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# Kyrgyz Republic Poverty Assessment

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## **ACRONYMS AND ABBREVIATIONS**

BEEPS	Business Environment and Enterprise Performance Survey
CAC	Central Asia and the Caucasus
CIS	Commonwealth of Independent States
DFID	Department for International Development
EBRD	European Bank of Reconstruction and Development
ECA	Europe and Central Asia Region
GDP	Gross Domestic Product
GNI	Gross National Income
ha	Hectare
HBS	Household Budget Survey
HCI	Headcount Index
KIHS	Kyrgyz Integrated Household Survey
KPA	Kyrgyz Poverty Assessment
ILO	International Labour Organisation
MDG	Millennium Development Goal
ml	Million
NPRS	National Poverty Reduction Strategy
NSC	National Statistics Committee
PPP	Purchasing Power Parity
UNDP	United Nations Development Programme
WB	World Bank
WDI	World Development Indicators
VTE	Vocational and Technical Education

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## EXECUTIVE SUMMARY

1. This report attempts to answer three questions about the Kyrgyz Republic:

- What is the profile of poor?
- How has economic growth affected the level and composition of poverty?
- How has the labor market contributed to changes in poverty?

2. Answers to these questions carry significance especially at this time as the Government has started the implementation of its recently approved medium-term Country Development Strategy. However, the structure of Kyrgyz Republic's economy is in flux. The implementation of the reform agenda to expedite the transition from a centrally planned economy to a more market based one has yet to be completed, thus stymieing efforts to pursue policies that improve the welfare of the population and encourage business activity and competition. The political uncertainties of recent years combined with poor governance led to few investors – local or foreign – willing to risk their capital in medium to long-term projects in the Kyrgyz Republic during 2000-2005. Also, the external environment has changed significantly such that migration, remittances, and trade with Kazakhstan and China are affecting the development path of the economy.

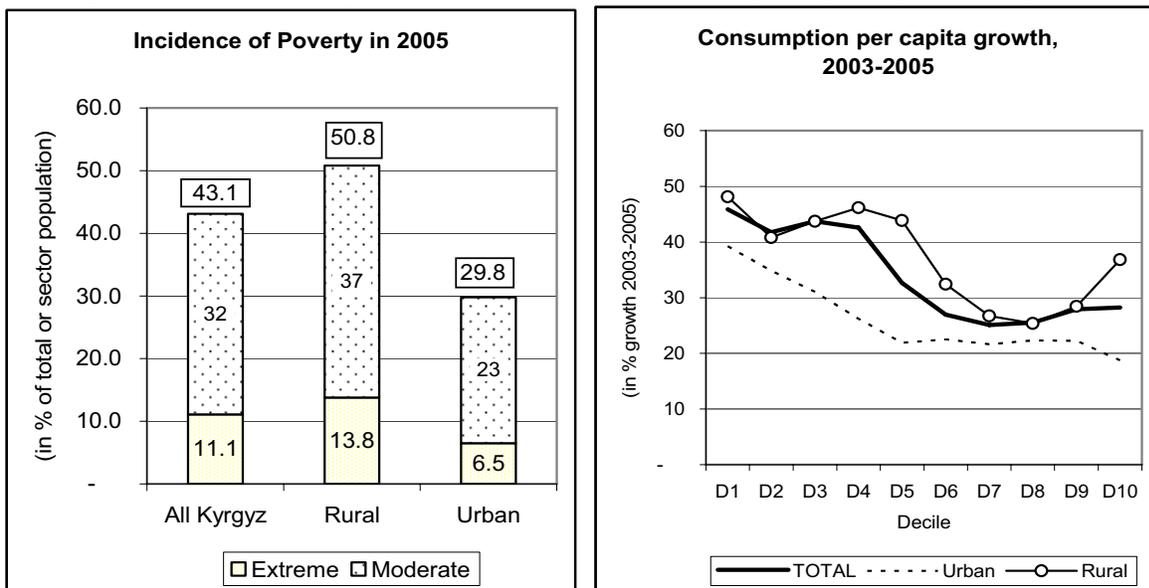
3. The developments with regard to welfare and poverty in the first half of this decade can be summarized as follows. The Kyrgyz Republic saw a sharp decline in total and extreme poverty despite only modest growth. Remittances played a significant role in raising welfare and reducing poverty both directly and indirectly. Yet these remittances were mostly used to increase private consumption and the construction of housing rather than investment in the economy. Moreover, because private consumption of non-tradables increased significant, the poor benefited as they experienced an increase in their employment opportunities and wages. It is possible that after households have met certain needs that at least a portion of the additional remittances received will be invested, but much depends upon improving the business climate.

### ***Poverty Profile***

4. The Kyrgyz Republic is a predominantly agrarian society with two-thirds of its population living in rural areas though the agriculture sector contributes only modestly to the national economy. The capital, Bishkek, and the surrounding Chui region, are magnets for workers leaving their farms to seek a better life either in Kyrgyz or abroad. The northern part of the country borders onto the middle income country of Kazakhstan where the economy is booming due to oil. The southern part of the country is more populous and it borders onto the lower income – and largely unreformed – economies of Uzbekistan and Tajikistan. The Kyrgyz Republic is mountainous with most regions at least moderately mountainous, the exception being Bishkek and Chui. This feature increases the cost of delivery of social services and infrastructure – which means that these services are not delivered to many and the population's welfare is adversely affected.

5. Estimated poverty in the Kyrgyz Republic in 2005 was 43.1 percent of the population. Extreme poverty – those whose consumption was inadequate to even meet food needs – was 11.1 percent of the population. The incidence of poverty is higher in rural areas (51 percent of the rural population) compared to urban areas (30 percent of the urban population). The majority of the poor live in rural areas – that is, about three out of every four persons below the poverty line reside in rural areas. Extreme poverty is twice as high in rural areas than in urban areas: 14 percent of rural residents live in extreme poverty compared to 7 percent of the urban population. Inequality as measured by the Gini coefficient was 0.28 which is better than seen in many parts of Europe and Central Asia (ECA). Regional level poverty rates are polarized with the oblasts of Batken, Issykul, Jalal-Abad, Osh, and Naryn experiencing poverty rates in excess of 50 percent of their population while Bishkek and Chui’s poverty rates are 11 percent and 22 percent of the oblast’s population respectively. (Talas falls in between at 44 percent).

**Figure 1: Total Poverty Rates and Changes in Consumption per capita during 2003-200**



Notes: 1. Total poverty rates are shown above the first graph. 2. The poorest decile is “D1” and the richest is “D10” in graph 2. Source: World Bank staff estimates based upon KIHS, 2003 and 2005.

6. Non-income dimensions of poverty differ markedly between urban and rural residents, possibly due to the mountainous terrain of the country, low population density in many districts, and the financial cost of service delivery. As in many countries of the Commonwealth of Independent States, electricity is available to all urban and rural residents. Mirroring experience in other countries, rural access rates to basic municipal services – such as running water, municipal solid waste collection, and sewerage facilities – are low for the poor and nonpoor alike due to the difficulty of providing network services to mountainous and/or low population density areas. In the urban sector, the more affluent have much greater access to basic infrastructure services such as a central heating, water supply, hot water, bath/shower, sewerage, central gas, and telephones than the poor. However, even there at least one-third of the urban non-poor do not have access to at least one basic service. Thus, in terms of non-income poverty, a much greater proportion of the population suffers from some aspect of deprivation than indicated by the income-based poverty line.

7. The individual characteristics of the poor are similar to those seen elsewhere in the ECA region. Households that are large with young children have a much higher probability of living below the poverty line. For example, persons living in households with two children have a one in two chance of living in poverty. Also, education is negatively correlated with poverty. However, the largest benefit in escaping

poverty accrues to those with a higher education degree where only 18 percent of people who live in households headed by a person holding a higher education degree live in poverty compared to 53 percent of those with general secondary degree.

### ***Trends in Poverty and the Impact of Economic Growth, 2000-2005***

8. The Kyrgyz economy grew moderately by 3.7 percent per annum during 2000-2005. Concurrently, poverty fell from about 63 percent to 43 percent of the population and extreme poverty fell from about 33 percent to 11 percent of the population – indicating the strong responsiveness of poverty to growth. This high rate of poverty reduction was accompanied by improvements in inequality and the rise of average consumption per capita of the poor. On average during 2003-2005, consumption of the poorest 40 percent of the population grew by 10 percent per annum compared to about 4 percent per annum of the top 60 percent of the population surveyed. Urban and rural households benefited and poverty fell in both areas significantly. It also appears that poverty fell across the board in all oblasts, though since 2003 progress in poverty reduction has been more uneven at the regional level with Issykul, Jalal-Abad, and Osh seeing very little poverty reduction relative to other oblasts. However, the poorest regions in 2003 of Batken and Naryn saw major improvements by 2005 with poverty falling by 24 and 21 percentage points respectively.

9. The responsiveness of poverty to economic growth is not surprising given that private consumption fueled economic growth during 2000-2005 rather than investment and exports – the drivers of sustainable growth. Moreover, on the sectoral side, the main drivers of growth were agriculture and trade and tourism during 2000-2003. In 2003–2005, trade and tourism contributed the most to growth followed by construction, transport, and public administration. Accompanying the sectoral expansion were changes in employment. All sectors with the exception of agriculture saw employment growth. Trade and tourism and construction – both sectors that employ low wage labor – contributing the most to employment growth in Kyrgyz Republic. Yet, it was only the trade and tourism sector and agriculture which saw productivity growth during this period foreshadowing that rising wages would not be sustainable.

10. There are three main channels through which growth can translate into private consumption: wages, public transfers (such as pensions and social assistance) and private transfers such as remittances and gifts from friends and relatives. Labor income comprises 50 percent of total income for the households in the lowest quintile. In the Kyrgyz Republic, for the poorest 20 percent of the population, all forms of income rose with public and private transfers growing by about 80 percent (though from a small base) during 2003-2005 and labor income growing by over 50 percent. However, it appears that the second quintile (roughly equal to the moderately poor) benefited the most from the labor market as their wage income rose by 80 percent and social benefits fell significantly by about 25 percent during 2003-2005.

### ***Labor Market Developments and Poverty Reduction***

11. Since wages constitute the most important source of income for poor households, favorable labor market developments are key to the prosperity of low income groups. Labor market outcomes translate into higher living standards and poverty reduction through net job creation, an increase in compensated hours worked, and rising wages. In addition, for these developments to be sustainable and not reversed abruptly in the future, they must be accompanied by a growth in worker productivity – else why would any employer continue to pay more to a worker who does not produce more output?

12. In the Kyrgyz Republic, during 2000-2005, job creation occurred at an average rate of 1.8 percent per annum. However, since this was below the rate of growth of the labor force (1.9 percent), unemployment rose to 8.1 percent in 2005. But jobs were indeed created and as noted earlier, these jobs were in sectors which tend to employ unskilled, low-wage workers, consequently benefiting the poor proportionately more. The expansion of employment of the poor went hand in hand with rising real wages. Thus, according to aggregate data, there were more jobs and wages were rising. This would be an ideal combination if it were not for one problem – real wage growth exceeded productivity growth (11 percent versus 2 percent). That is, on average real wages were growing faster than the growth in output per worker – a feature that will ultimately discourage the creation of jobs by employers.

13. To complicate the situation, labor markets in the Kyrgyz Republic are highly segmented with starkly different structures. There is a divide between urban and rural markets, between formal and informal labor markets and between opportunities available to women and men. Thus, along each of these defining characteristics, key labor market indicators vary for the labor force as a whole but also for the poor versus the non-poor. In the Kyrgyz Republic, about two thirds of all jobs are in the rural sector (2003 data) and the vast majority of these (63 percent) are in agriculture. Rural non-farm activities include public services (e.g., education, health, and public administration) followed by commercial services, especially the trade sector, which provide 12 percent of jobs, and industry, mostly mining, which provides the remaining 8 percent of all rural employment. Only one-third of employed persons are self-employed, another third are employees, and 20 percent are unpaid family workers. An estimated 8 percent of the rural labor force is unemployed.

14. In the rural sector, labor market indicators for the poor are worse than for the non-poor. Moreover, the rural working poor (of whom many are under-employed) have more people to support than the non-poor and work in less remunerative occupations. For example, unemployment rates are higher for the poor than the non-poor, 9 percent vs. 6 percent. The vast majority of the employed poor work in the farm sector – they comprise 60 percent of all farm workers – consequently, agricultural growth plays an important role in poverty alleviation in the country. Of those working in non-farm sectors, 60 percent are non-poor. In addition, the poor are under-employed and work 20 percent fewer hours (6.5 hours per week) than the non-poor. Finally, and very importantly, the rural poor workers have larger households with more dependents.

15. Urban labor markets are very different. Half of the Kyrgyz Republic's urban population resides in the capital city. The availability of higher paying jobs in urban areas, especially Bishkek, attracts migrants who comprise 29 percent of the urban working-age population. Unemployment is higher at 13 percent of the labor force. If we add in discouraged workers, unemployment rises to 16 percent (meaning that one out of every 8 people who wants a job will not get one). In the urban sector, 44 percent of employment is in the services sector followed by 19 percent in industry and 8 percent in construction. The vast majority (72 percent of all employed) are employees and 22 percent are self-employed. About one in three jobs is in the informal sector – that is, jobs that are outside the purview of the state's legal environment. And many workers are under-employed (working 34 hours per week).

16. The urban poor also have worse labor market indicators than the urban non-poor—their unemployment rates are higher (18 percent vs. 10 percent), employment rates are lower (51 percent versus 60 percent), and labor force participation rates are lower as well. Thus, despite having almost twice as many working age members per households than the non-poor, only half of them are employed. Moreover, each urban poor working person has to support on average three other persons compared to a non-poor employed person who has to support two other persons. An estimated 60 percent of the urban poor are in the informal sector and an additional 11 percent work in farming. Only about one quarter of the urban working poor is in the formal sector. Poverty may also be exacerbated because of the lack of

proximity to jobs or to public transportation: an estimated 17 percent of all households in the bottom 40 percent are relatively far from public transportation compared to 8 percent of non-poor households.

17. But one of the largest divides in the urban labor market is the gap between male and female working age adults. As in the difference between the poor and non-poor, the difference between women and men also exists. Women are less active in the labor market than men, at all ages in both rural and urban sectors. Poor women in particular have the lowest participation rates and gender gaps are the largest among the poor irrespective of their sector of residence. The impediments to women's labor force participation include the lack of child care and elder care services. Though gender segregation is not harsh in the Kyrgyz Republic, women still hold a relatively higher share of employment in low wage sectors. A large gender wage gap exists—women earn less than men per hour by about 25 – 30 percent. Though lower human capital endowments explain the differences in earnings in the public sector, in the private sector a large part of the earnings gap between male and female workers is unexplained.

### ***The Bigger Picture—What Is Going On?***

18. The Kyrgyz Republic has seen impressive poverty reduction within a five year period despite moderate economic growth. This was achieved through the expansion of private consumption which was driven mostly through greater wage income resulting from the expansion of sectors employing mostly unskilled and low-wage labor. The fastest growing sectors were trade and tourism and construction – both in what is considered to be the “non-tradeables” sector. Concurrently, there was a sharp increase in foreign remittances as workers migrated to Russia and Kazakhstan.

19. It is unlikely that the growth in remittances and the expansion of the non-tradeables sectors were unrelated or coincidental. Rather the increase in money from abroad led to an expansion in the demand for services locally and an increase in imports. Real wage growth outpaced productivity increases and undermined the competitiveness of the Kyrgyz economy. Because of the poor governance environment in the country and especially the unfavorable business climate, the funds were used for consumption and housing construction rather than longer term investment in the tradeables goods sector such as manufacturing. Thus, ultimately, without any significant change in the investment climate in the Kyrgyz Republic the economy will shift towards being less export oriented (with the exception of the export of labor) with time.

20. Is there anything wrong with this – especially if the jobs being created employ proportionately more persons from the unskilled and low income groups? The answer to this depends upon whether the leadership of the Kyrgyz Republic treats the current circumstances as a permanent engine of growth or one that is temporary yet buys the country time to implement reforms with less immediate short-term cost than would be the case in the absence of remittances. The biggest uncertainty of course lies in the continued demand for Kyrgyz labor by Russia and Kazakhstan – which is in no small way related to the price of oil. If remittances continue to flow in indefinitely then the growth in the non-tradeables goods sector and the decline in net exports accompanied by the growing disparity between productivity and real wages are viable for many years to come.

21. Yet, this also exposes the Kyrgyz Republic to potentially sharp economic downturns from a decline in remittances, lower internal demand for non-tradables goods and services, higher unemployment rates exacerbated by the return of workers, and lower revenues to the public sector. Moreover, if internal job growth is insufficient and reforms needed to promote job creation are delayed, then this may put an onerous burden on the social safety net in an already constrained fiscal environment.

22. What is also evident is that the economic expansion and the growth in private consumption is that it has not benefited all parts of the country evenly. Bishkek and surrounding areas have benefited more

than Osh or Jalal-Abad. Many of the secondary towns are known to have been company towns whose economic viability was largely driven by one firm – many of which went bust in the early years of the transition. But other centers of business do not seem to have emerged and the Kyrgyz Republic suffers from a certain “uni-polar” development – with the capital being the engine of growth for the country. Greater analysis is needed to determine why Bishkek is the main urban growth center and to what extent such factors as superior infrastructure, proximity to Kazakhstan which is both a destination as well as a transit country to Russia, or business networks unique to Bishkek.

### ***Some Policy Directions***

23. The discussion above should be sufficient to show that tackling poverty is closely related to the growth agenda, economic policies, and possibly the regional distribution of resources pursued by the government. It is likely that poverty will continue to fall in the short-term with greater out-migration and remittance income. Yet, in the absence of vigilance, the Kyrgyz Republic could continue to grow without experiencing development and moving beyond transition.

24. What are the main areas to consider in the growth agenda from the poverty perspective:

- First, encouraging the channeling of a greater proportion of remittances to investment and job creation will lead to faster and more sustainable increases in the welfare of the low income groups.<sup>1</sup> In particular, poverty reduction based upon growth in the export sector is a much more likely to be sustainable than if it were based primarily on non-tradeables expansion. Hence, it is of critical importance to remove obstacles to investment in export-oriented industries, especially labor using ones. Thus, a general focus on improving the business climate combined with addressing the specific problems faced by enterprises trying to export (such as with transport, foreign exchange, and customs).
- Second, since the majority of the poor live in rural areas and work on farms, a rural anti-poverty strategy would include (i) improving the rural poor’s access to credit through formal channels, especially for working capital, (ii) providing technical assistance and better access to information for better crop selection, seed quality, and output marketing, (iii) increase farmers’ access to machinery or other productivity enhancing inputs, and (iv) expansion of the unified monthly benefit to a greater portion of the rural poor.
- Third, regional investment climate surveys would be an important contribution to understanding the differential rates of economic development across the Kyrgyz Republic. Poverty has fallen more slowly in rural areas than in urban areas and in the oblasts of Issykul, Jalal-Abad, and Osh than in other parts of the country. An investment climate survey would help identify bottlenecks that are either imposed by local governments, uneven national government expenditures, and/or differing human and physical capital endowments.
- Fourth, as part of the growth agenda, reform of the education sector is important especially linking secondary and post-secondary education with labor market needs. Since effective vocational and technical education (VTE) is rarely well provided in developing countries, upgrading general secondary to impart skills to students to help them in the labor market as well as providing alternatives to the public provision of VTE need to be explored.
- Fifth, the social safety net could be improved to increase the coverage of the extreme poor, raise the benefit level to help the beneficiaries escape extreme poverty, and to decrease the leakage to

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<sup>1</sup> See “Global Economic Prospects 2006: Economic Implications of Remittances and Migration”, World Bank 2006.

the nonpoor. Safety nets are difficult to administer in economies where much of the income is derived from informal resources or from farming. However, through the use of strict selection criteria, leakage to the nonpoor can be minimized.

25. This report has focused on developments in 2000-2005. Since 2006, nascent but important changes are beginning to emerge. In particular, there has been progress in the expansion of the tradeables sector as demand from neighboring China and Kazakhstan for Kyrgyz products and services has grown. These new developments are significant as they will help to increase the sustainability of poverty reduction in the country.



# CHAPTER 1

## OVERVIEW OF LIVING CONDITIONS IN THE KRYGYZ REPUBLIC

1.1 This report, which has been prepared by the World Bank in cooperation with the National Statistical Committee, provides an assessment of poverty in the Kyrgyz Republic using the most recent data available. It follows the earlier publications on poverty entitled *Kyrgyz Republic Poverty Update* (2005) and *Enhancing Pro-Poor Growth* (2003). It comes at an opportune time as the Government of the Kyrgyz Republic embarks upon [defining] its development strategy, the Country Development Strategy, for the next three years. The findings of this report can provide useful input to the country's strategy since any economic development plan must reach the poor – the bottom 40 percent of the population – to be considered effective.

1.2 The objective of this report is to understand to what extent economic growth has reduced poverty and led to improved living conditions for the population during 2000-2005. Of particular interest for policy making purposes is the avenues through which growth affected the level and depth of poverty. Since the poor have few assets and safety net programs are limited, a key transmission mechanism is the labor market; hence, this report analyzes labor outcomes in the Kyrgyz Republic using both aggregate national data and household survey data. Issues such as employment, unemployment, and underemployment are important to understanding the income earning opportunities available to the population. However, labor markets tend to be segmented with the largest divide being between urban and rural areas and between men and women. This report analyzes these areas separately.

1.3 The report is divided into two volumes. The first volume begins with this chapter which provides an international comparison of social and other key indicators of the Kyrgyz Republic followed by a profile of the poor based upon 2005 household survey data. The second chapter analyzes the linkages between growth and poverty during 2000-2005. The third chapter provides our key findings of labor market outcomes and poverty and what the implications are for policy making. The final chapter synthesizes the information from the earlier chapters and provides some policy directions. The second volume provides a more thorough analysis of labor markets. It covers developments in the labor market, urban labor markets, rural labor markets and differences between men and women in the labor market.

### A. Development Indicators

1.4 Income per capita in the Kyrgyz Republic was \$450 in 2005 placing it at the second to lowest in the Europe and Central Asia region (ECA), just above that of Tajikistan. Its income also falls near the middle of the lower income countries category of the world. However, as is well known, despite the Kyrgyz Republic's low income level, its social indicators are far higher than those of other low income countries yet among the bottom in ECA. Consequently, finding meaningful comparators for the Kyrgyz Republic is difficult. On the one hand, its human capital stock is high and continues to exceed those of other poor countries. However, because of its income level, its fiscal resources are relatively modest and could act as an obstacle to maintaining and upgrading living conditions and productivity.

**Table 1.1: Kyrgyz Republic and Progress on Millennium Development Goals**

	Kyrgyz Republic		LIC /1	ECA /2
	Earliest 1990-1995	Latest 2001-2004	2001-2004	
<b>Hunger</b>				
Prevalence of undernourishment (% of population)	21	4	24	6
<b>Schooling</b>				
School enrollment, primary (% net)	92	90	80	90
<b>Gender</b>				
Share of women employed in the nonagricultural sector (% of total nonagricultural employment)	48	43	23	47
<b>Health</b>				
Mortality rate, infant (per 1,000 live births)	68	58	80	28
Mortality rate, under-5 (per 1,000)	80	68	122	34
Incidence of tuberculosis (per 100,000 people)	55	122	224	83
<b>Environment</b>				
CO2 emissions (metric tons per capita)	3	1	1	7
Improved sanitation facilities (% of population with access)	60	59	38	85
Improved water source (% of population with access)	78	77	75	92
<b>Connectedness</b>				
Fixed line and mobile phone subscribers (per 1,000 people)	71	106	71	536
Internet users (per 1,000 people)	-	52	24	138
<b>Other</b>				
GNI per capita, Atlas method (current US\$)	350	400	507	3,307
Life expectancy at birth, total (years)	68	68	59	69
Gross capital formation (% of GDP)	24	14	27	23
Trade (% of GDP)	79	95	50	83

*Source:* World Development Indicators database, September 2006

Figures in italics refer to periods other than those specified.

1. LIC refers to low income countries. 2. ECA refers to Europe and Central Asia (excluding high income countries).

**1.5 The Kyrgyz Republic's millennium development goals (MDGs) indicators are significantly better than those of other low income countries.** As seen in Table 1.1 above, some selected Kyrgyz Republic's indicators of hunger, schooling, gender empowerment, and life expectancy are closer to those of the ECA average rather than other low income countries despite the difference in GDP per capita. Within the ECA region, the Central Asian countries as a whole are in a lagging subregion with below average social outcomes compared to the richer countries in the region, such as the eight new European Union member states.

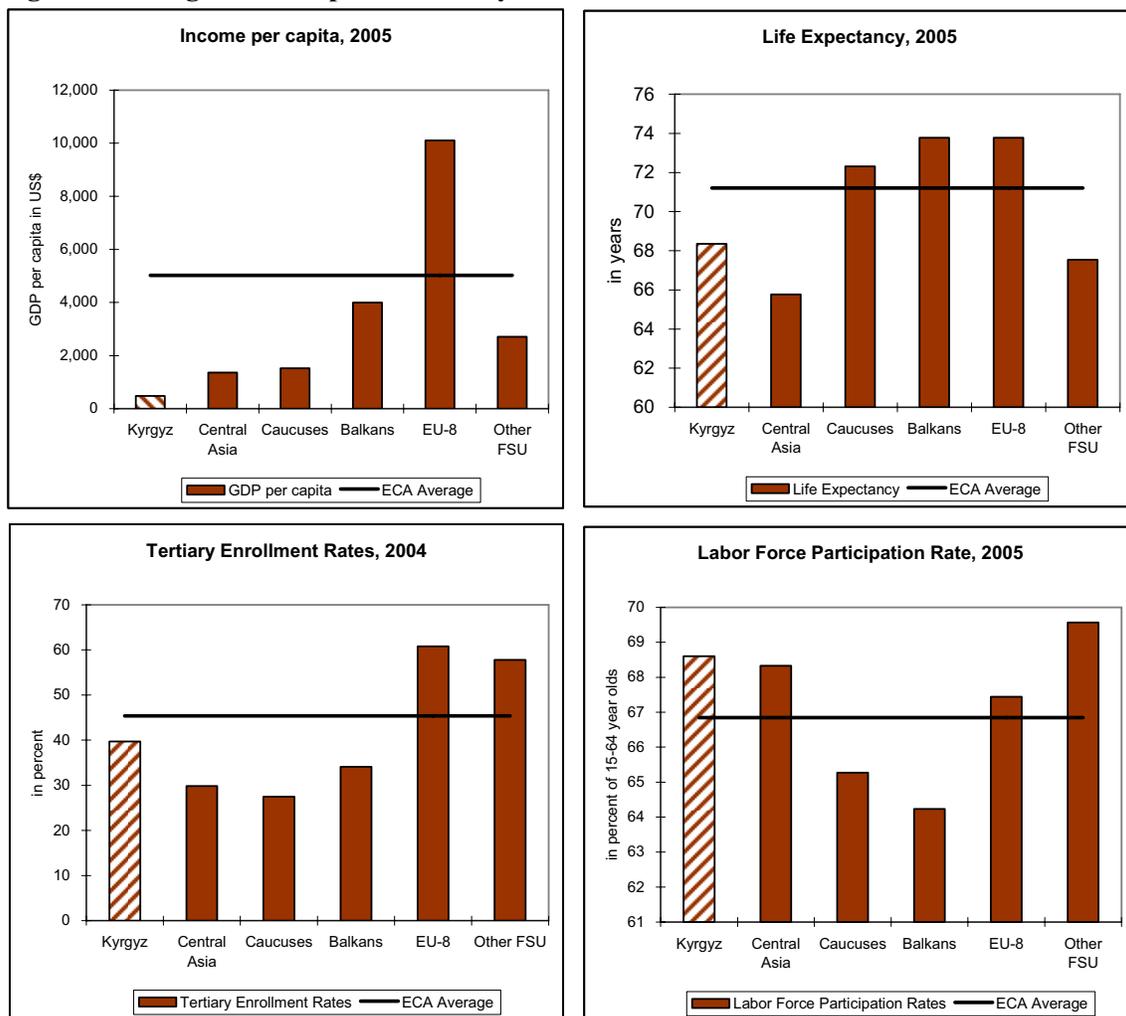
**1.6 Progress on achieving its (MDGs) shows mixed results in the Kyrgyz Republic with not all indicators showing improvement.** A few important MDGs have shown deterioration over the last decade and half such as women's employment in non-agriculture activities and primary school enrollment rates. This is also true of gross secondary enrollment rates which fell from 100 percent in 1990 to 86 percent in 2005. On the other hand, mortality indicators for children have improved as have adult mortality rates.

