaged 8.7 percent in 2000–2004. Although this figure was below the rate of 9.8 percent found in the LMI-FSR countries, it is still high and far exceeded labor productivity growth in the LMI countries (2.1 percent), Bulgaria (4.7 percent), Romania (4.7 percent), and Russia (7.4 percent). In a way consistent with high labor productivity growth, fixed capital investment averaged 22.2 percent of GDP in the 2000–2004 period, though private investment was more volatile (Figure 2-2, Gross Fixed Investment). Although this performance is reasonable, it was not as good as the LMI-FSR average (23.7 percent). Labor productivity growth in Kazakhstan possibly benefited from improved capacity utilization, a trend observed in many transition countries.

The main challenge for Kazakhstan's economy is to maintain strong growth while diversifying and relying less extensively on crude oil exports. Oil production is not generally labor intensive, and in a country with high unemployment and a substantial share of employment in low-productivity agriculture, labor-intensive manufacturing should be promoted, and employment thereby created.

Figure 2-2
Gross Fixed Investment, percent of GDP

High gross fixed capital investment is in line with regional averages and contributes to growth rates

Year	Kazakhstan Data
2000	17.3
2001	23.7
2002	24.0
2003	23.3
2004	22.7
Summary for 2000–2004	
Five-Year Average	23.7
Trend growth rate	N/A

Source: IMF Articles for Kazakhstan data, WDI for the benchmarks

CAS Code: 11s3
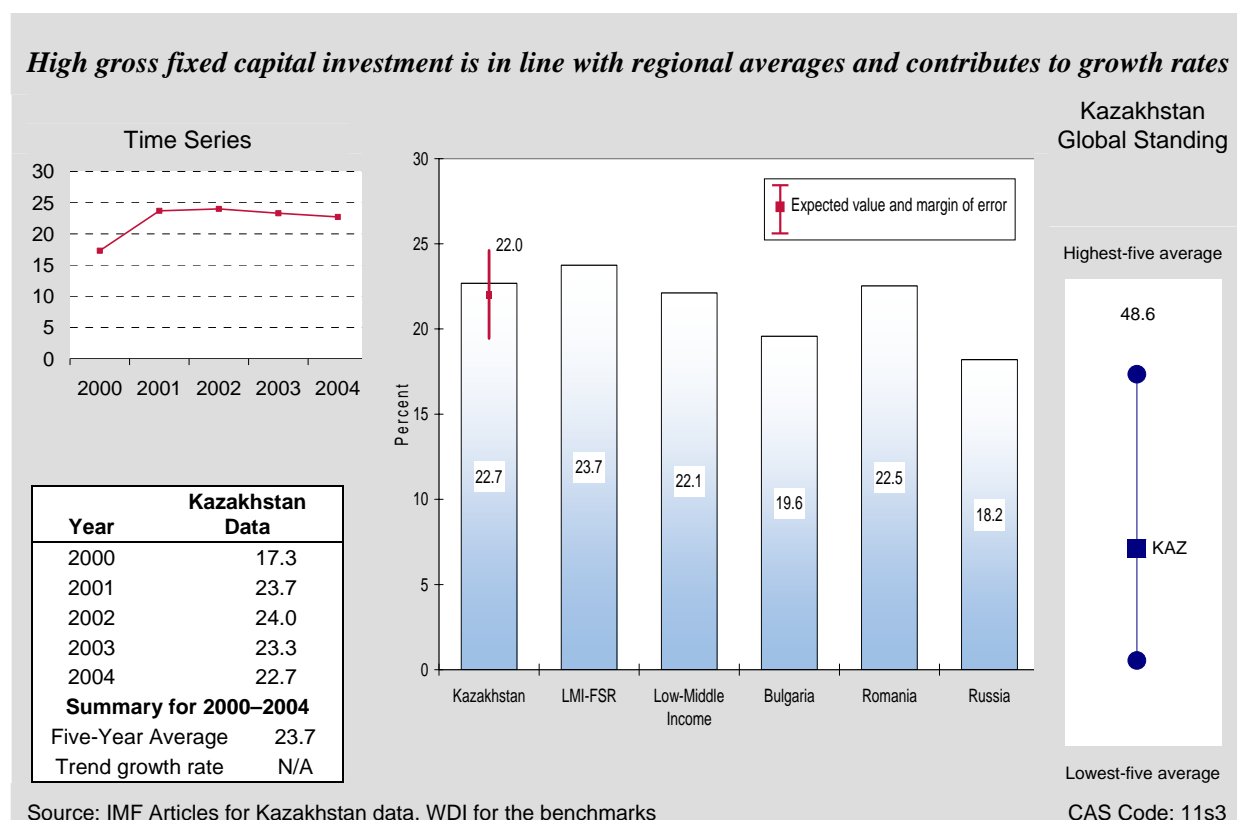
POVERTY AND INEQUALITY

Kazakhstan's poverty indicators are mixed. On the positive side, the poverty headcount according to the national poverty line has dropped rapidly in recent years, falling from 31.8 percent in 2000 to just 16.1 percent in 2004.[3] The poverty headcount is well below the regression benchmark of 34.4 percent for a country with Kazakhstan's characteristics. Although cross-country comparisons must be made with caution because national definitions of poverty vary widely, Kazakhstan's performance was in line with those of Russia (17.8 percent) and Bulgaria (12.8 percent) and well below those of the LMI-FSR countries and Bulgaria, at 50.0 percent and 29.6 percent, respectively.

Kazakhstan also performed well in terms of share of the population living on less than $1 PPP per day in absolute terms, with only 2 percent of the population at this level. This is generally comparable to the level found in other LMI-FSR countries (2.7 percent), Romania (2.0 percent), and Russia (2.0 percent). It was less than half the level found in Bulgaria, at 4.7 percent, or the average for LMI countries, at 4.2 percent.
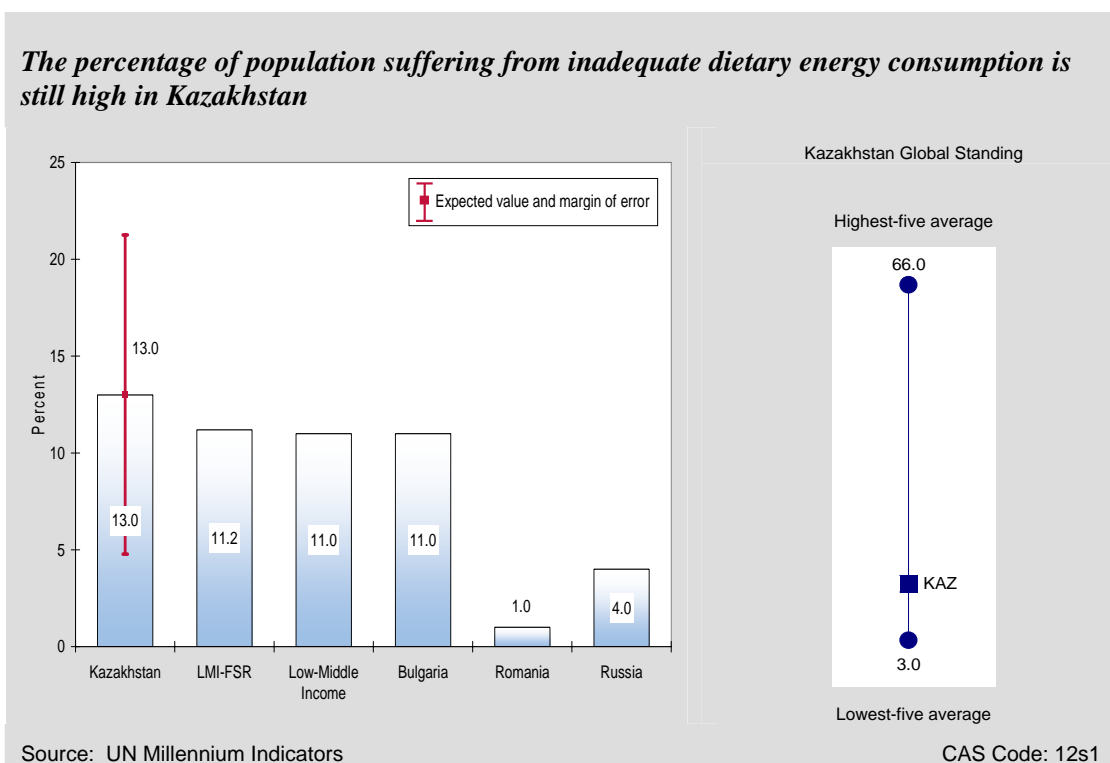
Despite this good performance, more needs to be done to reduce poverty in Kazakhstan. For example, 13.0 percent of the population does not meet minimum dietary requirements

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[3] Figures are based on subsistence-minimum definition.

(Figure 2-3, Population below Minimum Dietary Consumption). Kazakhstan's rate is slightly worse than the average for the LMI-FSR countries and the rate of Bulgaria, but it is much worse than Romania's and Russia's rates. Furthermore, more than a quarter of the population still lives in crowded conditions and rural poverty is nearly double the urban rate. Regional disparities are also significant—in 2002 poverty ranged from 2 percent in some oblasts to 32 percent in others.[4] Donor support and technical assistance in drafting a Poverty Reduction Strategy Paper (PRSP) would be a good first step in reducing poverty throughout Kazakhstan.

Figure 2-3

Population below Minimum Dietary Energy Consumption, percent

The percentage of population suffering from inadequate dietary energy consumption is still high in Kazakhstan

Source: UN Millennium Indicators   CAS Code: 12s1

ECONOMIC STRUCTURE

Kazakhstan's employment structure is broadly similar to that of other countries in the LMI-FSR group, with a large share in agriculture and services and a small share in industry. The average share of employment in industry for 2000–2004, at 16.9 percent, compared favorably with the 10.8 percent for LMI-FSR countries, but it is well below the range of 25–30 percent found in the more industrialized countries of Bulgaria, Romania, and Russia. From 2000 through 2004, 33.1 percent of Kazakhs were employed in agriculture, compared to an average of 40.0 percent in the LMI-FSR region. Kazakhstan fell in the middle of the comparator countries, below the 42.3 percent in Romania, but above the 26.3 percent in Bulgaria and 11.8 percent in Russia.

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[4] Measured according to the basic needs definition. World Bank, Dimensions of Poverty in Kazakhstan, report no. 30294-KZ, November 2004.

Although agriculture's share in employment is in line with the regional average, the agricultural sector suffers from low productivity, so although Kazakh agriculture employs one-third of workers, it accounts for only 8.5 percent of added value (Figure 2-4, Output and Labor Force Structures). The agricultural sector produces less in Kazakhstan relative to the economy as a whole than the average in LMI-FSR countries (14.1 percent), or than Bulgaria (11.7 percent) or Romania (11.9 percent). Also, the share of the services sector in Kazakhstan (52.0 percent) is smaller than the average for the LMI-FSR region (53.9 percent), Bulgaria (57.5 percent), and Russia (60.7 percent).

Figure 2-4
Output and Labor Force Structures, percent

Agricultural sector productivity is substantially lower than that of other sectors

Source: IMF Articles for Kazakhstan data, WDI for the benchmarks   CAS Codes: 13 p1 and 13p2
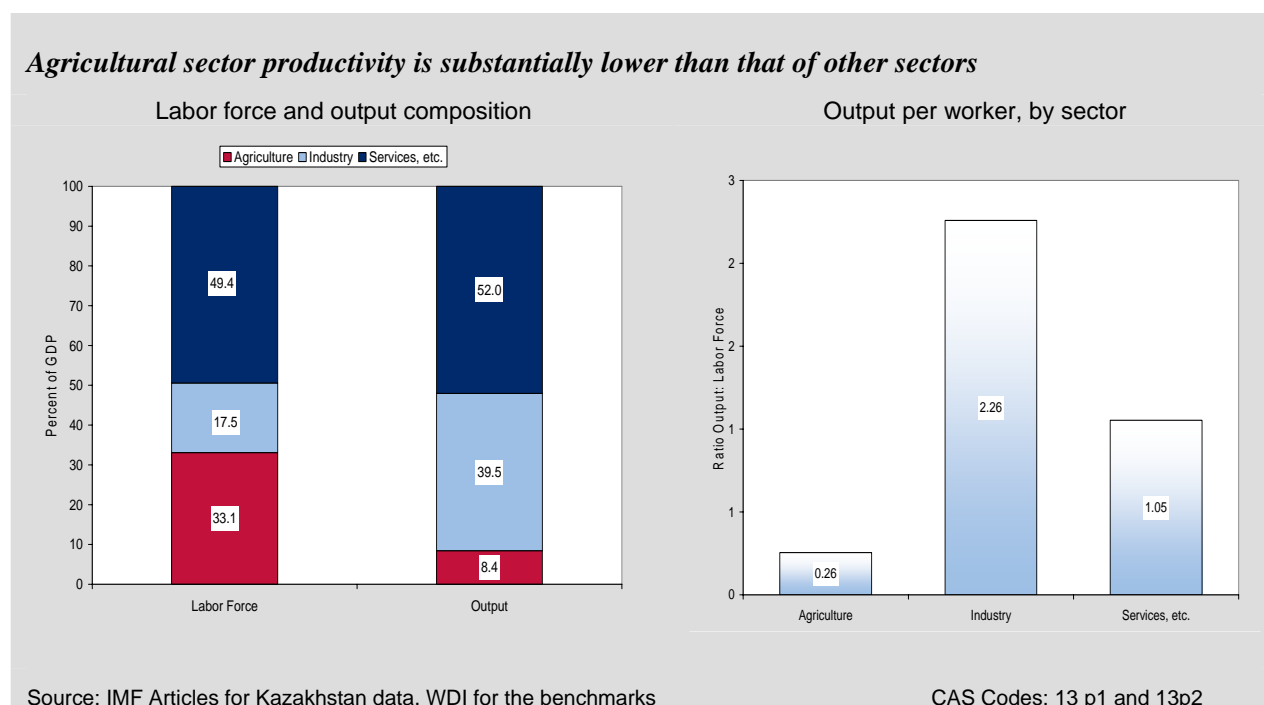
Industrial added value in Kazakhstan was 39.5 percent of the total in 2004, slightly higher than the rates in the comparator countries and country group. Most of this added value comes from oil and mining. In 2004, the industrial oil sector—including oil extraction and refining and oil-related construction—accounted for 15.9 percent of total added value in 2004, a 2.3 percentage point increase from 2000, and mining accounted for 14.7 percent. The little manufacturing that does exist—the extraction and processing of raw materials—derives from these two sectors. Machine building, for example, made up only 3.3 percent of industrial production (excluding construction) in 2004. By contrast, in Russia, despite its perceived reliance on raw materials, the share of machine-building equaled 22.2 percent of the total in the same year.

