

Report No. 63110-GE

Georgia

Poverty Dynamics, 2003 - 2010

June 1, 2011

Human Development Sector Unit
South Caucasus Country Department
Europe and Central Asia Region



Document of the World Bank

Acknowledgement

The report was produced as part of the South Caucasus Regional Programmatic Poverty Assessment task (P118159). The World Bank team is grateful to the Georgia Statistical Office for data and useful inputs at various stages of the work. The report was prepared by a team led by Lire Ersado (Senior Economist, ECSH4) that included Mehtabul Azam (Consultant, ECSHD). The work was undertaken under the guidance of Asad Alam (Regional Director, ECCU3), Mamta Murthi (Acting Sector Director, ECSHD), and Jesko Hentschel (Sector Manager, ECSH4). The peer reviewers were Aleksandra Posarac (Lead Economist, HDNSP), Andrew L. Dabalen (Senior Economist, AFTP3) and Nobuo Yoshida (Senior Economist, PRMPR). Anne Anglio, Sujani Eli and Carmen Laurente provided able assistance with the production.

GEORGIA - GOVERNMENT FISCAL YEAR

January 1 – December 31

CURRENCY EQUIVALENTS

(Exchange Rate Effective as of January 31, 2011)

Currency Unit	Lari
US\$1.00	1.8089

Weights and Measures

Metric System

ABBREVIATIONS AND ACRONYMS

CPI	Consumer Price Index
ECA	Europe and Central Asia
FDI	Foreign Direct Investment
Geostat	Georgia Statistical Office
GDP	Gross Domestic Product
GOG	Government of Georgia
IHS	Integrated Household Survey
ILO	International Labor Organization
IMF	International Monetary Fund
LSMS	Living Standards Measurement Survey
MoF	Ministry of Finance
MoLHSA	Ministry of Labor, Health, and Social Affairs
WMS	Welfare Monitoring Survey

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Executive Summary

Introduction

1. ***For Georgia, the 2000s were characterized not only by sweeping economic reforms and subsequent strong growth, but also by two major shocks.*** Following the Rose Revolution, the Georgian economy and institutions underwent major positive transformations and saw significant improvements in the functioning of the public institutions. Buoyed by sound policies, Georgia achieved an average annual GDP growth rate of more than 9% between 2004 and 2007. However, in 2008, Georgia suffered an economic downturn due to the conflict with Russia and the global recession. In 2009, Georgia's economy contracted by 3.8%, a sharp reversal from the nearly double-digit growth during the years preceding the crises.

2. ***A key question of how much the policy reforms and the resulting growth contributed to improvements in the living standards of the population has remained largely unanswered.*** The poverty impact of the double shocks that resulted in negative growth in 2009 has also remained unclear. There was a general consensus that the living standard of most Georgians rose from 2004-2007. However, comparable data were not available to make a robust assessment of the gains in living standards during the period of economic growth or the losses during the downturn. This note addresses this information gap. It provides empirical estimations of the degree to which poverty incidence declined during the growth years and increased in the aftermath of the crises. In the absence of comparable data over time, this note relies on an empirical methodology aimed at establishing comparability between different sources and years of data. It employs an adjustment procedure based on a small area estimation methodology to ensure comparability, and utilizes the resulting comparability to estimate comparable poverty rates during the period of economic growth and during the downturn.

Main findings

3. ***Georgia's strong growth performance from 2004-2008 was associated with gains in the living standards of the population.*** Real household consumption per adult equivalent increased by about 14% between 2004 and 2007. Urban areas and the richest wealth groups experienced a higher rate of improvement than their corresponding rural and poorer counterparts. According to a comparable welfare measure and a poverty line of 71.6 Georgian Lari (GEL) per adult equivalent per month (2007 prices), poverty decreased from 28.5% in 2003 to 23.4% in 2007; it further declined to 22.7% in 2008. In other words, Georgia made a gain of 5.8% decline in poverty incidence over 5 years of robust economic growth. However, while this is a statistically significant gain, it is not proportionate to the macroeconomic growth performance during the period.

4. ***The gap between urban and rural areas in Georgia has widened since the Rose Revolution.*** In 2003, rural poverty incidence was significantly higher than urban poverty incidence—and the disparities have widened since then. During the rapid growth years, the urban poverty incidence declined from 23.7% in 2003, to 18% in 2007; rural poverty incidence declined from 33% to 29.4%. About 64% of Georgia’s poor now live in rural areas, despite accounting for less than half of the total population.

5. ***During the conflict with Russia and the global recession, Georgians saw their living conditions deteriorate.*** The double shocks more than offset any gains made during the year preceding the crises. Overall poverty incidence increased from 22.7% in 2008, to 24.7% in 2009—which was a much faster rate of increase per year than the rate of decrease per year during the period of robust growth. The crises appear to have wiped out more than half of the gains in rural poverty reduction since the Rose Revolution. Rural poverty increased by nearly 3% between 2008 and 2009; urban poverty increased by around 1%.