**1.7 Health indicators do not appear to tell a consistent story on the effectiveness of the health care system.** Adult and child infant mortality rates improved since 1990 despite a dramatic fall in the income per capita and retrenchment of the state in the provision of key services – such as child care and health care. Positive developments during this period include the Government's ability to maintain high immunization rates for measles and DPT and the decline in adolescent fertility rates. However, all outcomes have not shown improvement.

Incidence of tuberculosis increased between 1990 and 2005 though recent years have shown some decline. The puzzle is why life expectancy has remained at 68 years since 1990 despite the improvements in mortality rates during this period.

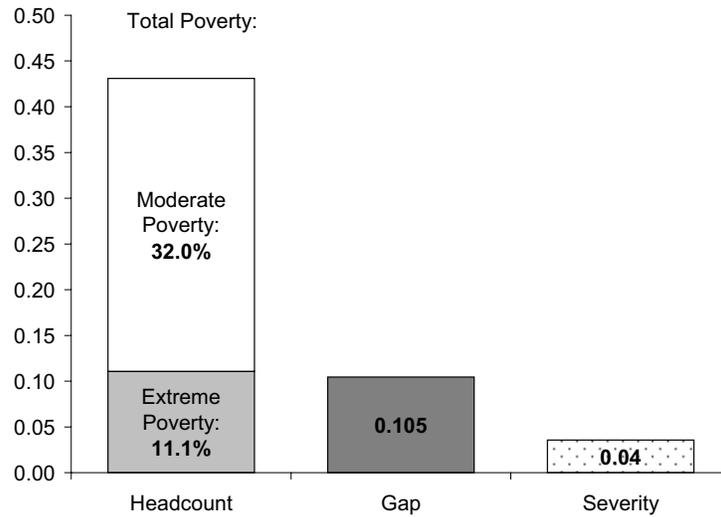
1.8 In addition, a regional comparison shows the **Kyrgyz Republic's social indicators are better than the average of Central Asia** (see Figure 1.1 below). Income per capita can be a strong predictors of social indicators. Though the GDP per capita of the Kyrgyz Republic is well below the average for the ECA region and for Central Asia as well, some of its key indicators are much better than would be expected. Tertiary enrollment rates and labor force participation are either close to the regional average or above. On life expectancy, the Kyrgyz Republic performs relatively very well compared to other low income countries and to the Central Asia as well, but as indicated in the paragraph above, some questions remain.

**Figure 1.1: Regional Comparison of Key Economic and Social Indicators**



- a. Central Asia includes Kyrgyz Republic, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan.
- b. Caucuses includes Armenia, Azerbaijan, and Georgia.
- c. Balkans includes Albania, Bosnia and Herzogovenia, Bulgaria, Croatia, FYR Macedonia, Romania, and Serbia and Montenegro.
- d. EU-8 includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia.
- e. Other FSU includes Belarus, Moldova, Russia, and Ukraine.

**Figure 1.2: Poverty Headcount Index, Poverty Gap and Poverty Severity, 2005**



*Source:* Estimates based on KIHS 2005.

**B. How Many, How Poor, and Where**

1.9 In 2005, more than four in ten people were not able to meet their basic consumption needs; one in ten persons could not even meet the basic foods needs. Our poverty estimates, using the basic needs approach (see Box 1.1) indicate that in 2005, 43.1 percent of the Kyrgyz population were poor, meaning that their consumption levels were not high enough to meet essential consumption needs of food and non-food items as seen in Figure 1.2. And 11.1 percent (one quarter of the poor) of the population were extremely poor, meaning that their total consumption fell below the food poverty line.

1.10 Poverty is largely though not exclusively a rural phenomenon as seen in Figure 1.3. Kyrgyz republic is still largely a rural society, with two thirds of the population living in the country-side. There are more poor living in rural areas (in relative and absolute terms), and poverty is also deeper in rural areas. In rural areas, the extreme poverty rate is more than twice as high as in urban areas: 13.8 percent of rural residents are extremely poor compared to 6.5 urban residents (Box 1.1). The differences are somewhat smaller for the moderately poor, 23.3 percent vs. 37.0 percent. The poverty gap is also almost twice as high in rural areas (0.12 compared to 0.07 in urban areas). In all, less than one third of all urban citizens are poor, while exactly one half of all rural citizens are poor. As a result, more than half of the poor are moderately poor living in rural areas. One fifth of the poor are extremely poor rural residents, another fifth are moderately poor urban residents.

### Box 1.1. Measuring Poverty in Kyrgyz Republic

This report follows the standard World Bank method of estimating a “basic needs” poverty line for consumption. All those who live in households where per capita consumption is below the poverty line are considered poor. The steps involved are as follows:

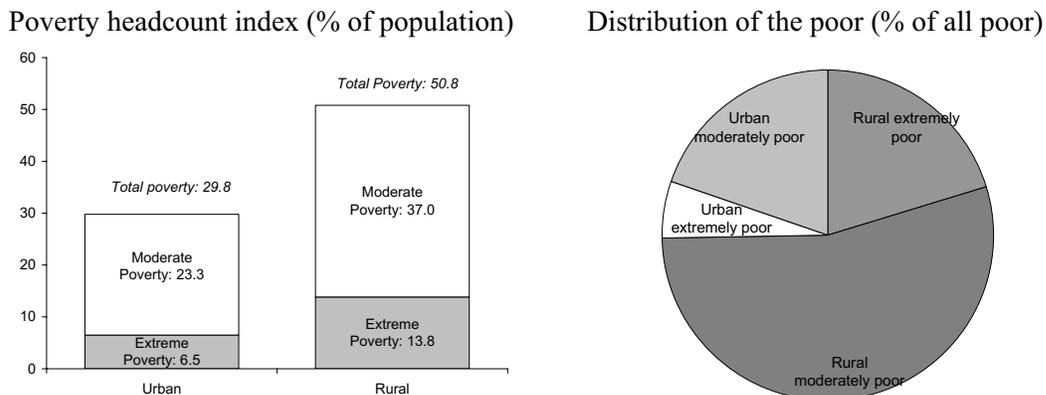
- Compute a consumption aggregate based on food expenditures (including home produced food) and non-food expenditures. The consumption aggregate includes the computed user value of durables, but excludes housing rent.
- Identify a reference group whose food consumption pattern can be used as a basis. The third, fourth and fifth consumption decile were used.
- Based on the consumption shares of this reference population, 2,100 calories per day is allocated across the most important food items. The resulting expenditure level is equivalent to the food poverty line that also delineates extreme poverty.
- To determine the allowance for non-food consumption, the share of non-food consumption in total consumption of those individuals whose food consumption is just above the value of the food poverty line is used.

The resulting per capita consumption poverty line is used to compute mainly three consumption poverty indicators: (i) the poverty headcount index (ii) the poverty gap, and (iii) the poverty severity, all of which belong to the class of Foster, Green and Thorbecke poverty measures:

- The extreme/total poverty headcount index (HCI) simply describes the percentage of population that consumes below the food/total poverty line. Those whose consumption falls below the food poverty line are considered extremely poor. Those whose consumption falls between the food and total consumption poverty line are considered moderately poor. The HCI says nothing about how poor the poor are.
- The poverty gap or poverty depth addresses this problem: the poverty gap is the average distance between the actual consumption of the poor and the poverty line, expressed as a proportion of the poverty line. It thus measure the average poverty short fall (the poor have zero poverty short fall) in the population. The poverty gap is not sensitive to the distribution among the poor, however.
- The poverty severity index has a less straightforward interpretation than the other two poverty measures, but is constructed to give a higher weight to the poorer households. Thus, an increase in the poverty severity index indicates that income distribution has worsened among the poor.

Source: World Bank staff, Foster, Green and Thorbecke (1984).

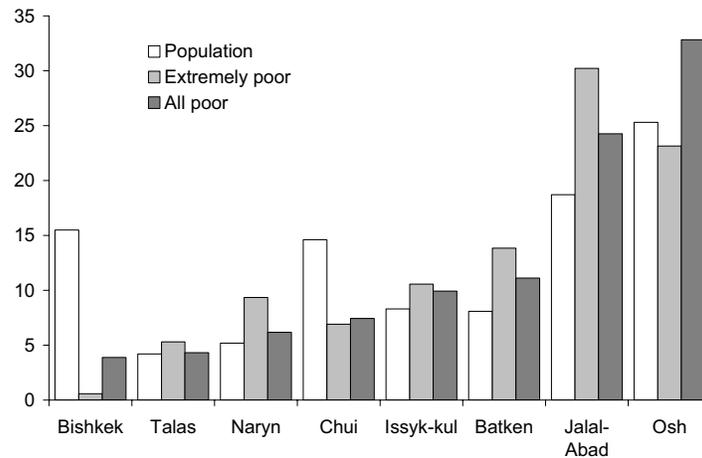
**Figure 1.3: Poverty Incidence and Distribution of the Poor by Rural/Urban Sector**



Source: Estimates based on KIHS (2005).

1.11 **With the exception of Bishkek, Chui, and Talas, all oblasts have a higher proportion of poor than the national average.** The four most populous oblasts of the country are Osh, Jalal-Abad, Bishkek, and Chui. Bishkek and the surrounding Chui region have a disproportionately lower share of the poor compared to their populations indicating greater prosperity in these regions perhaps due to their proximity to the rapidly growing Kazakhstan. Batken, Jalal-Abad and Osh, which border the low-income countries of Uzbekistan and Tajikistan, all host a disproportionate share of the poor as does Issykul in the north. One in three poor lives in the Osh region, though extreme poverty is a worse problem in Batken and Jalal-Abad.

**Figure 1.4: Share of Total Population, Extreme Poor, and All Poor by Region, 2005**



Source: Estimates based on KIHS, 2005.

**Table 1.2: Dwelling Conditions in the Kyrgyz Republic, by Location and Poverty Status, 2005**

	Urban		Rural	
	Non poor	Poor	Non poor	Poor
<b>Type of Dwelling (% of total)</b>				
Apartment	48.3	22.7	4.1	2.9
Separate house	45.1	69.4	92.2	94.8
Part of a house	3.8	4.5	3.5	2.3
Other	2.8	3.4	0.2	0.0
<b>Private ownership (% of total)</b>				
	91.6	90.5	97.4	97
<b>Living area (m2 per capita)</b>	12.9	9.4	16.2	11.6

Source: Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

## C. Living Conditions and Basic Comforts

1.12 **The conditions in which poor people live – crowded housing, lack of basic amenities, distance to public services – are important to understand just how deprived they are.** The withdrawal of several state functions, including the provision of infrastructure and housing, has affected especially the urban poor. Two issues need to be kept in mind. First, disparities are often larger between urban and rural residents than between poor and non-poor within urban and rural areas. Though this partly reflects lower welfare levels in rural areas, it is largely the effect of different technological solutions because of differences in population density. For this reason, living conditions in terms of amenities are often quite similar across income levels in rural areas. As an example, in rural areas, indoors water access is not common among non-poor either, and most people have access to a private water pump in their garden instead. In urban areas, however, the disparities between the poor and non-poor are more important. And in urban areas, not having access to water and sewerage is a much more important sign of deprivation: among other things, it entails more exposure to health risks because of the density of population. Second, the deterioration in infrastructure and other public services may not mainly be reflected in on-the-paper access but in the reliability of those services (World Bank, 2006).

1.13 Unsurprisingly, almost all of the rural population lives in separate houses, whether they are poor or not (Table 1.2). **In urban areas, the poor are more likely to live in separate houses than the non poor**, because the poor resort to informal housing in peri-urban areas to a much larger extent. An overwhelming majority of all Kyrgyz residents live in privately owned houses (i.e., not public housing or cooperatives.) The average living area is smaller in urban than in rural areas. The urban poor live, on average, on 9.4 square meters per person. As a comparison, in the poorest of the “old” European Union countries, Spain, Portugal and Greece, the average person lives on 26 square meters (Estimates based on Rector and Johnson, 2004).

1.14 **The poor have smaller land holdings than the non-poor in rural areas, but not in urban areas.** Almost all rural households have access to land irrespective of poverty status (Table 1.3). Land holdings of the poor are naturally smaller. On average, poor rural households that have access to own land have plots of about 1,800 square meters, or less than 0.2 hectares, while non-poor households have plots of about 2,800 square meters, or 0.3 hectares. Because the urban poor are less likely to live in the most densely populated central areas of cities, less likely to live in apartment buildings, and more likely to need to resort to subsistence farming, they have more access to land than the non-poor. The area available is very small, however, measuring about 20 by 20 meters.

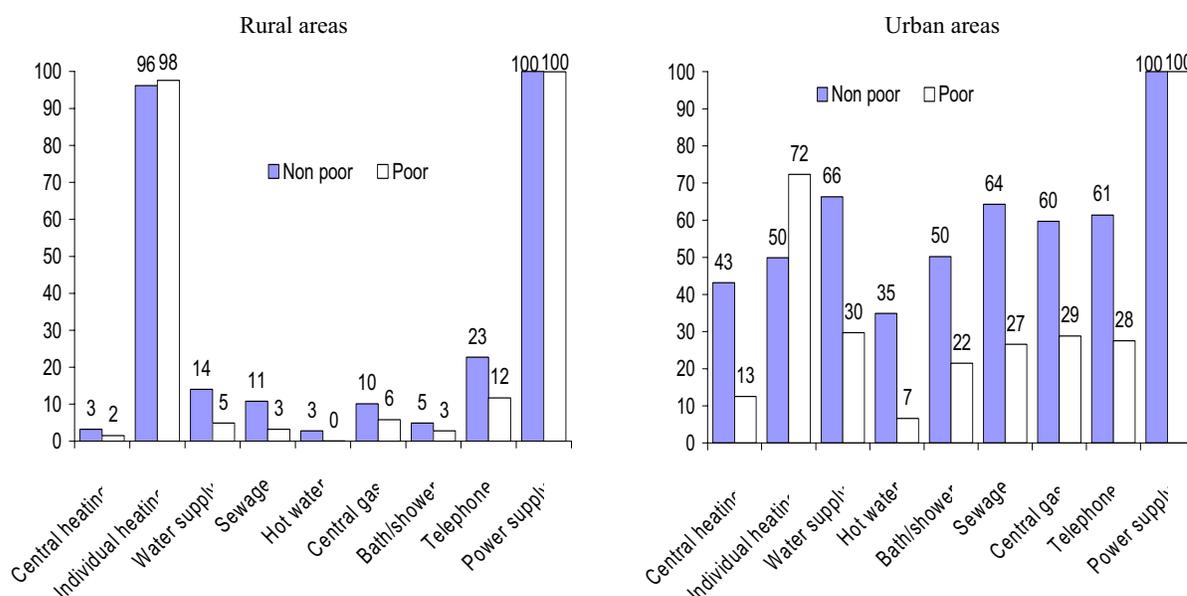
**Table 1.3: Access to Land and Size of Land Plots, by Urban/Rural and Poverty Status, 2005**

	Urban		Rural	
	Non poor	Poor	Non poor	Poor
Access to own land (% of total)	47.6	70.8	95.2	94.7
Own land area per capita (m2)	355	459	2796	1832

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.15 **The urban poor and non-poor differ greatly in terms of household amenities.** Power supply is universal in urban and rural areas, for poor and non-poor. For other types of household facilities, there are big differences however, as evidenced in Figure 1.5: (i) as is consistent with technology-population density requirements, rural areas have much less access to public and network services compared to urban areas, power being an exception (ii) the rural poor have even less access than the rural non-poor but the differences are quite small (iii) there are big differences between the poor and the more affluent in urban areas. Some two thirds of the non-poor have access to water supply, only 30 percent of the poor do. Two thirds of the non-poor have access to sewage systems, only 27 percent of the poor do; 60 percent of the non-poor have access to central gas, only 29 percent of the poor do.

**Figure 1.5: Household Installations, by Urban/Rural and Poverty Status, 2005**



Source: Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.16 **Only one third of the urban poor have access to running water,** compared to 71 percent of the non-poor (Table 1.4). Instead, the urban poor rely on private and public water pumps. As a result, some 30 percent of the poor only have access to water in the street, and nearly ten percent of all urban poor have to walk further than 100 meters to get water. In rural areas, 40 percent of the poor use public water pumps and as many as 27 percent are confined to reservoirs, rivers and the like. Half of the rural poor without water in their home have to walk further than 100 meters to collect the water, some 14 percent need to walk more than 200 meters.

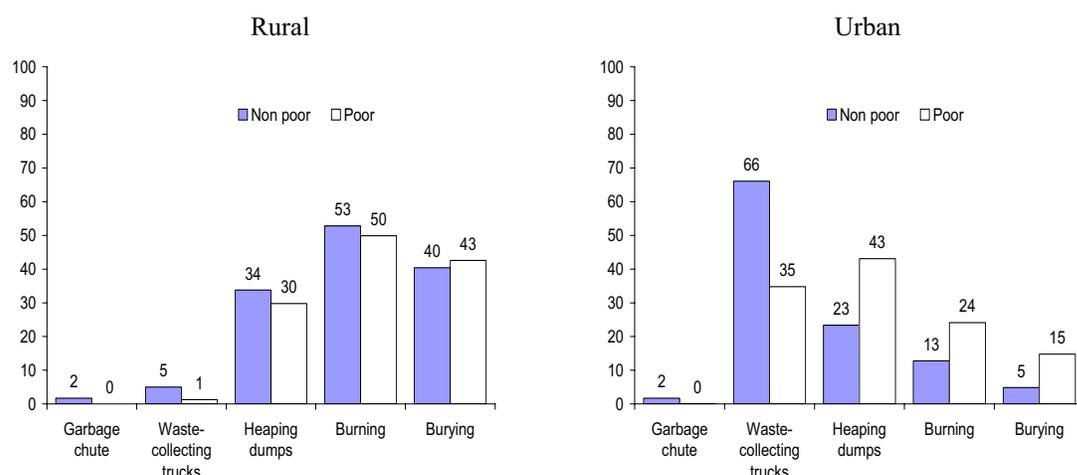
**Table 1.4: Water Access, by Urban/Rural and Poverty Status, 2005**

	Urban		Rural	
	Non poor	Poor	Non poor	Poor
<b>Main water source (% of total)</b>				
Running water	71.2	32.7	13.7	7.0
Private water pump	21.2	35.8	27.3	19.6
Public (communal) water pump	6.8	26.5	35.3	39.6
Reservoir, river, lake, pond, aryk	0.1	0.7	17.6	27.2
Other	0.7	4.3	6.1	6.6
<b>Location of water source (% of total)</b>				
Indoors	66.1	29.1	10.9	3.2
Outdoors (in the yard)	26.8	41.3	34.7	27.3
Outdoors (in the street)	7.2	29.6	54.4	69.5
<b>The distance from home to the nearest water source if it is in the street (% of total)</b>				
Less than 100 m	55.3	72.3	49	48.9
100-200 m	31.8	19.5	44.5	36.5
200-500 m	10.3	5.8	5.7	13.5
500-1000 m	2.6	2.4	0.9	0.7

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

**1.17 Lack of proper waste management affects living conditions, especially in urban areas.** Similarly, waste management differs more across urban and rural areas than across rural poor and non-poor, and gaps between poor and non-poor are much more important in urban areas (Figure 1.6). Urban poor do not have access to garbage collection as the non-poor do. Peri-urban informal settlements therefore generate illegal garbage dumps – in fact, 43 percent of the urban poor resort to heaping dumps. Uncollected garbage risks contaminating nearby water supply and generally contributes to unhygienic conditions, the spreading of disease and in extreme cases releases poisonous gases. As many as 24 percent of the urban poor also burn their trash; another 15 percent bury the waste. While these are unhealthy and environmentally detrimental practices wherever they take place (indeed, they are the prominent methods of treating waste in rural areas), the hazardous effects of spreading heavy metals, gases and soot over dense residential areas are higher – and will affect poor urban settlers more.

**Figure 1.6: Waste Treatment (% of Population Using Different Methods)**



*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.18 As expected, the **poor and non-poor differ significantly in their possessions of durables** (Table 1.5). They are to a higher extent cut off from news and general information, being without a TV, and the majority of the poor have neither a fixed phone nor a cellular phone. They have to spend relatively more time washing clothes, and half of the urban poor, and 71 percent of the rural poor, do not have a refrigerator for storing and preserving food.

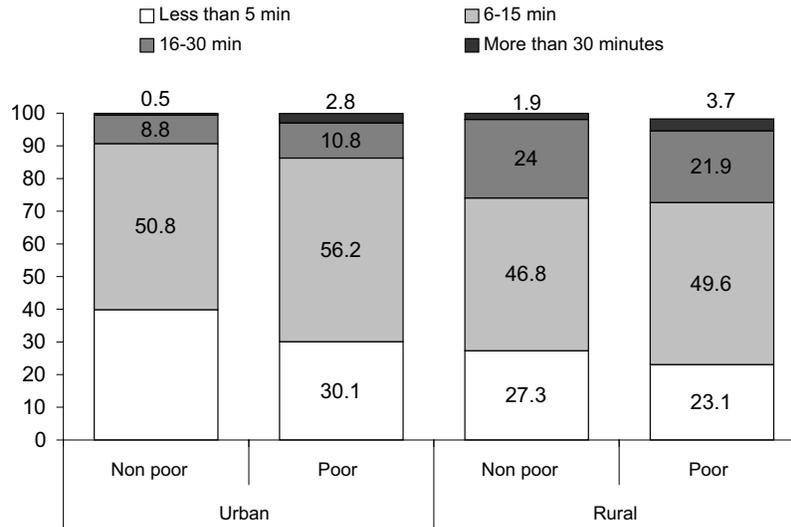
**Table 1.5: Deprivation of Consumer Durables**

	Urban		Rural	
	Non poor	Poor	Non poor	Poor
Do not have color TV	22	60	52	76
Do not have a black and white TV	76	43	39	25
Do not have a washing machine	33	55	49	73
Do not have a refrigerator	18	48	42	71
Do not have a phone (fixed line)	39	72	77	88
Do not have a cellular phone	82	96	92	100

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.19 Finally, differences in access to public transport are more important in urban than in rural areas (Figure 1.7). Only 30 percent of the poor, compared to 40 percent of the non-poor, have less than five minutes to the nearest form of public transport. Apart from distance, however, poorer urban zones are likely to have much less frequent and reliable forms of transports, though data do not permit an extension of the analysis in this direction.

**Figure 1.7: Distance to Nearest Form of Public Transports in Minutes**



*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.20 **The urban poor suffer from less reliable services than the non-poor.** Access to power lines does not mean *de facto* reliable access to electricity. Indeed, because of segregation within urban areas, the poor are much more exposed to unpredictable infrastructure services (Table 1.6). For example, two thirds of the poor that did have access to central gas supply had been disconnected at several occasions, compared to only one third of the non-poor. The poor with cold water supply (36 percent of all poor) are much more likely to experience cut-offs than the non-poor – as many as 22 percent experienced cut offs in water supply several times a week or every day. And finally, while access to electricity is universal, only ten percent of the urban poor had never experienced power failure, and 34 percent experienced power outages at least once a month.

#### **D. Who are the Poor?**

1.21 **Large households with numerous children are poorer.** Poverty rates increase monotonically with household size and, by consequence; with the number of children under age 14 in the household (see Table 2.5). The poverty penalty associated with having three or more children is high: 25 percent of household with three or more children are extremely poor, compared to 9 percent of households with 2 children.<sup>2</sup>

<sup>2</sup> This result is related to the per capita consumption approach which does not take into account differences in demographic composition among households or economies of scale. Adjustments can be made to allow for the fact that larger households can economize because some goods can be shared across household members and the fact that children have different consumption needs than adults. However, these adult equivalent scales are fraught with their own problems in terms of how to choose adjustment factors. At any rate, while adult equivalent adjustments may lower poverty rates of larger households with many children and increase those of other households, they are not likely to change the ranking of households.

**Table 1.6: Services Reliability for the Urban Non-poor and Poor (% of total)**

	Non-poor	Poor
<b>Access to central gas supply</b>	<b>59.7</b>	<b>28.8</b>
Of these, how many had been disconnected from the gas supply?		
<i>Never</i>	66.1	38.7
<i>Several times a year</i>	32.1	55.4
<i>Once a month</i>	1.8	5.9
<b>Access to water supply</b>	<b>66.3</b>	<b>29.7</b>
Of these, how many had been disconnected from the water supply?		
<i>Never</i>	49.0	36.0
<i>Several times a year</i>	44.2	34.7
<i>Once a month</i>	4.5	5.9
<i>Once a week</i>	0.6	2.1
<i>Several times a week</i>	1.1	16.6
<i>Every day</i>	0.6	4.8
<b>Access to power supply</b>	<b>100.0</b>	<b>100.0</b>
Of these, how many had been disconnected from the power supply?		
<i>Never</i>	28.1	10.1
<i>Several times a year</i>	54.5	56.3
<i>Once a month</i>	11.4	24.6
<i>Once a week</i>	3.2	4.1
<i>Several times a week</i>	2.4	4.2
<i>Every day</i>	0.4	0.8

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.22 **It follows that children are more likely than prime age adults or elderly to live in poverty.** More than half of all children under 14 in Kyrgyz live in poverty; nearly one in five children under five lives in extreme poverty – twice the average for the population. Poverty is lowest for the middle aged and pre-retirement workers (ages 40-64 years). Compared to the middle aged, the elderly are at a higher risk of total and extreme poverty. However, high youth poverty rates as well as relatively lower poverty rates among the elderly are a logical result of the per capita consumption approach used here, where no adjustments are made for different consumption needs at different ages or for the fact that larger households may benefit from economies of scales in some of their consumption expenditures. In fact, adjusting for these factors results in higher poverty rates among pensioners living on their own (Box 1.2). However, equivalent scales are fraught with their own problems in terms of how to choose adjustment factors. Moreover, since food makes up a large share of total expenditures among the Kyrgyz poor, the per capita approach is a suitable choice. Food will not generate the same amount of welfare per person if shared among more people.

**Table 1.7: Poverty Headcount Indices by Household Characteristics and Age**

	Category share of population	Poverty headcount index (% of total population within category)		
		Extreme	Moderate	Total
<b>Household size</b>				
1 person	2.6	0.2	2.4	2.5
2 persons	6.8	1.5	4.9	6.4
3 persons	14.0	1.5	16.0	17.5
4 persons	20.3	5.1	24.2	29.3
5 persons	20.0	7.5	34.4	41.9
6 persons	17.3	15.6	47.3	63.0
7 and more persons	19.0	29.3	49.0	78.3
<b>Number of children under 14 in the household</b>				
None	22.8	1.8	13.8	15.6
1 child	24.5	6.1	24.4	30.5
2 children	24.2	9.3	40.3	49.6
3 or more children	28.5	24.6	46.0	70.6
<b>Age groups</b>				
Under 5	11.1	18.9	38.8	57.7
6 - 14	20.6	14.0	37.9	51.9
15 - 24	19.5	9.7	30.4	40.1
25 - 39	20.4	12.4	32.4	44.9
40 - 64	22.1	5.4	25.4	30.9
65 and over	6.3	8.3	26.5	34.8

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.23 The characteristics of the household head are also an important determinant of poverty. Household heads are generally though not always also the main breadwinner of the family and their chances on the labor market are therefore crucial to household income. A first observation from Table 2.7 below is that the share of female headed households is fairly high, almost 30 percent. While female headed households are equally likely to be extremely poor as male headed households, the risk of moderate poverty is smaller for female headed households. One possible explanation for this is that some female headed households may have a male migrant worker abroad, who contributes to household income.

1.24 **Households with older household heads are also most likely to be poor.** This is an important result, because in the population at large, the poorest adults are those aged 25-39, presumably because they live in households with many dependent children (see above). Thus, 51 percent of the population living in households where the household head is older than 65 years are poor, but only 35 percent of the population aged 65 years or more is poor. This may indicate the importance of adult children caring for older family members.

### Box 1.2. Single household Poverty: Per capita Consumption vs. Adult Equivalence Scales

This report uses per capita consumption – total household consumption divided by the number of household members – as its welfare benchmark. This approach does not take into account the following issues:

(i) demographic composition of household may lead to different consumption needs: for example, very small children may need less food, or food of a different kind.

(ii) larger households can take advantage of economies of scale as some consumption expenditures can be shared across the household: for example, some food is cheaper when bought in bulk, some services can be shared among all inhabitants, clothes can be inherited to younger siblings, etc.

As a result, the per capita consumption approach may overestimate youth poverty and poverty among larger households.

An exercise was undertaken to compare poverty outcomes using per capita vs. adult equivalence scales, using 2004 data. It showed that using adult equivalence scales left the poverty headcount index more or less unchanged but affected poverty rates for different types of households significantly: (i) poverty rates for single pensioners were twice as high as with per capita consumption (ii) poverty rates for households without children were higher, poverty rates for households with three or more children were lower (iii) Poverty rates increased for adults without children and fell for adults with children.