Small and medium-sized enterprise (SME) activity has expanded rapidly in Kazakhstan, with most small enterprises in trade, then in construction and real estate.. According to the USAID Enterprise Development Project implemented by the Pragma Corporation, employment at small

enterprises rose 20.9 percent between 2000 and 2003.[5] The share employed by small enterprises in total employment rose by about one percentage point, reaching 17.3 percent, in the same period. The contribution of SMEs to the added value generated by the Kazakh economy rose from 32.0 percent in 2000 to 55.3 percent in the first nine months of 2004.

Given current world commodity prices and the abundance of natural resources in Kazakhstan, the high contribution of mining to the economy and, in particular, the oil sector, is justifiable. However, the country needs to diversify industrial production for several reasons: to reduce its susceptibility to external price shocks, to move into sectors with greater potential for increasing added value, and to help create more employment through the promotion of labor-intensive sectors. Creating business opportunities in rural areas to relocate agricultural workers to more productive occupations would help in this regard.

DEMOGRAPHY AND ENVIRONMENT

Kazakhstan's population reached a peak of 16.5 million around 1990. The dissolution of the Soviet Union led to significant emigration, which, combined with a sharp fall in the birth rate and an increase in the death rate, resulted in a population drop to 14.9 million in 1999. The rate of net emigration has declined steadily since the late 1990s and reversed in 2004, becoming net immigration. At the same time the birth rate has rebounded slightly, and the death rate, which had been increasing, has stabilized. The net result has been that the population has stabilized at about 15 million.[6] According to the United Nations World Population Prospects, the overall rate of population decline in Kazakhstan in 1990-2004 was less than in Bulgaria, though more than in Romania and Russia. The same sources projects that the Kazakh population will decline slightly in the next 25 years. This contrasts favorably with the rapid population declines projected for Romania, Russia, and, especially, Bulgaria.

The age dependency rate in Kazakhstan was 0.48 dependents per worker in 2003, on par with LMI-FSR average (0.47). Although this ratio represents a decline from 0.53 in 1999, it is substantially higher than in all three comparator countries—Bulgaria (0.44), Romania (0.44), and Russia (0.42) and signals that the Kazakh population is aging. Though the Kazakh population is forecast by the UN to age more slowly than the population of the three comparator countries,[7] it is starting from a higher level. The Kazakh authorities need to prepare themselves for a rising financial burden associated with the increasing costs of pensions and health care for an aging population.

Kazakhstan's adult literacy rate was near perfect at 99.5 percent in 2003. This excellent performance is common in the region; the LMI-FSR average was 99.6 percent and the rates in the three comparator countries were about the same level: Russia (99.6 percent), Bulgaria (98.6 percent) and Romania (97.3 percent).

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[5] The number of employed by medium-sized enterprises is not available.

[6] The Agency of Statistics of the Republic of Kazakhstan. http://www.stat.kz/

[7] The median age in Kazakhstan is lower than in the comparator countries, and is likely to remain low in the next 25 years. United Nations, World Population Prospects Database.

The environmental sustainability index for Kazakhstan is 48.6, slightly better than the performance of LMI-FSR region (46.5) and in Romania (46.2).[8] At the same time, higher scores in Bulgaria (50.0) and Russia (56.1) show that there is clear room for improvement. Looking closer at the components at the index, Kazakhstan's performed poorly in the areas of water quality, air pollution, eco-efficiency and environmental governance. Particularly noteworthy in terms of environmental problems are the shrinking of the Aral Sea, the accumulation of industrial waste, and the pollution caused by Soviet nuclear testing.

GENDER

Kazakhstan performs well in terms of gender indicators point. In Kazakhstan, the ratio of male to female literacy is 1.01, with the underlying rates of 99.8 percent for and 99.3 percent for females. Thus roughly identical to the ratios for comparative country groups and countries, all of which are around 1.00: the ratio for the LMI-FSR region was 1.00, and the ratios for Bulgaria, Romania, and Russia were 1.01, 1.02 and 1.00, respectively.

The good performance on literacy correlates with a good ratio on male-female school enrollment rates. The ratio in Kazakhstan was 1.03 in 2003. The ratio in the comparator country group and countries were all slightly under 1.00, however this is not significant. Specifically, in the LMI-FSR region and Bulgaria, the average was 0.97, in Romania and Russia the ratios were 0.96 and 0.92, respectively.

As in many other countries, women in Kazakhstan are expected to live significantly longer than men (69 years compared to 58 years in 2003), which translates into a life expectancy ratio of males to females in Kazakhstan is 0.84. This ratio is similar to the 0.84 ratio in Russia and but above the average disparity in LMI-FSR (with 0.88 ratio), and 0.90 ratios in both Bulgaria and Romania. Kazakhstan's performance on this ratio is worrisome, not so much because it indicators a wide gender disparity, but because of what it indicates about male health; the 11-year difference in Kazakhstan's male and female mortality rates is greater than even that of Russia and is one of the highest in the world.[9] This is discussed below in the Health section.

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[8] Environmental sustainability index ranges from 0 (for poor performance) to 100 (for excellent performance).

[9] Becker, Charles M., Urzhumova, Dina S. and Seitenova, Ai-Gul S., "Mortality Recovery and Stabilization in Kazakhstan," IBS Working paper POP2003-0006, November 2003.

3. Private Sector–Enabling Environment

This section reviews indicators for key components of the enabling environment for encouraging rapid and efficient growth of the private sector. Sound fiscal and monetary policies are essential for macroeconomic stability, which is a necessary (though not sufficient) condition for sustained growth. A dynamic market economy also depends on basic institutional foundations, including secure property rights, an effective system for enforcing contracts, and an efficient regulatory environment that does not impose undue barriers on business activities. Financial institutions play a major role in mobilizing and allocating saving, facilitating transactions, and creating instruments for risk management. Access to the global economy is another pillar of a good enabling environment, because the external sector is a central source of potential markets, modern inputs, technology, and finance, as well as competitive pressure for efficiency and rising productivity. Equally important is development of the physical infrastructure to support production and trade. Finally, developing countries need to adapt and apply science and technology as a basis for attracting efficient investment, improving competitiveness, and stimulating productivity growth.

FISCAL AND MONETARY POLICY

Overall, Kazakhstan's fiscal and monetary policies are sound.[15] The government has run a budget surplus since 2001, and that is expected to continue in 2005 (Figure 3-1, Government Budget Balance). The performance is as good as or better than the benchmark values considered. When oil proceeds are excluded from government revenues, the government runs a deficit (4.7 percent in 2004). The IMF has calculated that this deficit is sustainable but needs to decline gradually over time.[16]

Government expenditure stood at 23.3 percent of GDP in 2004, on par with the regression benchmark of 20.1 percent and Russia's expenditure of 22.9 percent, though below the levels seen in Bulgaria (37.5 percent) and Romania (32.3 percent). According to the IMF's 2005 Article

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[15] In 2005 the World Development Indicators (WDI) database adopted a new system for classifying fiscal data, although most developing countries still use the old classification. Subsequently, the WDI database has fiscal data for few developing countries; because of the limited sample size, most group averages derived from WDI are not meaningful. In this section, comparisons are based on absolute standards, or benchmarks derived from 2004 WDI data, as well as figures for Bulgaria, Romania, and Russia.

[16] IMF, Republic of Kazakhstan: Article IV Consultation, Country Report No. 05/244, July 2005, pp.14–15 and Box 5.

IV report, the government has been under political pressure to spend rising oil revenues, to which it has responded in two ways. First, it created the NFRK in 2001 to "reduce the economic impact of volatile oil prices and serve as a vehicle for saving part of Kazakhstan's oil income for future generations."[17] Second, the government has initiated substantial increases in social spending to improve living standards equitably, increase the social safety net for the financially vulnerable, and make public sector employment competitive with employment in the private sector. Spending increases include the introduction of a basic pension system, a large increase in wages for education and health workers and the basic civil service, and increases in direct spending on healthy, education, and capital investment. Although greater social spending is welcome, the situation must be monitored closely. First, social spending could generate inflationary pressures, especially in light of the fact that civil service salaries are due to increase by another 30 percent in 2007. Second, authorities need to determine if this is fiscally sustainable.

Figure 3-1
Government Budget Balance, percent of GDP

Kazakhstan fiscal policy is sound, though relies heavily on oil revenues

Year	Kazakhstan Data
2000	-0.8
2001	2.7
2002	1.4
2003	2.9
2004	2.7
Summary for 2000-2004	
Five-Year Average	1.8
Trend growth rate	N/A

Source: Kazakhstan, Bulgaria, Romania and Russia data from corresponding IMF Articles IV   CAS
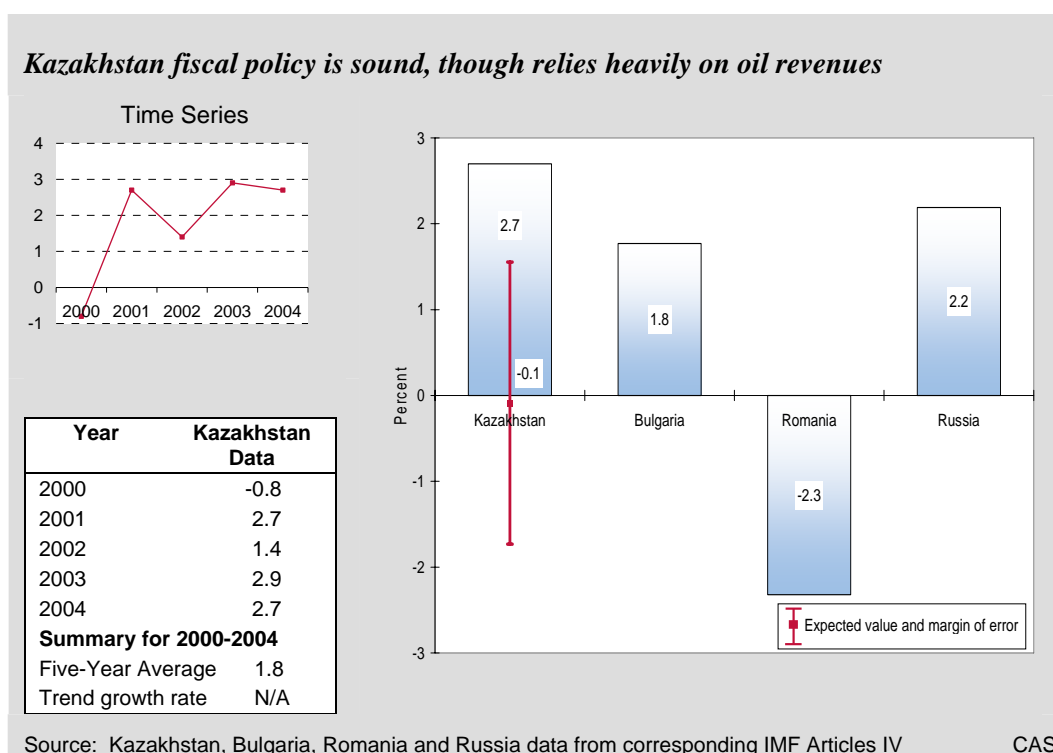
Government revenue has risen as a percent of GDP, increasing from 21.6 percent in 2000 to 26.0 percent in 2004. Although still below the revenue in Bulgaria (38.0 percent), Romania (29.9 percent), and Russia (27.4 percent), government revenue is above the regression benchmark (21.5 percent) and demonstrates improved revenue mobilization. Much of the increase can be attributed to increased tax revenue from taxes on goods, services, and income, despite an income tax cut in 2004. The government is considering further sizable tax cuts to stimulate non-oil

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[17] Ibid. Box 5

growth. Such plans must take into consideration the availability of funds and the impact of the 2004 tax cuts. Furthermore, greater attention needs to be paid to how oil revenues, which account for nearly 30 percent of revenue, are handled. Plans are for all central government oil revenues to pass through the NFRK, and to set the non-oil deficit equivalent to developmental spending, to be financed by the NFRK.[18] Although this development is welcome and an opportunity to increase transparency and accountability in oil revenue and spending, as the IMF notes, overall spending plans need to take include a comprehensive look at fiscal sustainability.