6. ***Economic growth in Georgia was not accompanied by sufficient job creation; this may largely explain lack of a commensurate reduction in poverty.*** Labor market characteristic variables—such as the unemployment rate—worsened, rather than improved, during the growth years. On the other hand, there was a substantial increase in wages for those who were employed. From 2000-2009, the average real monthly wage increased more than four-fold. This increase, however, was driven by a few sectors that employed only a fraction of the labor force. The launching of a targeted social assistance (TSA) program in 2006, was largely responsible for the improvement in living conditions from 2007-2008, particularly among the very poor. In the wake of the crises, the coverage of the TSA expanded from about 131,000 households in December 2008, to about 155,000 households in April 2009, and to over 164,000 by April 2010. However, in addition to maintaining a well-functioning social safety net, Georgia needs to implement more proactive policies that more fully integrate the poor and rural population into the growth process.

I. Introduction

1. ***For Georgia, the 2000s were characterized not only by sweeping economic reforms and subsequent strong growth, but also by two major shocks.*** Following the Rose Revolution, the Georgian economy and institutions underwent major positive transformations and saw significant improvements in the functioning of the public institutions. The Government of Georgia (GOG) made a sustained effort to improve the climate for doing business, promote private sector development, and establish the policy framework to attract foreign direct investment (FDI). Buoyed by sound policies and structural reforms, Georgia achieved an average annual GDP growth rate of more than 9% from 2004-2007.

2. ***Georgia was hit by two major shocks in the latter part of the decade.*** The period between 2008 and 2009 was difficult for most Georgians, because of the conflict with Russia and the global recession. The double shocks resulted in an economic downturn—exports, investor confidence and foreign direct investments suffered. In 2009, Georgia’s economy contracted by 3.8%, a sharp reversal from the nearly double-digit growth in the years preceding the crises. A recent simulation of the impact of the crisis by the World Bank showed that Georgians were likely to have faced increased poverty from the crises (World Bank, 2010a). The impact of the crisis was felt in households through several transmission channels, most notably, the credit and labor markets. From 2005-2008, there was a rapid expansion in consumer credit. The credit crunch following the onset of the global economic crisis meant that debt servicing had become difficult with: (i) a rise in interest rates; (ii) adverse exchange rate movements on loans dominated in foreign currencies; and (iii) a reduction in credit availability (World Bank, 2010a). The crisis also led to increases in unemployment, reduction in work hours, and lower earnings, which compounded the hardship.

3. ***A key question of how much the policy reforms and the resulting economic growth contributed to the improvements in the living standards of Georgians remains largely unanswered.*** There is a general consensus that the living standard of most Georgians rose from 2004-2007, owing to a significant positive growth record and an improved business climate for private sector job creation. However, the degree of association between growth and poverty depends on many factors, including the unemployment rate, wage rate, social programs, and the extent of inequality in the society. Moreover, relevant and comparable data are not available to make a robust assessment of the changes in living conditions during the period of economic growth.

4. ***The potential poverty and social impacts of the major shocks that resulted in decline of economic output in the second half of 2008 and in 2009 are also unknown.*** There is a general belief that poverty incidence increased during the crises. However, again due to a lack of relevant and comparable data, the magnitude of change in poverty incidence is largely unknown.

5. ***The main objective of this note is to fill this information gap.*** The report shows the trends in monetary dimensions of living standards and the dynamics in the distribution of the poor at the urban/rural level for various time periods. It presents empirical estimations regarding

how much poverty declined during the high growth period and increased during the crises. Specifically, the note seeks answers to the following questions: What were the gains in poverty reduction before the conflict with Russia and the global recession? What happened to poverty incidence in the aftermath of the crises? What are the urban/rural dimensions of poverty over time? Understanding the impact of the policy changes and the resulting economic growth on poverty and inequality is a key for ensuring that the benefits of growth are widely and more equitably shared.