	Per capita approach		Using scale adjustments	
	Total poverty	Extreme poverty	Total poverty	Extreme poverty
Pensioners				
Not single pensioners	40.1	10.9	42.4	12.2
Single pensioners	10.6	1.9	22.2	4.1
Number of children				
0	12.0	2.1	22.6	5.6
3	64.7	16.1	61.9	12.3
Household composition				
1 adult, no children	3.0	0.4	9.7	1.8
1 adult, more than 3 children	55.4	6	36.9	6
2 adults, no children	8.6	0.7	20.3	4.2
2 adults, more than 3 children	79.6	30.1	73.4	24.4
3 adults ,no children	11.1	2.6	24.4	5.4

Note: Household level statistics.

While there is important news in the risk of poverty among pensioners, the adult equivalence scales suffer from some drawbacks, e.g. that the choice of adjustment parameters is essentially arbitrary. Moreover, in the specific case of the Kyrgyz Republic, per capita consumption is more appropriate given the high food share in the consumption aggregate. Food can not generate the same amount of welfare if it is shared among several household members. Finally, while equivalence scales do raise poverty rates among smaller and older households, the ranking between households does not change.

Source: Staff estimates based on KIHS 2004.

**Table 1.8: Poverty Headcount Indices by Household Head Characteristics**

	Category share of population	Poverty headcount index (% of total population within category)		
		Extreme	Moderate	Total
Gender				
Male	72.3	11.0	33.4	44.4
Female	27.7	11.4	28.3	39.7
Age group				
Under 39	30.1	13.1	34.3	47.4
40 - 64	53.9	8.9	29.3	38.2
65 and over	16.0	15.0	36.5	51.5
Education level				
Higher	17.1	1.5	17.0	18.4
Incomplete Higher	1.7	0.4	35.9	36.2
Secondary Special Professional	14.1	9.6	30.1	39.7
Technical	12.0	9.7	28.0	37.7
General Secondary	40.7	14.4	39.1	53.5
Less than secondary	12.4	19.7	28.1	47.8
Illiterate	2.1	2.7	70.5	73.2
Nationality				
Kyrgyz	62.4	12.5	34.4	46.9
Uzbek	19.1	15.4	40.1	55.5
Russian	11.9	0.6	10.0	10.6
Other	6.7	5.0	24.4	29.4

*Source:* Estimates based on KIHS (2005). Refers to percentage of population and not percentage of households.

1.25 **Education levels have a significant bearing on poverty outcomes.** Most of the Kyrgyz household heads have finished general secondary education or some specialization at secondary level; only 17 percent have completed higher education. There is a significant premium to completed higher education, and there is a strong penalty to illiteracy (which only concerns 2 percent of the population). Importantly, compared to general secondary education, there is also a premium to specializations or professional technical education. Professional education becomes all the more important when firms due to their short-time horizon in the current political environment may not want to invest in workers to train them on the job.

1.26 Finally, **there are great differences in poverty levels depending on the nationality of household heads in Kyrgyz Republic.** About 38 percent of the population lives in households headed by a person of Uzbek, Russian or other origin. The group with the highest poverty incidence is the Uzbek minority, predominantly living in the poorer southern regions. The richest group is the Russian minority, living in the more affluent north. However, these incidence numbers do not provide a full picture as there may be other factors driving the numbers such as household size, education, and residence. For example, if many of the Russian minority live in urban areas and tend to have fewer young children, this may be driving their lower poverty incidences.



## CHAPTER 2

### POVERTY, INEQUALITY AND GROWTH IN 2000-2005

#### A. Introduction

2.1 The Government of the Kyrgyz Republic is developing a medium-term economic strategy with a focus on growth as its key objective. A relevant question raised is whether such a plan would be sufficient to reduce poverty – that is, is growth sufficient for poverty reduction in the Kyrgyz Republic. In recent research carried out by the World Bank on countries in several regions of the world, growth has indeed been shown to be a key driver behind poverty reduction in most countries. However, the analysis also showed that the type of growth had an important impact on the degree to which growth led to rapid poverty reduction in any particular country.

2.2 This chapter examines whether economic growth during 2000 and 2005 led to poverty reduction in the Kyrgyz Republic and, if so, to what extent and how was it achieved. Unfortunately, due to the lack of a consistent set of household data for this time period (see Box 2.1), answering this question is not straightforward and the robustness of our results are not as strong as desirable. Nevertheless, the analysis yields important findings:

- During 2000-2005, poverty and extreme poverty fell significantly despite only moderate economic growth.
- Poverty reduction was fueled by growth in productive sectors that employ low-income workers but also by a rise in public (pensions and social benefits) and private (remittances) transfers.
- The sustainability of future poverty reduction – which has been driven by rapid private consumption growth – is unclear due to the low level of investment and uncertainty of the stability and growth in foreign remittances.

2.3 The remainder of this chapter is structured as follows. We begin by trying to establish the trend in poverty and inequality rates during 2000 and 2005. Of particular interest is whether any particular group saw higher gains in poverty reduction than those experienced by others. The second part of this report focuses on the track record of economic growth and explores possible transmission channels leading to poverty reduction. This analysis is not meant to be academic but rather to provide clues to policy makers on the components of designing a national development strategy that raises living standards of the lower half of its population.

### Box 2.1. Calculating Poverty Trends in Kyrgyz Republic

This report is based upon the analysis of the Kyrgyz Integrated Household Survey (KIHS), available for the years 2003, 2004 and 2005 and the Household Budget Survey (HBS) available annually from 2000 until (and including) 2003. The National Statistical Committee (NSC) adopted the KIHS with the assistance of DFID because it was a superior survey instrument and yielded more useful information for policy purposes. Yet, changing surveys and even modifying specific modules within a survey has consequences – the major one being the ability to compare any indicator *over time*.

The HBS and the KIHS are very different household survey instruments in almost all aspects with the most important change having occurred in the design of the expenditure module – the basis for poverty estimates. (Indeed, the same methodology for estimating poverty lines in 2003 results in a higher poverty line in the KIHS compared to the HBS, because of a more complete consumption aggregate, based, in turn, on a more complete questionnaire.) Furthermore, the HBS has a much smaller sample size compared to the KIHS with 1,081 and 4,760 households respectively. This implies that the robustness of poverty estimates for smaller groups – such as for oblasts – may be weak. But for our purposes, another consequence is that poverty rates for these smaller groups are difficult to compare across surveys and thus across time.

There is no completely satisfactory way to make these poverty statistics compatible and some recent research has raised doubts about whether comparing across surveys should be done at all. In 2000, the NSC established a poverty line for estimating minimum consumption needs to determine the level of poverty using the HBS. Then in 2003, it recomputed the poverty line based upon the KIHS expenditure data. This new poverty line continues to be used (corrected for inflation) in each subsequent year since then. The NSC took one very important step, despite the financial and administrative burden, which was to overlap the survey instruments for one year. Due to this decision, we are able to make poverty comparisons over time at the national level though this does not extend as robustly to subgroups of the population for the reasons mentioned above.

In order to compare across time, the approach adopted in this report is to compute for 2003 the poverty line for the HBS which yields the same poverty incidence as in the KIHS for that year. The poverty rate according to the KIHS for 2003 is 49.9 percent. However, the poverty line computed using the 2000 HBS, yielded 49.2 percent which was very close to the official poverty rate for 2003. Thus, in an attempt to balance rigor with usefulness, we decided to use the official consumption estimates of poverty for estimating the trend in order to avoid creating confusion by publishing additional poverty numbers. An additional step taken to ensure comparability was to analyze the characteristics of the population in both surveys to make sure that there were no significant differences that would call into question whether the surveys sampled the same population.

#### Poverty lines: ( in nominal soms per capita) HBS and KIHS

	1999	2000	2001	2002	2003	2004	2005
Complete poverty line							
HBS	5953	6525	6975	7121	7342		
KIHS					8732	9091	9487
Extreme poverty line							
HBS	3967	4348	4648	4746	4893		
KIHS					5490	5716	5965

Source: Estimates based on KIHS, 2003-2005, and HBS, 2000-2003.

## **B. Rapidly Falling Poverty: Poverty Trends and Decomposition**

### ***Poverty trends***

2.4 **The historical record indicates that poverty has been falling in the Kyrgyz Republic since after the Russian crisis.** The joint Kyrgyz Republic - World Bank 2003 Poverty Assessment, *Enhancing Pro-Poor Growth*, concluded that contagion from the Russian crisis led to significant increases in poverty from the mid 1990s to 1998-1999. However, the economic recovery resulted in a significant reduction in the share of population living in poverty. Using HBS panel data for 1998-2001, total poverty fell from 60 to 47 percent in rural areas and from 45 to 34 percent in urban areas.<sup>3</sup> The agricultural sector has been particularly responsive to policy reforms – including land reform, liberalization and policies aimed at smaller farmers – and agricultural productivity increased. The strength of the agricultural sector was critical to the advances made in poverty reduction since 1998.

2.5 **Poverty fell markedly – by one third - and evenly in the Kyrgyz Republic in the past five years.** The 2003 Poverty Assessment (World Bank, 2003) concluded that poverty had fallen between 1998 and 2001, largely because of strong performance in the agricultural sector. This trend has continued: the fall in the poverty headcount index is evident both between 2000 and 2003 and between 2003 and 2005. The share of people below the total poverty line (including food and non-food expenditures) fell from 63 percent of the population in 2000 to 50 percent in 2003, and further to 43 percent in 2005. In other words, one in three persons who were poor in 2000 had escaped poverty by 2005 (see Figure 2.1).

2.6 **Those living in extreme poverty in 2000 saw an even greater improvement in their welfare with two out of every three persons escaping by 2005.** Poverty reduction was also widespread and benefited most population groups and most areas of the country. The share of people living in extreme poverty fell dramatically as well, from 33 percent in 2000 to 15 percent in 2003 using HBS data, and from 17 percent in 2003 to 11 percent in 2005 using KIHS. Looking at year-on-year changes, poverty fell in every year except in 2002.

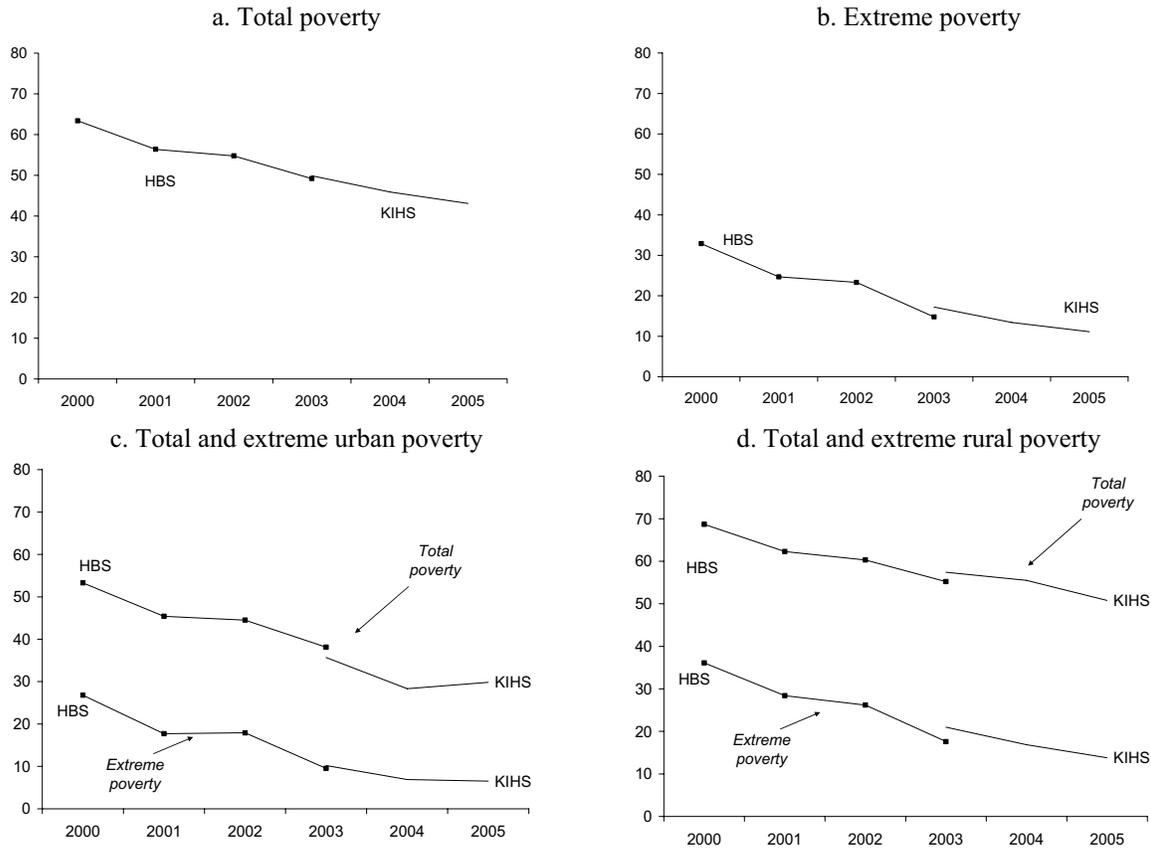
2.7 **Further, these changes reflected improvements in the poverty situation in rural and urban areas.** In urban areas, total poverty fell from 53 to 38 percent between 2003 and 2005 (HBS) and from 36 to 30 percent between 2003 and 2005 (KIHS). Extreme poverty was reduced from 27 to 10 (HBS) and from 10 to 7 percent (KIHS) in the subsequent period. However, urban poverty stagnated between 2004 and 2005. In rural areas, changes were equally impressive. Poverty fell from 69 to 55 percent in 2000-2003 (HBS) and from 57 to 51 percent in 2003-2005 (KIHS). Extreme rural poverty was reduced by one third between 2003 and 2005, affecting 14 instead of 21 percent of the population. And in the earlier period, HBS data indicate that poverty fell by half from 36 to 18 percent.

2.8 **Because of the relatively equal achievements of poverty reduction, the *distribution* of poverty did not change over time.** Three out of four poor and four out of five extremely poor persons still lived in rural areas by 2005.

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<sup>3</sup> These data (derived from a panel dataset) are not comparable with other poverty numbers presented in this chapter.

**Figure 2.1: Poverty Trends (% of population, 2003-2005)**



Source: Estimates based on HBS (2000-2003) and KIHS (2003-2005).

2.9 Once we move beyond looking at poverty trends based upon the headcount index, the appropriateness of comparing poverty indicators such as the poverty gap and poverty severity index across household surveys becomes much more questionable. Thus, it is no longer possible to make comparisons across household surveys of other indicators of poverty such as the poverty gap and poverty severity. Comparing inequality levels also falls into this category and, hence, this report does not attempt to make any assertions as to whether it fell or grew during 2000 – 2005. In the interest of maintaining rigor, the remainder of this section focuses on comparisons during 2003 – 2005 for which years comparable data are available from one household survey instrument.

2.10 **The poor also became less poor, and inequality improved among the poor.** Concentrating on the 2003-2005 period, the fall in total and extreme poverty was accompanied by a fall in the poverty gap and the poverty severity (Table 2.1). Thus, consumption levels increased also for the poor, shifting more of them closer to the poverty line, and the income distribution among the poor became more equal. This evidence underlines our earlier observation that poverty reduction was widespread and to the benefit of a large share of the population.

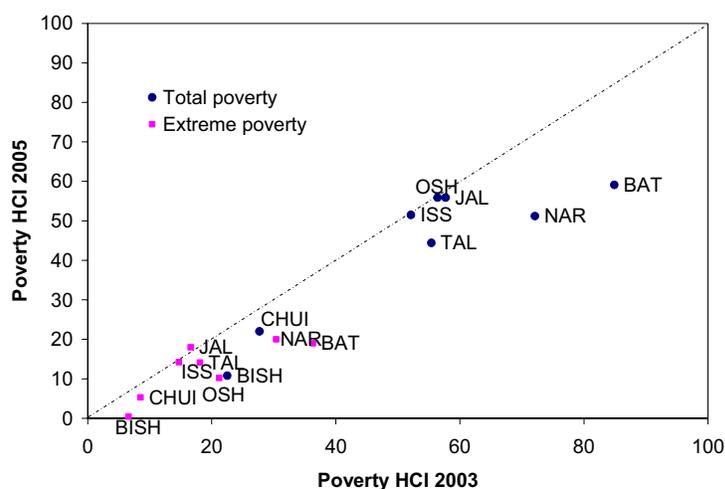
**Table 2.1: Poverty Statistics, Kyrgyz Republic, 2003-2005**

	Poverty headcount index (P0)		Poverty gap (P1)		Poverty severity (P2)	
	2003	2005	2003	2005	2003	2005
Kyrgyz	49.9	43.1	0.15	0.10	0.06	0.04
Urban	35.7	29.8	0.10	0.07	0.04	0.02
Rural	57.5	50.8	0.18	0.12	0.07	0.04
Bishkek	22.5	10.8	0.05	0.02	0.02	0.00
Issykul	52.1	51.5	0.14	0.14	0.05	0.05
Jalal-bad	57.7	55.9	0.17	0.16	0.06	0.06
Naryn	72.1	51.2	0.24	0.14	0.11	0.05
Batken	84.9	59.1	0.29	0.17	0.12	0.06
Osh	56.4	55.9	0.18	0.10	0.07	0.03
Talas	55.4	44.4	0.17	0.12	0.07	0.04
Chui	27.8	22.0	0.07	0.04	0.03	0.01

Source: Estimates based on KIHS 2003-2005.

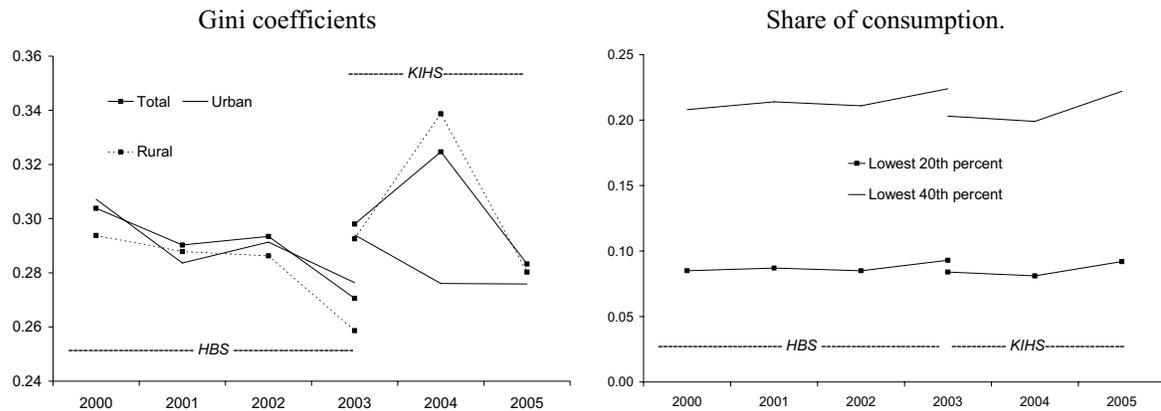
2.11 **At a regional level, progress was more uneven.** Only one caveat remains – regional poverty reduction was more uneven. Figure 2.2 focuses on the period 2003-2005 only, showing the poverty levels in 2003 and 2005 respectively. As seen, there was some good news in that the poorest regions – Naryn and Batken – saw significant poverty reduction. In Batken, poverty fell from 85 to 60 percent between 2003 and 2005; in Naryn, poverty fell from 72 to 50 percent. Talas, in the north, as well as the capital Bishkek, also experienced large falls in poverty, and extreme poverty was all but eradicated in Bishkek. But three other relatively poor regions, Osh, Jalal-Abad and Issykul, saw little change in total poverty in contrast to their experience in the earlier years according to the HBS. In terms of improvements in extreme poverty, Osh did see a significant reduction in extreme poverty while it held steady in Issykul and increased marginally in Jalalabad. Also, according to the HBS, Osh and Jalal-Abad saw significant poverty reduction during 2000-2003.

**Figure 2.2: Regional Poverty Reduction, 2003-2005**



Source: estimates based on KIHS (2003-2005). 1. HCI is the headcount index.

**Figure 2.3: Inequality Developments, 2000-2003, 2003-2005**



Source: Estimates based on HBS 2000-2003 and KIHS (2003-2005)

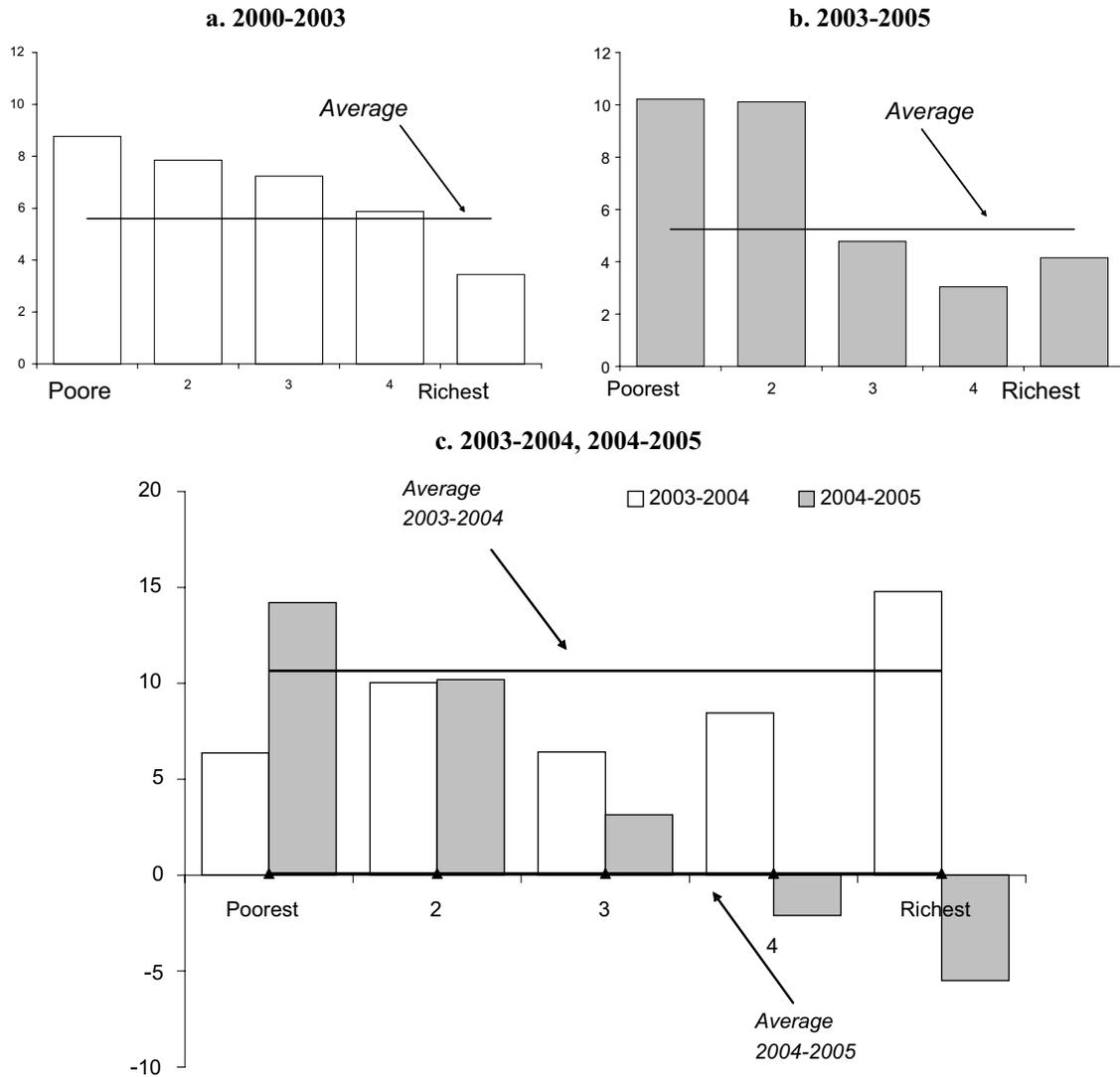
### *Inequality and pro-poor growth patterns*

**2.12 Inequality fell in the Kyrgyz Republic during the first half of this decade.** The improvements in income distribution are consistent with the strong poverty reduction in the Kyrgyz Republic. The outcomes are quite similar across two different measures of inequality: the Gini coefficient, which measures the degree of inequality in total income distribution, and the poorest people's share of consumption. The Gini coefficient fell between 2000 and 2005 (Figure 2.4). Similarly, the share of consumption which accrued to the poorest 20 and 40 percent of the population increased, albeit at a slow pace.

**2.13 Measures of inequality are volatile showing large changes annually.** In most societies, the distribution of income does not change dramatically year to year. In the Kyrgyz Republic, there are large changes according to both household surveys' data. Whether this is a feature of the data or reflective of the actual situation is unclear. If true, the changes in inequality would indicate dramatic shifts in income within the society and the continued evolution of the economic system. Specifically, between 2000 and 2003, the developments were similar across the board. Inequality stagnated in 2002 – mirroring the stagnation in poverty in the same year - but fell markedly again in 2003. Between 2003 and 2004, inequality increased dramatically in rural areas, mirroring a fall in agricultural output, but continued to fall in urban areas. In 2005, as the agriculture sector was rebounding, inequality had reverted back and income distribution was improving again, relative to 2003.

**2.14 Poorer households increased their consumption most.** The fall in poverty and inequality bear witness to a very clear pro-poor structure of consumption growth in both 2000-2003 and 2003-2005 (Figure 2.5). While total per capita consumption growth increased by 5.6 percent per year in 2000-2003, and by 5.2 percent in 2003-2005, the consumption of the poorest twenty percent increased by 8.8 and 10.2 percent respectively, while that of the second poorest increased by 7.9 and 10.1 percent respectively. People in the third income quintile – of whom all were poor in 2000 but most no longer so in 2005 – saw consumption increase above average in 2000-2003 (7.2 percent) but below average in 2003-2005 (4.8 percent).

**Figure 2.4: Average Annual Consumption Growth by Consumption Quintile**



Source: Estimates based on HBS (2000-2003) and KIHS (2003-2005).

2.15 **Growth patterns were different between 2004 and 2005.** It is difficult to see any pattern of welfare improvements in recent years. While poverty fell between 2003 and 2004 as well as between 2004 and 2005, the main drivers were different between the two years. The sharp increase in inequality in 2004 was accompanied by very high but anti-poor consumption growth. In contrast, between 2004 and 2005, overall consumption stagnated, but the poorest two quintiles experienced remarkably high growth, reaching 14.2 and 10.2 percent respectively.

**Poverty - Growth Elasticities**

2.16 A key question for policy makers is whether poverty reduction and economic growth have gone hand in hand with each other. And if so, has growth led to small or large declines in poverty. Why would we ask such a question? For those committed to reducing the number of poor, economic policies which lead to growth, especially one which expands the middle class

rapidly by reducing the share of population living in destitution are policies worth pursuing. Furthermore, policies which are inclusive in their impact – that is, they reach people in all sectors and all parts of the country could be considered superior to those that may reduce poverty but only for a select group of people, such as those living in urban areas.

**Table 2.2: Poverty Elasticities**

ALL KYRGYZ REPUBLIC				RURAL AREAS			URBAN AREAS		
	2000-2003	2003-2005	2000-2005		2000-2003	2003-2005		2000-2003	2003-2005
<b>A. CHANGES IN POVERTY HCI</b> (% per year)									
Total	-8.1	-7.1	-7.7	Total	-7.0	-5.9		-10.6	-8.6
Extreme	-23.4	-19.7	--	Extreme	-21.3	-18.9		-29.2	-20.2
<b>B. GROWTH IN VA AND CONSUMPTION</b> (% per year)									
Value added	4.1	3.4	3.8	Total VA	4.1	3.4	Total VA	4.1	3.4
Private Cons.	5.6	5.2	-5.5	Agr. VA	4.5	-0.1	Non-agr VA	3.7	6.7
<b>C. ELASTICITY (A/B)</b>									
Total poverty with respect to:			Total poverty with respect to:			Total poverty with respect to:			
To total VA	-2.0	-2.1	-2.0	To total VA	-1.7	-1.8	To total VA	-2.6	-2.6
To Priv Cons	-1.4	-1.3	-1.4	To Agr. VA	-1.6	52.6	To Non-agr VA	-2.9	-1.3
Extreme poverty with respect to:			Extreme poverty with respect to:			Extreme poverty with respect to:			
To total VA	-5.7	-5.8	--	To total VA	-5.2	-5.6	To total VA	-7.2	-6.0
To Priv Cons	-4.2	-3.8	--	To Agr. VA	-4.8	168	To Non-agr VA	-7.9	-3.0

Source: Staff estimates based on HBS (2000-2003), KIHS (2003-2005), and national accounts data. 1. "HCI" is headcount index. 2. "VA" is value added. 3. "Priv Cons" is private consumption. 4. "Agr" is agriculture.