Kazakhstan's monetary policy is sound despite rapid growth in the money supply, as the economy is experiencing rapid remonetization. Inflation has been brought largely under control, falling from 13.3 percent in 2000 to 6.9 percent in 2004, below levels found in all comparable countries and country groups except Bulgaria (Figure 3-2, Inflation).

Figure 3-2
Inflation, percent

Inflation has been brought under control

Year	Kazakhstan Data
2000	13.3
2001	8.3
2002	5.9
2003	6.4
2004	6.9
Summary for 2000-2004	
Five-year average	8.2
Trend growth rate	N/A

Source: IMF World Economic Outlook database   CAS Code: 21p4
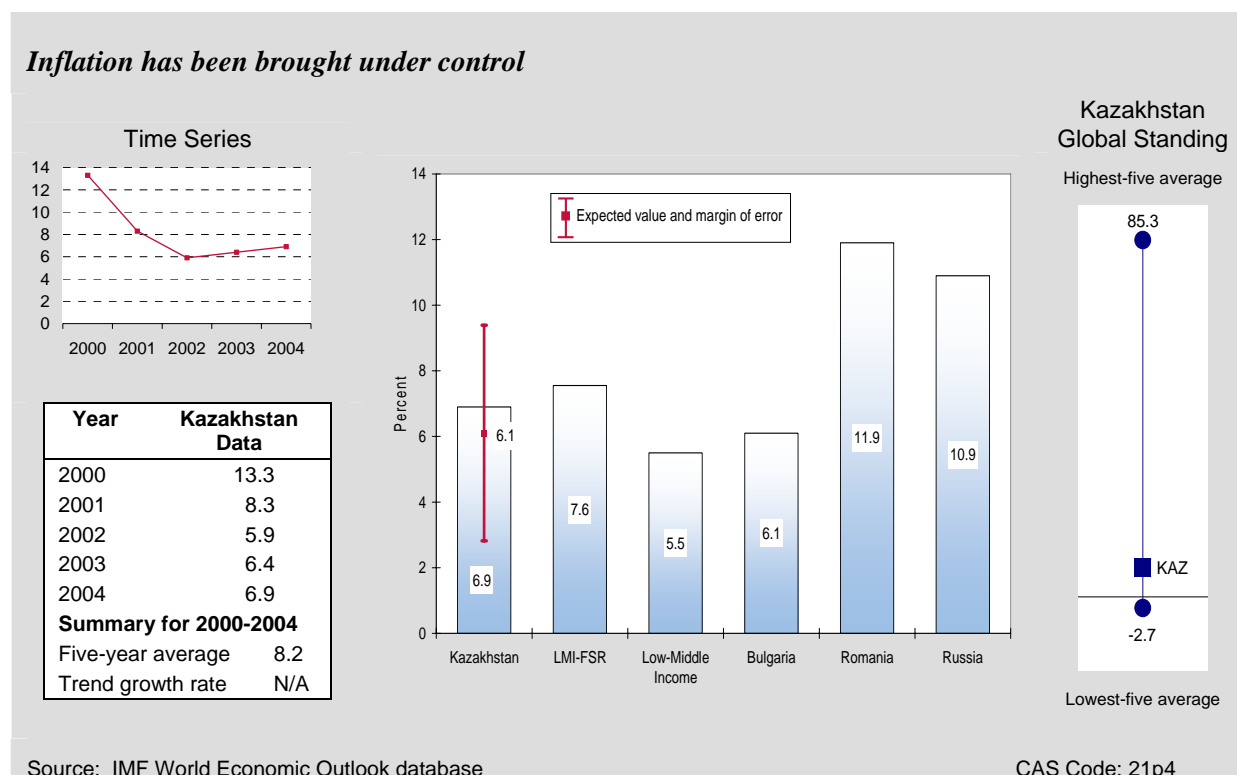
Broad money supply growth soared to 68.2 percent in 2004 and has averaged 43.6 percent in the past five years (Figure 3-3, Growth in Broad Money Supply). [19] This growth rate is well above all benchmarks—the regression estimate for a country with Kazakhstan's characteristics (30 percent), the LMI-FSR average (31 percent), Bulgaria's rate (20 percent), Romania's rate

[18] Ibid.

[19] Figures for the money supply growth composition of Kazakhstan are based on the M3 definition (not M2)—i.e., including all time and enterprise deposits.

(23 percent), and Russia's rate (39 percent). Rapid growth in the money supply is a result of the central bank's exchange rate policy. Monetary authorities have attempted to achieve a balance between containing inflation and preventing real and nominal appreciation of the currency from surging oil export revenues. For example, in early 2004 the authorities let up on foreign exchange purchases and allowed nominal appreciation; however in the fourth quarter, the authorities stepped up interventions to keep the nominal exchange rate in check to maintain competitiveness.[20] Although high economic growth rates and rapid remonetization of the economy have kept inflation in check, money supply growth must be monitored closely to avoid an upsurge in inflation.

Figure 3-3

Growth in Broad Money Supply, percent

Rapid money supply growth needs to be closely monitored in coordination with exchange rate policy

Year	Kazakhstan Data
2000	45.9
2001	42.8
2002	34.1
2003	27.0
2004	68.2
Summary for 2000–2004	
Five-year average	43.6
Trend growth rate	N/A

Source: Kazakhstan data from IMF Article IV; benchmark data from WDI   CAS Code: 21p3
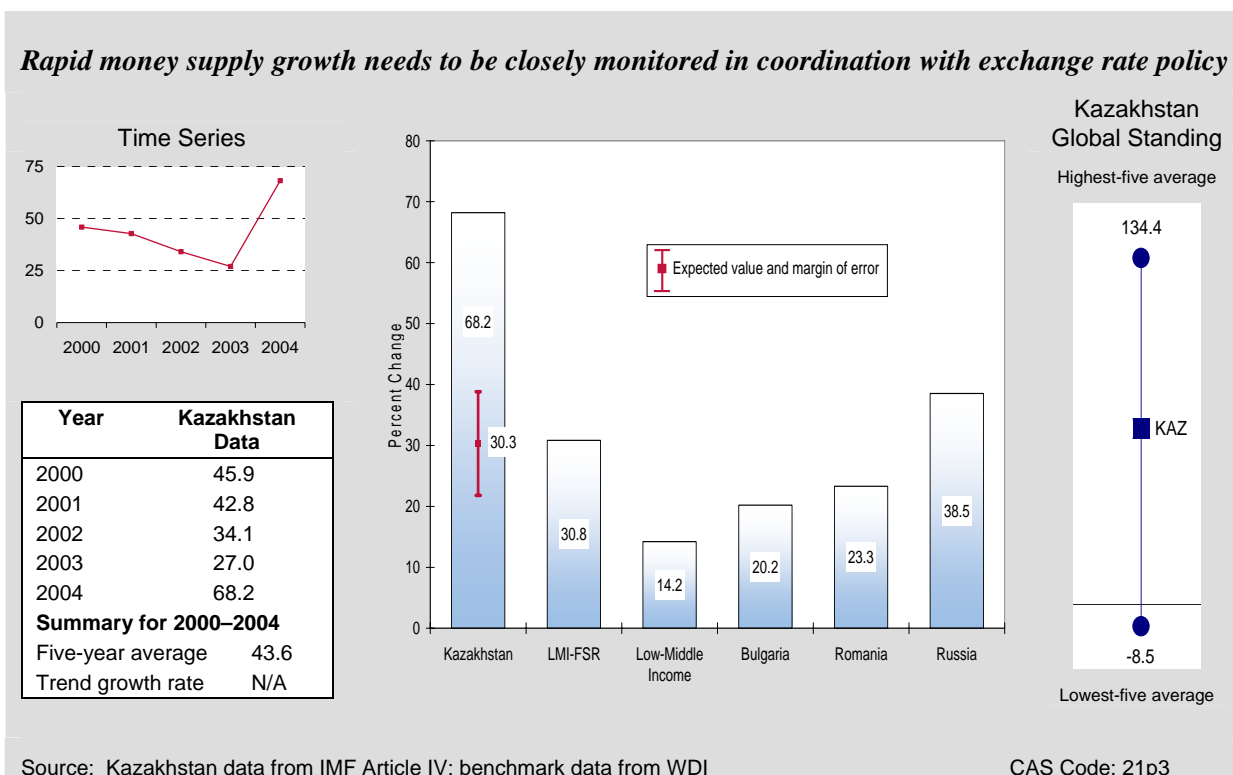
In light of fiscal and monetary developments, Kazakhstan could benefit from donor assistance in fiscal management and developing a medium-term fiscal framework, managing oil revenues responsibility and transparently, and helping the monetary authorities move toward inflation targeting. See Exhibit 3-1 for a summary of the IMF's position on Kazakhstan's money supply.

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[20] IMF, "Republic of Kazakhstan: Article IV Consultation," Country Report No. 05/244, July 2005, pp.14-15 and Box 5.

Exhibit 3-1
IMF Program Status for Kazakhstan

In 2000, Kazakhstan became the first former Soviet republic to repay all its debt to the IMF, seven years ahead of schedule. In June 2005, the IMF completed its annual Article IV consultation with Kazakhstan. Executive directors "commended the Kazakh authorities' prudent macroeconomic policies in recent years, which have been critical in achieving economic growth, declining unemployment, and sustained reduction in poverty" and noted that "Kazakhstan's economic outlooks remains highly favorable."

BUSINESS ENVIRONMENT

Institutional barriers to doing business, including corruption in government, are critical determinants of private sector development and prospects for sustainable growth. Most of the indicators considered, although not all, raise serious concern about Kazakhstan's unfriendly business environment.

As in many resource-rich countries, corruption is a major problem in Kazakhstan. The Corruption Perception Index score for Kazakhstan is 2.6.[21] Although Kazakhstan's score is on par with the regression benchmark and better than the LMI-FSR average, any value below 3.0 is considered to indicate rampant corruption, which is an impediment to investment (Figure 3-4, Corruption Perception Index).

Kazakhstan ranks 86th (of 155 countries) in the World Bank's Ease of Doing Business ranking, on par with the 84 average ranking for the LMI-FSR. Its performance is worse than in all three comparator countries—Bulgaria ranks 62nd, Romania 78th, and Russia 75th. Looking closer at the components of the index, Kazakhstan ranks poorly in the indicators related to contract enforcement.

Performance on the Rule of Law Index is poor.[22] At -1.0, Kazakhstan ranks below the regression benchmark (-0.8), the LMI-FSR average (-0.9), and values for Bulgaria (0.1), Romania (-0.2), and Russia (-0.7). Similarly, the Regulatory Quality Index (-0.9) indicator is also below all benchmarks: the LMI-FSR average is -0.6, Bulgaria's score is 0.6, Romania's score is -0.1, and Russia's score is -0.5.[23]

Although Kazakhstan made considerable progress in structural reform in the early 1990s, the pace of reform has slowed considerably. Kazakhstan's performance on the transition indicators used by the European Bank for Reconstruction and Development (EBRD) has improved little in recent years, and the gap with more advanced reformers has widened.[24] Kazakhstan ranks relatively low

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[21] Corruption Perception Index ranges from 1 for poor performance to 10 for excellent.
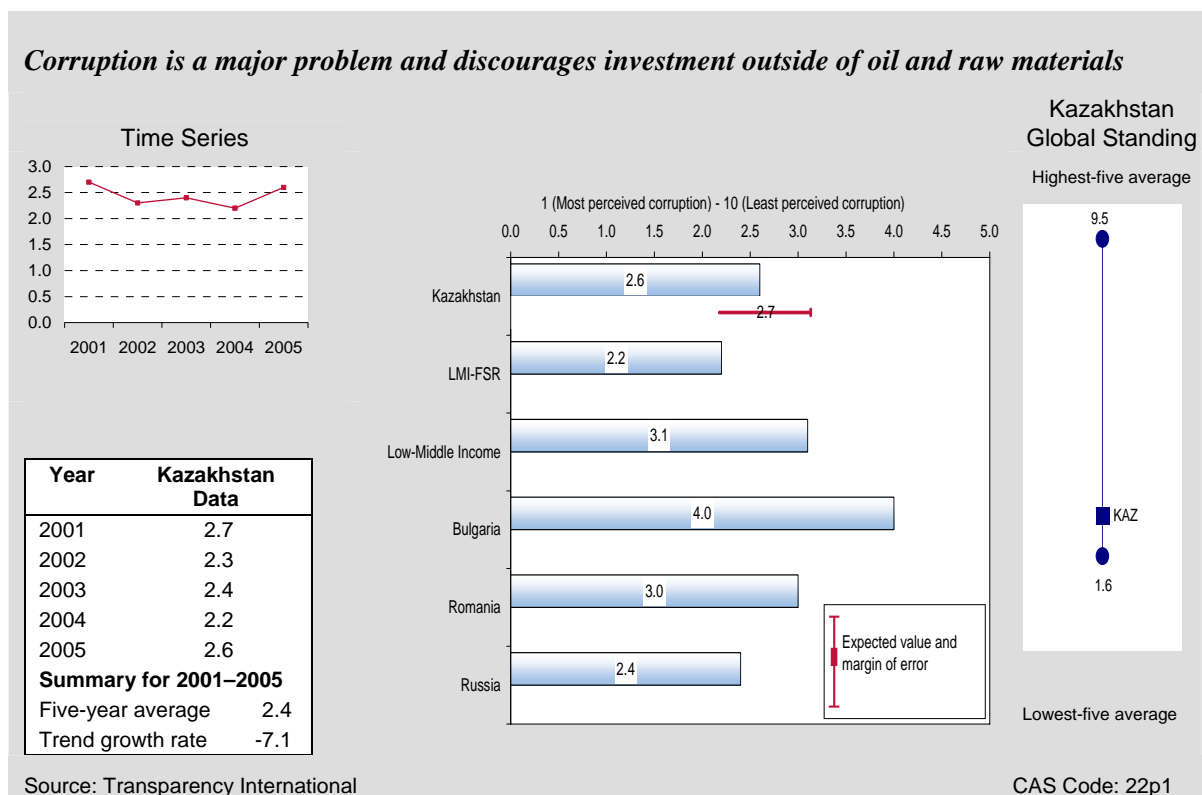
[22] Rule of Law Index ranges from -2.5 for poor performance to 2.5 for excellent.