Methodology and Data

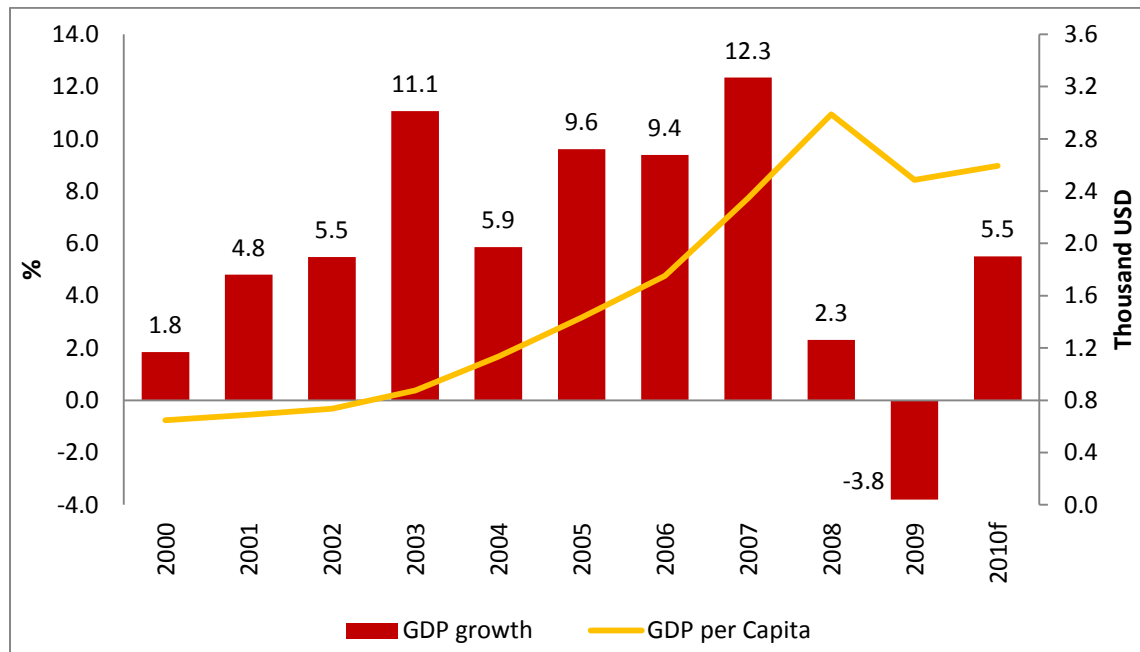
6. *Georgia has various sources of household survey data from the 2000s¹—however, direct analysis of poverty trends has not been possible because these data sources are non-comparable.* The report relies on an empirical methodology aimed at establishing comparability among different sources of household survey data. It then utilizes the resulting comparability to estimate comparable poverty rates in various periods that were characterized by important episodes of economic changes. The approach employs an adjustment procedure to restore comparability based on a small area estimation methodology developed by Elbers, Lanjouw and Lanjouw (2003). The methodology achieves comparability of poverty estimates by predicting a welfare measure for a particular year based on a model of welfare measure estimated using data for the reference year—thereby ensuring that the definition of welfare measure remains the same across the two years. This approach of imputing welfare from one data source into another data source has been applied in a number of countries for mapping of poverty and inequality by imputing consumption from a household survey into the population census. Several poverty analysts have explored the possibility of using the method to track poverty rates based on two survey data sources, rather than a survey and a census (Kijima and Lanjouw, 2003; Stifel and Christiaensen, 2007). Detailed discussions on the data and methodology used in this report are presented in Annex 1.

¹ Existing household survey data include: 2003 IBS, 2007 LSMS, 2007 IBS, 2007 IBS, 2009 IBS, and 2009 WMS,

II. Brief Macroeconomic Developments

7. Since the Rose Revolution, Georgia has implemented sweeping reforms that have: (i) strengthened public finances; (ii) improved the business environment; and (iii) enhanced social protection and social services. The results can be seen in appreciable improvements in economic and social institutions—this has produced a sound climate for exports, foreign direct investments and economic growth. As a result of these reforms, Georgia has enjoyed rapid economic growth. Between 2003 and 2007, GDP growth averaged in excess of 9% per year (see Figure 1).

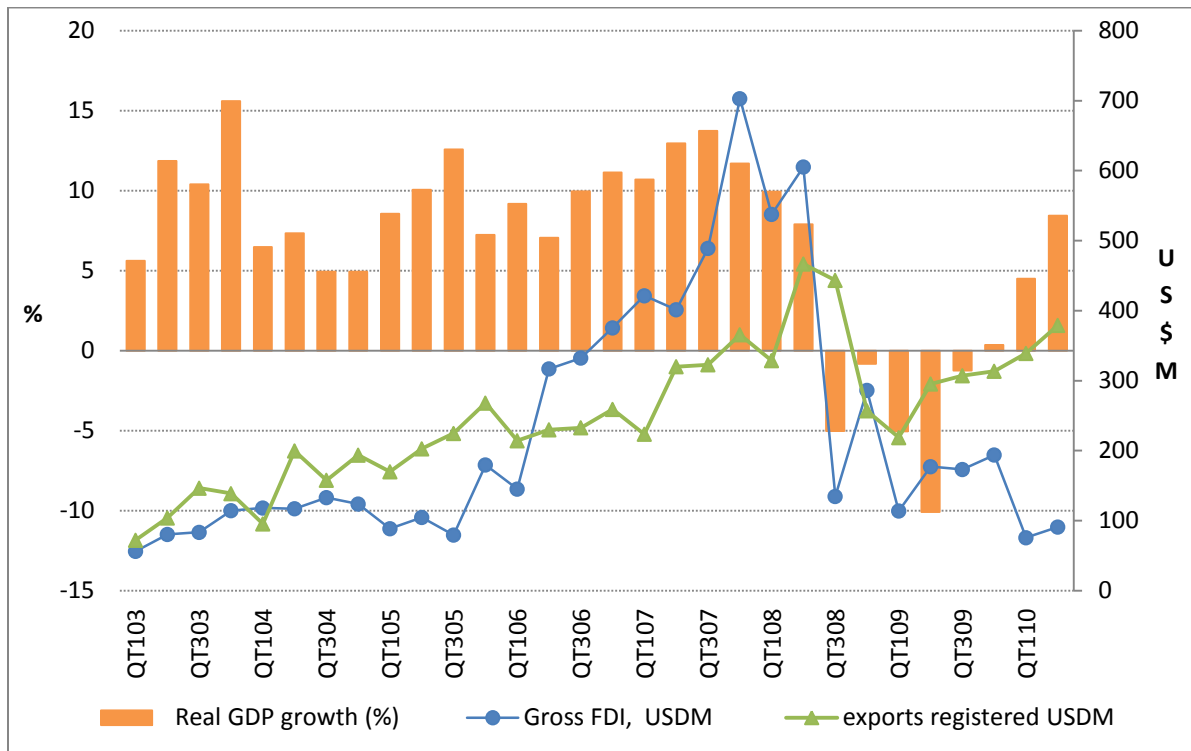
Figure 1: GDP Growth Rate and GDP per capita in Georgia, 2000-2010