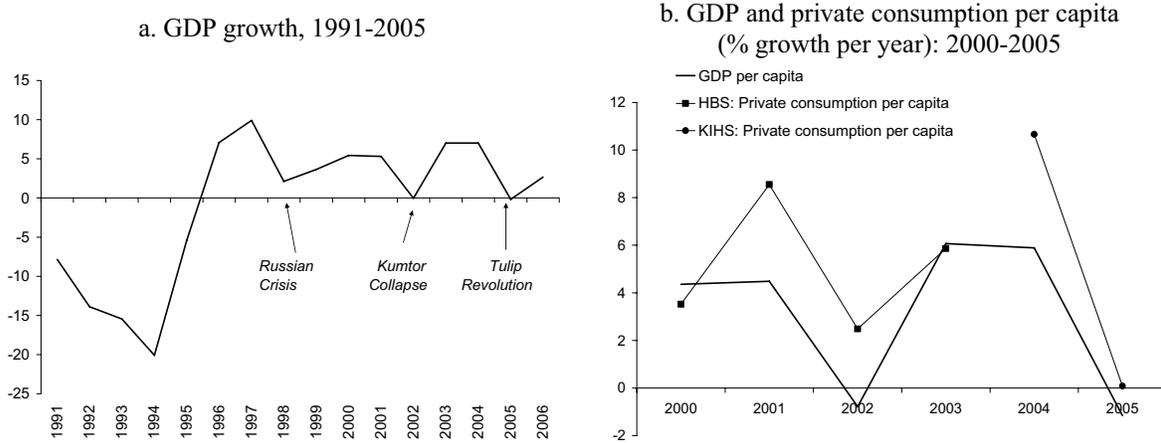
**2.17 During 2000-2005, poverty and extreme poverty were very sensitive to growth.** The poverty - growth elasticity was -2.0. This means that for every one percent increase in GDP per capita, poverty as measured by the headcount index fell on average by 2 percent. For extreme poverty, the elasticities were -5.7 and -5.8 for the two time periods of 2000-2003 and 2003-2005. These numbers for total poverty but particularly for extreme poverty compare favorably with those computed for other countries.

**2.18 In addition to measuring the responsiveness of poverty to changes in GDP, it is also helpful to determine whether poverty changes are equally sensitive across sectors and across other indicators of welfare.** Table 2.2 shows a range of calculations of poverty-growth elasticities, i.e. the percentage change in poverty headcount indices give a percentage change in output or consumption growth. The table presents different periods corresponding to HBS data (2000-2003) and KIHS data (2003-2005). It shows information for total and extreme poverty, for rural and urban areas, and for total value-added as well as private consumption (for the entire country), agricultural value-added (rural areas) and non-agricultural value-added (urban areas).

**2.19 The picture emerging is that irrespective of how and for what period elasticities are estimated, the elasticity of poverty to output growth has been high.** The elasticity of total poverty to total value added ranges from 1.6 in rural areas for the 2000-2003 period to 2.6 in urban areas for all periods. Since extreme poverty fell even more dramatically, elasticities

are even higher for the very poorest, ranging from 4.8 in rural areas, to 7.2 in urban areas, both in 2000-2003. **The elasticity of poverty to private consumption is also high**, though significantly lower than elasticity to overall value added growth. A one percent increase in private consumption has spurred a fall in the poverty headcount index by over one percent.

**Figure 2.5: GDP and Private Consumption Growth in Kyrgyz Republic**



Source: Estimates based on HBS, KIHS, and World Bank data.

### C. Economic Growth, Poverty and Transmission Mechanisms

2.20 The Kyrgyz Republic poverty achievements must be seen in the light of important national and international events. First, the collapse of the Russian economy in 1998 had devastating effects on Kyrgyz economic and social welfare. While no pre-1998 data are available, a reasonable assumption is that poverty increased in response to the economic shock. Second, in 2005, the Tulip Revolution brought with it political unrest and an economic backsliding, especially in the agricultural, gold and manufacturing sectors. Nonetheless, the evidence suggests that consumption growth for the poor has remained strong even in the face of overall economic stagnation.

2.21 The previous section concluded that moderately high average consumption growth, above 5 percent, has masked much more rapid consumption growth for the poor. How can we explain the high consumption growth of the poorest quintiles relative to the richer – in what manner has growth trickled (or rather flooded), down to the poor? This section looks at the structure of economic growth, and how output growth or alternative sources map into poverty reduction.

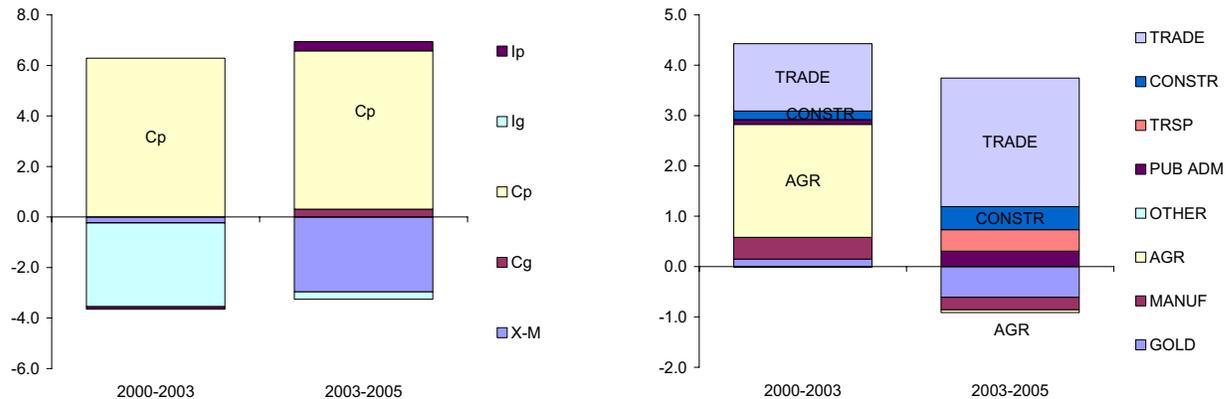
2.22 **Private consumption growth was high and exceeded GDP growth.** Like many transition countries, the Kyrgyz Republic has experienced large swings in economic growth after 1990. While growth has been positive on average since the mid 1990s, it was negatively affected by the effects of the 1998 Russian crisis and its aftermath, by the collapse of the Kumtar gold mine in 2002, and the *Tulip Revolution* in 2005. Between 2000 and 2003, GDP per capita grew by 3.2 percent, and between 2003 and 2005, by a modest 2.3 percent per capita. As seen above, private consumption showed much stronger growth rates: real private per capita consumption grew by as much as 5.6 percent between 2000 and 2003, and 5.2 percent in the subsequent period, due to very high growth in 2003-2004. Using the national accounts

numbers, private per capita consumption growth was even more impressive, reaching 9.0 and 8.6 percent respectively for 2000-2003 and 2003-2005.

**Figure 2.6: Growth Accounting<sup>1</sup>**

Demand side: Contribution to GDP growth by Expenditures: Consumption, Investment and Net Exports. /2

Supply Side: Contribution to Value Added growth by Main Economic Sectors. /3



*Source:* Staff estimates based on data from national authorities. 1. Sector A's contribution to growth in percentage points between periods t and t+1 is calculated as the share of sector A in total GDP/value added in period t times the growth rate in sector A, between t and t+1. 2. "C" refers to consumption, "I" refers to Investment, "X" refers to exports, and "M" refers to imports. The subscripts "g" and "p" respectively refer to public and private. 3. "TRADE" refers to trade and tourism, "CONSTR" to construction, "TRSP" to transport, "PUB ADM" to public administration, "AGR" to agriculture, "MANUF" to manufacturing, and "GOLD" to the gold sector.

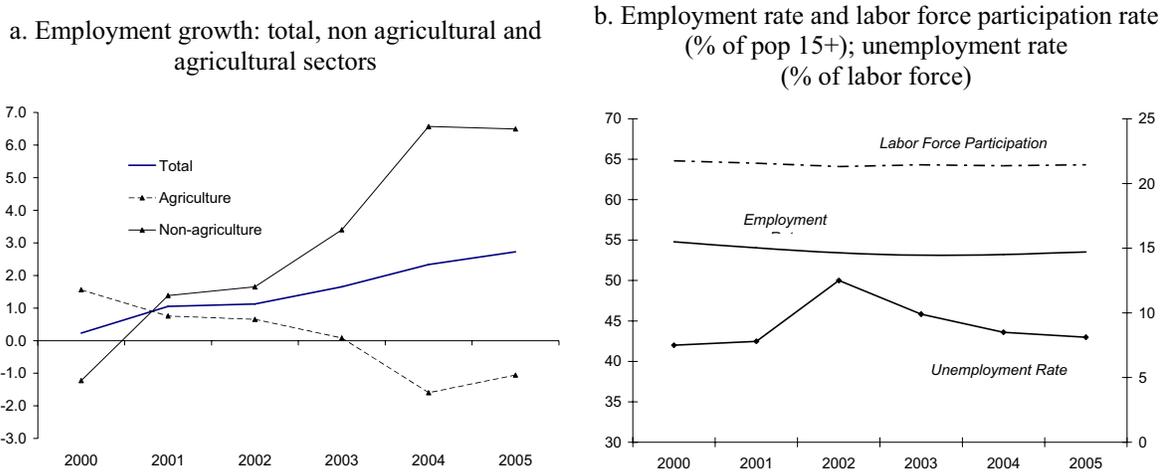
### **Sources of growth**

**2.23 Private domestic consumption is the main factor driving growth in the Kyrgyz Republic during 2000-2005.** National accounts data confirm the importance of private consumption in driving growth in the country (see Figures 2.6 and 2.7). In fact, private consumption growth is the single most important factor in GDP growth since 2000, countering the negative effects of a fall in government investment (in the early period) and, then subsequently, in net exports, largely because of set-backs in gold mining (since 2003). Other components of GDP such as private investment played a small role in economic expansion during this period. Private consumption grew from 66 percent to 86 percent of GDP between 2000 and 2005. Thus, private consumption grew rapidly while the usual drivers of development – investment and net exports – were low or falling. The obvious question is how this rapid growth in consumption will continue to be sustained into the future.

**2.24 Economic sectors with a strong presence of poor workers have been leading value added growth.** Similarly, supply side growth accounting gives some idea as to why growth has favored private consumption, and why growth has been largely pro-poor. Value added growth was driven by strong expansion in the trade and tourism sector in both periods, in agriculture (in the first period) and, to a lesser degree, in construction and transport (in the second period). All of these are sectors with an important presence of low income workers. However, the

relatively small contribution of the other productive sectors, especially manufacturing, is indicative of the relatively low economic diversification.

**Figure 2.7: Labor Market Developments, 2000-2005**



Source: estimates based on national sources and ILO.

### ***Transmission mechanisms from growth to poverty alleviation***

2.25 By what mechanism did economic growth in the Kyrgyz Republic translate into strong private consumption growth for all particularly for the poor? Below we examine three transmission mechanisms with significant potential for poverty reduction in the Kyrgyz Republic:

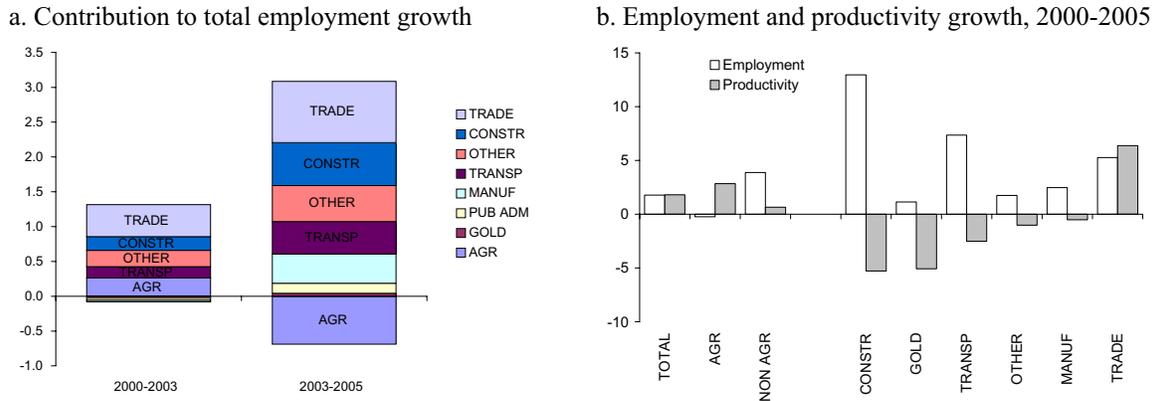
- **Labor markets.** Labor income makes up the most important share of poor households income – the main and often only asset of the poor is their labor. And indeed, unfavorable labor market outcomes are a strong correlate of poverty: the poor are poor because they lack other assets and are not able to get a job yielding sufficient income to raise the worker and his/her dependents above the poverty line. It follows that overall conditions in the labor market will deeply affect the ability of low income households to increase their earnings.
- **Public transfers.** A second mechanism for growth redistribution to the poor is social assistance. While income from such publicly owned operations, such as gold mining, largely accrues to the government sector, these resources can be redistributed in favor of the poor.
- **Private transfers.** In the case of Kyrgyz Republic, where migration – to Russia and Kazakhstan in particular – is a key socio-economic feature, remittances from abroad occupy an important and growing share of the economy. These transfers may play an important role in raising household income but are dependent upon external factors beyond the control of households or the government.

#### ***1. Labor markets***

2.26 Labor market outcomes leading to better living standards are job creation, higher wages reflecting high worker productivity, and safe working conditions. Furthermore, economies with

low structural unemployment will in all likelihood guarantee greater income security for workers than those where unemployment rates are high and job loss can potentially turn into permanent exclusion from the labor market. The nature of labor markets in the Kyrgyz Republic will be discussed in depth in Chapter 4 and Volume 2 of this report based largely on the most recent available labor data which is the KIHS 2003. This section therefore summarizes some of the key trends and features of labor markets in the recent period in order to understand how growth may have led to a poverty reduction.

**Figure 2.8: Employment Growth and Productivity in the Kyrgyz Republic**



Source: Estimates based on data from national authorities.

**2.27 Economic growth created jobs, but not enough to significantly reduce the rate of unemployment during 2000-2005.** The labor force participation rate in the Kyrgyz Republic is close to the average for Europe and Central Asia as well as for low-income countries in general. Employment growth was relatively robust at about 2 percent during 2003-2005 annually but kept pace with labor force growth. Employment rates – the share of the adult population that was employed – stagnated at around 55 percent of the population.<sup>4</sup> Thus, the impact of how the population benefited from growth was not so much in the greater availability of jobs relative to those seeking them so much as the change in the sector of employment as well as wages.

**2.28 The structure of employment growth may have favored poorer workers.** Non-agricultural employment growth has picked up speed since 2000, reaching above 6 percent in 2004 and 2005 (Figure 2.8) and offsetting the decline in agriculture sector jobs (see Figure 2.9 above) seen in recent years. The labor-intensive sectors of trade and tourism, construction and transport were among the most important sources of job creation during 2000-2005 (see Figure 2.9). This went hand in hand with the strong value added growth in these sectors (see Figure 2.7). The good news embedded in the strong match between output and employment growth is some positive productivity growth in tandem with job creation. Productivity growth in expanding sectors is important from a poverty reduction perspective, because productivity growth offers the possibility to sustain some wage growth in parallel with job creation.

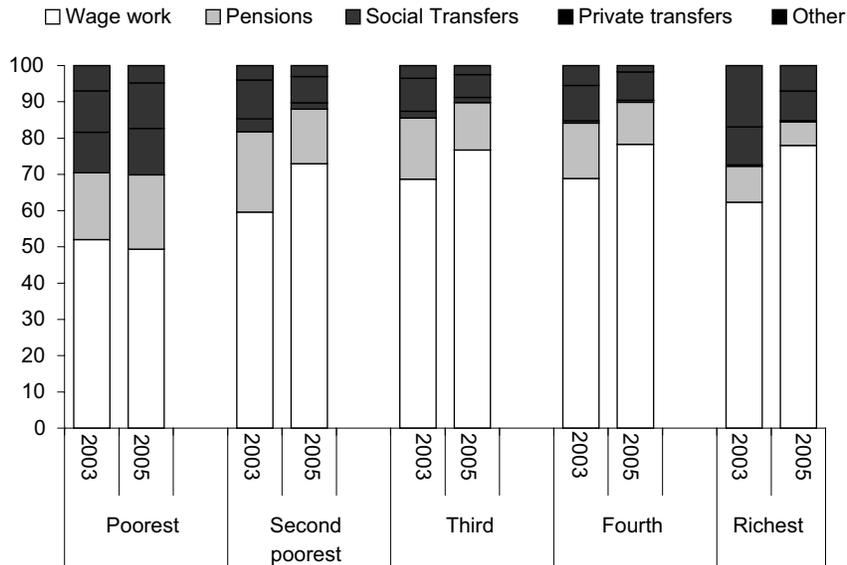
**2.29 Expansion of jobs in the trade and tourism sector is especially likely to have contributed to growing incomes.** There are important differences for the main job creating sectors for the poor. In the agricultural sector, productivity developments came at the cost of

<sup>4</sup> Note- this number is based on national employment numbers and labor force data from ILO. These data are not consistent with labor market data drawn from the KIHS. (Chapter 4)

some job losses. As seen in Figure 2.8 above, 2004 was a particularly bad year for employment; however, agricultural output growth was positive in 2004 and negative in 2005. The construction sector, which provides mainly temporary/seasonal employment, often to rural migrants, saw much faster job growth than productivity growth. The trade and tourism sector, where about 13 percent of the labor force and one quarter of the non-agricultural labor force is employed, showed more positive developments. Employment in the trade and tourism sector grew by 4 percent in the early 2000s, and by 7 percent between 2003 and 2005. This solid employment growth was matched by even higher productivity growth, however, especially in the latter period.

**Figure 2.9: Income Sources by Income Quintiles**

Share of household income by different income source, for income quintiles, 2003 and 2005



Source: Estimates based on KIHS 2003 and 2005.

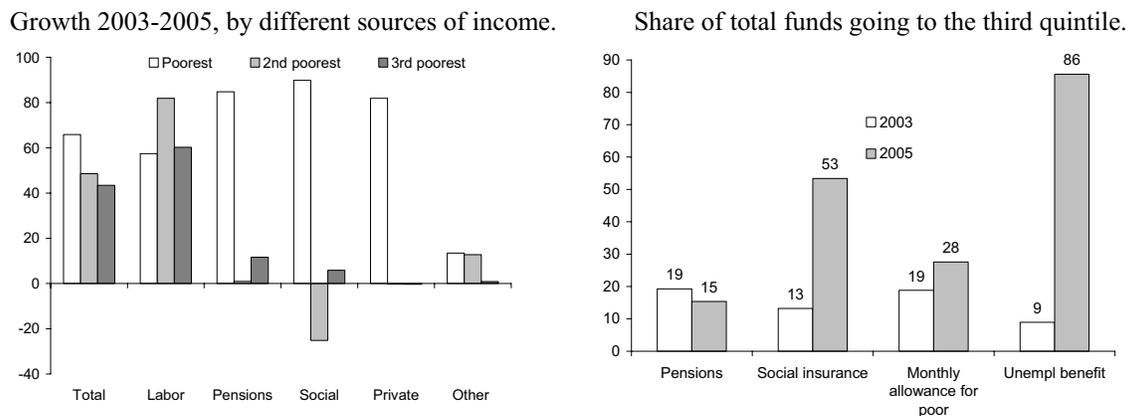
## 2. Social assistance

2.30 What alternative income sources are there to wage and non-wage work? For the more well off, revenues from various alternative assets – including dividends and interest rates, income from renting or selling real estate – may contribute to family income. Because the poor generally lack other assets than labor, these sources will be of little significance. However, there is a potentially important role for transfers, in the form of social assistance from the public sector, or in the form of gifts from friends and family, including remittances income from family migrant workers from urban areas or from abroad. Have transfers increased to boost household consumption for the poorest?

2.31 The main channels for public resources to reach the poor in the Kyrgyz Republic are pension income – by far the largest component – and social assistance. Social benefits include: (i) a monthly allowance for the poor households (ii) unemployment benefits (iii) social insurance benefits and (iv) others, including transfers from local authorities and severance payment from enterprises.

2.32 **Increased social assistance has helped the very poorest; labor income growth has helped the moderately poor.** Figure 2.10 shows the share of different sources of income in total household income, by consumption quintile, for 2003 and 2005. As seen, the share of labor income has increased for all households except the very poorest ones. In fact, there are some important differences between the extremely poor (approximated by those in the poorest quintile) and the moderately poor (those in the second quintile). The moderately poor, as well as the third consumption quintile, have seen the contribution of labor income grow rapidly in importance, and all other sources of income, including public transfers, have fallen in importance. The poorest quintile, however, have a much smaller share of labor income than other groups and the gap between the poorest and others has increased since 2003. Instead, public transfers in the form of pensions and social assistance – mainly the monthly allowance for poor households – as well as private transfers have taken on a more important role.

**Figure 2.10: Growth by Sources of Income and Distribution of Public Funds**



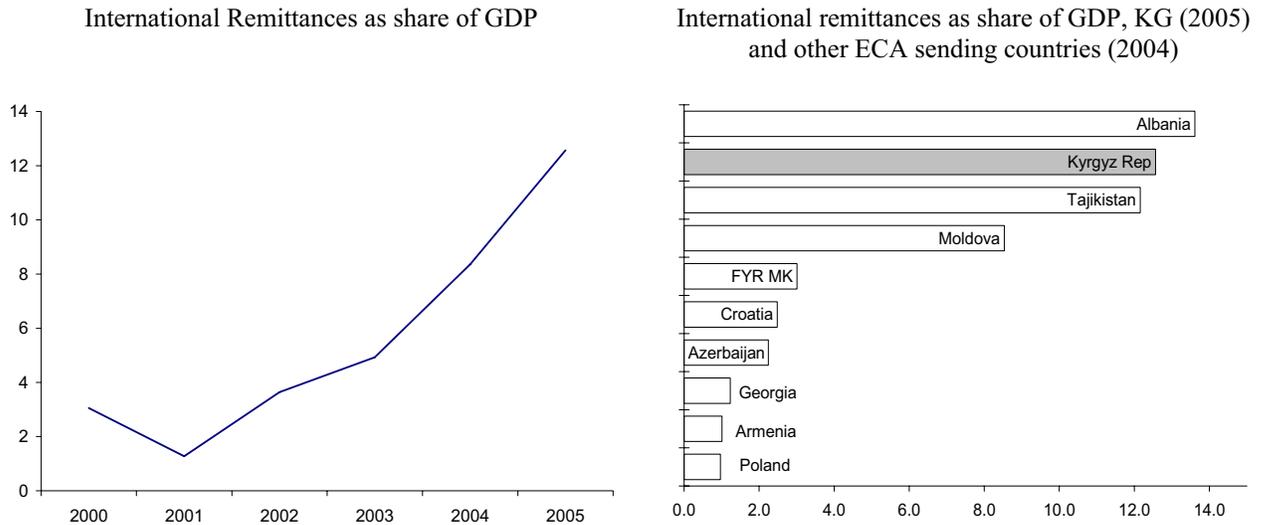
Source: Estimates based on KIHS 2003 and 2005.

2.33 The differences between groups are even more evident when looking at real growth rates of the different sources of income (Figure 2.11). First, the poorest have seen a more rapid growth in income than others. Second, while they have seen important growth in their income from wage work, this source of income has been overshadowed by significant growth in other sources of income, most specifically pensions and transfers, especially private transfers and the monthly allowance for poor households. Again, this stands in contrast to the second and third poorest quintiles, which have seen much more growth of labor income than of any other sources of income.

2.34 In terms of targeting, **there is no clear sign of redistribution in favor of the poorest quintiles, though there appears to be some redistribution in the case of pensions.** However, the middle income quintile – which includes some of those who were moderately poor in 2003 – saw some redistribution of public funds in their favor. And while this particular group received less of total pension funds, they received a higher share of the monthly allowance for poor households, the majority of funds for social insurance, and almost all of the unemployment benefits funds. While these changes seem dramatic, it should be remembered that with the exception of pensions, social benefits play a small role in average household income. Thus, pension income may have played a role in alleviating old age poverty, but other forms of social transfers are not likely to have contributed in a major way to shifting seven percent of the population above the poverty line between 2003 and 2005. Nonetheless, social

transfers play a significant and increasing role in the income of the poorest households, and may have had an important effect on the poverty of the poor (the depth and severity of poverty.)

**Figure 2.11: International Remittances (% of GDP).**



Source: World Bank data.

### 3. Private transfers: the role of migrant workers

2.35 Migration is a key feature of the Kyrgyz economic and social landscape. Net migration into Bishkek and Chui is putting pressure on urban labor markets. Meanwhile, more than half a million people – equivalent to one quarter of the labor force – are estimated to be working abroad, mainly in Russia and Kazakhstan. Because of increasing migration flows (both internal and external) and improved international payment systems, remittances have become a main contributor to the domestic economy, reaching some 14 percent of GDP in 2005. Kyrgyz Republic thus ranks among the highest recipients of remittances of migrant sending countries in ECA (Figure 2.11).

2.36 **Remittances may have contributed to alleviating poverty.** There is a debate as to what extent remittances contribute to poverty reduction and their effects on inequality are ambiguous (Box 2.3). Because of data issues, remittances cannot satisfactorily be singled out among other private transfers in the KIHS data set, but there are strong reasons to believe that private transfers mainly consist of remittances. In absolute numbers, richer households receive much more private transfers than poorer households; in relative terms, private transfers is more important for the poorest, and has increased at a much faster rate for this group than for any other group (Figure 2.11). Earlier work has also shown that remittances in Kyrgyz tend to represent a higher share of consumption for the third income quintile (World Bank, 2007) than for any other group. Given that this group includes the dividing line between poor and non-poor, remittances may indeed explain a fall in the poverty headcount index in the Kyrgyz Republic.

### **Box 2.2. Remittances and Poverty Reduction**

Remittances provide additional income to households. Unless remittance income is concentrated to the very richest households, these extra resources will help alleviate poverty. Several cross/country studies show evidence of significant effects on poverty of remittances.

The evidence is more mixed regarding the effects of remittances on income distribution. In ECA countries where data on remittances are available, richer households have a higher probability of receiving remittances than poorer households, and among receiving households, remittances per capita are higher. This might be explained by the fact that migration involves transaction costs and requires better access to information, something that the very poorest households will lack. And finally, the causality may be in the other direction: receiving households may be richer partly because they do receive remittances. In the case of Kyrgyz Republic, people in the richest quintile still live on less than PPP-corrected \$4.30 per day, and remittance income may play an important role in raising household consumption.

*Source:* World Bank, 2007.

## **D. Conclusions**

2.37 The Kyrgyz Republic has seen poverty fall quite significantly in the past five years. These welfare improvements have been widespread and deep, and have affected most areas and most groups, including the very poorest. The achievements are quite remarkable, given the relatively modest levels of economic growth in the same period. Our analysis suggests, however, that economic growth has been centered on private consumption, and that the poor have seen particularly high consumption growth.

2.38 The high consumption growth emanates from a number of sources, each likely to have played a role in lowering poverty. Higher labor income – because of growth in sectors with a high share of low income workers, especially trade and tourism – has played an important part for the moderately poor. The extremely poor have likewise seen high growth in income from wage work, but have also seen an increase of pension income and of other social benefits. And finally, the high growth in remittance income from abroad is likely to have played a role in alleviating poverty.

2.39 The role of economic growth in fostering job creation and alleviating poverty is evident. From this perspective, however, the recent growth patterns are not all together positive. While the pro-poor pattern of consumption growth has been crucial in lowering poverty, the low investment levels and widening resources gap may be cause for concern, if they jeopardize future growth prospects.

## CHAPTER 3

### LABOR MARKETS AND POVERTY

3.1 As seen in the previous chapter, labor income constitutes the most important source of income for poor households because they lack other assets; yet, these households also receive both relatively and absolutely less labor income than more affluent households. In spite of the strong connection between jobs and poverty, rather little is known about who faces obstacles to entering the labor market, about the differences between rural and urban job opportunities, or about the quality of employment. In addition, the labor market itself remains somewhat of an enigma due to the availability of only piecemeal data available from different sources – and not all of them consistent with each other.