[23] Regulatory Quality Index ranges from -2.5 for poor performance to 2.5 for excellent.

[24] Although EBRD indicators are not part of the standard CAR database, transitional progress is an important consideration for any post-Soviet economy.

in competition policy and enterprise restructuring, which are necessary for the healthy growth of the private sector. Kazakhstan needs to accelerate reforms to reduce regulation and promote competition.[25]

Figure 3-4
Corruption Perception Index

Corruption is a major problem and discourages investment outside of oil and raw materials

Time Series

Year	Kazakhstan Data
2001	2.7
2002	2.3
2003	2.4
2004	2.2
2005	2.6
Summary for 2001–2005	
Five-year average	2.4
Trend growth rate	-7.1

1 (Most perceived corruption) - 10 (Least perceived corruption)

Kazakhstan	2.6
	2.7
LMI-FSR	2.2
Low-Middle Income	3.1
Bulgaria	4.0
Romania	3.0
Russia	2.4

Expected value and margin of error

Kazakhstan Global Standing

Highest-five average
9.5
KAZ
1.6
Lowest-five average

Source: Transparency International   CAS Code: 22p1

The main message for the government and the donor community is that, given the need to develop manufacturing outside the oil and raw materials sector, the business environment needs to encourage investment. Kazakhstan could benefit from assistance in fighting corruption and making oil revenues more transparent and the entire range of issues in transitioning enterprises to operating under capitalism, including enterprise restructuring and improving corporate governance.

FINANCIAL SECTOR

A sound and efficient financial sector is a key to mobilizing savings, fostering productive investment, and improving risk management. The financial sector in Kazakhstan is well developed; nonetheless, regulatory improvements are necessary.

The money supply–to-GDP ratio is a principal indicator of the degree of monetization of the economy and the size and depth of the banking sector. Kazakhstan's economy is well monetized,

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[25] IMF, "Republic of Kazakhstan: 2005 Article IV Consultation," Country Report No. 05/244, July 2005.

a with broad money supply (M2) of 29.5 percent of GDP in 2004, nearly double the level of 2000 (Figure 3-5, Money Supply). This ratio is well above the average for the LMI-FSR region (14.1 percent), Romania's rate (22.1 percent), and Russia's rate (25.7), although the higher rate of 44.6 percent in Bulgaria indicates that there is potential for further monetization.

Figure 3-5
Money Supply (M2), percent of GDP

The economy is remonetizing rapidly with increased confidence in the tenge

Time Series

Year	Kazakhstan Data
2000	15.4
2001	17.6
2002	20.3
2003	21.1
2004	29.5
Summary for 2000–2004	
Five-Year Average	20.8
Trend growth rate	16.0

Kazakhstan Global Standing

Highest-five average: 188.2
KAZ
4.8
Lowest-five average

Source: Kazakhstan data from IMF Article IV; benchmark data from WDI   CAS Code: 23p3

At first glance, the banking sector appears to be efficient and well-developed. Kazakhstan's interest rate spread of 6.0 percent in 2004 was below all the comparator values except that of Bulgaria at 5.9 percent; the regress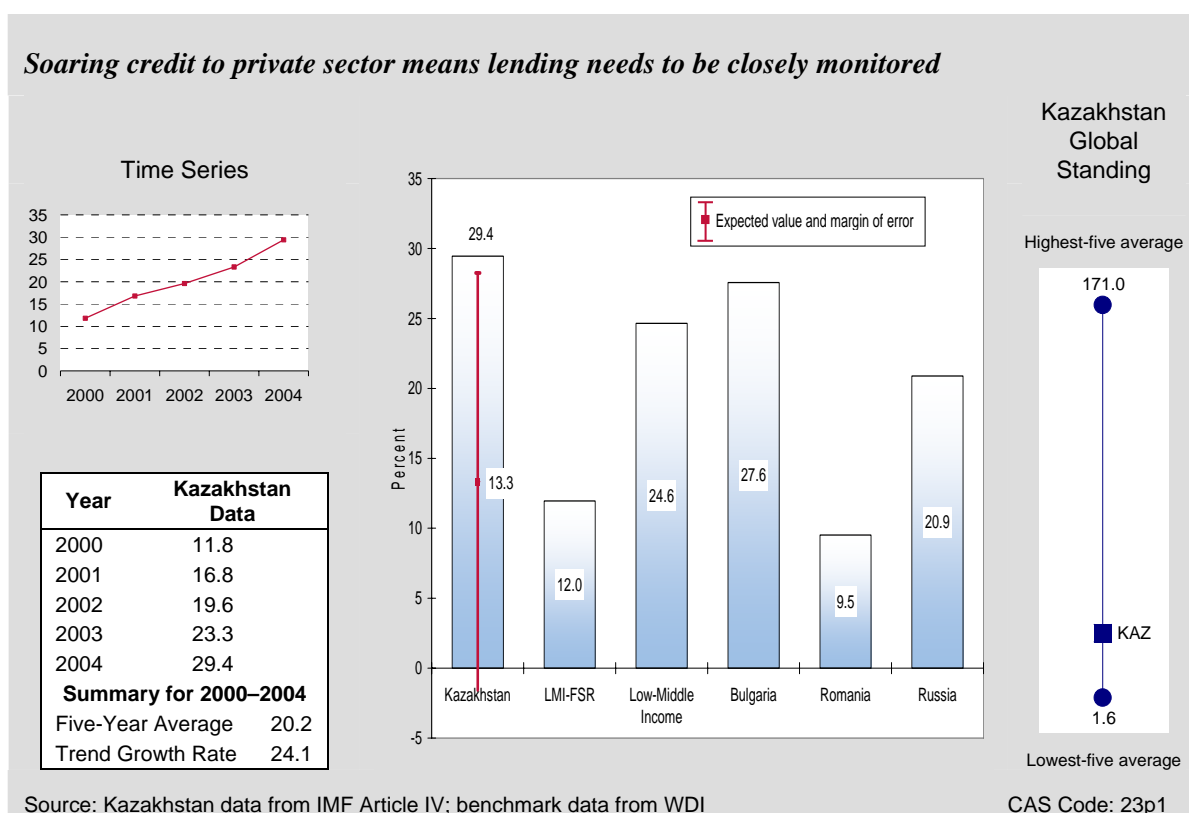ion benchmark value was 7.6 percent; the LMI-FSR average was at 9.7 percent; and the rate in Russia was 8.5 percent. However the interest rate spread has risen steadily in the past five years and appears to be affected by central bank regulations on deposit rates.[26] The real interest rate of 8.5 percent in 2004, down from 10.7 percent in 2000, is also a sign of improving efficiency and competition in the banking sector in comparison to the LMI-FSR region overall (with 10.6 percent). Here, if one considers deposit rates for legal entities, the rate is actually negative—once again, indicating that the government is playing an intrusive role and causing inefficiencies. According to the Legal Rights of Borrowers Index, Kazakhstan's value in 2004 was 5 on a scale of 0 (worst) to 10 (best). Kazakhstan's financial legal framework

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[26] On average, in 2000–2004, deposit rates for legal entities were 7.5 percent lower than deposit rates for households (according to monthly interest rate statistics from the IMF, Republic of Kazakhstan: Statistical Appendix, Country report No. 05/239, July 2005). Interest rate spread calculations for this report were based on the deposit rates for households.

is more advanced than that of Romania (4..0) or Russia (3.0), but is worse than the system in
Bulgaria (6.0). More important, a score of 5 indicates that there is clearly room for improvement
in providing legal protection for both borrowers and lenders.

In line with the increase in the broad money supply, domestic credit to the private sector has been
booming, increasing from 11.8 percent of GDP in 2000 to 29.4 percent of GDP in 2004 (Figure
3-6, Domestic Credit to Private Sector). At this level, the credit is above all of the benchmarks—
the average for the LMI-FSR region and the values for the three comparator countries.[27] The
rapid growth may represent a catch-up seen in other transitional economies, but increased credit
accessibility may also lead to lending without proper risk assessment and to the deterioration of
banks' loan portfolios.[28] Improving regulations and supervision is a top priority in mitigating the
considerable risks involved.

Figure 3-6
Domestic Credit to the Private Sector, percent of GDP

Soaring credit to private sector means lending needs to be closely monitored

Source: Kazakhstan data from IMF Article IV; benchmark data from WDI   CAS Code: 23p1

Stock market capitalization is low (8.2 percent of GDP). Although on par with the LMI-FSR
average, the value is below the capitalization rate in all three comparator countries (Bulgaria with
8.8 percent, Romania with 9.8 percent, and Russia with 53.3 percent).[29] Improved stock market

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[27] Regression estimate is not used for benchmarking here due to high standard errors.

[28] IMF, "Republic of Kazakhstan: 2005 Article IV Consultation," Country Report No. 05/244, July 2005.

[29] Regression benchmark is not considered due to the high standard errors associated with the estimate.

performance could provide additional sources of capital and competition for the banking sector, putting pressure on banks to improve efficiency.

Although financial markets in Kazakhstan are well developed, the government and the donor community need to address certain issues—ensuring that credit expansion does not lead to imprudent risks by financial intermediaries, especially in the midst of an oil price boom and expected exchange rate appreciation, such as substantial currency mismatches on bank balance sheets. Donors could assist in developing an improved institutional framework for bank supervision and regulation.

EXTERNAL SECTOR

Fundamental changes in international commerce and finance, including reduced transport costs, advances in telecommunications technology, and lower policy barriers, have fueled a rapid increase in global integration in the past 25 years. The international flow of goods and services, capital, technology, ideas, and people offers great opportunities for Kazakhstan to boost growth and reduce poverty by stimulating productivity and efficiency, providing access to new markets and ideas, and expanding the range of consumer choice. Globalization also creates challenges in the need for institutions, policies, and regulations to take full advantage of international markets, develop cost-effective approaches to cope with adjustment costs, and establish systems for monitoring and mitigating the associated risks.
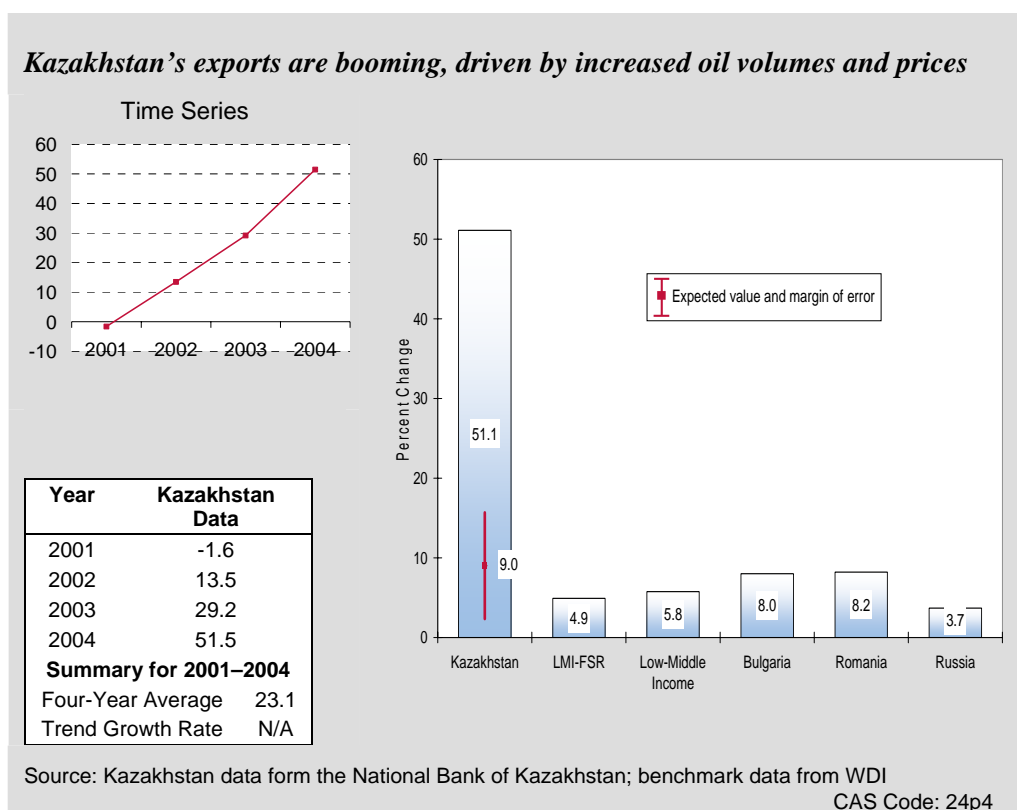
Kazakh external sector developments are generally favorable on both the trade and the investment sides. At the same time, the country's excessive reliance on oil may threaten its stability if oil prices decline sharply, and foreign debt and debt service levels are high.