Source: Government of Georgia

8. *Exports and foreign direct investment (FDI) have been the main drivers of Georgia's economic growth in the post Rose Revolution world.* The main areas of interest for foreign investments have been the trade, transport and financial intermediation sectors. Inflows in foreign direct investment (FDI) increased from \$542 million (8.5% of GDP) in 2005 to \$1.67 billion (16.45% of GDP) in 2007, and remained strong through mid-2008 (see Figure 2). Growth in FDI was in large measure driven by strong investor confidence that resulted from improvements in the business climate. For example, Georgia's rank in the World Bank's Doing Business improved from 112th place in 2005 to 15th place in 2008.

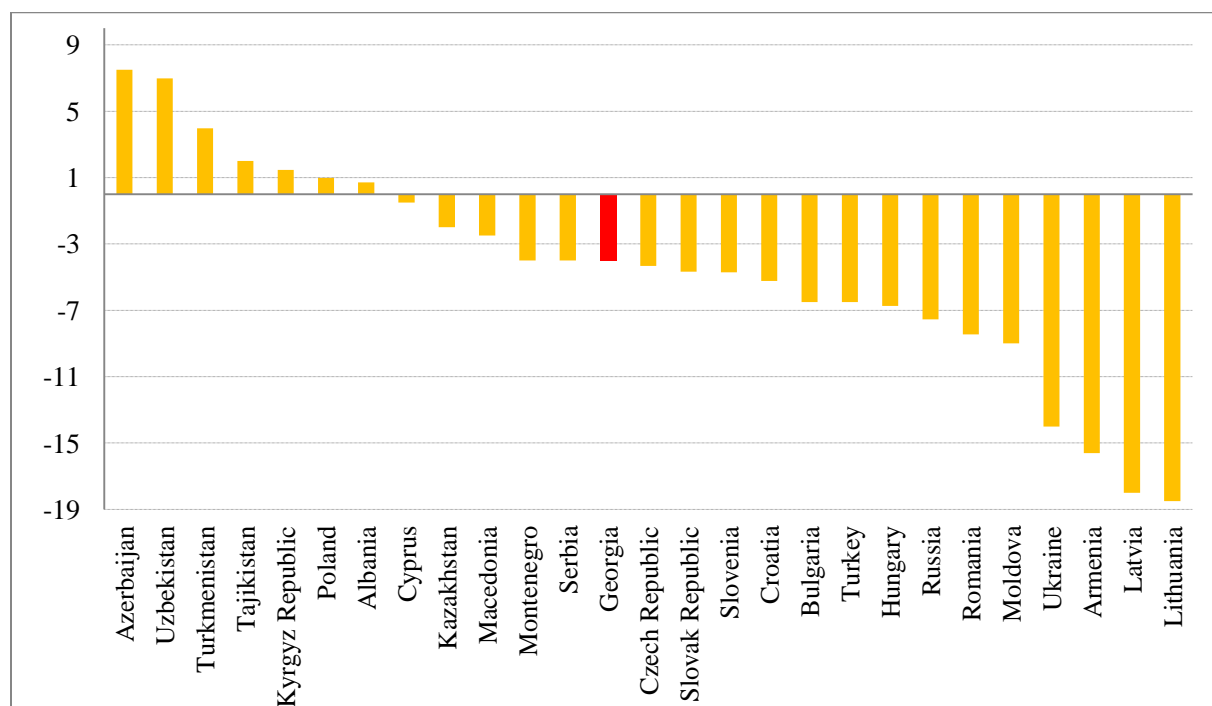
Figure 2: Quarterly GDP, Exports and FDI



Source: Government of Georgia

9. ***However, the growth experience was cut short due to the 2008 conflict with Russia and the 2008-2009 global recession.*** The macroeconomic impact of the crises was felt on multiple fronts, including the key areas of exports and FDI. The economy contracted by an estimated 3.85% in 2009, as exports, investor confidence and FDI declined in the aftermath of the crises. The impact of the financial crisis on Georgian economic output was less severe than for many countries in the ECA and the region as a whole (see Figure 3). Nevertheless, this was a sharp reversal from the nearly double-digit growth during the preceding years.

Figure 3: GDP Growth Rates in ECA in the Aftermath of the Global Recession, 2009



Source: World Bank, 2010b.

10. ***The external environment that spearheaded the post Rose Revolution growth worsened significantly due to the global recession.*** The contraction in Georgia's economy during the global recession reflected the country's increased reliance on the external market. The downturn in economic activity has been concentrated in the sectors that fueled the earlier strong growth. The export sector accounted for 31% of GDP in 2007; it fell by 1.2% in 2009. The services sector (in particular, retail and wholesale trade, transport, telecommunications, and financial intermediation) accounts for more than 50% of the GDP; it fell by 2.5% in 2009. The construction sector fell by an estimated 13% in 2009; the manufacturing sector fell by 6%. The collapse in FDI inflows was largely responsible for the contractions in the most affected sectors. FDI fell by 65% in the transport, banking, and other services sectors, and by 50% in construction and industry.