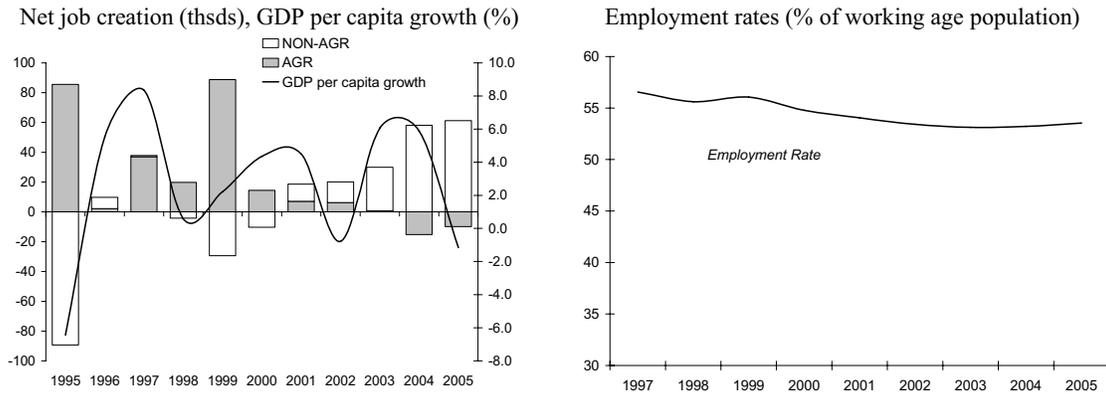
3.2 This chapter takes stock of recent labor market developments and the current situation in the Kyrgyz Republic with a specific focus on the interaction between employment opportunities and poverty. Lack of access to good jobs, with a reasonable salary and some income security, is the most important reason why people cannot escape poverty in the Kyrgyz Republic. This chapter attempts to fill some of those knowledge gaps. Most of the labor market analysis is based on the Kyrgyz Integrated Household Survey (KIHS) from 2003, complemented by data from the National Statistics Committee and other sources. While some of the trend analysis is over-lapping with Chapter 3, this chapter takes a longer term perspective.

3.3 The main findings of the labor market analysis are as follows:

- Though the rate of job creation is low, jobs are being created in some sectors with rising productivity.
- The rural economy continues to be dominated by agriculture with few opportunities to generate income off-farm. Scarcity of asset ownership exacerbates households' inability to buffer against income shocks.
- Urban labor markets are segmented and more difficult to enter into than rural labor markets. Labor force participation and employment rates are lower than in rural markets.
- Women's labor outcomes are inferior to those of men: participation, employment, and wages are lower. Moreover, the earnings gap between men and women is unexplained and hinting of discrimination by private employers.

3.4 This chapter summarizes the findings of the second volume of this report. It begins with a summary of recent trends in growth and employment. The second session provides a labor market profile which includes descriptions of worker and employment characteristics. The third and fourth sections analyze rural labor markets and rural coping strategies issues respectively. The following section turns our attention to the urban labor market and we close with an analysis of labor market issues faced by women.

**Figure 3.1: Labor Market Trends are not Improving**



Source: Estimates based on data from ILO and national authorities. Labor market data will not be consistent (in level) with 2003-2005 data from the KIHS. 1. “AGR” refers to jobs in agriculture; “NON-AGR” refers to jobs in non-agriculture sectors.

## A. Recent Trends in Growth and Employment

### *Job creation, growth and productivity*

3.5 **Kyrgyz Republic’s growth rates have not generated enough formal sector jobs to keep up with labor supply.** Employment growth outside the agricultural sector has accelerated in the past few years: non-agricultural employment grew by over 6 percent in 2005. However, while the employment rate leveled out in 2004 (Figure 3.1), there are still fewer working persons who have to provide for more inactive and unemployed adult persons, than was the case in the mid-1990s. As seen in the previous chapter, employment rates in the Kyrgyz Republic are now lower because (i) fewer people seeking a job are able to secure one, meaning that total unemployment rates have increased, and (ii) more people have withdrawn from the labor force.

### **Box 3.1. Conventional Labor Market Indicators Definitions**

**The working age population** is defined as the population aged 15 and above.

**The labor force** is the active working population, i.e. the number of people that are either employed or actively looking for a job (unemployed).

**The inactive** is the residual of the labor force, i.e., persons who are of working age but neither employed nor looking for a job.

**The labor force participation rate** is the share of working age population that is active in the labor market.

**The employment rate** gives the share of employed people as percentage of total working age population.

**The official unemployment rate** is the share of the labor force that is registered as unemployed with the Kyrgyz Employment Office.

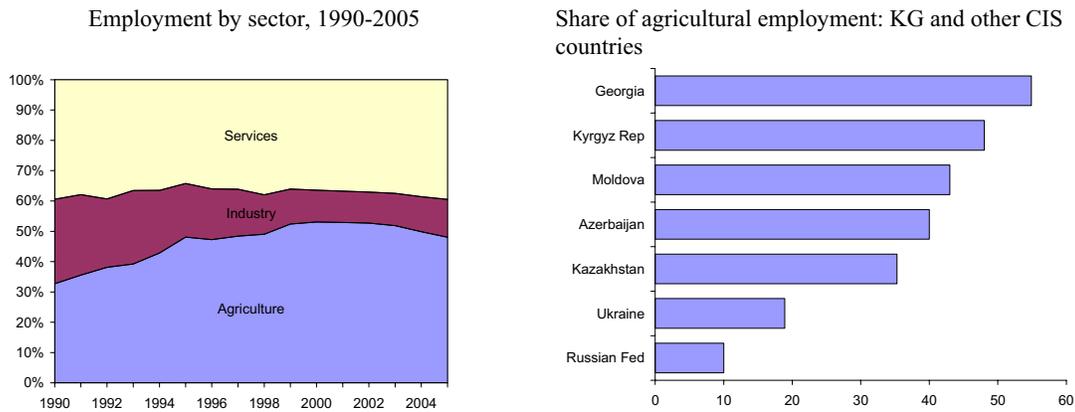
**The total unemployment rate** is the share of unemployed people as percentage of all those that are active. It is based on the strict ILO definition, i.e. those who are (i) without work (ii) available for work within the next two weeks and (iii) have been seeking work for the preceding 2 weeks.

The employment rate is arguably the best key indicator of the unlocked potentials in the labor market. It describes how many are actually working of those who could potentially be working, irrespective of whether those who are not working are unemployed or inactive.

**3.6 Informality, underemployment and the prevalence of low-productivity sectors are the most pressing problems.** However, the main issue is perhaps not access to jobs but the characteristics of jobs in Kyrgyz Republic. Unemployment and inactivity rates are certainly higher for the poor in Kyrgyz Republic, but most of the poor do hold a job - simply because they must to survive. However, as these working poor are locked into activities with low productivity and high informality, they obtain lower wages and live with more insecure working conditions overall.

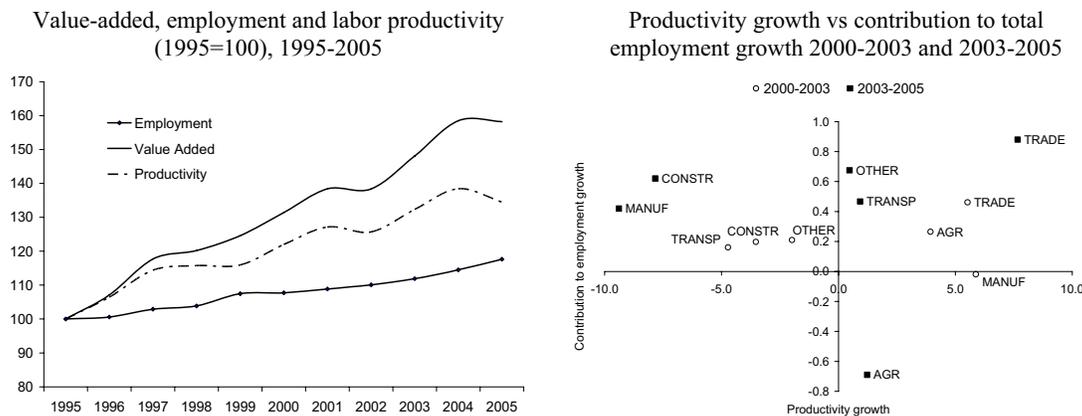
**3.7 Until recently, lower productivity sectors like agriculture saw the largest employment gains.** In Kyrgyz Republic as in most other CIS countries, the restructuring process has moved labor out of unproductive industries, but to low productivity activities in agriculture, rather than to more productive sectors in the industrial and services sector. The agricultural sector increased its share of employment from 39 percent in 1993 to 53 percent in 2003 and 48 percent in 2005. (Figure 3.2). Although agricultural employment has seen a small reduction since 2003, the share of agricultural activities in Kyrgyz Republic is unusually large, even compared with CIS countries.

**Figure 3.2. ... but Agricultural Employment has Increased up until Recently, Suggesting a Problem of Low Productivity Employment**



Source: Estimates based on data from national authorities (Kyrgyz), World Bank data (others). Data for 2005 for Kyrgyz Republic, for 2004 for other CIS countries.

**Figure 3.3: Labor Productivity and Employment have been Growing in Trade and Agriculture**



Source: Estimates based on data from national authorities.

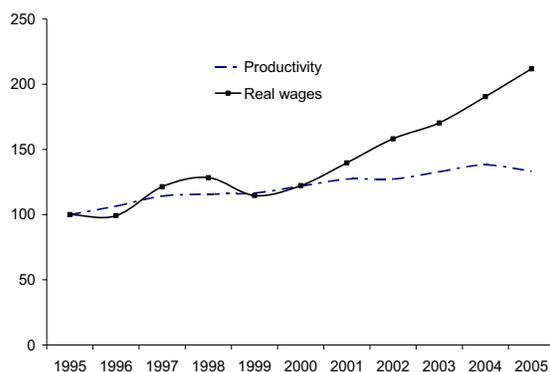
3.8 **Private sector employment and labor productivity have increased as a result of restructuring of the economy.** Since the reforms of the agricultural sector, the private sector has held an important share of employment in the Kyrgyz Republic and now absorbs almost 80 percent of all employment, although these figures are likely to include also state owned enterprises (Table 3.3). With economic restructuring, labor productivity growth has also increased, reflecting relatively stagnant growth in employment combined with relatively high growth in value-added - “jobless growth”. However, the downturn in productivity in 2005 is due to a rise in “growth-less jobs”: the economic collapse (especially in agriculture, mining and manufacturing) was accompanied by continued employment creation in manufacturing and construction, and the employment growth in construction far outpaced output growth. Nonetheless, the poor are likely to have benefited from a combination of employment and productivity growth in agriculture between 2000 and 2003, in transport between 2003 and 2005, and most importantly in the trade sector in both periods. However, the construction sector, which likely employs a large share of poor workers, has seen high employment growth but not enough output growth. The juxtaposition of construction and agriculture in 2003 and 2005 may tell a story of rural migrants seeking temporal employment in the construction sector as agricultural employment opportunities fell.

### *Labor demand and competitiveness*

3.9 **Kyrgyz international competitiveness is harmed by growing labor costs.** Labor productivity growth has been outpaced by real wage growth in recent years. As seen in Figure 3.4 the gap between real wages and labor productivity growth has widened substantially since the year 2000. Estimates of unit labor costs in the Kyrgyz Republic and other CIS countries confirm that the competitiveness of Kyrgyz Republic is low – i.e., unit labor costs are high – because labor productivity levels are too low relative to wage levels.

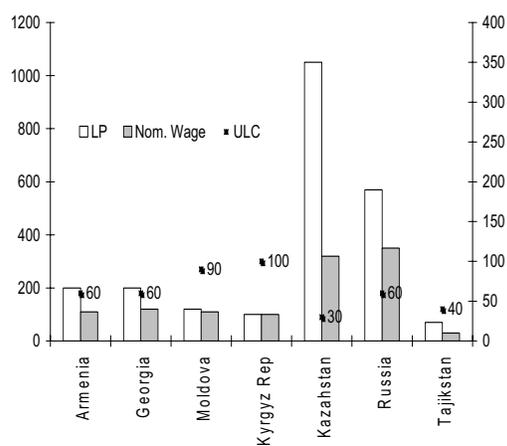
**Figure 3.4: The Wage-productivity Gap has Increased and Leaves the Kyrgyz Republic behind Other CIS Countries**

KG: Productivity and real wages, 1995=100.



Source: estimates based on data from national authorities.

CIS countries: Labor productivity, wages, and unit labor costs in 2002 (KG=100).



Source: World Bank, 2005

ULC = Unit labor cost

3.10 This high and increasing wage – productivity gap is also likely to depress labor demand in Kyrgyz Republic. The high costs of labor depress job creation in the formal sector and contribute to high informality. However, labor demand is also affected directly by indirect labor costs associated with rigidities in hiring and firing workers, and labor taxes, and indirectly, by other costs of doing business that depress firm output capacity. Here, the World Bank/EBRD Business Environment and Enterprise Performance Survey (BEEPS)<sup>5</sup> can shed some light on the situation in Kyrgyz Republic within the ECA region as a whole. While the usual caveats apply about drawing conclusions on non-representative and small sample numbers and comparing enterprise surveys across countries, two striking facts emerge from Table 3.1 below. First, **the percentage of Kyrgyz firms that consider the business environment very problematic is higher than average both for ECA or the CIS countries.** The differences are sometimes quite dramatic: less than half of the firms in ECA as a whole or the smaller sample of CIS countries consider corruption, crime or anti-competitive behavior to be a major obstacle; in Kyrgyz Republic, at least three quarters of all firms find this a major problem to doing business.

3.11 Second, **labor regulations are not considered to be an important obstacle by Kyrgyz firms**, even less so than in other CIS or ECA countries. This finding may also be a function of the high informality of labor markets, however. Where workers are not registered nor have a binding contract, labor taxes as well as regulations on hiring and firing become unimportant.

**Table 3.1: Kyrgyz Firms Experience Relatively More Obstacles in Doing Business**

Areas of Business Environment	Percentage of Firms that Consider this Area a Moderate or Major Obstacle		
	ECA	CIS	KG
Labor regulations	<b>26</b>	18	8
Financing	72	76	<b>87</b>
Infrastructure	<b>33</b>	32	<b>33</b>
Taxes	81	85	<b>92</b>
Policy Instability	69	72	<b>87</b>
Inflation	68	84	<b>97</b>
Exchange rate	55	70	<b>89</b>
Functioning of judiciary	34	27	<b>37</b>
Corruption	49	50	<b>84</b>
Street crime	44	45	<b>83</b>
Organized Crime	41	44	<b>76</b>
Anti-Competitive behavior by other enterprises or the government	47	50	<b>73</b>

*Source:* Estimates based on BEEPS.

<sup>5</sup> The Business Environment and Enterprise Performance Survey (BEEPS) has been developed jointly by the World Bank and the European Bank for Reconstruction and Development. The survey, conducted with over 4000 firms in 22 transition countries in 1999-2000, examines a wide range of interactions between firms and the state and is designed to generate comparative measurements in such areas as corruption, state capture, lobbying, and the quality of the business environment.

## B. Labor Market Profile<sup>6</sup>

3.12 In 2003, the population reached about 5 million people in the Kyrgyz Republic, two thirds of which lived in rural areas. The labor force consisted of 2.1 million people, of which 1.9 were employed (Table 3.2). Some 1.2 million of working age (aged above 15 years) were inactive, however.<sup>7</sup> Thus, nearly two thirds of the working age population (64 percent) were active in the labor market and 58 percent were employed; of the labor force, 10 percent were unemployed. Overall, employment rates were higher in rural than in urban areas, both because of lower unemployment rates and higher participation rates. Given that poverty is much more pervasive in rural areas, the higher participation rates hint at the high importance of subsistence agriculture.

**Table 3.2: Population, Employment and Unemployment in Kyrgyz Republic, 2003**

	Total	Rural	Urban	Rural share of total (%)
<i>In thousands</i>				
Population	5,037	3,276	1,762	65
Working age	3,348	2,078	1,270	62
Labor force	2,143	1,351	791	63
Employed	1,930	1,244	686	64
Unemployed	212	107	105	50
Inactive	1,206	727	479	60
<i>In percentage</i>				
Employment rates	57.7	59.9	54.0	--
Participation rates	64.0	65.0	62.3	--
Unemployment rates	9.9	7.9	13.3	--

Source: Estimates based on KIHS 2003.

### *Worker characteristics*

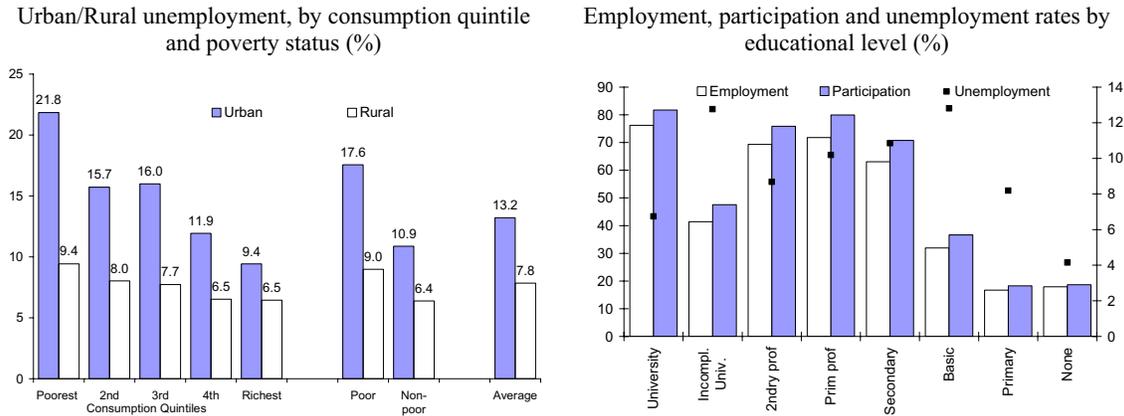
**The poor and the uneducated are worse off than the non-poor in the labor market.** However, unemployment rates are higher in urban than in rural areas, and the differences between poorer and richer in urban areas are much more pronounced. Thus, unemployment rates for the poorest quintile are more than twice as high as those of the richest quintile (22 vs. 9 percent) while in rural areas the levels as well as range is much smaller (9 vs. 6 percent) (Figure 3.5).

3.13 Those with basic education, with secondary non-professional training, and with incomplete university training, are over-represented among the unemployed; those with basic or primary education are under-represented in the labor force, relative to their share of the working age population. Employment rates are highest among those with completed university training, and there is a high premium to professional training, whether at primary or secondary level.

<sup>6</sup> Most of the remainder of the chapter is based on data from the Kyrgyz Republic Integrated Household Survey (KIHS) from the year 2003.

<sup>7</sup> "Working age population" refers to the population aged 15 years or more.

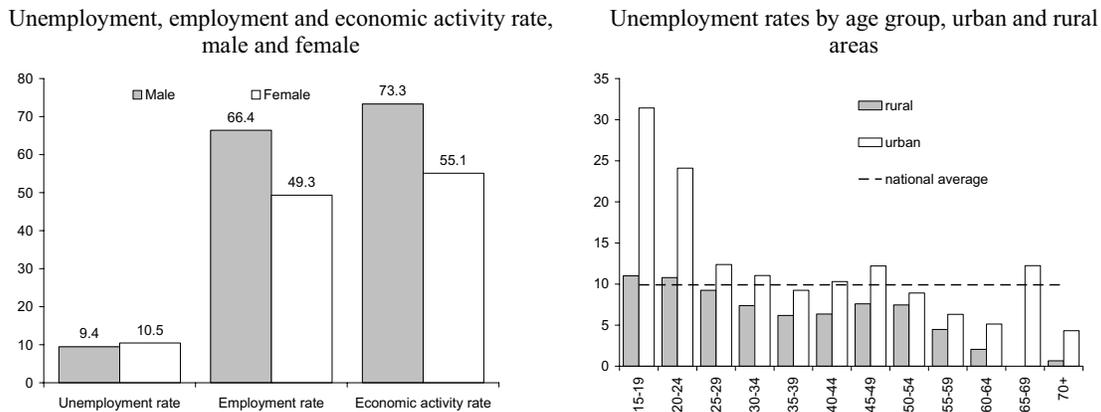
**Figure 3.5: The Poor and Uneducated are Worse off**



Source: Estimates based on KIHS, 2003. Note. Because the household consumption module has to be merged with the labor market module for these calculations, the sample is not identical to that used for general labor market statistics.

**3.14 Women and young people are at a disadvantage** (Figure 3.6). Although women tend to participate less in the labor market, their unemployment rates are also slightly higher than those of men. Young people, especially in urban areas, are also facing much more difficulties in the labor market than other groups. Urban youth aged less than 30 accounts for 13 percent of the total Kyrgyz labor force, but one fourth of all the unemployed.

**Figure 3.6: Women and Young Workers Have Less Access to Labor Markets**



Source: Estimates based on KIHS, 2003.

**Employment characteristics**

**3.15** Low productivity sectors dominate employment, and self-employment is important, especially in rural areas (Table 3.3). In 2003, the agricultural sector (including forestry, fishing and hunting), absorbed a little less than half of the employed population: two thirds of the rural work force, and nearly twenty percent of the urban work force. In urban areas, trade services,

manufacturing and public sector services are dominating<sup>8</sup>. In rural areas, services – predominantly the public sector – account for only 28 percent of all jobs. Reflecting the dominance of agriculture, as many as two thirds of the rural employed are working on their own accord or unpaid for family members, while in urban areas, 22 percent were self-employed, and virtually nobody was working for family business without compensation. However, a sizeable portion of urban workers were employed in another person’s household.

**Table 3.3: Employment Structures Differ between Rural and Urban Areas**

<b>Employment by sector</b>	<b>Rural</b>	<b>Urban</b>
<b>TOTAL</b>	<b>100</b>	<b>100</b>
<i><b>Agriculture</b></i>	<b>63.2</b>	<b>7.0</b>
<i><b>Industry</b></i>	<b>4.6</b>	<b>19.0</b>
Mining & Utilities	1.3	4.6
Manufacturing	3.3	14.4
<i><b>Construction</b></i>	<b>3.8</b>	<b>8.0</b>
<i><b>Services</b></i>	<b>14.0</b>	<b>44.3</b>
Trade	8.0	23.1
Tourism	0.7	3.8
Transports and communications	3.2	8.4
Other services	2.1	9.0
<b>Employment by socio-economic status and location</b>	<b>Rural</b>	<b>Urban</b>
<b>TOTAL</b>	<b>100</b>	<b>100</b>
<i><b>Employees</b></i>	<b>33</b>	<b>72</b>
Enterprise, institution, organization	23	50
Household work	10	22
<i><b>Other</b></i>	<b>67</b>	<b>28</b>
Employers	1	2
Self-employed	33	22
Member of producers co-op (Artel)	1	0
Unpaid family worker	20	1
Personal subsidiary plot	13	3

*Source:* Estimates based on KIHS, 2003.

**3.16 Half of all jobs in the Kyrgyz Republic are in the informal sector** (Figure 3.7). The definition of informal sector used here - the share of the economy that escapes the formal legal environment and is therefore not affected by taxation, labor laws, and other enterprise regulations – is described in Figure 3.8. As expected, informality is high and also more prevalent in rural areas than in urban areas (54 vs. 39 percent); women are also more prone to work in the informal sector, simply because they are more likely to work in the agricultural sector. Informal employment and its many negative implications – job insecurity, low pay, irregularity of work – are strongly related to the level of education of the worker, and thus also to income levels. As many as 86 percent of employed workers with no education are employed in the informal sector; even those with nine years of completed study (basic education) are 76 percent informally employed. In contrast, twenty percent of those with university education are employed in the informal sector. Finally, vocational training, at both primary and secondary levels, appears to pay off in terms of formalizing one’s job opportunities compared to general schooling.

<sup>8</sup> In what follows, public sector is defined to include public administration, education, and health care.

### Box 3.2. Estimating Informal Employment in Kyrgyz Republic

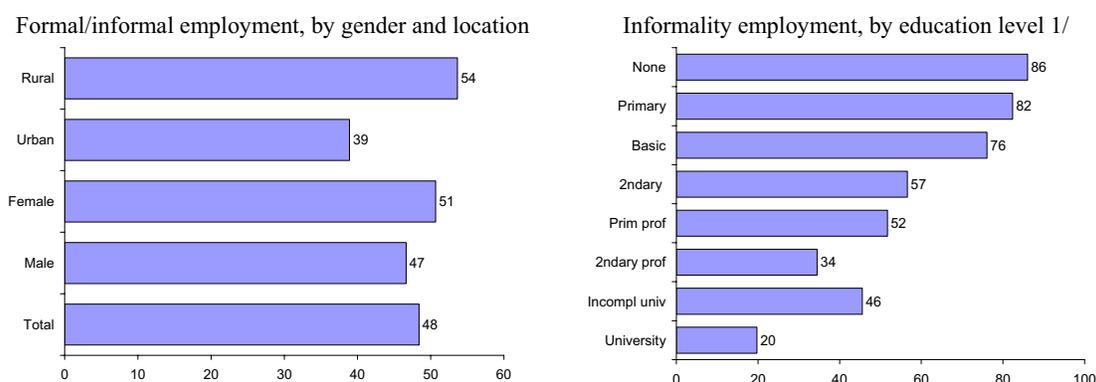
A worker can be informally employed in (at least) two ways: because the work place is of an informal nature, i.e., is taking place in the informal sector, or because the nature of the job is informal. Informal work places would include places that are small-scale operations with few employees, in enterprises that are not registered enterprises, where assets are those of the owner and not the enterprise, household work etc.. Informal employment, on the other hand, would include situations where employment is not based on written contracts and employees are not registered or touch any formal benefits such as mandated sick leave, vacations, or compensation related to employment termination. A person can thus be informally employed also in the formal sector, if the job relation is of an informal nature.

Informal sector jobs are typically small-scale operations, family and household jobs. In practice, it is far from straightforward to single out the informal sector within the context of a household survey such as the KIHS.

The NSC uses the characteristics of the production unit as the benchmark: informal sector activities are those that take place in unregistered units as well as all units that have fewer than five employees. This means, however, that all workers that are legally employed (i.e. have a written contract) in smaller units are considered informally employed, irrespective of the fact that they enjoy some form of job security as written down in a formal contract. This results in very high levels of informality: two thirds percent of all employment is informal.

For the purpose of this paper, we consider as informally employed all those who run or work in an unregistered firm or activity (employed in informal sector) AND all those who work with a verbal contract in registered firms (informally employed in the formal sector). We also consider all unpaid family workers as well as those working in households to be informal workers.

**Figure 3.7. Informality is High and Determined by Education, Gender and Location**



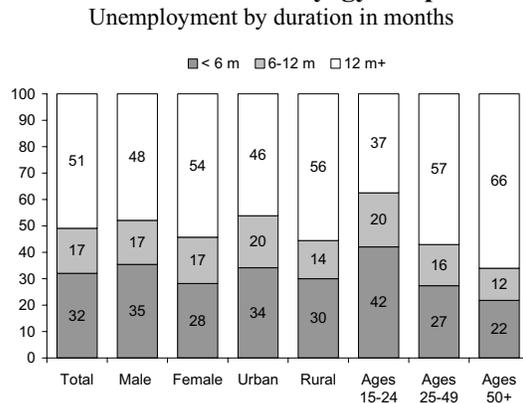
*Source:* Estimates based on KIHS, 2003. 1. University - 4-5 years in university; Uncompleted university - 2-3 years of university; Secondary professional - 9 or 11 years plus 2-3 years of vocational study ; Primary professional - 4 years plus 2-3 years of vocational study; Secondary - 11 years of study; Basic - 9 years of study; Primary - up to four years of study.

## Alternative measures of unemployment and underemployment

**3.17 Long unemployment spells are an important problem in the Kyrgyz Republic as in other transition countries.** Economic restructuring has resulted in long spells of unemployment. Half of all unemployed (using the strict definition) have been looking for work for more than one year; only one third have been looking for less than 6 months (Figure 3.8). As can be seen, women and rural inhabitants are more likely to be long-term unemployed, as well as older workers. Two thirds of those unemployed older than 50 years had been unemployed for more than one year. While, in general, being young and living in urban areas raises the risk of unemployment per se, these groups may have higher chances of finding a job fast than older and rural workers respectively.

**3.18 And as a result, there is an important share of discouraged workers among the inactive, especially in rural areas.** Relaxing the definition of unemployment to include those inactive people who have just given up hope of finding a job increases unemployment rates in the Kyrgyz Republic, from 13.3 to 16.3 percent in urban areas, and from 7.9 percent to 11.9 percent in rural areas (Table 3.4). The relative increase is thus larger in rural areas – where the risk for long-term unemployment is more prevalent.