International Trade and the Current Account

Kazakh foreign trade has been booming. Kazakh exports of goods and services doubled between 2002 and 2004.[30] This was largely a result of the rapid growth in oil exports, which benefited both from increased oil production and from rising world oil prices, although exports of many other commodities also grew significantly (Figure 3-7, Growth of Exports of Goods and Services). Measured in physical units, exports of crude oil and gas condensate rose 89.1 percent from 2000 to 2004; in U.S. dollars, they increased 157.8 percent. The role of oil in exports is high and rising—in 2004, oil and gas condensate accounted for 57.1 percent of total merchandise exports, up almost 7 percentage points from 2000. Kazakh exports are highly concentrated, with the top three export commodities accounting for 64.3 percent of exports, much more than in Bulgaria (17.4 percent) and Romania (24.0 percent), and more even than in Russia (54.3 percent), which also relies heavily on oil and raw material exports. As of 2004, only 18 percent of Kazakh exports were in manufacturing, compared with 21 percent in Russia and 26 percent for the LMI-FSR average. Even comparing the ratio before the oil boom, the ratio of 24 percent is still well below levels found in Bulgaria and Romania of 65.8 and 82.5 percent, respectively.

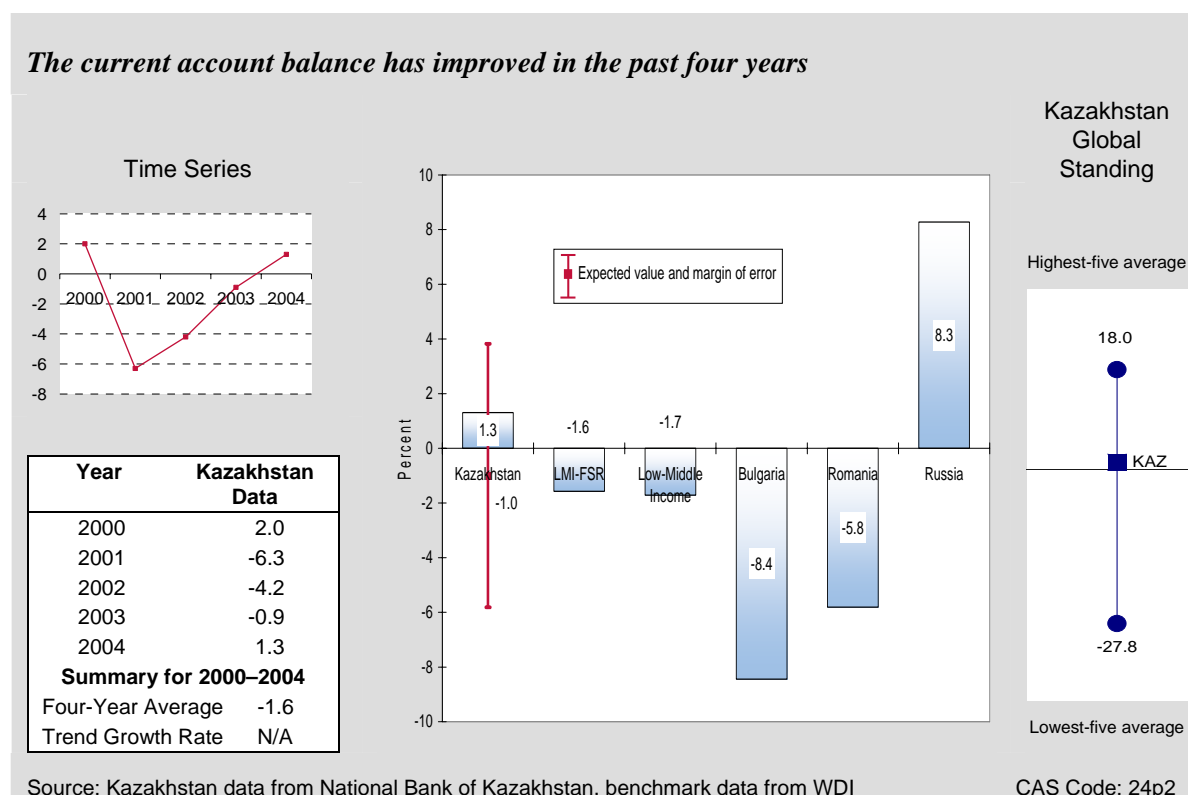
[30] The National Bank of Kazakhstan. http://www.nationalbank.kz/

Figure 3-7

Growth in Exports of Goods and Services, percent

Kazakhstan's exports are booming, driven by increased oil volumes and prices

Time Series

Year	Kazakhstan Data
2001	-1.6
2002	13.5
2003	29.2
2004	51.5
Summary for 2001–2004	
Four-Year Average	23.1
Trend Growth Rate	N/A

Expected value and margin of error

Kazakhstan	LMI-FSR	Low-Middle Income	Bulgaria	Romania	Russia
51.1 / 9.0	4.9	5.8	8.0	8.2	3.7

Source: Kazakhstan data form the National Bank of Kazakhstan; benchmark data from WDI

CAS Code: 24p4

The share of foreign trade in GDP in Kazakhstan in 2004 stood at 101.4 percent of GDP. This high ratio is a function of the small size of the Kazakh economy and its large oil exports, and in fact is essentially the same (102.8 percent) as the regression benchmark for a country with Kazakhstan's characteristics. It is higher than in the LMI-FSR region as a whole (94.5 percent), Romania (71.6 percent), and Russia (52.6 percent), but lower than in Bulgaria (116.2 percent).

The Kazakh merchandise trade surplus more than tripled in the 2000–2004 period, as rapid export growth outpaced rising in imports. This helped improve the current account balance from a deficit of 6.3 percent of GDP in 2001 to a surplus of 1.3 percent of GDP in 2004 (Figure 3-8, Current Account Deficit). By contrast, the LMI-FSR countries, on average, ran a 1.3 percent deficit and Bulgaria and Romania ran large deficits. At the same time, the current account surplus in Kazakhstan is much smaller than in Russia (8.3 percent). A more substantial current account surplus was prevented by rises in the deficits in services and income and the deterioration of the balance on current transfers from a surplus to deficit. The Kazakh current account has been negatively affected by rising profit repatriation by foreign companies and current private transfers by foreigners from Kazakhstan. Because Kazakhstan is a prosperous country by regional standards, labor income and private current transfers are negative on a net basis.

Figure 3-8

Current Account Balance, percent of GDP

The current account balance has improved in the past four years

Source: Kazakhstan data from National Bank of Kazakhstan, benchmark data from WDI   CAS Code: 24p2

Year	Kazakhstan Data
2000	2.0
2001	-6.3
2002	-4.2
2003	-0.9
2004	1.3
Summary for 2000–2004	
Four-Year Average	-1.6
Trend Growth Rate	N/A

International Financing and External Debt

Foreign direct investment (FDI) in Kazakhstan has averaged nearly 10 percent of GDP in 2000-2004, and reached a five-year high of 13.5 percent of GDP in 2004 (Figure 3-9, Foreign Direct Investment). This level far exceeds the range predicted by the regression benchmark, as well as FDI inflows in Bulgaria (7.2 percent), Romania (3.2 percent), and Russia (1.8 percent) and average inflows in the LMI-FSR (3.6 percent). An overwhelming portion of FDI—59.8 percent, on average, in 2000–2004—went into oil and natural gas extraction.[31]

Kazakhstan's external debt appears high at 95.3 percent of GNI in 2003. The present value of the external debt was much higher than the range predicted by the benchmark regression and than the LMI-FSR average (43.7 percent) and the levels of debt in Bulgaria (85.5 percent), Romania (46.0 percent), and Russia (52.1 percent). Not surprisingly, the debt service ratio was also substantially higher than the benchmark indicators. Closer examination reveals, however, that these indicators do not give an accurate picture of the external debt situation. The reason for this is that much of the debt is made up of intracompany loans; 52.0 percent of the external debt in 2004 was made up of loans provided by foreign companies to their subsidiaries in Kazakhstan.[32] According to the 2004 IMF Article IV consultation, these intracompany loans have no fixed
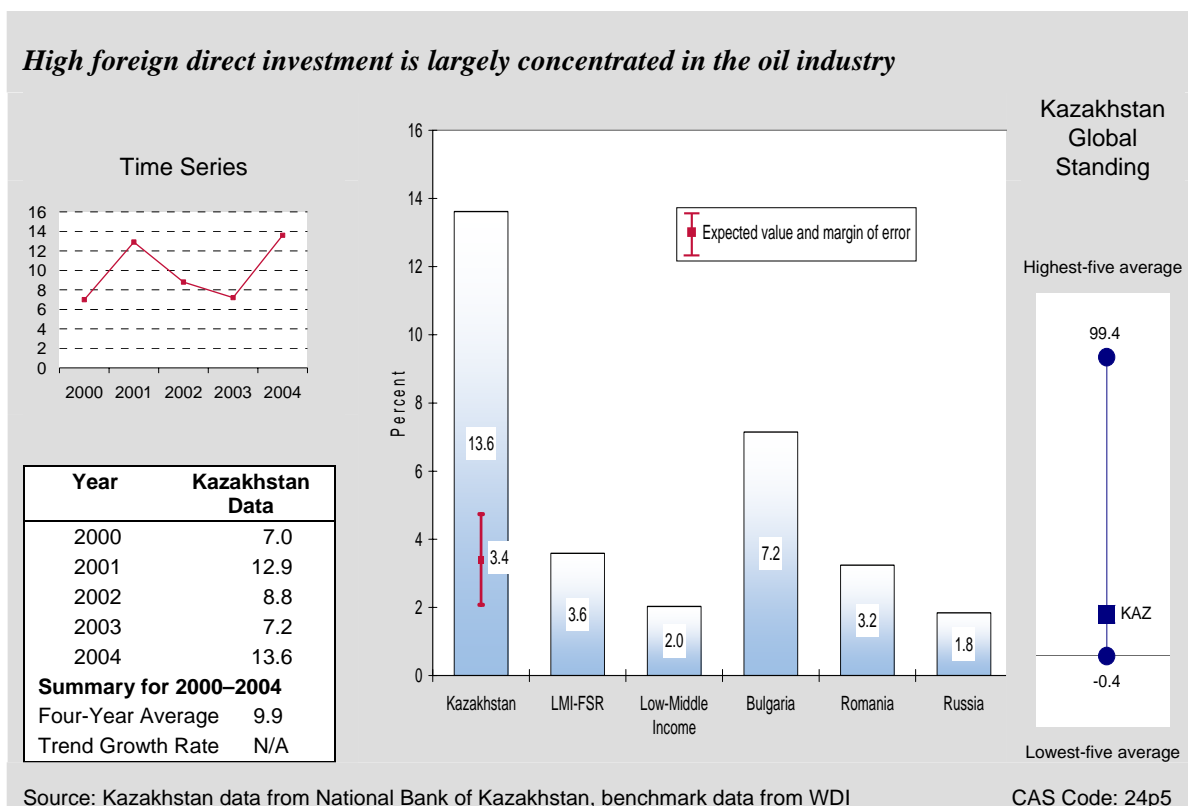
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[31] IMF, "Republic of Kazakhstan: Statistical Appendix," Country Report No. 05/239, July 2005.

[32] The National Bank of Kazakhstan. http://www.nationalbank.kz/

repayment schedule and therefore repayment can vary with company profitability and ability to pay.[33] Most of the remainder of the private debt is medium- and long-term. Kazakh official debt is relatively low and falling in absolute terms. In 2004, it stood at only 10.5 percent of total external debt.

Figure 3-9

Foreign Direct Investment, percent of GDP

High foreign direct investment is largely concentrated in the oil industry

Year	Kazakhstan Data
2000	7.0
2001	12.9
2002	8.8
2003	7.2
2004	13.6
Summary for 2000–2004	
Four-Year Average	9.9
Trend Growth Rate	N/A

Source: Kazakhstan data from National Bank of Kazakhstan, benchmark data from WDI   CAS Code: 24p5

The Kazakh central bank's foreign exchange reserves have risen in the past several years, both absolutely and relative to imports, and appear sufficient to protect the stability of the country's currency. Central bank reserves rose from 2.8 months of imports in 2000 to 5.9 months in 2004. The level of reserves exceeds the range predicted by the respective benchmark regression, average reserves in the LMI-FSR region (2.9 months), and levels in Romania (4.3 months), although they fall short of reserves in Bulgaria (7.2 months) and Russia (7.4 months). In addition to central bank reserves, Kazakhstan has been accumulating assets in the National Fund. In 2004, National Fund assets reached 55.3 percent of the level of central bank reserves.[34]

Given Kazakhstan's oil wealth, foreign aid plays a relatively small role in external financing, averaging 0.9 percent of GNI from 1999 to 2003. This is about the same level as in the LMI-FSR (0.8 percent), but below the levels in Bulgaria (2.1 percent) and Romania (1.1).

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[33] pp. 19–20

[34] IMF, "Republic of Kazakhstan: Statistical Appendix," Country Report No. 05/239, July 2005.

The indicators for the external sector paint a positive picture, but all of this—from trade to investment to debt—predicated on the oil sector. Thus the diversification of exports and FDI inflows into non-oil sectors is where Kazakhstan might benefit most from foreign donor assistance and is line with the government's own policies.