11. ***Georgia's economic recovery is underway, aided by a countercyclical fiscal stimulus and reallocation of public expenditures toward social and infrastructure investments.*** The rebound in growth in 2010 is estimated to be stronger than initially expected—it has been revised upwards several times from the initial projection in 2009 of 2.0%. The latest estimate for real GDP growth for the first half of 2010 is 6.6% (see Figure 1). The unexpectedly strong rebound in growth is attributed to an increase in demand for exports and tourism. Export growth is expected to come primarily from metals and metal products, wines and other beverages, fruits and nuts; and transport and tourism on the services side. The fact that the economic outlook has improved for Georgia's major export destinations (Turkey, EU, Armenia, Azerbaijan, Ukraine, Canada,

and the United States) has provided a boost for the recovery. Growth is projected at 4-5% in 2011-2013, with exports expected to play a key role in driving the economic recovery. However, with the medium-term growth outlook built upon improved exports and FDI, any deterioration in the external environment and investor confidence may result in lower growth than currently projected.

III. Poverty Trends

12. This section surveys the dynamics of poverty in Georgia to provide a vivid picture of improvements in living conditions during the 2000s. Such estimates have not been previously available due to lack of comparable data. The report takes various non-comparable data sources, establishes their comparability over time, and provides estimates of poverty levels during periods of economic growth and periods of economic downturn. Monetary indicators of welfare are used to assess whether a household or an individual possesses enough resources or abilities to meet current and basic needs. Household consumption expenditures and an associated poverty line (i.e., the amount of consumption that society believes represents a minimum acceptable standard of living) are used to measure monetary poverty (see Box 1 on the concept of poverty). Annex 1 provides a description of the methodology employed to produce national and regional estimates of poverty in Georgia. In order to establish comparability between the different data sources, the report adapted a version of the small area estimation (SAE) methodology developed by Elbers, Lanjouw and Lanjouw (2003) and imputed the definition of consumption from one data into another. This is explained in detailed in Annex 1.

13. ***Most of the poverty measurement and analysis in the report is anchored around the 2007 LSMS survey data.*** The report uses the consumption aggregate and the associated poverty lines based on the 2007 LSMS data², in order to ensure consistency with the 2008 World Bank Poverty Assessment Report. In other words, 2007 acts as the reference year against which poverty developments in the other years are measured. The report analyzes and compares poverty trends that occurred during the following three periods of time:

- The period from 2003 to 2007 that saw robust economic growth due to significant reforms.
- The period from 2008-2009 that saw an economic downturn due to the conflict with Russia and the global recession.
- The entire period from 2003 to 2009, in order to measure the overall net gains in poverty reduction since the Rose Revolution.

² According to the 2007 LSMS data, the poverty rate in 2007, based on consumption-based welfare aggregate and the associated poverty line of 71.6 Georgian Lari (GEL) per adult equivalent per month was 23.4%. About 9.2% of Georgians were classified as extreme poor based on a poverty line of 47.1 GEL per adult equivalent per month. The poverty headcount was 29.4% in rural areas and 18.0% in urban areas. The extreme poverty headcount was 12.4% in rural areas and 6.2% in urban areas (see World Bank, 2008 for details).

Box 1: Concepts and Definitions of Key Variables in Poverty Measurement and Analysis

The notion of poverty. The concept of poverty is multidimensional and encompasses many elements. These include: (i) lack of adequate access to food, clothing, shelter, clean water and sanitation, health care and education; (ii) early mortality; (iii) powerlessness and social exclusion; and (iv) limited access to consumer and productive assets. Put in a different way, poverty measurement and analysis asks whether a household or an individual possesses enough resources or abilities to meet their current and basic human needs.

Measuring poverty. Two key ingredients are required for measuring poverty. First, a relevant indicator of well-being needs to be decided upon. Second, a *poverty line* has to be selected: the threshold below which a household or an individual will be classified as *poor*. With regard to the first ingredient, the two commonly used monetary measures of welfare are income and consumption expenditures.

Consumption expenditures. Construction of consumption expenditures involves aggregating expenditures on various consumption items such as food, user values of durable goods, health and educational expenditures, housing, own-production, etc. In the aggregation process, several adjustments are made, including: (i) adjustments for differences in needs among households of different size and composition; (ii) adjustments for the ages of household members and for economies of scale; and (iii) adjustments for differences in prices across space and time.

Poverty lines. The poverty line is a cutoff point separating the poor from the non-poor, and echoes an absolute minimum of consumption needed to meet basic needs. Multiple poverty lines can be used to distinguish different levels and aspects of poverty. For each type of welfare aggregate chosen, there are two main ways of setting poverty lines—relative and absolute. *Relative poverty lines* are defined in relation to a country's overall distribution of the welfare measure (e.g., consumption). For example, most EU countries use 60% of the mean consumption as poverty lines. *Absolute poverty lines* are anchored in some absolute standard of what households should be able to count on to meet their basic needs. These absolute lines are often based on estimates of the cost of basic food needs—that is, the cost of a nutritional basket considered minimal for the health of a typical family—to which a provision is added for basic non-food needs. Each chosen poverty line could have *lower* and *upper* cutoff points to separate, respectively, the *extreme poor* and the *total poor* in the population. In this report, we use poverty lines based on the 2007 LSMS and as constructed for the 2008 World Bank Poverty Assessment (World Bank, 2008). Both lower and upper poverty lines were constructed based on observed consumption baskets in the 2007 LSMS survey. The upper poverty line in 2007 prices was estimated at 71.6 GEL per adult equivalent per month. The corresponding figure for the lower poverty line was 47.1 GEL.