**Figure 3.8. Long-term Unemployment is a Serious Problem in the Kyrgyz Republic**



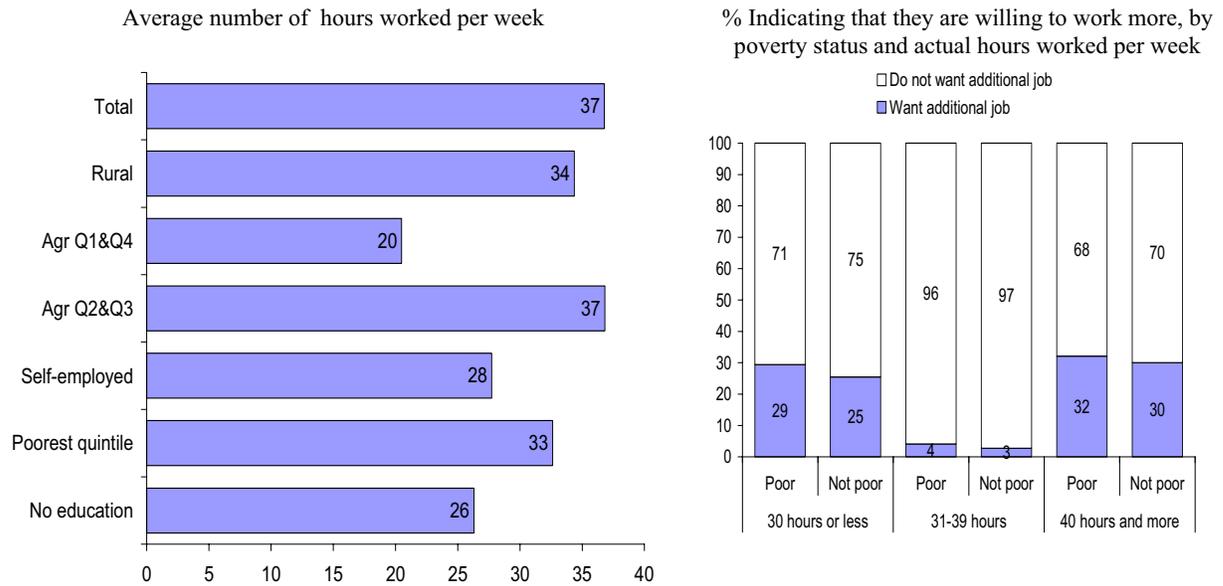
**Table 3.4. There is Hidden Unemployment among the Inactive Working Age Population**

	Labor force and inactive, incl. discouraged workers		
	Total	Urban	Rural
<i>Thousand persons</i>			
Employed	1930	686	1244
Unemployed	212	105	107
Inactive	1206	479	727
o/w discouraged workers 1/	89	28	61
<i>% of labor force</i>			
Unemployment rate	9.9	13.3	7.9
including discouraged workers	13.5	16.3	11.9

*Source:* Estimates based on KIHS, 2003. 1. Includes those that want to work but are not actively looking b/c (i) they despaired to find a job after searching for a long period of time (ii) had no opportunity to find a job (iii) did not know how or where to look for a job.

**3.19 And a significant share of those who are employed work less than they would like to.** In addition, many people are under-employed, meaning that they are working less than they would need or like to. The average number of hours worked in the Kyrgyz republic is around 37 hours per week, including work on main and additional jobs; some 30 percent of workers work less than 30 hours (Figure 3.9). However, those employed in the agricultural sector, the self-employed, the poor and those with no education, work less hours. However, this definition is precarious as it presumes that all people would want and need to work full-time, while in fact part-time work may be an optimal solution in some cases. Another way of considering underemployment is the extent to which people state whether they would like to work more. This subjective measure results in a rate of underemployment of about 30 percent as well. However, there are no stark differences depending on poverty status. In all, however, it seems clear that underemployment is an issue.

**Figure 3.9. A Significant Share of the Workers would Like to Work More**



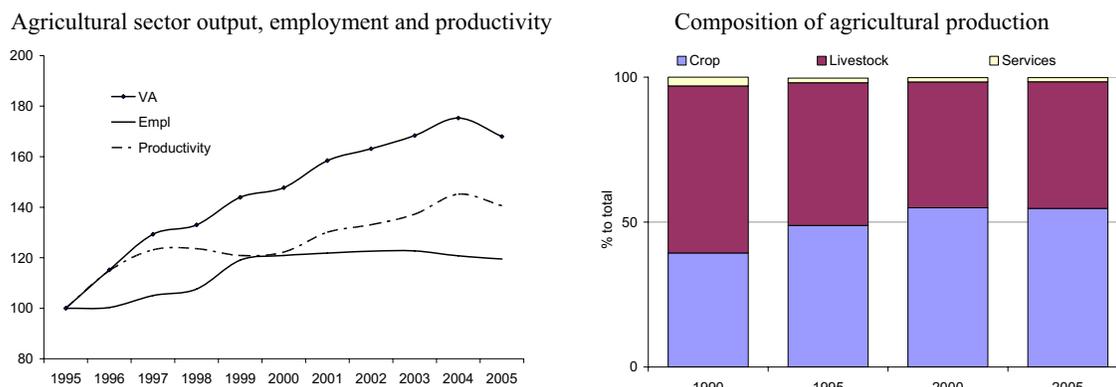
Source. Staff estimates based on KIHS data.

### C. Poverty, Farm and Non-Farm Activities in Rural Areas

**3.20 The rural sector plays a vital role in the economy of the Kyrgyz Republic.** Two thirds of the population is rural, agriculture accounts half of all employment and a third of GDP, and the Kyrgyz Republic is a net exporter of agricultural goods. Most of the poor – three fourths – live in rural areas, and the importance of rural activity was reinforced during the 1990s.

**3.21 The agricultural sector has experienced substantial swings since independence,** with a strong contraction in 1990-1995, a fairly robust recovery since 1996 and a recession in 2005 (Figure 3.10). The sector is dominated by small farms that over the period 2000-2003 produced 95 percent of all agricultural output, compared to 89 percent in 1999. Driven initially by the large inflow of labor displaced in the collapsing industrial and service sectors and by the need of the rural population to ensure food security and physical survival, growth at the end of the 1990s was characterized by food crop production, much of it for home consumption and barter. But while output increased, labor productivity declined, due to the large increase in the agricultural labor force, the shift to low-value staple food crops, the widespread lack of farming know-how among the newly privatized farmers, the virtual absence of critical inputs, and the deterioration of physical farming assets (machinery, infrastructure, physical plant). By the end of the 1990s, aggregate output had recovered to 1990 levels, food security was essentially achieved, and the first signs of significant diversification into higher value crops appeared.

**Figure 3.10: The Agricultural Sector has Grown since the mid 1990s, but Livestock Holdings have Given Way to Crops Production**



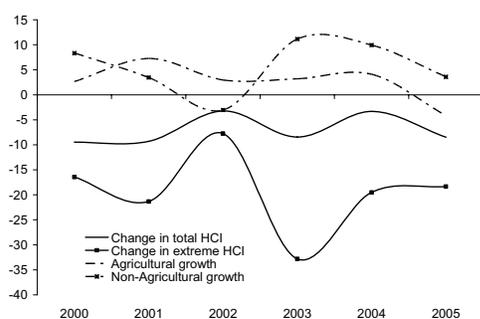
Source: Estimates based on data from national authorities.

**3.22 Crop production has led recent agricultural growth.** In the following five years agricultural growth was modest, reaching about 4 percent annually. The political events of 2005 resulted in negative growth for the first time since 1996. Crop production now accounts for about half of all agricultural production. Agricultural labor productivity has been recuperating rapidly, as employment growth has leveled out and agricultural reforms have been paying off. Most of the major crops are showing improved productivity and there is a tendency of allocating more land for commercial agricultural products, such as cotton and tobacco.

**3.23 Rural residents employed in non-farm activities are better off than those working in farming.** Positive agricultural and non-agricultural growth brought down poverty levels in the period 2000-2003. But this relationship seems to have been broken in 2005, when poverty fell in spite of negative agricultural growth and a down turn in non-agricultural growth (Figure 3.11). The elasticity of poverty to agricultural growth is explained by the fact that the poor are predominantly employed in the farming sector (Table 3.5). Among those employed in agriculture, the overall poverty level is 60 percent compared to around 48 percent in the non-farming sector. The difference in overall poverty levels is almost exclusively accounted for by the fact that the share of extremely poor is twice as high in the farming sector as in the non-farming sector.

**Figure 3.11: Rural Poverty has Fallen because of Agricultural Growth**

Change in rural poverty and growth, 2000-2005



**Table 3.5: But Poverty is still Higher Among Farmers and Farm Workers**

Poverty in farm and non-farm sectors, 2003

Sector of employment	% of total rural employed	Poverty % of population	
		Poverty	Extreme poverty
Total rural	100	55.5	20.6
Agriculture	63	60.1	24.6
<u>Non-farm sectors</u>	<u>37</u>	<u>47.5</u>	<u>13.6</u>
Industry	8	46.6	14.6
Commercial services	13	53.9	12.1
Public services	16	43.1	14.3

Source: Estimates based on HBS 2000-02, KIHS 2003-05, and data from national authorities.

3.24 **Poor rural households tend to have more people to support with fewer employed and less hours of work; they also tend to rely predominantly on the farming sector.** Table 3.6 shows households' labor market characteristics for 2003 in rural areas, by consumption quintiles<sup>9</sup>. As seen, poorer households stand out in several ways: larger households, significantly higher dependency rates, higher unemployment rates, less hours of work per week, and a significantly higher share of employment in farming.

**Table 3.6: Poorer Households Have Unfavorable Labor Market Indicators, 2003**

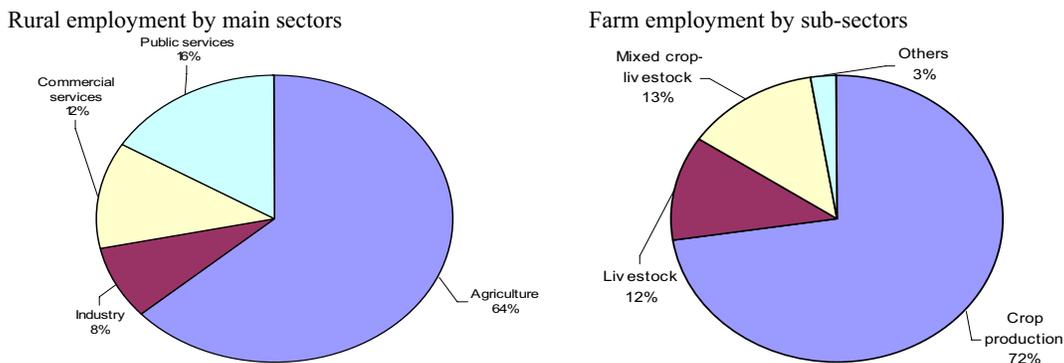
	Consumption Quintile					Total
	Bottom	Second	Third	Fourth	Top	
<b>Average number of people</b>						
Household members	6.2	5.4	5.0	4.2	2.9	4.7
Children	2.5	2.0	1.6	1.2	0.5	1.6
Pensioners	0.5	0.5	0.6	0.5	0.7	0.6
Working age members	3.0	2.8	2.6	2.4	1.6	2.5
Inactive	0.9	1.0	0.8	0.8	0.5	0.8
Unemployed	0.3	0.2	0.2	0.1	0.1	0.2
Employed	1.8	1.6	1.7	1.5	1.0	1.5
<i>in farming, % of employed</i>	75	59	60	53	55	61
<i>in informal sector, % of employed</i>	60	53	56	47	62	55
# of hours worked per week	24	31	32	34	36	31
<b>Household ratios</b>						
Dependents to working age members	98	91	84	72	73	85
Employed to total members	29	30	33	35	35	32
Unemployed to total active	15	13	8	8	8	11

Source: Staff calculations based on KIHS 2003.

3.25 **Most rural employed work in the farming sector, where crop production is dominating.** Most on-farm employed are involved in crop production. Livestock and mixed crop-livestock production takes about a quarter of all employed (Figure 3.12). Crop-production, however, has a lower productivity level than other sectors. Within rural non-farm activities, public services provide most of the jobs, the main activities being education, health care and public administration sectors. Commercial services and most significantly the trade sector, provides jobs for around 12 percent. Industry, mostly mining, provides jobs for the remaining 8 percent.

<sup>9</sup> The labor indicators presented in Table 3.6 are for the 4th quarter of 2003. Since the labor force survey module is based on a quarterly frequency, there were cases during all four quarters when a person was employed in one quarter, in others was unemployed or inactive. Therefore, it was possible to merge only one quarter data from LFS module to have one-to-one household match with poverty module. The 4th quarter will give higher inactivity and unemployment figures due to the seasonal production pattern in agriculture. The numbers in Table 3.6 are therefore not entirely consistent with labor market numbers reported elsewhere which, unless otherwise stated, are based on year-averages.

**Figure 3.12: Distribution of the Farm and Non-farm Employment of Rural Residents**



Source: NSC, Staff estimates based on KIHS 2003.

**3.26 Labor income is the most important source for rural households followed by crop and livestock sales.** Wage earnings are the most important source of income among rural households, though slightly less so for the poorest households than for households in the second, third and fourth quintiles (Table 3.7). More than a half of the rural households rely on crop and livestock sales. Richer and poorer households receive transfers, but from different sources. Richer households tend to be recipients of pensions to a higher degree – and only fourteen percent of the richest households receive public transfers. In contrast, only one third of the poorest households receive pensions, but a majority receives some public transfers. In absolute terms, farm households on average receive more pensions income than (the richer) non-farm households while the amount of social transfers is more or less the same.

**Table 3.7: Importance of Income Sources for Rural Households**

Source of Income	Consumption Quintile					Rural	Farm soms per month	Non-farm
	Poorest	2	3	4	Richest			
	<i>Percentage of households receiving this income</i>							
Income Earned	77	85	80	82	69	79	832	1,730
Crop & livestock sales	53	54	59	61	55	56	744	387
Pensions	36	34	44	44	47	41	280	204
Social Transfers	53	44	38	27	14	35	58	29
Private Transfers	49	34	51	45	52	46	141	154
Other Income	28	28	26	27	32	28	173	232

Source: Staff estimates based on KIHS 2003.

#### **D. Coping Mechanisms in Rural Areas**

**3.27** How can households manage swings in agricultural output and low income more generally? Three important mechanisms will be discussed below: assets, migration, and child labor. Holding land means that households can engage in subsistence farming even if agricultural work on other farms is not available. Credit can support capital investment or help smooth consumption. Income diversification in terms of sending a household member to town or abroad – migration – is becoming a key feature of Kyrgyz labor markets. Finally, households resort to taking children out of school and putting them to work.

### *Land holdings, capital assets and credit.*

3.28 **Most rural households hold land, but in the poorer southern regions, plots are smaller.** Earlier analysis showed a rapid increase in the number of households with access to land, from less than 50 percent in 1998 to more than 75 percent in 2001 (World Bank, 2003). According to 2003 data, virtually all – 96 percent – of households now have land holdings (Table 3.8). Most of these are small plots of less than 2 hectares. Consistent with poverty patterns, households in the southern region have on average smaller plot size than northern households: More than 21 percent of north households own land with more than 2 hectares, while in south less than 10 percent of households own plots of this size.

**Table 3.8: Most Have Access to Land, but Plot Sizes are Small, Especially in the South**

Distribution of households by plot size and region.						
Region	Land area					Total
	0 ha	0<ha<2	2<ha<5	5<ha<12	12<=ha	
Total	4	81	12	2	0.5	100
North	6	73	18	3	0.6	100
South	3	87	8	1	0.5	100

*Source:* Staff estimates based on KIHS 2003.

3.29 **Livestock holdings are becoming concentrated.** As the livestock sector has contracted, fewer households now hold cattle (Table 3.9). In 2003, half of rural households held cattle with an average herd size of 2.6 heads, while in 2001 only a quarter of rural households didn't have cattle. Similar trends are noticeable with small ruminant holdings with only a third of rural households holding this type of livestock. Average herd size is relatively low: 12.5 heads per rural household that have any ruminant. The small size of land plots in South oblasts explains the fact that more households in South are engaged in raising livestock. In the North region a quarter of households are involved in livestock production; in South, about 36 percent of all rural households.

**Table 3.9: Distribution of Cattle and Small Ruminants by Household (%)**

Region	Cattle herd size					Total
	0 head	1 head	2-6 head	7-11 head	> 11 head	
2001, total	25	53	17	4	0.9	100
2003, total	51	15	33	0.8	0.6	100
North	56	17	24	1.0	1.0	100
South	46	13	40	0.6	0.4	100

Region	Small ruminants herd size					Total
	0 head	1-9 head	10-24 head	25-59 head	> 59 head	
2001, total	65	5	7	13	10	100
2003, total	67	17	12	3.2	0.5	100
North	72	14	11	2.3	0.5	100
South	64	20	12	3.8	0.6	100

*Source:* World Bank, 2003 (based on 2001 household budget survey data), staff estimates based on KII 2003. Note that because of different sampling, the HBS and the KIHS are not entirely compatible.

3.30 **The farm sector suffers from low access to capital equipment**, a fact that has been noted in previous studies (World Bank, 2003). Existing machinery tends to be both old and inefficient as well as poorly suited to the scale and character of today’s private farms. KIHS shows that only 2.7 percent of rural households<sup>10</sup> owned a tractor or any other agricultural equipment, while 9 percent of households owned a horse (Table 3.10). The remarkably low capitalization points to the small-scale/subsistence farming nature and low commercialization of Kyrgyz agriculture.

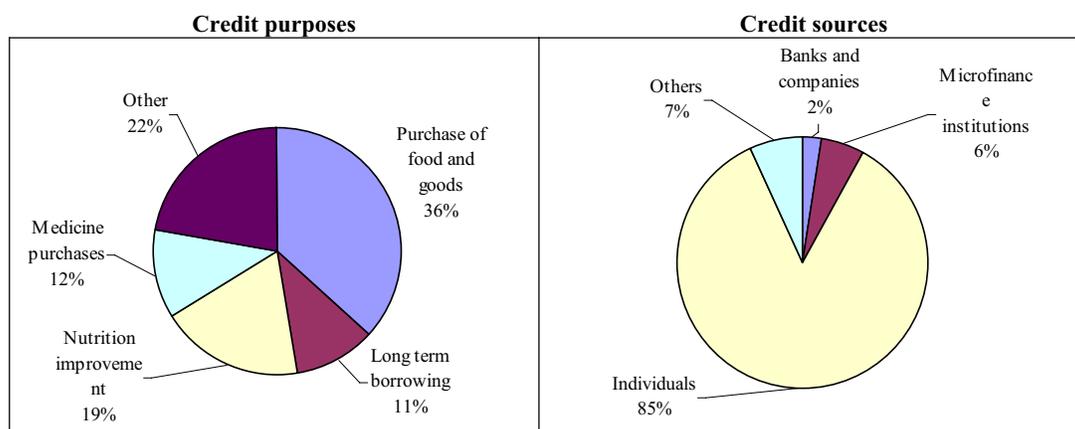
**Table 3.10: The Farm Sector is Undercapitalized**

	Ownership of agro equipment and horses by consumption quintile (%)					Total
	Consumption quintile					
	1	2	3	4	5	
Tractors and other equipment	2.9	2.9	3.9	2.7	1.2	2.7
Horses	5.9	10.8	14.2	9.2	5.6	9.1

Source: KIHS 2003.

3.31 **Informal credit sources play a dominant role in rural area and most borrowings are made to cover current expenditures.** Though some progress has been made in building microfinance institutions, only 27 percent of all rural households were engaged in some form of borrowing, and credit is overwhelmingly used for short-term consumption smoothing rather than investment (Figure 3.13). Two third of households-borrowers took loans to cover day-to-day expenses, such as purchase of food, goods and medicines. Borrowing for long-term purposes, such as construction, purchase of houses and education expenses, accounts for only 11 percent. Moreover, as many as 85 percent of households borrowed from individuals. Banks and finance companies were source of credit for only 2 percent of rural households, while microfinance institutions provided loans for only 6 percent of all households that made borrowings.

**Figure 3.13: Rural Borrowing is Made for Current Expenses and Primary Source of Credit are Households**



Source: Staff estimates based on KIHS 2003.

<sup>10</sup> All rural households, indifferent of the sector of main activity (crop or livestock production)

## ***Internal and external migration***

3.32 **Migration has become an important feature in the Kyrgyz economy**, bringing in external resources and serving as a coping mechanism for poorer households. Rural areas, because of low income levels and lack of diverse job opportunities, are the major source of internal and external migrants in the Kyrgyz Republic. Both forms of migration, internal (predominantly from rural and secondary urban areas to Bishkek city and surrounding areas in the Chui oblasts) and external (mainly to Russia, Kazakhstan, and other neighboring countries), have an important impact on the labor market, poverty and economic growth. While data are scarce and unreliable, a recent World Bank study noted that difficulties to make ends meet were a major impetus to external migration (Box 3.3).

### **Box 3.3. External Migration – a Survey of Return Migrants**

There is no systematic recording of the number of labor migrants and no comprehensive estimation system for workers' remittances in Kyrgyz Republic. Lacking such key data, some qualitative features of labor migrants have been explored. A study conducted by the World Bank in summer 2005 surveyed return migrants – external migrants who had returned home – in the Kyrgyz Republic. The survey covered around 1400 individuals representing all the oblast. Clearly, while return migrants are an obvious target group for these kinds of investigations, they also risk making up a biased sample: they do not represent current migrants, and they may share specific characteristics which made them return home, e.g. less success on foreign labor markets.

With this caveat in mind, the results show that

- Migrants predominantly went to work in substantially richer countries. Two thirds had worked in Russia, and another 22 percent in Kazakhstan: countries whose average income is more than eight and six times that of the Kyrgyz Republic.
- Unemployment and low income were a major impetus to migration. Some 24 percent of the surveyed migrants were unemployed before they left the country, and 19 percent were employed in agriculture. 55 percent of surveyed earned less than 50 US dollars per months before departing abroad.
- Migration was related to poverty. 25 percent of respondents indicated that 'it was difficult to provide the family with basic foods' and 32 percent indicated that they 'could afford food, but had difficulties to pay for utility bills and buy clothes'.
- Migrants were mainly employed in low-skill activities. Abroad, most of the migrants worked in construction (39 percent) and trade (38 percent). Only about 10 percent were employed in white collar activities.
- Even so, however, wage differences allowed migrants to earn considerably higher income: two third of them earned at a minimum 200 USD per month, while in the Kyrgyz Republic this wage was accessible to only 5 percent of respondents before leaving.

*Source:* World Bank (2005), Labor Migration from the Kyrgyz Republic, Draft Analysis of the returned migrants' survey conducted under the regional study 'Enhancing Gains from International Migration in Europe and Central Asia'.

3.33 Official data suggest that internal migration reached a peak in 1994-1998, with some 100,000 migrants per year, but fell between 1999 and 2003, with some 50,000 people – 1 percent of the population - changing their place of residence each year. Only Bishkek city and the Chui oblast saw in-migration, and all other oblasts had negative balances. This shows clear direction of labor flows from mostly rural peripherals into the economically developed capital city and relatively land abundant Chui oblast (Figure 3.14). According to the official data, both Bishkek and the Chui oblast gained 34 thousand people as a result of migrants' inflow in the

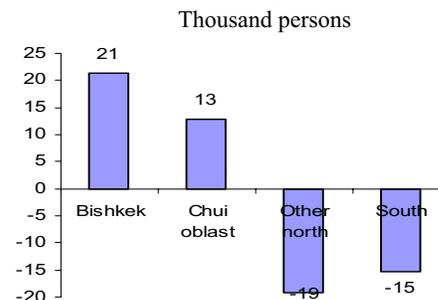
period 1999-2003. These data are based on the administrative records, however, and the number of internal migrants is likely to be considerably higher. New established settlements around capital city are mainly occupied with internal migrants with most of the residents not being appropriately registered<sup>11</sup>. Based on the KIHS 2003, around 9 percent of Bishkek population was not registered.

**Table 3.11: Three Episodes of Internal Migration**

	1989-1993	1994-1998	1999-2003
Number of migrants ('000)	220.3	495.2	145.3
Of which, % share			
Internal migrants	77.3	83.9	81.0
From other countries	22.7	16.1	19.0

Source: Estimates based on data from national authorities

**Figure 3.14: Net Internal Migration Balance 1999-2003**



**3.34 Internal migration is putting pressure on urban labor markets.** Since migrants tend to be younger than the population in general, migration creates an asymmetry in the rural/urban demographic structure, increases demand for public services, puts pressure on housing prices, and creates tensions in urban labor markets. The comparatively high unemployment rates in Chui and Bishkek City are a reflection of these pressures.

**External migration is becoming a major source of income growth.** Broad estimates suggest that there are some 500,000 Kyrgyz workers abroad (around 23 percent of the total labor force). Of these, some 300,000 are in Russia and around 50,000 in Kazakhstan, although the latter figure could be twice as high depending on season. The majority of migrants are from the rural south, including Osh, Jalal-Abad and Batken provinces. Reported workers' remittances increased ten-fold from US\$ 30 million in 2002 (2 percent of GDP) to US\$ 331 million in 2005 (14 percent to GDP) (Table 3.12). These numbers do not reflect a ten-fold increase of external migrants, however, but more likely a combination of more migrants, improved statistical coverage and the introduction of new and easier payment systems (such as like Western Union) for money transmission.<sup>12</sup>

**Table 3.12: Workers' Remittances, 2002-05, million US dollars**

	2002	2003	2004	2005
Workers' remittances, net	28	65	164	304
Inflows	30	70	179	331
Outflows	2	5	15	27
Inflows to GDP, %	1.9	3.7	8.1	13.6

Source: Estimates based on data from national authorities.

<sup>11</sup> As noted in the World Bank Poverty Assessment (2003), large internal migration inflows resulted in the emergence of new living areas in the periphery of Bishkek – the so-called 'novostroiki'. Today there are 26 such settlements with estimated 200 000 people, but the real number is higher due to lack of residence permission for a large portion of residents. The population living there is mostly poor.

<sup>12</sup> Remittance data are from the NSC. The Central Bank reports a much higher amount in recent years.

3.35 While migration can increase household income and contribute to economic growth and poverty reduction, it can also have important and potentially negative socio-economic effects (World Bank, 2007). More specifically, rising flows of women migrants means that more children are left in the care of older children or grand parents – often with worse results for the children. For example, it has been suggested that migration accounts for lower enrolment rates in Moldova and Bulgaria (World Bank, 2007). However, the Kyrgyz Republic actually shows evidence of falling divorce rates and quite high fertility rates, suggesting that this is not a country-wide phenomenon yet (UNICEF, 2006).

3.36 **Human trafficking is a significant problem in Kyrgyz Republic.** Moreover, after Southeast Asia, the ECA region is the second largest source of trafficked persons, with an estimated 175,000 victims per year, for the purpose of prostitution but also for labor work in agriculture, construction and services. While estimates of the extent of trafficking are bound to be imprecise, the Kyrgyz Republic is clearly an important source country for trafficking, mainly emanating from poorer rural areas. These victims face serious physical and mental health risks much beyond those of other migrants. The Kyrgyz Government is taking steps, including cooperation with neighboring countries, to prevent trafficking, protect and help victims of trafficking, and prosecute traffickers (Box 3.4).

#### **Box 3.4. Human Trafficking from, to and through the Kyrgyz Republic**

Kyrgyz persons are trafficked for the purpose of labor exploitation to Kazakhstan and Uzbekistan for agricultural labor; to Russia for labor in agriculture, industry, commerce, and construction; and to China for bonded labor. Kyrgyz women, girls and boys are trafficked for the purpose of sexual exploitation, mainly to the United Arab Emirates (U.A.E.). To a smaller extent, the Kyrgyz Republic is also transit country for persons from Uzbekistan and South Asia to Russia, Turkey, and Europe, and finally, it has been the final destination for Uzbek women trafficked for prostitution.

These victims face overwhelming risks to their health, especially so for women and girls trafficked for sexual exploitation. They risk physical and psychological abuse, including rape, severe health risks including sexually transmitted diseases, HIV/AIDS, unwanted pregnancies and unsafe abortions, hepatitis, vulnerability to drug abuse, and legal risks. Should they return, they may represent a health risk to host countries, and they and their family are likely to suffer social stigma.

The US Department of State's annual report on Human Trafficking concluded that the Kyrgyz government is making efforts to address the problem, including through cooperation with neighboring countries, to prevent trafficking, protect and help victims of trafficking, and prosecute traffickers. The greatest weaknesses in terms of action appear to be in the protection and help of actual victims of trafficking.

*Source:* US DOS (2005), UNFPA (2002).

### ***Child labor***

3.37 **Child labor is a direct consequence of poverty.** Poor households send children to work instead of schools in order to cope with basic needs expenditures. In addition, children in poorer areas, especially in rural areas, may work because they live too far from schools to be able to attend, because of the poor quality of education services including such basic amenities as heating of the premises, or because they cannot afford school fees. Child labor may be a logical response to poor families' need for survival, but carries with it a number of negative effects. Children at work are often exposed to physical and psychological abuse, are paid less for the same work as adults and are forced to work in hazardous conditions. Moreover, children

at work cannot devote themselves fully to education, and foregone education opportunities may mean foregone earnings possibilities in the future.