ECONOMIC INFRASTRUCTURE

A country's physical infrastructure—for transportation, communications, power, and information technology—is the backbone for strengthening competitiveness and expanding productive capacity.
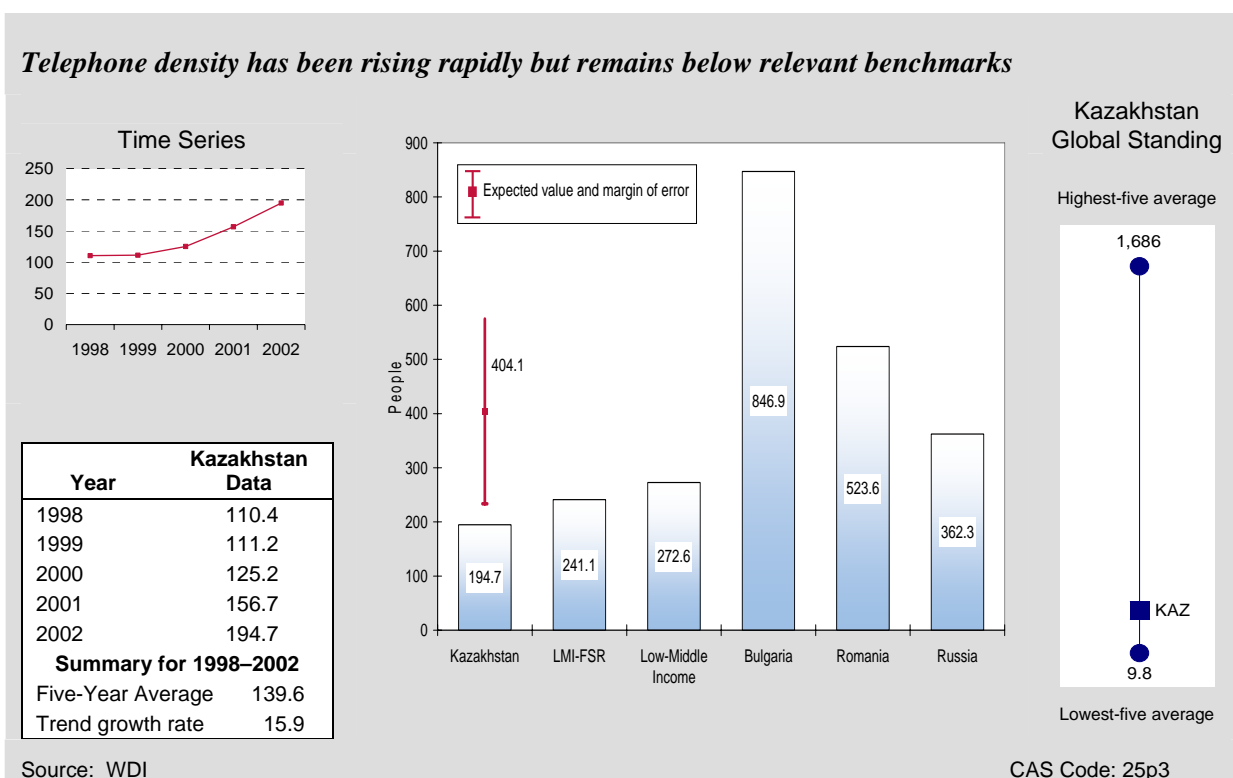
The general level of infrastructure development in Kazakhstan is slightly better than in the comparator country groups and individual countries. The Overall Infrastructure Quality Index was 3.5 on a scale of 1 (poor) to 7 (excellent) for 2005, while the LMI-FSR average was 3.3. Bulgaria, Romania, and Russia, scored 2.8, 2.7, and 3.3, respectively. Judging by the index components, electricity infrastructure in Kazakhstan is in especially good shape relative to other infrastructure sectors. By contrast, port infrastructure development leaves much to be desired— the Kazakh port infrastructure quality index of 2.9 is below the LMI-FSR average (3.9), as well as the indexes of Bulgaria (3.7), Romania (4.0), and Russia (4.3). While Kazakhstan possesses an extensive system of automobile roads, railroads, and pipelines, many elements of this system need extension and/or upgrading. For example, insufficient capacity in oil pipelines limits oil exports. Similarly, the natural gas network is underdeveloped, constraining the delivery of natural gas to consumers in many regions. According to the Kazakh government, high transportation costs slow productivity growth in the economy.[35]

Kazakhstan lags far behind its peer countries in terms of communications development despite substantial progress in this area in the past few years (Figure 3-10, Telephone Density). In 2002, telephone density, measured as the number of fixed line and mobile subscribers per 1,000 inhabitants, was 194.7, well below the range estimated by the benchmark regression, the LMI-FSR average (241.1 lines), and the telephone density in individual comparator countries, especially Bulgaria (846.9 lines). A similar situation is found with the number of Internet users per 1,000 people.

Kazakhstan may benefit from a comprehensive assessment of its transportation and communication systems, from support in the upgrading and extension of transportation routes, and from help in accelerating the growth of communications.

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[35] See for example, Statement by K.I. Nagmanov, Minister of Transport and Communications of the Republic of Kazakhstan at the International Ministerial Conference of Land-Locked and Transit Developing Countries, Donor Countries and International development Institutions on Transit Transport Cooperation, 28 August 2003, Almaty

Figure 3-10

Telephone Density, Fixed Line and Mobile, per 1,000 people

Telephone density has been rising rapidly but remains below relevant benchmarks

Time Series

Year	Kazakhstan Data
1998	110.4
1999	111.2
2000	125.2
2001	156.7
2002	194.7
Summary for 1998–2002	
Five-Year Average	139.6
Trend growth rate	15.9

Expected value and margin of error

404.1

Kazakhstan 194.7
LMI-FSR 241.1
Low-Middle Income 272.6
Bulgaria 846.9
Romania 523.6
Russia 362.3

Kazakhstan Global Standing

Highest-five average
1,686

KAZ

9.8
Lowest-five average

Source: WDI   CAS Code: 25p3

SCIENCE AND TECHNOLOGY

Science and technology are central elements of a dynamic growth process, because technical knowledge is a driving force for rising productivity and competitiveness. Even for lower-middle-income countries such as Kazakhstan, transformational development increasingly depends on acquiring and adapting technology from the global economy and applying it in ways that are appropriate to the country's level of development. A lack of capacity to access and use technology prevents an economy from taking advantage of the benefits of globalization.

Unfortunately, reliable international indicators related to science and technology are not readily available for Kazakhstan. According to the data that are available, the average number of patent applications filed in 1998–2002—1,123—was substantial by regional standards (the LMI-FSR regional average is 119) or compared with Bulgaria at 306 per year. Yet it was less than in Romania (1,486) and only a fraction of the number of applications filed in Russia (20,049). The Kazakh FDI Technology Transfer Index equals 4.3[36] for 2005. This is slightly above the LMI-FSR average and the Russian index (both equaling 4.0), but below the indices in Bulgaria (4.4) and Romania (5.1).

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[36] The FDI Technology Transfer Index ranges from 1 (FDI brings little new technology) to 7 (FDI brings a lot of new technology).

4. Pro-Poor Growth Environment

Rapid growth is the most powerful and dependable instrument for poverty reduction, yet the link from growth to poverty reduction is not mechanical. In some cases, income growth for poor households exceeds the overall rise in per capita income, while in other conditions growth benefits the non-poor far more than the poor. A pro-poor growth environment stems from policies and institutions that improve opportunities and capabilities for the poor, while reducing their vulnerabilities. Pro-poor growth is associated with improvements in primary health and education, the creation of jobs and income opportunities, the development of skills, micro-finance, agricultural development (for countries such as Kazakhstan with large populations of rural poor), and gender equality.[37] This section focuses on four of these issues: health, education, employment and the workforce, and agricultural development.

HEALTH

The provision of basic health service is a major form of human capital investment, and a significant determinant of growth and poverty reduction. Although health programs do not fall under the EGAT bureau, an understanding of health conditions can influence the design of economic growth interventions.
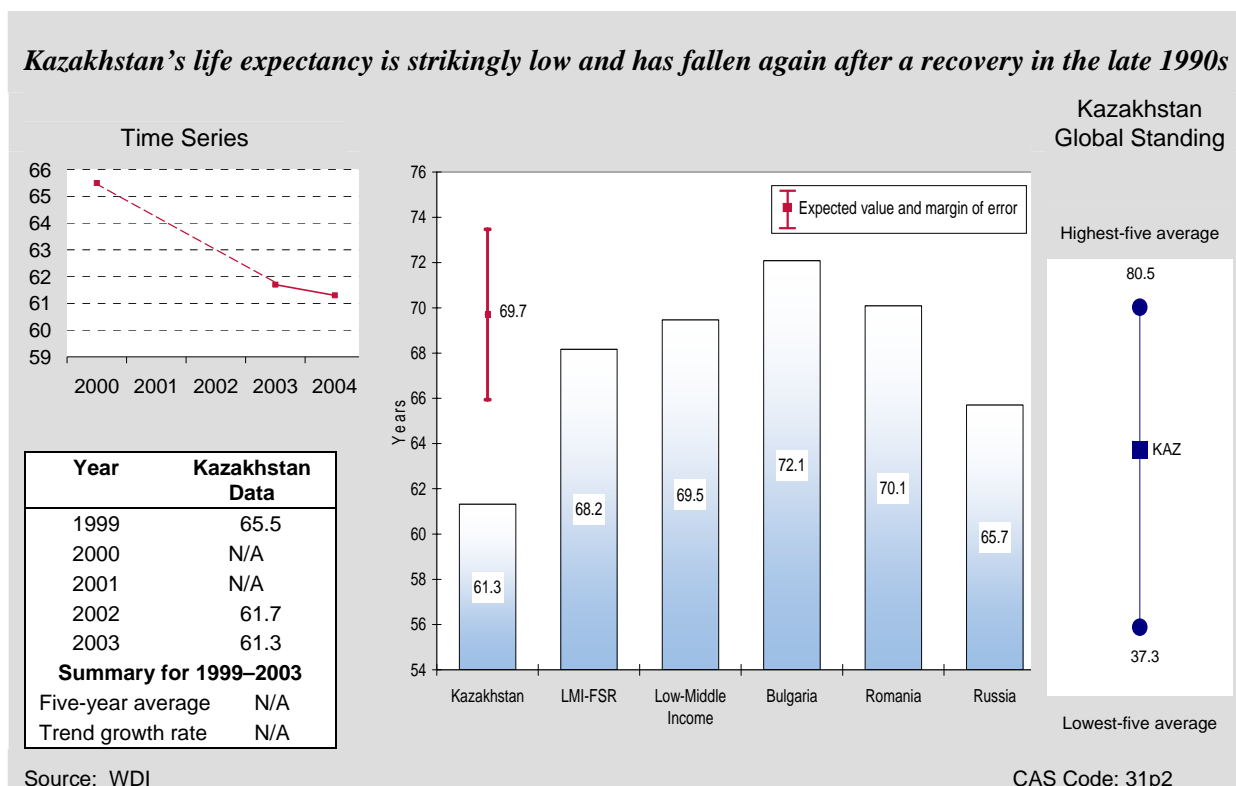
Health indicators in Kazakhstan paint a dismal picture. Life expectancy, the broadest indicator of health status, is low (Figure 4-1, Life Expectancy at Birth). In 2003, average life expectancy was just 61.3 years. This rate is below all benchmarks—the regression benchmark for a country with Kazakhstan's characteristics is 69.7 years and the LMI-FSR average is 68.2 years. Kazakhs' life expectancy is also well below the rates for all three comparator countries, with Bulgaria, Romania, and Russia at 72.1, 70, and 66 years, respectively. After the collapse of the Soviet Union, Kazakhstan's life expectancy fell sharply, declining by more than four years from 1990 to 1996.[38] Although Kazakhstan seemed to have turned the tide as its economy stabilized, with life expectancy steadily rising in the late 1990s, most recent developments are extremely troublesome—life expectancy has fallen by approximately four years since 1999, dipping below the low of 1996. Much of the problem is due to the poor state of men's health, as male life expectancy is substantially lower —11 years—than the life expectancy for women. This is a

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[37] Because this report focuses on economic growth performance, this report does not cover emergency relief.

[38] World Development Indicators 2005.

serious social challenge for Kazakhstan. In addition to the important moral considerations, early death represents a waste of valuable human capital. Reducing male mortality rates should be a top priority for Kazakh authorities.

Figure 4-1
Life Expectancy at Birth, years

Kazakhstan's life expectancy is strikingly low and has fallen again after a recovery in the late 1990s

Year	Kazakhstan Data
1999	65.5
2000	N/A
2001	N/A
2002	61.7
2003	61.3
Summary for 1999–2003	
Five-year average	N/A
Trend growth rate	N/A

Source: WDI   CAS Code: 31p2

The HIV/AIDS rate of 0.2 percent is low. HIV prevalence in Kazakhstan is about the same as in other LMI-FSR countries, Bulgaria, and Romania—0.1—and lower than the 1.1 percent in Russia, though this may be due to differences in reporting. Nonetheless there is cause for concern: according to the World Bank, Central Asia has some of highest growth rates in HIV infections in the world. Without a concerted action, rapid spread and the development of an epidemic is likely, as has occurred in Russia, Ukraine, and Moldova. In addition to the human costs, economic costs of such an epidemic could be devastating. Without intervention, it is estimated that the spread of HIV/AIDS will reduce Kazakhstan's GDP by 1.8–2.1 percent by 2010 and 3.2–9.5 percent by 2020.[39]

Kazakhstan's maternal mortality rate (at 210 per 100,000 births) is higher than the LMI-FSR average of 45, Bulgaria's rate of 32, Romania's rate of 49, and Russia's rate of 67. This high rate is surprising in light of the fact that 99.1 percent of births are attended by skilled health personnel, and suggests that there is a great need for improving the quality of health care. Although the

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[39] Godinho, Joana et al., "Reversing the Tide: Priorities for HIV/AIDS Prevention in Central Asia," World Bank study ECSHD/ECCU8, March 2005.

government has increased health spending to 2.4 percent of GDP, up from 2.1 percent of GDP in 2000, which represents a substantial absolute increase given the rapid rise in GDP in that period, the increase may not be sufficient. The 2.4 percent level is still below levels found in all three comparator countries (4.5 percent in Bulgaria, 4.1 percent in Romania, and 3.5 percent in Russia), although nearly identical to the average for the LMI-FSR region of 2.5 percent.