Poverty indices. The final step in poverty measurement is choosing a mathematical function that translates the comparison of the well-being indicator and the chosen poverty line into one aggregate poverty number for the population as a whole or population subgroups. Three types of poverty measures are used in this report: the headcount ratio, poverty gap, and poverty severity (following Foster, Greer and Thorbecke, 1984). Although the poverty headcount is widely used, the measures of depth and severity complement the incidence of poverty and provide insights on how far the poor are from the socially acceptable level of subsistence—that is, from the poverty line.

14. **Georgia made modest gains in living standards during the 2000s.** There were appreciable improvements in the living conditions in Georgia between the Rose Revolution and the period preceding the crises of 2008. The period from 2003-2007 was characterized by intensive reform efforts and robust economic growth. Real household consumption per adult equivalent increased from an estimated 122 GEL in 2003 to 139 GEL in 2007 (in 2007 prices)—about a 14% increase (Table 1). Urban areas and the wealthiest demographic groups experienced a higher rate of improvement than their corresponding counterparts. Consumption expenditures in urban areas increased by more than 15%; the corresponding increase in rural areas was about 10%.

Table 1: Household Consumption Expenditures during the 2000s

Location	<i>Mean per adult equivalent expenditures, real terms (2007 prices, GEL)</i>				<i>Change (percent)</i>			
	2003	2007	2008	2009	2003-07	2007-08	2008-09	2003-09
Urban	137	158	166	162	15.3	5.1	-2.4	18.2
Rural	108	119	117	110	10.2	-1.7	-6.0	1.9
<i>Quintile</i>								
Quintile 1	49	47	59	54	-4.1	25.5	-8.5	10.2
Quintile 2	79	81	84	80	2.5	3.7	-4.8	1.3
Quintile 3	104	113	107	103	8.7	-5.3	-3.7	-1.0
Quintile 4	136	160	141	136	17.6	-11.9	-3.5	0.0
Quintile 5	244	297	316	308	21.7	6.4	-2.5	26.2
Total	122	139	141	136	13.9	1.4	-3.5	11.5

Source: Calculations based on 2007 LSMS, 2003 IHS, and 2008-2009 IHS.

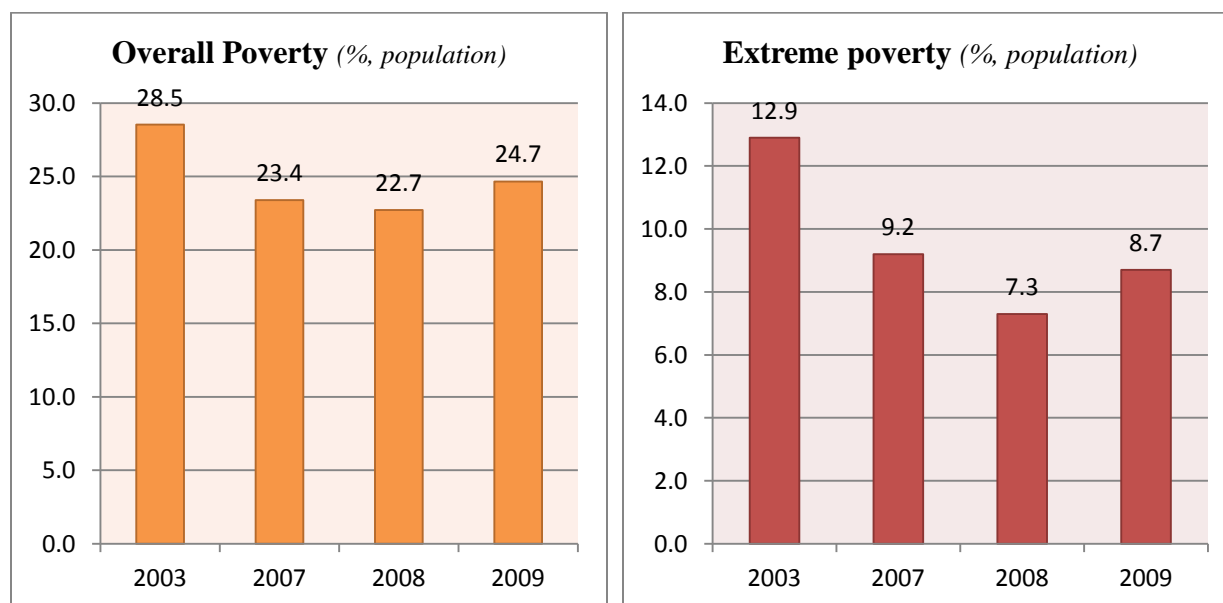
15. **During the conflict with Russia and the global recession, all income groups saw their consumption decline.** The double shocks of mid-2008 and 2009 have more than offset any gains in the one year preceding the crises. In fact, for rural areas and middle wealth groups, the impacts of the crises were immediately felt during the onset of the crises in 2008. Overall poverty increased from an estimated 22.7% in 2008 to 24.7% in 2009. This was a much faster rate of poverty increase than its rates of decrease during the 2003-2007 episode of growth. The combined effects of the two major shocks appear to have wiped out most of the gains in consumption expenditures in rural areas. Rural poverty increase by nearly 3% between 2008 and 2009; for urban areas, the increase was 1%.