**3.38 Child labor in the Kyrgyz Republic is not exclusively a rural phenomenon.** However, in rural areas some of the determinants of child labor are more present than in urban areas, including lower household income levels and higher poverty incidence than in urban areas, lower quality and accessibility of education services, and important differences in labor force demand across seasons – in other words, the need for additional hands during harvesting time. A large share of children working in the streets of Bishkek and other cities are also believed to belong to migrant labor families, or have been sent by their (rural) families to town for work.

**3.39 Various sources confirm a high incidence of child labor in the Kyrgyz Republic.** The household survey is an inappropriate instrument to capture the phenomenon of child labor, and KIHS data in fact suggest a negligible participation of children in labor market.<sup>13</sup> Other studies and reports arrive at significantly higher numbers. An ILO report from 2001 suggested that some 28 percent of children in the ages of 7-14 were engaged in various jobs (ILO, 2001). Government estimates suggest that between 2,000 and 15,000 neglected children live (and therefore work) on the streets.

**3.40 In rural areas, children mainly work on the fields while in urban areas, they work in the informal services sector.** A survey undertaken by the Trade Unions of the Agricultural Workers on child labor in the southern oblasts revealed that on average 3-4 children are involved in every hectare of cotton or rice field, while tobacco production exploits about 7-8 children per hectare (IOM, 2004). In the Jalal-Abad oblast alone, around 125 000 children were estimated to work in the agricultural sector. In the southern rural areas, children also work in unregulated and accident-prone gold mines. In the cities, children predominantly work in informal services such as trade (selling goods in the street) and transportation (loading), but are also involved in begging, drug-dealing, and prostitution. As mentioned above, the Kyrgyz Republic is known to be both a country of transit and of origin of child trafficking, predominantly involving children from poorer rural areas.

**3.41 The law prohibits child labor but there are weaknesses in implementation.** Education is free and compulsory up to the secondary level (completed by the age of 14), which effectively should exclude work before that age. The minimum age for employment is 16 years; however, children may work at the age of 14 with parental consent and provided that work does not interfere with school or health. However, difficulties in keeping up with residence registration pressures affects access to social services, including education, for various vulnerable groups including migrants and non-citizens. Children under 18 years are not allowed to work in hazardous occupations which include metal, oil and gas industries, mining and prospecting, the food industry, entertainment, and machine building (US Department of State, 2006, US Department of Labor, 2005). In view of the largely informal nature of child labor in the Kyrgyz Republic, and the occupations in which children can be found - prostitution, mining, drugs—are witness to the weaknesses in implementing and executing the legal framework, however.

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<sup>13</sup> Since the labor force survey does not cover children younger 15 years old, information on the extent of child labor was derived using basic information about each household member, and indirectly, – using children school attainment module. These data do not reflect hidden drop-outs from school, and suggest that only 2 percent of children aged 9-14 belonging to extremely poor households were working. A much higher portion – 22 percent – of children aged 15-17 were active in the labor market, and participation rates were higher in rural than in urban areas, reflecting the nature of agriculture activities that do not require advanced skills.

## E. Urbanization and Poverty

### *Migration to Bishkek City and Chui*

3.42 **Why do we care about urban labor markets?** Because of the promise of higher income opportunities, poor migrants flock to urban and peri-urban centers. These dynamics have put higher pressures on labor markets in the urban sector. Urban areas also form a much more heterogeneous group than rural areas. There are important differences between smaller and larger urban cities in terms of opportunities and living conditions, as well as between poor and rich areas within cities. Urban life is monetized, and urban residents –especially those without other assets than labor - must generate labor earnings in order to cover consumption expenses. Yet, the urban poor often face difficulties in accessing formal and well-paid employment. Because of the dependence on out-of-family work, access to services such as child and elderly care as well as transportation becomes more critical. At the same time, there is a pronounced difference between poor and rich in terms of access to these and other public services.

3.43 **The Kyrgyz Republic has a relatively low share of urban population, but a high percentage is concentrated in Bishkek.** In the planning economy, policy decided where firms should be established, what they should be producing, and who should work there. As a result, transition countries tend to be “over-urbanized”, in that their level of urbanization is higher than would be expected given their average income levels (World Bank, 2006). As discussed previously, the Kyrgyz Republic has seen a tendency of re-ruralization of the population since the onset of transition – partly a reflection of the reduced importance of the industrial sector. In 2004, the share of population living in urban areas in the Kyrgyz Republic reached 35 percent (Table 3.13). However, the share of the urban population living in the largest city – Bishkek – is unusually high among ECA countries, at 44 percent (Table 3.13).<sup>14</sup>

**Table 3.13: Concentration of the Urban Population to Bishkek is Unusually High by ECA Standards**

	Urbanization rate (%) 2004	Primacy rate (%) 2001 1/	GNI per capita (US\$) 2004
ECA (excl. Kyrgyz Rep.)	57	27	3,383
Average EU and Balkan	60	29	4,733
CIS (excl. Kyrgyz Rep.)	54	26	1,358
Kyrgyz Republic	35	44	400

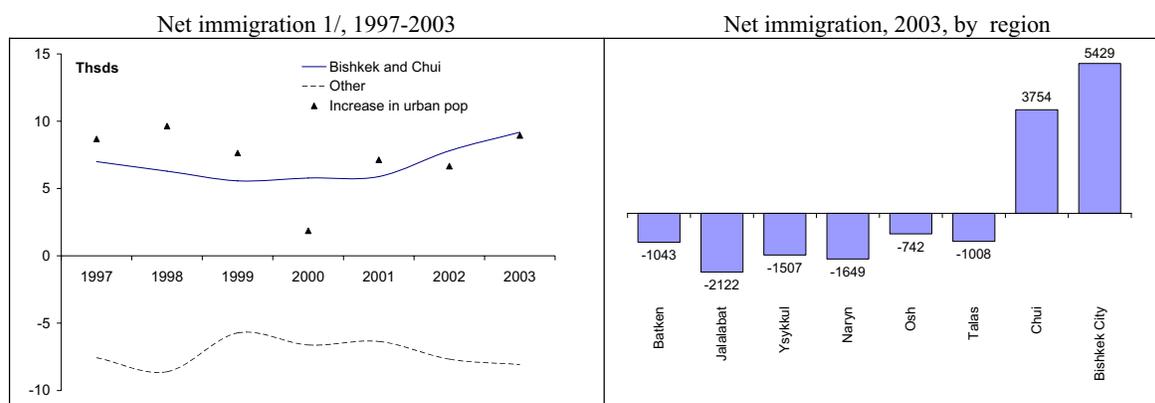
1. For Kyrgyz Republic, 2004. Primacy rate refers to the share of the urban population living in the largest city.  
Source: WDI (2005); World Bank (2006); staff estimates based on KIHS 2004.

3.44 **In the Kyrgyz Republic, Bishkek and the surrounding Chui area account for all net in-migration.** A look at migration data suggests that the slow speed of urbanization may be hiding a high inflow of people into Bishkek in particular (and Chui to some extent), while many other urban areas are losing people on a net basis. As seen in Figure 3.15, only the Bishkek and Chui oblasts saw a net increase in people moving in from other regions during 1997-2003. The Chui oblast, though predominantly (79 percent) rural, receives spill-over migration from people who are heading for Bishkek but in the end are relegated to peri-urban areas outside the capital.

<sup>14</sup> Among ECA countries, there is no statistically significant relationship – neither positive nor negative – between GNI per capita and primacy rates, i.e. the share of urban population living in the largest city.

In other words, though net urban population figures do not suggest important inflows but rather the reverse, the pressure on Bishkek City and its labor markets is high.

**Figure 3.15. Internal Migration Goes to Bishkek and Chui**



Source: Estimates based on data from national authorities. 1. People who moved into the oblast from another oblast less people who moved out of the oblast to another oblast.

**3.45 More and higher paying jobs, especially in Bishkek, attract migrants to urban areas.** As seen in Table 3.14, according to the household survey, the number of migrants (aged over 15) living in urban areas is fifty percent higher than that of rural areas, and migrants make up 30 percent of the urban working age population, compared to just over 10 percent in rural areas. Moreover, some 30 percent of urban migrant residents (110,000) state job search or replacement as their main motive for moving, while only 9 percent (21,000) of rural residents name this as their main reason for moving to the area.

**Table 3.14: Migrants Come to Urban Areas to Look for Jobs**

	Number of migrants (thousands)			% to total		
	Urban	Rural	Total	Urban	Rural	Total
Family reasons	87	73	160	24	31	27
Job replacement	9	6	15	2	3	3
Looking for job	101	15	116	28	6	19
Study	112	16	128	31	7	21
Marriage	37	110	147	10	46	24
Other reasons	15	19	34	4	8	6
<b>Total</b>	<b>360</b>	<b>239</b>	<b>599</b>	<b>100</b>	<b>100</b>	<b>100</b>
<i>In % to population of age &gt;15</i>	<i>28.8</i>	<i>11.1</i>	<i>17.6</i>			

Source: Staff estimates based on KIHS 2003.

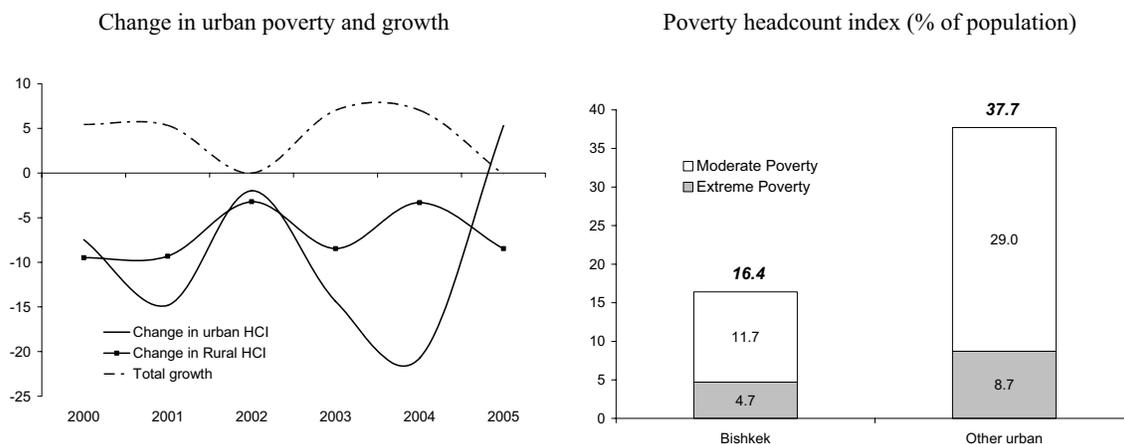
### **Urban poverty and growth**

**3.46 Up until 2005, urban poverty fell more than rural poverty.** Since 2000, urban poverty has dropped more rapidly than rural poverty, with the exception of 2005. Urban poverty fell by 15 percentage points between 2000 and 2003 compared to 12 percentage points for rural areas, and by a whole 8 percentage points between 2003 and 2004, compared to 1 for rural areas. However, this shifted in 2005, as urban poverty increased slightly while rural poverty continued to fall. (Figure 3.16). Between 2003 and 2004 alone, some 121,000 urban residents managed to move above the poverty line, compared to 52,000 rural residents. In 2005,

as economic growth and especially industry growth turned negative, urban poverty saw a small increase, however. The higher sensitivity of urban poverty rates to growth points to the strong linkages between non-agricultural growth, employment opportunities, and poverty reduction. The set back in 2005, amidst political instability and zero economic growth, also shows the vulnerability of the urban population to output and job creation.

**3.47 Bishkek have much lower poverty rates than other urban areas, but because of high concentration, a relatively large share of the poor still live there.** The poverty situation and dynamics differ between Bishkek and other urban areas. The capital has less than half the share of moderate and extreme poverty of other urban areas. Bishkek also saw a much more rapid reduction in moderate poverty between 2003 and 2004 than other urban areas. In spite of these improvements, the heavy concentration of population in the Bishkek area still implies that 30 percent of the extreme urban poor and 24 percent of the urban moderately poor live there.

**Figure 3.16: Urban Poverty has Responded Stronger to Growth than Rural Poverty in 2000-2004**



Source: Staff estimates based on KIHS, World Bank data.

### ***Employment opportunities in urban areas***

**3.48 Among urban areas, Bishkek has the most favorable labor market conditions,** with the highest share of the working age population employed (58 percent), because of higher participation rates and relatively low unemployment rates (Table 3.15). The difference to the second largest city, Osh, is particularly striking. Better economic opportunities and higher probabilities of employment explain the continued attraction of Bishkek City and its surrounding areas for migrants from rural and secondary urban areas. However, because of the concentration of population, 46 percent of all urban unemployed live in Bishkek City. Small urban settlements have lower employment rates than Bishkek, and the highest unemployment rates of all. Labor market indicators are generally much more unfavorable in small cities than in rural areas.

**Table 3.15: Employment Rates are Highest in Bishkek and Lowest in Osh**

	Total	Bishkek	Osh	Small towns
<i>Percentage rate</i>				
Employment rate	54	58	49	51
Labor force participation rate	62	65	57	60
Unemployment rate	13	12	14	15
<i>Percentage of total by location</i>				
Working age population	100	48	11	41
Inactive	100	44	12	44
Labor force	100	50	10	40
Employed	100	51	10	39
Unemployed	100	46	10	44

Source: Staff estimates based on KIHS, 2003.

3.49 **The divergence in employment opportunities along income dimensions is worse in urban than in rural areas.** The poor have decidedly lower employment rates than the non-poor, largely because of higher unemployment rates (Table 3.16). The poor in Osh are worst off of all – less than 40 percent of the extremely poor of working age in Osh are employed. The gap between poor and non-poor is highest in Bishkek City, however. In contrast, employment rates hardly vary across income groups in rural areas and are always higher than in any urban area for all income groups.

**Table 3.16: Unemployment Affects the Poor (or, Unemployment Results in Poverty)**

Labor market indicators by poverty status and location.

	Bishkek City	Osh	Small towns	Rural
<b>Employment rate</b>				
Extremely poor	54	39	46	59*
Moderately poor	49	47	50	59*
All Poor	51	46	48	59
Non-poor	60	51	54	61
<b>Unemployment rate</b>				
Extremely poor	18	17	20	9*
Moderately poor	18	17	16	9*
All Poor	18	17	17	9
Non-poor	10	12	12	6
<b>Labor force participation rate</b>				
Extremely poor	65	47	57	65*
Moderately poor	60	56	59	65*
All Poor	62	55	59	65
Non-poor	67	58	61	65

Source: Staff estimates based on KIHS, 2003. \*refers to all poor.

3.50 As in rural areas, differences between richer and poorer households are clearly born out when comparing the “typical” profile of households in different consumption quintiles (Table 3.17). The poorest urban households are larger than the richer ones, they have more children to feed, and relatively fewer people employed per household member; 60 percent of those employed living in the poorest quintiles households work in the informal sector, and 11 percent in farming. More of the poor households’ active household members are unemployed. Bishkek stands out as a richer area with more favorable labor market indicators overall, *except* a significantly higher share of informal sector employment. Compared to rural households (which on average also are poorer), urban households have higher ratios of employed-to-total-household-members, smaller share in informal sector work, and people work, on average, a full 40-hour week – in rural areas, the working week is on average 25 percent shorter.

**Table 3.17: Labor Indicators and Composition of Households, Urban Areas**

Source of Income	Consumption Quintile					Bishkek	Area		Memo: Total Rural
	Poorest	2	3	4	Richest		Other urban	Total Urban	
<b>Average number of people</b>									
Household members	5.3	5.0	4.0	3.3	2.5	3.0	3.6	3.3	4.7
Children	2.0	1.9	1.2	0.9	0.5	0.7	1.1	0.9	1.6
Pensioners	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.6
Working age members	2.8	2.7	2.2	2.0	1.6	1.8	2.1	1.9	2.5
Inactive	1.0	0.9	0.8	0.6	0.5	0.5	0.7	0.6	0.8
Unemployed	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2
Employed	1.4	1.5	1.2	1.2	1.1	1.2	1.2	1.2	1.5
% in farming	11	8	8	4	5	2	10	6	61
% in informal sector	59	39	42	36	38	45	35	40	55
# of hours worked per week 1/	40	40	41	42	43	43	40	42	31
<b>Household ratios (%)</b>									
Dependents to WA members	88	86	79	66	54	66	70	68	85
Employed to total members	27	30	31	37	43	39	33	36	32
Unemployed to total active	18	13	10	10	6	6	12	9	11

1. Per employed person.

Source: Estimates based on KIHS 2003.

3.51 **How do urban families cope with unemployment in the household?** Households with some unemployed persons have lower income levels – by twenty percent on average – than those with no unemployed. Households with some unemployed receive less pension income, the same amount of (other) public transfers, and less private transfers, than those with no unemployed household members. In fact, households with unemployed end up being even worse off when other income sources are taken into account.

**Table 3.18: Unemployment is not Compensated by Other Sources of Income**

	None unemployed	Some unemployed	Difference	None unemployed	Some unemployed
	<i>Soms per month</i>			<i>% of total</i>	
Income earned	2209	1756	453	71	67
Food and livestock sale	42	40	2	1	2
Pensions	305	223	81	10	8
Public transfers	28	28	0	1	1
Private transfers	258	246	12	8	9
Other income 1/	274	347	-73	9	13
TOTAL	3116	2640	476	100	100

Source: Estimates based on KIHS 2003.

**3.52 What keeps people outside the labor market in urban areas?** Worker characteristics, most prominently low human capital, are certainly a key problem. Beyond individual qualities, however, women are disproportionately barred from work, even with the same educational background as men. The gap between men and women is highest in urban areas, and among the poor; likewise, the unemployment gap between men and women is bigger in urban than in rural areas, and the gender gap is biggest in the 25-34 age bracket. Urban labor markets imply jobs outside the family, to a much larger extent than rural areas where farming dominates. As will be discussed in more detail in Chapter 5, the gender-poverty gap in urban areas suggests that lack of public or private affordable care for children and elderly is a major hindrance for female workers.

**3.53 Physical distance from jobs opportunities may also play a role.** Urban areas, while on average better off than rural areas, tend to be more heterogeneous. Living conditions differ in more pronounced ways between poor and rich neighborhoods. Partly because the former tend to be more dispersed and because they have less political clout, poor areas are less served by physical infrastructure. At the same time, a person without access to running water in a city may be much worse off than a rural person whose water is in a well in the garden, and a similar argument goes for sewerage. As seen in Table 3.19 below, infrastructure services are more available in urban areas, but the gap between rich and poor is indeed much larger than in rural areas. Importantly, the availability of transportation is much lower for the poor than for the non-poor, as seen in the higher share of poor household's with far distance to public transports. The physical segregation of labor markets may thus be an important obstacle for people in poorer areas.

**Table 3.19: Segregation between Poor and Non-poor urban Areas is Likely to Hamper Job Search**

	Percentage of all households						Income gap 1/			
	Poorest	2	3	4	Richest	Urban	Rural	Urban	Rural	
Pipeline gas	18	33	42	57	66	54	4	48	10	
Telephone	14	27	39	53	63	50	12	48	19	
Sewerage	47	43	56	74	82	70	8	35	24	
Hot water	16	17	28	39	50	39	1	35	3	
Far to public transport 2/	16	18	13	7	4	8	26	-13	-11	
	Percentage of household consumption									
Transports costs	5	6	6	6	7	7	4	2	-1	

1. Difference (in percentage points) between richest and poorest quintile. 2. Distance to public transport station: >15 min to reach.

## F. Women's Situation in the Kyrgyz Labor Markets

3.54 **Gender gaps still exist in the Kyrgyz Republic.** The Kyrgyz constitution guarantees equal rights to women, and female education and employment levels are high by international standards, especially compared to low income countries outside ECA. Yet, women have lower participation rates and higher unemployment rates, suffer from longer duration of unemployment, and a higher share of inactive women are in fact discouraged workers. When employed, their wages are lower. Women are underrepresented in public policy-making, and one of the worst forms of child labor – prostitution – affects girls to a larger extent than boys

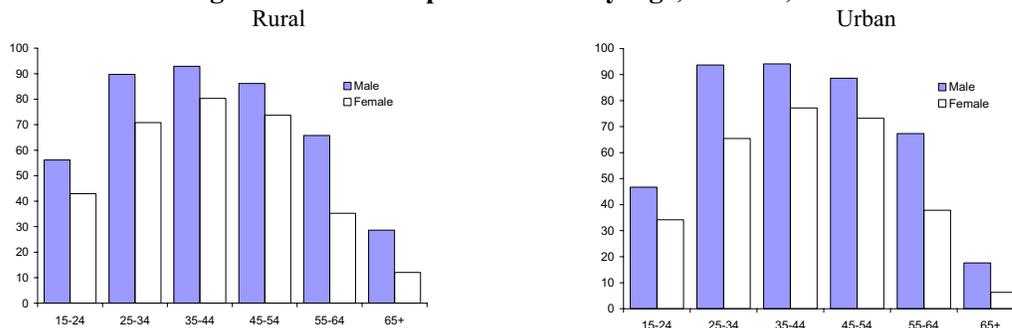
3.55 **The breakdown of social safety nets and the erosion of social service provision during transition have had important effects on women in the labor market.** First, they have added significant additional responsibilities to many women in the form of care for children and elderly in the family. Second, social services sectors have traditionally employed women, meaning that the contraction of these sectors have increased female unemployment. Finally, because women live longer but retire earlier than men, they make up a larger portion of pensioners, whose benefits have also been affected during economic reforms of the social sectors. More generally, the evidence for the ECA region suggests that economic transition and the decline of heavy industry and extraction industry has affected men to a larger extent than women (World Bank, 2005).

### *Gender gaps in labor force participation and unemployment*

3.56 **Female labor force participation rates may have fallen in the Kyrgyz Republic since the transition to a market economy.** ILO EAPAP data – which is estimated to ensure comparability between countries and across time and so may not be as reliable as country source data - show the female labor force participation rate falling from 58 percent in 1995 to 55.1 percent in 2005. One explanation is the breakdown of social safety nets and the erosion of social services provision (especially child care services) during transition, which has added significant responsibilities to many women in the form of child and elder care. A second and not necessarily conflicting explanation is that the decline reflects voluntary choice by women to exit the labor force and is a natural consequence of the move from a socialist to a market economy.

3.57 **Women are less active in the labor market than men, at all ages in both rural and urban areas.** For both men and women, the decline in participation rates after age 55 is precipitous; however, the drop is sharper for women, driven largely by relatively young retirement ages (Figure 3.17). In both urban and rural areas, the gender differences in participation rates are largest for workers in the 25-34 age bracket, signifying, among other things, women's larger responsibilities for childcare.

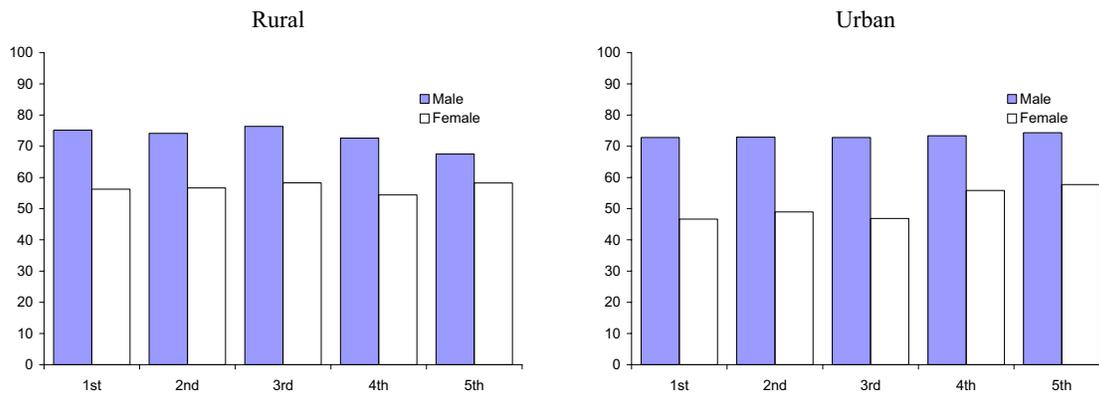
**Figure 3.17: Participation Rates by Age, Gender, and Location**



Source: Estimates based on KIHS 2003.

3.58 **Poor women in urban areas have the lowest participation rates, and gender gaps are largest among the poor in both rural and urban areas.** In rural areas, participation rates for women vary surprisingly little with income level, while men belonging to richer quintiles tend to be less active in the labor market than their poorer counterparts (Figure 3.18). As a result, the gender gap in labor market participation is highest for the poorest groups. In urban areas, men’s participation rates remain constant as income levels rise, but women’s participation rates increase by 11 percentage points between the poorest and the richest quintiles. Only 47 percent of women in the poorest urban quintile are active in the labor market, compared to 73 percent of men. The rise in female participation as household income increases may indicate increased ability to pay for child and elder care services.

**Figure 3.18: Labor Force Participation Rates by Consumption Quintile in Rural and Urban Areas**



Source: Estimates based on KIHS 2003.

3.59 **Household responsibilities are an important barrier to women’s participation in the labor market.** In the household survey questionnaire, the two most common reasons given by both men and women for not being economically active are that people are enrolled full-time in schools or retired. But the third most important reason for women was “keeping house, taking care or children, sick persons, elderly, etc.” – some 25 percent of all inactive women cited this as their main reason for not looking for a job. For men, this reason was of negligible importance (Table 3.20). This result is also borne out in probit regressions on participation (see annex 2).

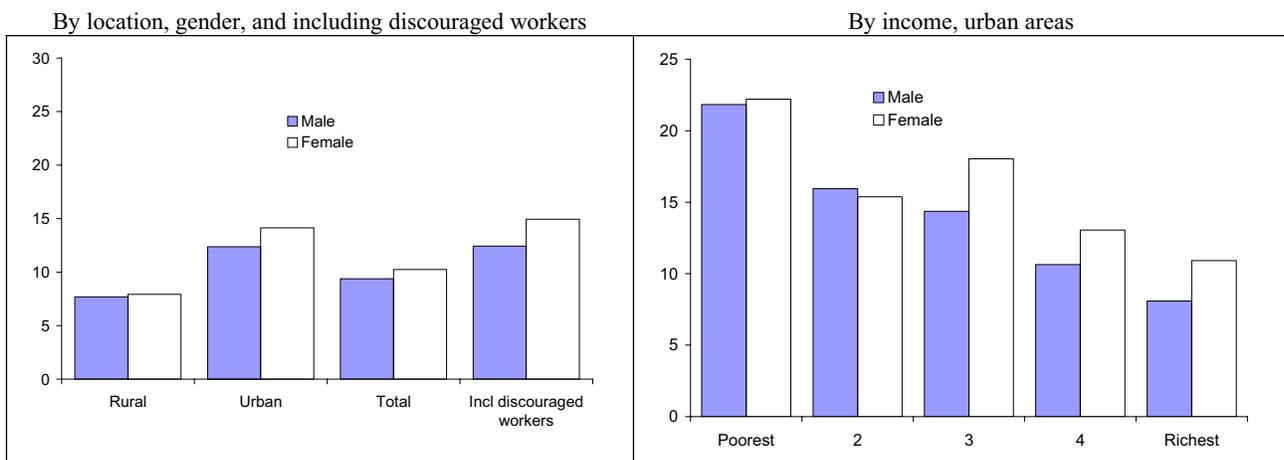
**Table 3.20: Reasons for not Being Active in the Labor Market (% of total responses)**

Reasons for not participating in labor force (% of total inactive)	Female	Male	Total
Retirement	31.1	29.4	30.5
Attending full time educational institutions	28.4	45.6	34.5
House keeping, taking care of children, sick persons, elderly, etc.	24.8	1.5	16.4
Lost hope of finding employment	3.4	5.2	4.0
Do not know where to seek employment	3.1	3.9	3.4
Waiting for the season beginning	1.0	2.7	1.6
Waiting for the employer's response	0.1	0.1	0.1
Due to state of health	1.3	2.0	1.6
No need to work	0.3	0.7	0.5
Other	6.6	9.0	7.4

Source: Estimates based on KIHS 2003.

3.60 **The unemployment/gender gap is higher when discouraged workers are included among the unemployed; poor urban women have the highest unemployment rates.** While the differences between male and female unemployment rates are small, the lack of success for women in finding jobs is more remarkable given their significantly lower participation rates. Indeed, the share of inactive people who are discouraged workers, i.e. have given up hope of finding a job, is larger for women than for men. Thus, if discouraged workers are included in the labor force, national unemployment rates for women increase further to 15 percent, compared to 12 percent for men. Unemployment rates are highest for women belonging to the poorest quintile in urban areas. In urban areas the unemployment rate for female in first quintile is the double that for the richest quintile (22 percent versus 11 percent); the gap for men between the poorest and richest quintiles is even larger (Figure 3.19).