Poor health conditions are both a primary cause and a result of persistent poverty. Improving life expectancy, preventing an AIDS epidemic, and assisting the government in efficient health spending are just some of the possible areas for donor intervention.

EDUCATION

Performance on nearly all education indicators is good, as is common in post-communist countries. Net primary enrollment rates in Kazakhstan are high at 91.5 percent in 2002, above that predicted by the regression benchmark (88.1 percent) and the LMI-FSR average (89.7 percent). The rates are slightly higher than those in all three of the comparator countries (Bulgaria's net primary enrollment rate is 90.4 percent, Romania's is 88.9 percent, and Russia's is 89.7 percent). Net secondary enrollment rates have been on the rise, increasing from 83.4 percent in 1999 to 86.8 percent in 2002. The rate is on par with that of Bulgaria (86.7 percent), and above the enrollment in Romania (80.0 percent). Youth literacy is also high. In fact, it is almost universal, with a rate of 99.8 percent, identical to the levels found in Russia and the LMI-FSR countries. Romania and Bulgaria lagged marginally behind at 97.8 and 99.7 percent, respectively, on this indicator.

Like many transition countries, Kazakhstan has been coasting on the educational system put in place in the communist period. To sustain these educational achievements, however, the government needs to increase its education spending. Currently government spending per student (on primary, secondary, and tertiary education) is below the averages for the LMI-FSR region and all LMI countries. Particularly low is the spending on tertiary education; at 10.2 percent of per capita GDP in 2002, it is less than half of the LMI-FSR average and less than a third of the average for all LMI countries; the gaps with expenditure per student in tertiary education relative to Bulgaria and Romania are similar (Figure 4-2, Tertiary Education Expenditure per Student).[40] For Kazakhstan to achieve transformational growth and reduce its dependence on oil, more emphasis should be given to higher education. Such efforts are necessary to stay competitive in the region with a highly educated labor force.

The quality of education is also questionable. The proxy-indicator of quality—pupil–teacher ratio in primary schools, is higher in Kazakhstan (18.5) than in the LMI-FSR region as a whole (15.6), Bulgaria (16.8), Romania (17.4), and Russia (16.9). According to the World Bank, far more flexibility and lifelong learning opportunities are needed soon to keep skill shortages from becoming a serious impediment to growth.[41]

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[40] Data for Russia are not readily available.

[41] Ibid.

Figure 4-2

Tertiary Education Expenditure per Student, percent of GDP per capita

Government expenditure on higher education needs to rise in order to avoid skill shortage and allow for diversification of the economy

Kazakhstan Global Standing

Highest-five average — 344.3

KAZ — 9.8

Lowest-five average

Note: Data for Russia are not readily available.

Source: WDI   CAS Code: 32s2c
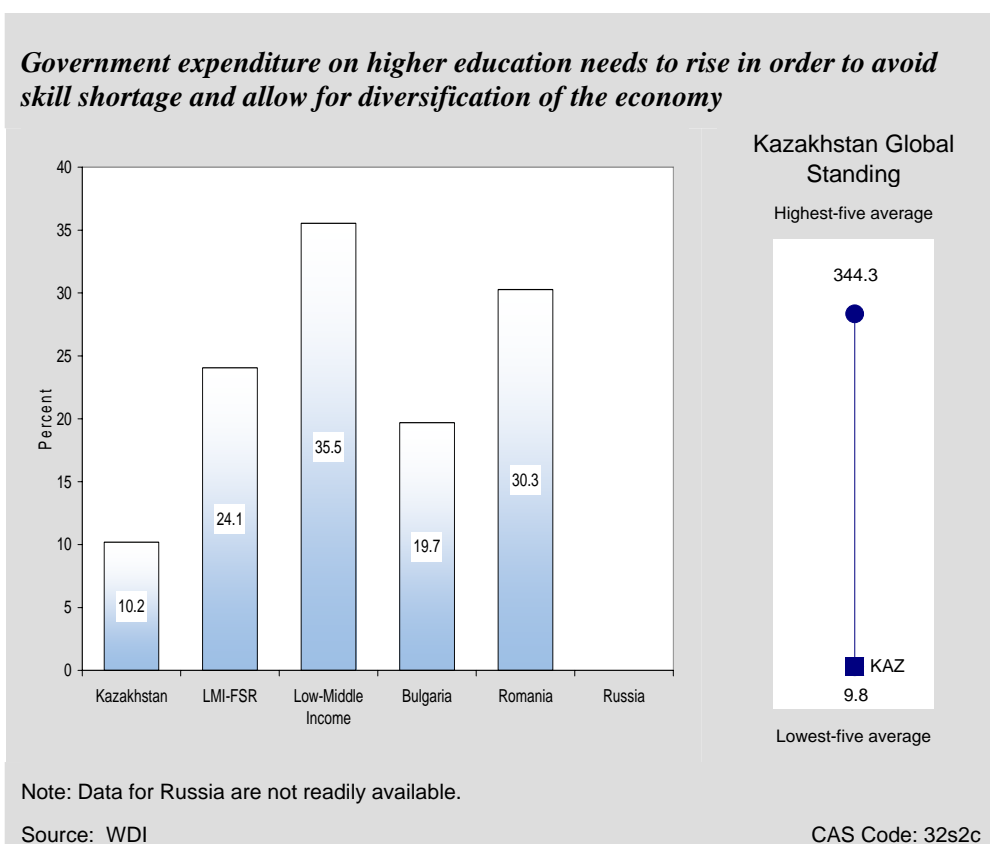
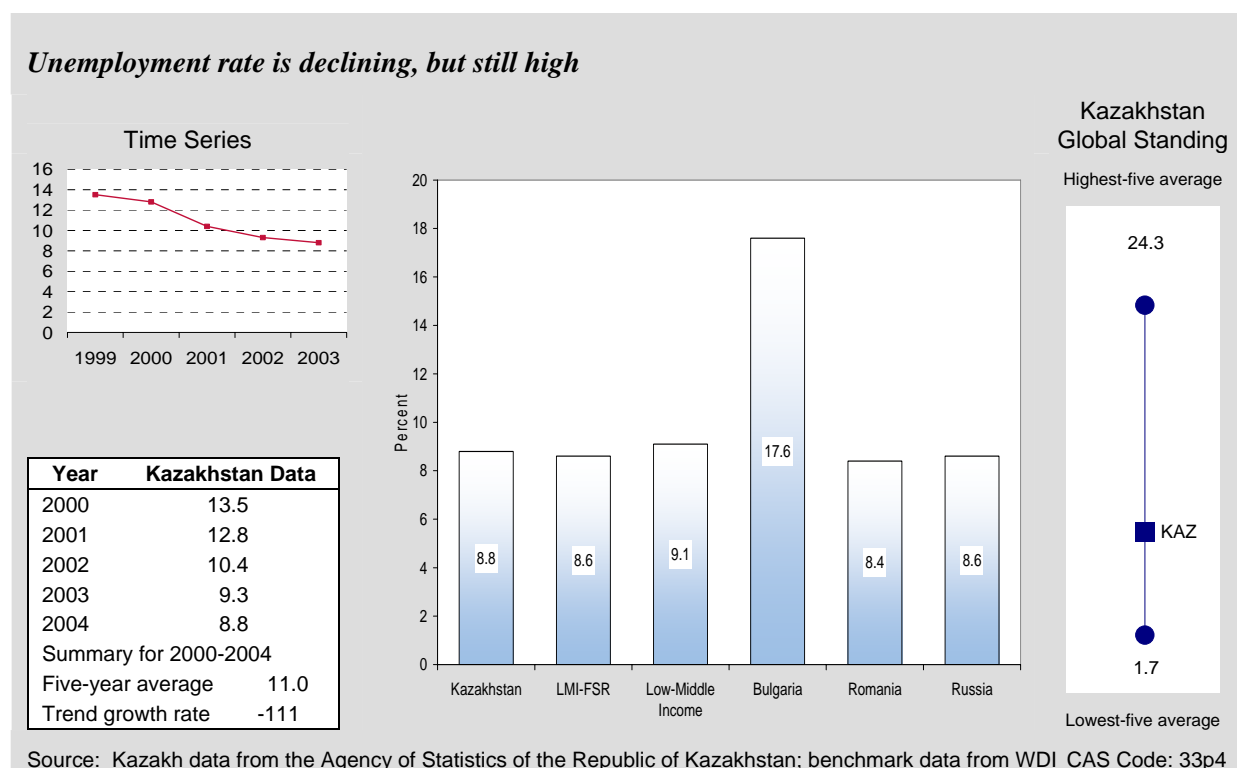## EMPLOYMENT AND WORKFORCE

Productive employment serves a society by providing livelihoods and reinforcing social cohesion. Kazakhstan has made substantial progress in reducing unemployment. The jobless rate declined from over 13 percent in the late 1990s to 8.4 percent in 2004 (Figure 4-3, Unemployment Rate). The unemployment rate is essentially the same as, on average, in the LMI-FSR region, Russia and Romania. On the negative side, the decline in the unemployment rate has slowed, and unemployment remains high for a country whose output grows at such a strong pace. Moreover, there may be substantial hidden unemployment because more enterprise restructuring must be carried out.

The Kazakh labor force participation rate declined from 75.4 percent in 1999 to 73.9 percent in 2004, falling slightly below the average labor force participation rate in the LMI-FSR (75.8 percent) and Russia (77.5 percent), but in line with the benchmark regression predicted level of 73.2 and of Bulgaria at 73.6 percent. At the same time, it is markedly higher than in Romania at 67.9 percent. Despite the decline, this level is sufficient to sustain economic activity, and it appears that Kazakhstan has largely averted the practice of early retirement widely used in other transition countries, including Romania, though this may be because much of the enterprise restructuring necessary has yet to occur.

Figure 4-3

Unemployment Rate, percent

Unemployment rate is declining, but still high

Time Series

Year	Kazakhstan Data
2000	13.5
2001	12.8
2002	10.4
2003	9.3
2004	8.8
Summary for 2000-2004	
Five-year average	11.0
Trend growth rate	-111

Kazakhstan
Global Standing

Source: Kazakh data from the Agency of Statistics of the Republic of Kazakhstan; benchmark data from WDI CAS Code: 33p4

The Kazakh Rigidity of Employment Index, which gauges the liquidity of the labor market by determining the ease of hiring, firing, and requesting hours worked beyond the standard work week, is 27, the same as in Russia, marginally better than in Bulgaria (28), and substantially better than in the LMI-FSR region overall (38) and in Romania (63).[42] It is also lower (better) than the range predicted by the regression.
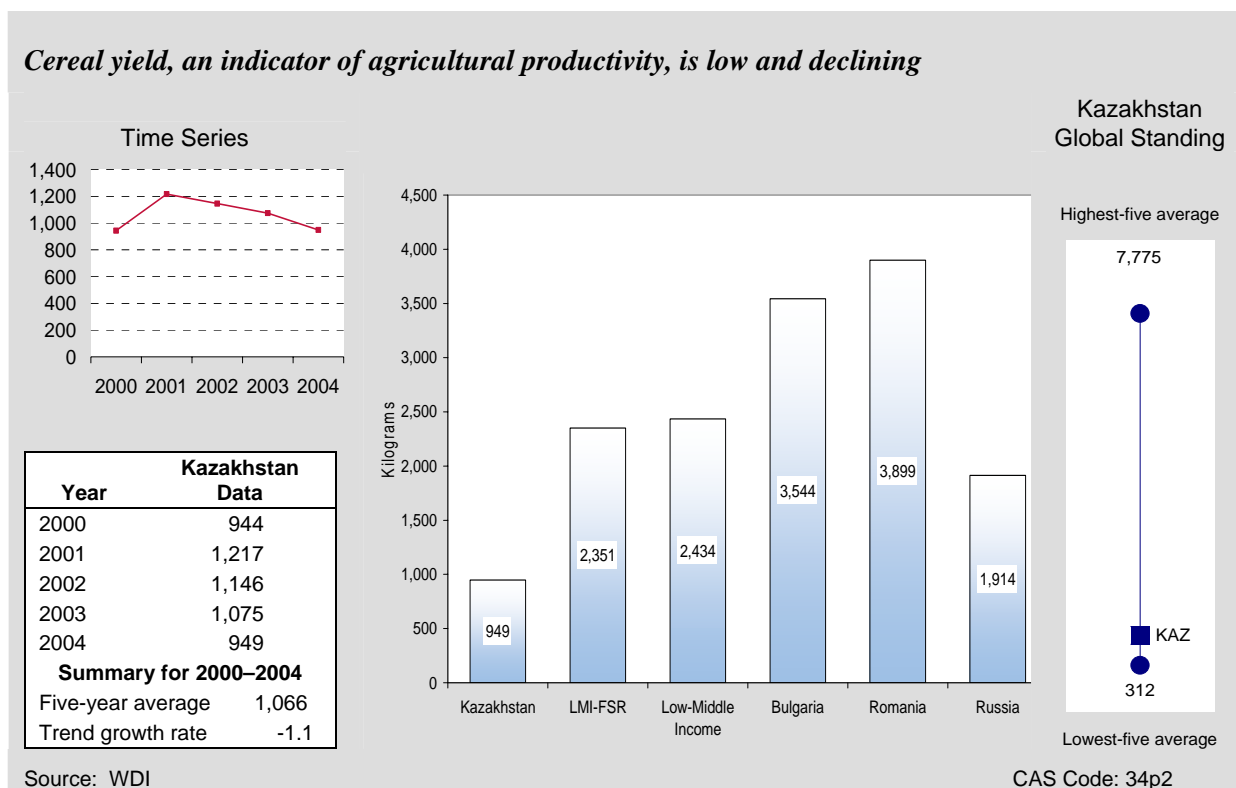
AGRICULTURE

Kazakh agriculture suffers from low productivity. In 2004, it accounted for 33.1 percent of total employment and only 8.4 percent of total added value. Among the problems is low cereal yield—at 949 kilograms per hectare in 2003, it was well below the yield in the LMI-FSR region (2,351) and comparator countries (Bulgaria with 3,543, Romania with 3,899, and Russia with 1,913). Wheat yield was also less in 2003 than in 1992, immediately after independence (Figure 4-4, Cereal Yield). Low productivity in agriculture is to a great extent a result of the lack of capital investment in this sector, which in 2000–2004 stood at 1.3–1.4 percent of total investment. Kazakhstan's score on the Agricultural Policy Costs Index, which measures executives' perceptions of how burdensome the cost of agricultural policy is, was 3.5[43] for 2005, not

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[42] Rigidity of employment index ranges from 0 (for minimum rigidity) to 100 (for high rigidity).