16. **The bulk of the Georgian middle class have not seen significant improvements in their living conditions since the Rose Revolution.** Most of the gains are concentrated among the top quintile. Between 2003 and 2009, the top 20% of the population saw their consumption increase by over 26%. The consumption of the bottom 20% increased by about 10% between 2003 and 2009, but most of the gain occurred between 2007 and 2008. This was likely due to a well-

targeted social assistance (TSA) program, which was launched in 2006.³ Thus, economic growth in Georgia has not been pro-poor. The poor, the middle class, and the rural households have captured a very small share of the growth if any.

17. *As a result, reduction in poverty incidence is not commensurate with the robust economic growth experienced following the Rose Revolution.* According to a comparable consumption aggregate (as described in detail in Annex 1) from the various existing household survey data and a poverty line of 71.6 GEL per adult equivalent per month (2007 prices), poverty decreased from 28.5% in 2003 to 23.4% in 2007 (see Figure 4). This constitutes a total of only 5.1% decline over 4 years of robust economic growth. While this is a statistically significant reduction, the gain is small in relation to the overall economic growth performance during the period. It also highlights the findings presented in the preceding paragraphs that economic growth in Georgia has not been pro-poor. Note, however, that the gain in extreme poverty reduction was relatively higher and more robust than the gain in overall poverty reduction.

Figure 4: Poverty Headcount in Georgia during the 2000s.



Source: Calculations based on 2007 LSMS, 2003 IHS, and 2008-2009 IHS.

18. *Between 2003 and 2009, Georgia had one of the lowest growth elasticity of poverty indices in the World.* During the robust growth years (2003-2007), growth elasticity of poverty was 1.3 and 2.1 for overall and extreme poverty incidence, respectively. That means that a 1% increase in per capita consumption was associated with only a 1.3% decrease in the overall poverty rate (poverty line of 71.6 GEL per adult equivalent per month) and a 2.1% decrease in the extreme poverty rate (poverty line of 47.1 GEL per adult equivalent per month). By comparison, estimates of growth elasticity of poverty for developing countries worldwide range

³ Georgia's TSA is one of the best targeted programs in the region, with nearly 50% of the program resources going to the poorest 10% of the population. Moreover, according to 2009 Welfare Monitoring Survey (WMS) data, Georgia's TSA is among the most generous social assistance programs in the ECA region, with over average benefit amount accounting for over 35% of household consumption.

from 1.5 to 5, with an average of around 3 (Bourguignon, 2003). Growth elasticity of poverty was higher during the global recession, when economic growth was negative. This suggests that Georgia’s poor tend to benefit less during episodes of growth, and suffer more during economic downturns.

Table 2: Growth Elasticity of Poverty

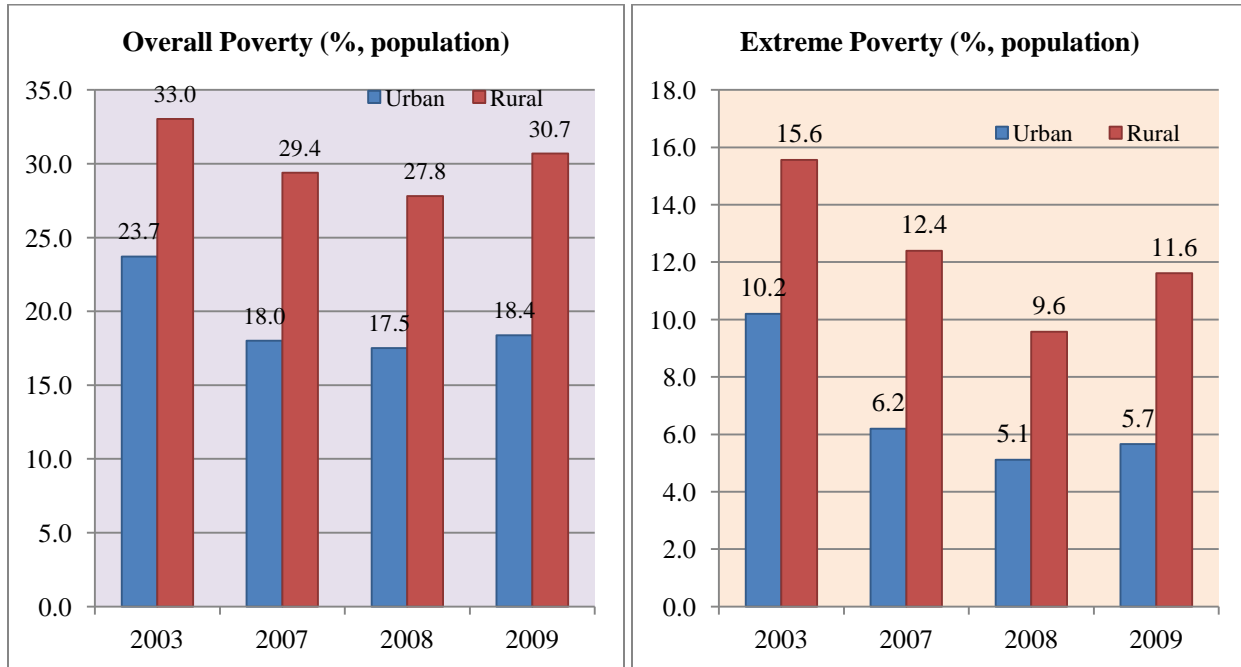
	<i>During Economic Growth (2003-2007)</i>	<i>During Economic Downturn (2008-2009)</i>
Overall Poverty	1.3	2.5
Extreme Poverty	2.1	5.4