**Figure 3.19: Unemployment Rates by Consumption Quintile, Gender and Location**



Source: Estimates based on KIHS 2003.

### ***Segregation by sector and occupation***

3.61 **Women hold a relatively higher share of employment in low wage sectors.** In terms of sector of work, gender segregation is not blatant in the Kyrgyz Republic, but women have a relatively higher share in manufacturing and services, while men have a by far higher share in the construction sector (Table 3.21). Within services, women have a higher relative representation in trade, hotels and restaurants, and, in particular, the education and health sectors, compared to men. On the other hand, women have a smaller share in transport, real estate, and public administration. Judging by average wage levels—and with the noticeable exception of manufacturing and hotels and restaurants—women are overrepresented in sectors with lower wage-levels. In particular, within public sector employment, women are concentrated in the low wage sectors of education and health, while men have positions in the relatively well-paying public administration.

**Table 3.21: Economic Activity by Gender in Rural and Urban Areas, 2003**

Economic activity	Urban			Rural			Wage (% of average)
	Male	Female	Total	Male	Female	Total	
<b>Agriculture &amp; Fishing</b>	<b>7.1</b>	<b>6.6</b>	<b>6.9</b>	<b>61.7</b>	<b>61.5</b>	<b>61.6</b>	
Agriculture, hunting	7.1	6.6	6.8	61.7	61.5	61.6	40
Fishing	0.03	0.04	0.04	0.02	0.03	0.03	48
<b>Industry</b>	<b>21.1</b>	<b>23.1</b>	<b>22.1</b>	<b>6.0</b>	<b>5.8</b>	<b>5.9</b>	
Mining and quarrying	2.6	0.7	1.6	0.4	0.0	0.2	108
Manufacturing	14.7	20.8	17.8	3.8	5.4	4.6	168
Electricity, gas and	3.8	1.6	2.7	1.8	0.4	1.2	184
<b>Construction</b>	<b>13.5</b>	<b>1.6</b>	<b>7.4</b>	<b>6.8</b>	<b>0.8</b>	<b>4.0</b>	<b>99</b>
<b>Services</b>	<b>58.2</b>	<b>68.7</b>	<b>63.6</b>	<b>25.6</b>	<b>31.8</b>	<b>28.5</b>	
Wholesale and retail	19.3	19.6	19.4	6.4	8.3	7.3	85
Hotels and Restaurant	2.1	6.6	4.4	0.6	1.2	0.9	130
Transport, storage and communication	12.5	2.6	7.4	5.1	1.2	3.3	155
Financial intermediary	0.7	1.2	1.0	0.3	0.3	0.3	335
Real estate, renting	3.7	2.8	3.3	0.7	0.4	0.6	113
Public administration	9.6	5.0	7.2	4.9	1.8	3.4	140
Education	4.3	15.2	9.9	4.6	11.4	7.8	60
Health and social work	2.5	10.6	6.6	1.7	6.1	3.8	50
Housing, social and personal services	3.5	5.0	4.3	1.5	1.2	1.3	75
Extra-territorial org	0.1	0.2	0.1	0.0	0.0	0.0	n.a.
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>
<b>PUBLIC SECTOR</b>	15.1	29.1		11.0	18.9		
<b>PRIVATE SECTOR</b>	84.9	70.9		89.0	81.1		
Formal	45.5	32.5		38.7	23.8		
Informal	39.4	38.4		50.3	57.4		

*Source:* Estimates based on KIHS, 2003, and wage data from 2005 using the State Classifier on Economic Activities system from NSC.

3.62 **Women and men work in different occupations.** A significant body of research has documented a negative relationship between the percentage female in an occupation and that occupation's wage.<sup>15</sup> Table 3.22 shows the percentage of female and male workers, respectively, in the top three female- and male-dominated occupations in urban and rural areas<sup>16</sup>. In rural areas, agricultural work is the most common male-dominated (MD) occupation, employing two thirds of men in rural areas; the most common female-dominated (FD) occupation—teaching—occupies only about 22 percent of female workers in rural areas. In urban areas, extraction and building trade jobs account for 23 percent of all male workers, while 22 percent of women work in personal services (such as housekeeper, travel attendant) and 18 percent in craft and related trade jobs.

<sup>15</sup> McPherson and Hirsch (1995), for example, document that in the United States that a majority of women work in a limited number of occupations characterized by a proportionately high number of female workers; moreover, workers in these female-dominated (FD) occupation earn less, on average, than workers in traditionally male or integrated occupations.

<sup>16</sup> We follow the definition of Sorenson (1989,1990), in that a share greater than 60 percent female (male) is considered a female (male) dominated occupation.

**Table 3.22: Female vs. Male Dominated Occupations in Rural and Urban Areas (2 digit occupational codes)**

% of total female urban employment in female dominated occupations		% of total female rural employment in female dominated occupations	
Personal and protective services workers	22	Teaching professionals	22
Craft and related trades workers	18	Personal and protective services workers	16
Teaching professionals	15	Life science and health associate professionals	15
Other	45	Other	47
% of total male urban employment in male dominated occupations		% of total male rural employment in male dominated occupations	
Extraction and building trade workers	23	Market-oriented skilled agricultural and fishery workers	65
Drivers and mobile plant operators	20	Extraction and building trade workers	9
Models, salespersons and demonstrators	17	Models, salespersons and demonstrators	5
Other	40	Other	21

Source: Estimates based on KIHS 2003.

3.63 **Urban areas have significantly higher occupational segregation than rural areas, but occupational segregation is not high compared to other countries.** The most common measure of occupational segregation is the Duncan Index.<sup>17</sup> The higher the index, the more severe the occupational segregation is. The Duncan index is higher in urban areas than in rural areas (0.445 vs. 0.178), because of the high concentration in agricultural occupations (Table 3.23). Estimates from the early 1990s of the Duncan index at the 2-digit level range from 0.56 to 0.61 for OECD countries, 0.59 to 0.77 for Middle East and North African countries, and 0.29 to 0.60 for Asian countries (Anker, 1998).<sup>18</sup> Although the numbers may not be strictly comparable, they do suggest that occupational segregation is not abnormally high in the Kyrgyz Republic. In addition, the lower occupational segregation bears is related to the low level of diversification of the Kyrgyz economy and the large share of population employed in fairly similar low-skill occupations.

**Table 3.23: Estimated Values of the Duncan Index: National, Urban and Rural, 2003**

	Total	Urban	Rural
<i>Kyrgyz Republic</i>	0.266	0.445	0.178
Public	0.413	0.436	0.431
Private formal	0.320	0.451	0.217
Private informal	0.221	0.450	0.138
<i>International comparators</i>			
OECD countries range	0.56-0.61		
MENA countries range	0.59-0.77		
ASIAN countries range	0.29-0.60		

Source: For KG, estimates based on KIHS 2003. For international comparators: Anker (1998).

<sup>17</sup>The standard formula to compute the dissimilarity index (D) is the following:

$$D = \frac{1}{2} \sum_i |F_i/F - M_i/M|,$$

where  $F_i/F$  and  $M_i/M$  represent the proportion of female and male in each occupation. It can be interpreted as the sum of the minimum proportion of women plus the minimum proportion of men who would have to change their occupation in order for the female proportion to be identical in all occupations.

<sup>18</sup> China is an outlier here, with a Duncan index of 0.29—far lower than the next lowest score of Korea's 0.40. Note that these estimates are for the early 1990s and are thus not strictly comparable. They are, however, the most recent estimates for a relatively large number of countries.

### *Female-Male earnings differentials*

3.64 **Earnings inequality is highest in the public sector.** Urban males in the private formal sector have the highest earnings of all groups in the Kyrgyz Republic (Table 3.24). Overall, women earn less than men per hour, by some 30 percent in urban areas and 25 percent in rural areas. The biggest gaps between men and women occur in the urban public sector and the **rural** private informal sector. In most developing countries, in contrast, male-female earnings gaps are smaller in public employment than in private employment. Women who are public sector workers remain concentrated in education and health sectors, which are low-paying sectors.

**Table 3.24: Average Income for Female and Male in Public, Private Formal and Informal Sector in Urban and Rural Areas**

URBAN	Total	Public	Private formal	Private informal
Male (soms per hour)	41	36	47	37
Female (soms per hour)	29	24	35	27
Earnings ratio	0.70	0.67	0.75	0.73
	Total	Public	Private formal	Private informal
RURAL				
Male (soms per hour)	15	25	16	12
Female (soms per hour)	11	19	12	8
Earnings ratio	0.74	0.77	0.74	0.67
RURAL-URBAN EARNINGS RATIO	Total	Public	Private formal	Private informal
Male	0.37	0.70	0.34	0.34
Female	0.39	0.80	0.34	0.31

*Source:* Estimates based on KIHS 2003.

3.65 **What explains the sizeable earning inequalities between men and women?** Following Oaxaca (1973) the difference in earnings could be due to two separate factors: (i) differences between men and women in human capital endowment and (ii) differences between men and women in their return to the same human capital characteristics. From a policy perspective, differences explainable by differences in characteristics could suggest that public policy focus on upgrading women's human capital. However, when earnings gaps remain largely unexplained by observable characteristics, discrimination may be a problem (although other factors, including unobserved heterogeneity, may also be at play). Table 3.25 summarizes the decomposition results; they are also described in annex 3.

3.66 **In the public sector, the differences in earnings appear mostly attributable to differences in human capital endowments.** The estimations suggest important differences between public and private sector conditions. In the public sector, most of the difference in mean hourly earnings – 67 percent of the total – is explained by differences in endowments and the interaction between endowments and returns to endowments. Thus, while earnings gaps are large in the public sector in urban areas (as seen above, women's hourly earnings, on average, are only 67 percent of men's), the majority of the gap is explainable by differential endowments. This result consistent with the important occupational segregation observed within the public sector jobs, with women predominantly employed in lower-skill occupations in health and education.

3.67 **In the private formal sector differences in endowment cannot explain the earnings differentials, however.** Almost 80 percent of the average earnings gap of 0.281 in the private formal sector remains unexplained when endowments and other characteristics have been taken into account. In the private informal sector, just under half (43 percent) of the earnings gap remains unexplained.

**Table 3.25: Hourly Earning Differential Decomposition in Urban Areas**

Public sector		Private formal sector		Private informal sector	
Earnings gap	of which unexplained	Earnings gap	of which unexplained	Earnings gap	of which unexplained
0.42	33%	0.28	79%	0.25	43%

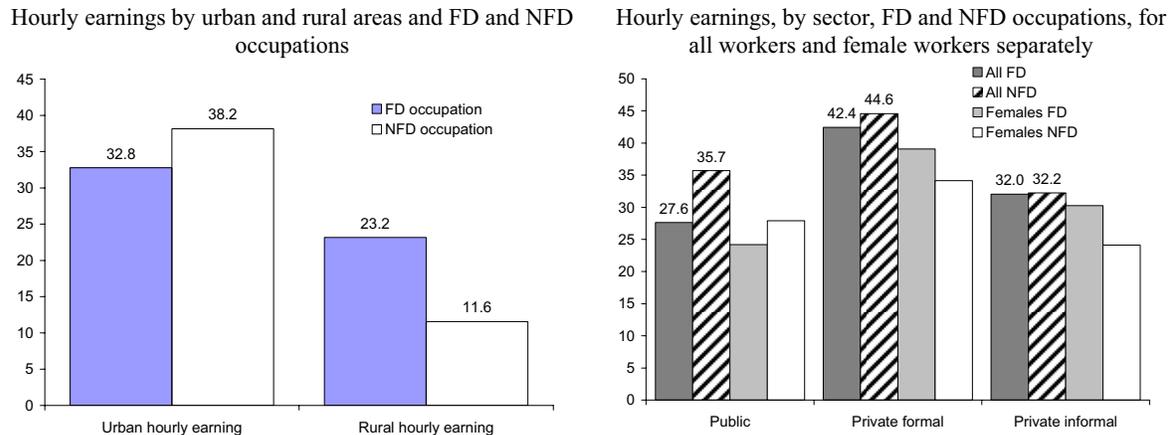
*Source:* Estimates based on KIHS 2003. Note: Earnings gaps are expressed in logarithms. The model has been estimated for urban areas only and for females and males separately with the logarithm of hourly earnings as the dependent variable and the following explanatory variables: (i) level of education (from high to no education), (ii) occupation and economic activity from the standard ILO classification, (iii) location (oblast), (iv) whether he/she is head of the household, and (v) marital status.

**Earnings gaps and female-dominated occupations**

3.68 **Female-dominated occupations have lower hourly earnings in urban areas and higher hourly earnings in rural areas.** In the rural areas only 19 percent of the total population is employed in FD occupations (because of the importance of the male-dominated agricultural sector for both sexes), compared to 41 percent in urban areas, which are more diversified. For the same reason, average hourly earnings are higher in FD occupations in rural areas (Figure 3.26). Average hourly earnings in FD occupations are lower than in non-female dominated (NFD) occupations in urban areas, however.

3.69 Disaggregating urban employment into public, private formal and private informal sectors, FD occupations have lower hourly earnings in all three sectors, although the difference in hourly earnings between FD and NFD occupations is quite small in the private sector. If we limit the analysis to female workers, only women working in FD occupations in the public sector have lower wages than women in NFD occupations. In the private formal and informal sector women in FD occupations earn higher wages than women in NFD occupations.

**Figure 3.20: Hourly Earnings (soms) in FD and NFD Occupations**



*Source:* Estimates based on KIHS 2003.

3.70 **Are women in FD occupations better off than women with equivalent characteristics in NFD occupations?** Not necessarily, since there is no guarantee that women working in NFD occupations are similar in characteristics to those working in FD occupations and that women, in general, can easily move from one type of occupation (NFD) to another (FD).

3.71 **In the private sector, women would not improve their earnings by shifting into NFD occupations.** Table 3.26 contains the results of a propensity score matching estimation, controlling for workers characteristics. Women working in FD occupations in the private sector—both formal and informal—have significantly higher hourly earnings than women who have similar characteristics and (*a priori*) the same probability of working in FD occupations, but who are actually working in NFD occupations. In the public sector the situation is fundamentally different. Women working in FD occupations earn less than their counterparts in NFD occupations, and matching in fact generates a slightly larger wage gap than a simple comparison of average wages.

**Table 3.26: Results of Propensity Score Matching**

	FD occupation	NFD occupation	Difference (%)
<b>Private formal sector</b>			
Hourly earnings-unmatched	39.1	34.2	14.4
Hourly earnings—matched*	39.1	26.7	46.4
<b>Private informal sector</b>			
Hourly earnings-unmatched	30.3	24.1	25.5
Hourly earnings—matched*	30.3	25.1	20.6
<b>Public sector</b>			
Hourly earnings-unmatched	24.2	27.9	-13.3
Hourly earnings—matched*	24.2	28.6	-15.5

*Source:* Estimates based on KIHS 2003. \*also known in the literature as average treatment effect on the treated—ATT.

3.72 **Thus, our research suggests that FD occupations in the private sector are preferable market outcomes for many women.** In the case of the private formal sector, FD occupations seem vastly preferable to employment in NFD occupations. In this case, policies designed to alter women’s occupational choices will not reduce the gender wage differential – quite the reverse. On the other hand, women working in FD occupations in the public sector do suffer a wage penalty vis-à-vis women working in NFD occupations and policies and programs to promote the choice of non-traditional careers for women in the public sector would contribute to a narrowing the gender wage gap.

## G. Conclusions

3.73 **The Kyrgyz labor market** is still not generating enough good jobs for its population. A good piece of news is the long-term increase in productivity in some sectors like agriculture and trade, where many of the poor work. Overall, however, a lower share of the adult population is now employed than in the 1990s. The agricultural and low-productivity services sectors cannot be expected to continue to carry the burden of poverty reduction. Now, the fundamental issue will be how to ensure job growth in higher productivity sectors – and, simultaneously, ensure increased productivity growth in these sectors, to sustain higher income

growth. While labor regulations *per se* may not be a main obstacle to employment (also, they can largely be avoided by informal employment), the Kyrgyz Republic is still struggling with putting in place a business climate that can attract local and foreign investors and become more conducive to innovation.

3.74 **The rural sector** continues to depend critically on agriculture. Lack of off-farm opportunities as well as assets – whether for coping with shocks or for increasing long-term agricultural productivity- leads poorer households to alternative strategies such as migration and taking children out of school. Overall, this chapter points to the crucial importance of developing off-farm activities and continue to support efforts to improve productivity of farm activities to improve the situation of the working poor.

3.75 **Urban areas:** while the Kyrgyz Republic has seen a trend of ruralization, low urbanization rates are masking a high concentration of population to Bishkek city. The differences between the poor and the non-poor in terms of accessing labor markets are much more pronounced in urban areas, because there is no or at least less recourse to subsistence farming as a form of employment and income generation. Instead, accessing jobs outside the family is essential for household income. This also means that urban segregation – implying, among other things, less access to public services – has a negative impact on the poor. Unlike in rural areas, households tasks cannot in general be combined with e.g. work on the farm plot, and so lack of child care and other family services critically limit poorer urban households' income possibilities greatly . This calls for reviewing strategies to increase service provision and reduce urban geographical and social segregation.

3.76 Inactive or unemployed **women** remain an untapped resource for production and lost investment in education, especially in a country like Kyrgyz Republic, where education levels among women are high. The significant differences in participation rates - between men and women and between poorer and richer women - suggest that the lack of child care and elder care services is a major impediment to women's participation in the labor market. Earnings gap are sizeable and, especially in the private sector, largely unexplained by differences in human capital. More work is needed to determine whether earnings gap are due to discrimination, but if this is the case, policy responses might range from enforcing non-discrimination legislation to campaigning, targeted at both employers and women workers.



## CHAPTER 4

### CONCLUSIONS AND POLICY RECOMMENDATIONS

4.1 The Kyrgyz Republic saw income poverty fall during 2000-2005 at a rapid pace from 63 to 43 percent of the population. Poverty was responsive to economic growth which was fueled primarily by a very large expansion in private consumption. For policy makers, civil society, and donors alike, the question is whether circumstances are favorable to continuing this rapid level of poverty reduction into the future. However, there may be some unease given the rapid decline in poverty yet only limited development of the real sectors.

4.2 This chapter will synthesize some of the main messages from the previous chapters in the hope of providing an overall understanding of economic developments and their impact upon incomes of the poor. Following this summary analysis of the situation, we will provide a guide to some possible policy recommendations. This chapter concludes volume one of the report and is followed by a more in depth analysis of labor markets in an accompanying volume.

#### A. Synthesis

4.3 The Kyrgyz Republic experienced a major structural change in the early years of this decade when it became a labor exporting economy. This was the result of the growing demand for labor by the oil-rich countries of Russia and Kazakhstan. The Kyrgyz Republic is well placed as it borders Kazakhstan which is both a destination and a transit country (to Russia) for migrant workers. Though the number of Kyrgyz workers abroad in these two countries is not known, what is known is that officially recorded net remittance income has multiplied manifold from US\$ 28 million to US\$ 305 million during 2002-2005 or 14 percent of GDP at the end of this period.

4.4 The rise in remittance income was concurrent with – and most likely fueled – the increase in consumption and merchandise imports. Private consumption grew substantially at an annual rate of 10 percent per annum in real terms while merchandise imports doubled during 2000-2005. The current account deteriorated and in 2005 stood at -8.3 percent of GDP. However, despite the increase in remittance income, investment grew little as a share of GDP and exports in comparison to imports grew modestly by one-third. Thus, the money pouring into the Kyrgyz Republic was being mostly consumed rather than heavily invested in non-construction activities. A relatively small portion of these additional resources were being directed towards the development of business activity, especially production of exportables, i.e., items that could try to compete in international markets.

4.5 Why didn't a greater share of the resources available to the economy go to private investment? The answer is straightforward – because of the unfavorable business climate. The Kyrgyz Republic ranks poorly in comparison to the average for CIS countries in terms of

obstacles to conducting business. Factors such as taxes, financing, policy instability, the exchange rate, and corruption have all been identified by more than 80 percent of the firms surveyed by the World Bank as being moderate or major obstacles. Thus, the high cost of doing business discouraged greater investment in sectors and projects requiring longer term investments or large initial outlays. For example, the distribution of loans to the private sector went mostly to the trade sector (43 percent of total credits), mortgages and households (15 percent), and industry (17 percent) in 2005.

4.6 Nevertheless, the economy did expand – though modestly – by 3.7 percent per annum during 2000-2005. The sectors that contributed to economic growth were mostly non-tradeables – trade and tourism, construction, and communication. Activities in the sector of trade and tourism include such services as restaurants, retail, and wholesale. But the poor benefited from the expansion of these sectors which disproportionately employ low-skilled low-wage labor – these were jobs that could attract and accommodate the profile of the poor. The resulting increase in the labor income of the poor made a substantial impact on poverty levels both in the rural areas and especially in the urban sector. Yet, as demand for labor grew, so did real wages at about 11 percent per annum. The growth in wages outpaced the growth in productivity (about 2 percent per annum) during this period. This divergence between wage and productivity growth undermined the competitiveness of the country’s economy.

4.7 The changes in the economy have also impacted the public sector. Resources available to the government have risen substantially – total revenues increased from 18 percent to 24 percent of GDP during 2000-2005. However, the greater portion of these additional resources were consumed rather than invested or used to pay down debt – external public debt actually rose during this period. Total current expenditures of the public sector grew as a share of GDP with the majority of the increase directed towards the public sector wage bill followed by subsidies and transfers. Only the remaining one-quarter of the resources used for current expenditures went to the underfinanced category of goods and services – that is, such items as textbooks, hospital supplies, and paper for the offices. The greater tragedy has been in the decline in the already negligible public funds devoted to investment. Once we exclude foreign financed capital expenditures, domestically financed capital expenditures declined from 1.3 percent to 1.0 percent of GDP.

4.8 Another important aspect of the economic expansion and the growth in private consumption is that it has not benefited all parts of the country evenly. Bishkek and surrounding areas have benefited more than Osh or Jalal-Abad. Many of the secondary towns are known to have been company towns whose economic viability was largely driven by one firm – many of which went bust in the early years of the transition. But other centers of business do not seem to have emerged and the Kyrgyz Republic suffers from a certain “uni-polar” development – with the capital being the engine of growth for the country. Though this phenomenon is seen in many developing countries of the world, it serves to exacerbate rural-urban migration and puts undue pressure on the capital’s infrastructure.

## **B. Looking Forward**

4.9 Though the picture of the economy presented above is mixed in terms of economic and social outcomes, it is not sustainable. Why not? The reason is that its continuation is based upon the assumption of remittances growth, continued foreign demand for Kyrgyz labor, and ultimately high oil prices. This situation has been played out many times before in the world, especially the Middle East and North Africa (MENA) region. The oil exporting economies of the Middle East have been through boom and bust cycles over the last fifty years following the

cyclicality of oil prices. But the boom and bust cycles were not exclusively experienced by oil-exporters but also by labor-exporting countries in MENA.

4.10 These latter countries – such as Egypt, Jordan, and Yemen – saw their remittance income grow rapidly, an expansion in the nontradeables sectors and a growth in public spending. In general, the labor exporting countries also did not have a business friendly environment, thus insufficient jobs were created putting pressure on their governments to find solutions. These governments ended by hiring workers and expanding the wage bill. Yet, when oil prices fell and the demand for foreign labor by oil-exporters fell as well. The labor exporting economies suffered a sharp economic downturn, a rise in unemployment, and governments were left with little discretionary income after the large civil service wage bill to provide either complementary public investment to private investment or - more importantly - a proper safety net to the population while the government pursued the much delayed reforms needed across the economy.

4.11 The scenario described above does not necessarily have to be the future for the Kyrgyz Republic and, given recent information from 2006 on regional trade, the likelihood that it will be is diminishing. Yet much depends upon if the country's leadership accepts that the current large inflow of remittances is temporary and will not oil the engine of economic growth indefinitely, then the situation presents an opportunity. The Government can lay the foundation for long-term sustainable growth and poverty reduction by (i) making the necessary investments now in infrastructure – to raise productivity and living standards, (ii) improving the functioning of the public administration – in order to deliver better services to the population, improve the business climate to create “good” jobs, and (iii) rationalizing big ticket items such as the pension system – to create fiscal space now and in the future. However, this would require the country's leadership to get beyond the governance problems which undermine the Government's ability to change course and develop a strategic vision.

### **C. Policy Recommendations**

4.12 Poverty reduction from the current level of over 40 percent of the population remains a very real challenge for the Government. The analysis above underlined the linkage between economic growth and poverty reduction in the Kyrgyz Republic. Thus, any serious poverty reduction strategy will overlap significantly with a growth strategy. Identifying policies to accelerate economic growth is not in the purview of this report and is addressed elsewhere by the Government, civil society in Kyrgyz, the World Bank, and other donor organizations. However, there are some aspects of a growth strategy of particular importance to long-term poverty reduction that are worth highlighting so as not to be forgotten. Also, additional areas of importance to poverty reduction are discussed with the emphasis on areas that need to be looked in to in greater detail rather than trying to provide sector specific solutions.

4.13 First, encouraging the channeling of a greater proportion of remittances to investment and job creation will lead to faster and more sustainable increases in the welfare of the low income groups.<sup>19</sup> In particular, poverty reduction based upon growth in the export sector is a much more likely to be sustainable than if it were based primarily on non-tradeables expansion. Hence, it is of critical importance to remove obstacles to investment in export-oriented industries, especially labor using ones. Thus, a general focus on improving the business climate combined with addressing the specific problems faced by enterprises trying to export (such as with transport, foreign exchange, and customs).

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<sup>19</sup> See “Global Economic Prospects 2006: Economic Implications of Remittances and Migration”, World Bank 2006.

4.14 Second, since the majority of the poor live in rural areas and work on farms, a rural anti-poverty strategy would include (i) improving the rural poor's access to credit through formal channels, especially for working capital, (ii) providing of technical assistance and better access to information for better crop selection, seed quality, and output marketing, (iii) increase farmers' access to machinery or other productivity enhancing inputs, and (iv) expansion of the unified monthly benefit to a greater portion of the rural poor.

4.15 Third, regional investment climate surveys would be an important contribution to understanding the differential rates of economic development across the Kyrgyz Republic. Poverty has fallen more slowly in rural areas than in urban areas and in the oblasts of Issykul, Jalal-Abad, and Osh than in other parts of the country. An investment climate survey would help identify bottlenecks that are either imposed by local governments, uneven national government expenditures, or differing human and physical capital endowments.

4.16 Fourth, as part of the growth agenda, reform of the education sector is important especially linking secondary and post-secondary education with labor market needs. Since effective vocational and technical education (VTE) is rarely well provided in developing countries, upgrading general secondary to impart skills to students to help them in the labor market as well as providing alternatives to the public provision of VTE need to be explored.

4.17 Fifth, the social safety net could be improved to increase the coverage of the extreme poor, raise the benefit level to help the beneficiaries escape extreme poverty, and to decrease the leakage to the nonpoor. Safety nets are difficult to administer in economies where much of the income is derived from informal resources or from farming. However, through the use of strict selection criteria, leakage to the nonpoor can be minimized.

#### **D. A Final Word**

4.18 The developments in the Kyrgyz Republic during 2000-2005 allowed the country to take advantage of regional labor demand. Since then, additional changes have taken place in neighboring countries that are increasingly allowing the Kyrgyz Republic to exploit its comparative advantage and broaden opportunities available to its citizens. In particular, demand by China has increased for Kyrgyz products and Kazakhstan's interest in tourism especially in the Issykul area have grown as well. These developments are indeed advancements in the right direction and will serve to provide a sounder basis for poverty reduction in the future.

## ANNEX 1

**Annex Table. Poverty numbers from HBS, 2000-2003, and KIHS, 2003-2005.**

		Poverty Headcount Index (P0), % of population					Annual growth in P0 (%)		
		2000	2001	2002	2003	2004	2005	HBS 2000-2003	KIHS 2003-2005
<b>Complete poverty</b>									
All Kyrgyz	HBS	63.4	56.4	54.8	49.2			-8.1	
	KIHS				49.9	45.9	43.1		-7.1
Urban	HBS	53.3	45.4	44.5	38.1			-10.6	
	KIHS				35.7	28.3	29.8		-8.6
Rural	HBS	68.7	62.3	60.3	55.2			-7.0	
	KIHS				57.4	55.5	50.8		-5.9
<b>Extreme poverty</b>									
All Kyrgyz	HBS	32.9	24.7	23.3	14.8			-23.4	
	KIHS				17.2	13.4	11.1		-19.7
Urban	HBS	26.8	17.7	17.9	9.5			-29.2	
	KIHS				10.2	6.9	6.5		-20.2
Rural	HBS	36.1	28.4	26.2	17.6			-21.3	
	KIHS				21.0	16.9	13.8		-18.9

*Source:* Estimates based on HBS 2000-2003 and KIHS 2003-2005.