[43] The Agricultural Policy Costs Index ranges from 1(policy is excessively burdensome) to 7 (policy balances all economic agents' interests).

favorable by absolute standards. At the same time it is a little higher than the LMI-FSR average (3.0) and than the indices in Bulgaria (2.7), Romania (3.0), and Russia (3.1).

Figure 4-4
Cereal Yield, kilograms per hectares

Cereal yield, an indicator of agricultural productivity, is low and declining

Year	Kazakhstan Data
2000	944
2001	1,217
2002	1,146
2003	1,075
2004	949
Summary for 2000–2004	
Five-year average	1,066
Trend growth rate	-1.1

Source: WDI

CAS Code: 34p2

The country may benefit from policies aimed at the shifting of agricultural workers to more productive sectors, supporting nonfarm employment, and even shifting production and employment to crops and agricultural subsectors with higher productivity.

Appendix

CRITERIA FOR SELECTING INDICATORS

The economic performance evaluation is designed to balance the need for broad coverage and diagnostic value, on the one hand, and the requirement of brevity and clarity, on the other. The analysis covers 15 economic growth–related topics and just over 100 variables. For the sake of brevity, the write-up in the text highlights issues for which the "dashboard lights" appear to be signaling problems, which suggest possible priorities for USAID intervention. The accompanying table provides a full list of indicators examined for this report. The Data Supplement contains the complete data set for Kazakhstan, including data for the benchmark comparisons and technical notes for every indicator.

For each topic, the analysis begins with a screening of *primary performance indicators*. These "level I" indicators are selected to answer the question: Is the country performing well or not in this area? The set of primary indicators also includes descriptive variables such as per capita income, the poverty head count, and the age dependency rate.

In the areas where level I indicators suggest weak performance, the analysis proceeds to review a limited set of *diagnostic supporting indicators*. These "level II" indicators provide additional details, or shed light on *why* the primary indicators may be weak. For example, if economic growth is poor, one can examine data on investment and productivity as diagnostic indicators. If a country performs poorly on educational achievement, as measured by the youth literacy rate, one can examine determinants such as expenditure on primary education, and the pupil-teacher ratio.[44]

The indicators were selected on the basis of the following criteria. Each one must be accessible through USAID's Economic and Social Database or convenient public sources, particularly on the internet. They should be available for a large number of countries, including most USAID client states, to support the benchmarking analysis. The data should be sufficiently timely to support an assessment of country performance that is suitable for strategic planning purposes. Data quality is another consideration. For example, subjective survey responses are used only when actual measurements are not available. Aside from a few descriptive variables, the indicators must also be useful for diagnostic purposes. Preference is given to measures that are widely used, such as Millennium Development Goal indicators, or evaluation data used by the Millennium Challenge Corporation. Finally, an effort has been made to minimize redundancy. If two indicators provide similar information, preference is given to one that is simplest to understand, or most widely used. For example, both the Gini coefficient and the share of income

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[44] Deeper analysis of the topic using more detailed data (level III) is beyond the scope of papers in this series.

accruing to the poorest 20 percent of households can be used to gauge income inequality. We use the income share because it is simpler, and more sensitive to changes.

BENCHMARKING METHODOLOGY

Comparative benchmarking is the main tool used to evaluate each indicator. The analysis draws on several criteria, rather than a single mechanical rule. The starting point is a comparison of performance in Kazakhstan relative to the average for countries in the same income group and region —in this case, former Soviet republics with low-middle income.[45] For added perspective, three other comparisons are examined: (1) the global average for this income group; (2) respective values for two comparator countries selected by the Kazakhstan mission (in this case, the mission selected three countries, Bulgaria, Romania, and Russia); and (3) the average for the five best- and five worst-performing countries globally. Most comparisons are framed in terms of values for the latest year of data from available sources. Five-year trends are also taken into account when this information sheds light on the performance assessment.[46]

For selected variables, a second source of benchmark values uses statistical regression analysis to establish an expected value for the indicator, controlling for income and regional effects.[47] This approach has three advantages. First, the benchmark is customized to Kazakhstan's specific level of income. Second, the comparison does not depend on the exact choice of reference group. Third, the methodology allows one to quantify the margin of error and establish a "normal band" for a country with Kazakhstan's characteristics. An observed value falling outside this band on the side of poor performance signals a serious problem.[48]

Finally, where relevant, Kazakhstan's performance is weighed against absolute standards. For example, if the Corruption Perception Index for a given country is below 3.0, this is a sign of serious economic governance problems, regardless of the regional comparisons or regression result.

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[45] Income groups as defined by the World Bank for 2004. For this study, the average is defined in terms of the mean; future studies will use the median instead, because the values are not distorted by outliers.

[46] The five-year trends are computed by fitting a log-linear regression line through the data points. The alternative of computing average growth from the end points produces aberrant results when one or both of those points diverges from the underlying trend.

[47] This is a cross-sectional OLS regression using data for all developing countries. For any indicator, Y, the regression equation takes the form: Y (or ln Y, as relevant) = a + b * ln PCI + c * Region + error – where PCI is per capita income in PPP$, and Region is a set of 0-1 dummy variables indicating the region in which each country is located. Once estimates are obtained for the parameters a, b and c, the predicted value for Kazakhstan is computed by plugging in Kazakhstan-specific values for PCI and Region. Where applicable, the regression also controls for population size and petroleum exports (as a percentage of GDP).

[48] This report uses a margin of error of 0.66 times the standard error of estimate (adjusted for heteroskedasticity, where appropriate). With this value, 25% of the observations should fall outside the normal range on the side of poor performance (and 25% on the side of good performance). Some regressions produce a very large standard error, giving a "normal band" that is too wide to provide a discerning test of good or bad performance.

List of Indicators

	Level[a]	MDG, MCA, or EcGov[b]	CAS Indicator Code
OVERVIEW OF THE ECONOMY			
Growth Performance			
Per capita GDP, $PPP	I		11P1
Per capita GDP, current US$	I		11P2
Real GDP growth	I		11P3
Growth of labor productivity	II		11S1
Investment Productivity - Incremental Capital-Output Ratio (ICOR)	II		11S2
Gross fixed investment, % GDP	II		11S3
Gross fixed private investment, % GDP	II		11S4
Poverty and Inequality			
Human poverty index	I		12P1
Income-share, poorest 20%	I		12P2
Population living on less than $1 PPP per day	I	MDG	12P3
Poverty headcount, by national poverty line	I	MDG	12P4
PRSP Status	I	EcGov	12P5
Population below minimum dietary energy consumption	II	MDG	12S1
Poverty gap at $1 PPP a day	II		12S2
Economic Structure			
Labor force structure	I		13P1
Output structure	I		13P2
Demography and Environment			
Adult literacy rate	I		14P1
Age dependency rate	I		14P2
Environmental sustainable index	I		14P3
Population size and growth	I		14P4
Urbanization rate	I		14P5
Gender			
Adult literacy rate, ratio of male to female	I	MDG	15P1
Gross enrollment rate, all levels, ratio of male to female,	I	MDG	15P2
Life expectancy at birth, ratio of male to female	I		15P3
PRIVATE SECTOR ENABLING ENVIRONMENT			
Fiscal and Monetary Policy			
Govt. expenditure, % GDP	I	EcGov	21P1
Govt. revenue, % GDP	I	EcGov	21P2
Growth in the money supply	I	EcGov	21P3
Inflation rate	I	MCA	21P4
Overall govt. budget balance, including grants, % GDP	I	EcGov	21P5
Composition of govt. expenditure	II		21S1
Composition of govt. revenue	II		21S2
Composition of money supply growth	II		21S3

	Level[a]	MDG, MCA, or EcGov[b]	CAS Indicator Code
Business Environment			
Corruption perception index	I	EcGov	22P1
Doing business composite index	I	EcGov	22P2
Rule of law index	I	MCA / EcGov	22P3
Cost of starting a business, % GNI per capita	II	EcGov	22S1
Procedures to enforce contract	II	EcGov	22S2
Procedures to register property	II	EcGov	22S3
Procedures to start a business	II	EcGov	22S4
Time to enforce a contract	II	EcGov	22S5
Time to register property	II	EcGov	22S6
Time to start a business	II	EcGov	22S7
Financial Sector			
Domestic credit to private sector, % GDP	I		23P1
Interest rate spread	I		23P2
Money supply, % GDP	I		23P3
Stock market capitalization rate, % of GDP	I		23P4
Cost to create collateral	II		23S1
Country credit rating	II	MCA	23S2
Legal rights of borrowers and lenders index	II		23S3
Real Interest rate	I		23S4
External Sector			
Aid , % GNI	I		24P1
Current account balance, % GDP	I		24P2
Debt service ratio, % exports	I	MDG	24P3
Export growth of goods and services	I		24P4
Foreign direct investment, % GDP	I		24P5
Gross international reserves, months of imports	I	EcGov	24P6
Gross Private capital inflows, % GDP	I		24P7
Present value of debt, % GNI	I		24P8
Remittance receipts, % exports	I		24P9
Trade, % GDP	I		24P10
Concentration of Exports	II		24S1
Inward FDI Potential Index	II		24S2
Net barter terms of trade	II		24S3
Real effective exchange rate (REER)	II	EcGov	24S4
Structure of merchandise exports	II		24S5
Trade policy index	II	MCA / EcGov	24S6
Economic Infrastructure			
Internet users per 1,000 people	I	MDG	25P1
Overall infrastructure quality	I	EcGov	25P2
Telephone density, fixed line and mobile	I	MDG	25P3
Quality of infrastructure—railroads, ports, air transport, and electricity	II		25S1

	Level[a]	MDG, MCA, or EcGov[b]	CAS Indicator Code
Telephone cost, average local call	II		25S2
Science and Technology			
Expenditure for R&D, % GNI	I		26P1
FDI and technology transfer index	I		26P2
Patent applications filed by residents	I		26P3
PRO-POOR GROWTH ENVIRONMENT			
Health			
HIV prevalence	I		31P1
Life expectancy at birth	I		31P2
Maternal mortality rate	I	MDG	31P3
Access to improved sanitation	II	MDG	31S1
Access to improved water source	II	MDG	31S2
Births attended by skilled health personnel	II	MDG	31S3
Child immunization rate	II		31S4
Prevalence of child malnutrition (weight for age)	II		31S5
Public health expenditure, % GDP	II	EcGov	31S6
Education			
Net primary enrollment rate	I	MDG	32P1
Persistence in school to grade 5	I	MDG	32P2
Youth literacy rate	I		32P3
Education expenditure, primary, % GDP	II	MCA/ EcGov	32S1
Expenditure per student, % GDP per capita—primary, secondary, and tertiary	II	EcGov	32S2
Pupil-teacher ratio, primary school	II		32S3
Employment and Workforce			
Labor force participation rate, females, males, total	I		33P1
Rigidity of employment index	I	EcGov	33P2
Size and growth of the labor force	I		33P3
Unemployment rate	I		33P4
Agriculture			
Agriculture value added per worker	I		34P1
Cereal yield	I		34P2
Growth in agricultural value-added	I		34P3
Agricultural policy costs index	II	EcGov	34S1
Crop production index	II		34S2
Livestock production index	II		34S3

a   Level I = primary performance indicators, Level II = supporting diagnostic indicators

b   MDG—Millennium Development Goal indicator
      MCA—Millennium Challenge Account indicator
      EcGov—Major indicators of economic governance, which is defined in USAID's Strategic Management Interim Guidance to
      include "microeconomic and macroeconomic policy and institutional frameworks and operations for economic stability,
      efficiency, and growth." The term therefore encompasses indicators of fiscal and monetary management, trade and exchange
      rate policy, legal and regulatory systems affecting the business environment, infrastructure quality, and budget allocations.