Source: Calculations based on 2007 LSMS, 2003 IHS, and 2008-2009 IHS.

19. ***The gap between urban and rural areas in Georgia has widened since the Rose Revolution.*** Rural poverty incidence is significantly higher than urban poverty incidence—and the disparity has worsened since 2003 (see Figure 5). During the rapid growth years, the urban poverty incidence declined from 23.7% in 2003, to 18% in 2007—nearly a 6% decline; rural poverty incidence declined from 33% to 29.4%—less than a 4% decline. Likewise, for extreme urban poverty incidence, there was a 5.5% decline; and for extreme rural poverty incidence, there was a little less than a 4% decline. About 64% of Georgia’s poor now live in rural areas, despite accounting for less than half of the total population. Compared to 2003, poverty in Georgia has become somewhat more rural. The rural population is heavily dependent on agriculture—therefore, the solution to bridging the urban/rural disparity in living conditions may lie in taking steps to improve the profitability and productivity of this sector.

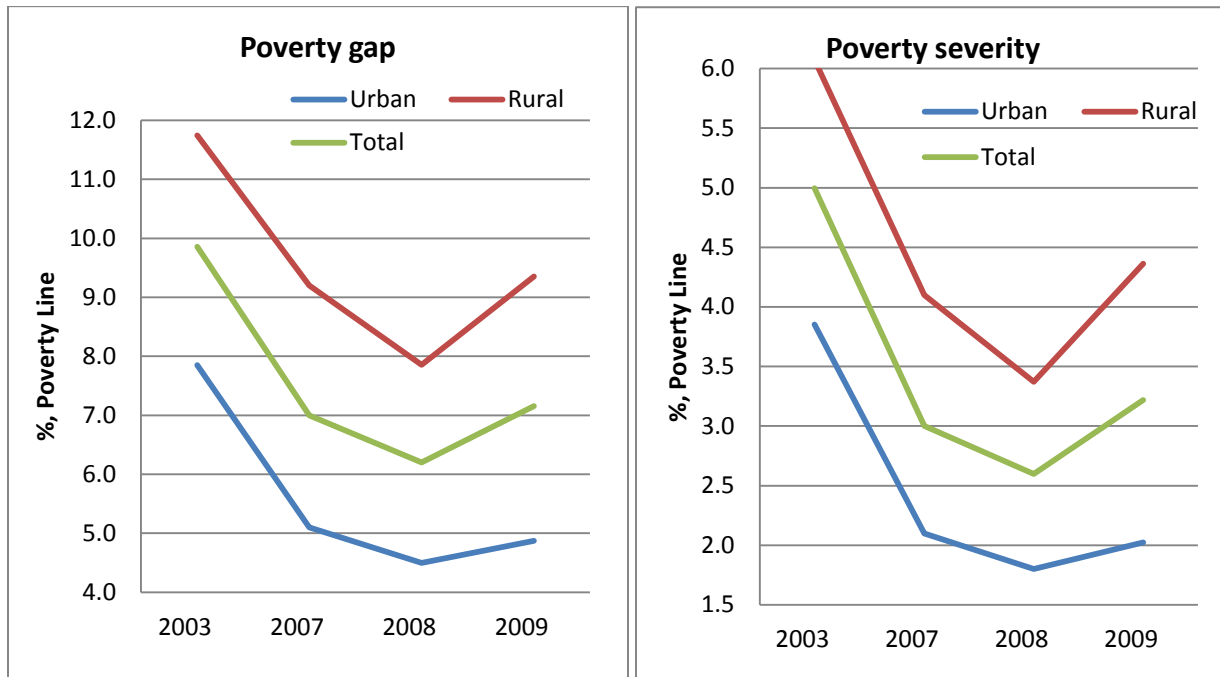
20. ***Rural areas face a higher poverty gap and poverty severity than urban areas.*** The poverty gap measures how far below the poverty line the poor are on average, as a proportion of that poverty line. The severity of poverty (the squared poverty gap) measures not only the distance separating the poor from the poverty line, but also the inequality among the poor. The poverty gap and poverty severity declined during the years of economic growth—there was a sharp reversal during the crises, particularly for rural households (see Figure 6).

Figure 5: Poverty Headcount in Urban and Rural Areas



Source: Calculations based on 2007 LSMS, 2003 IHS, and 2008-2009 IHS.

Figure 6: Poverty Gap and Poverty Severity in Georgia



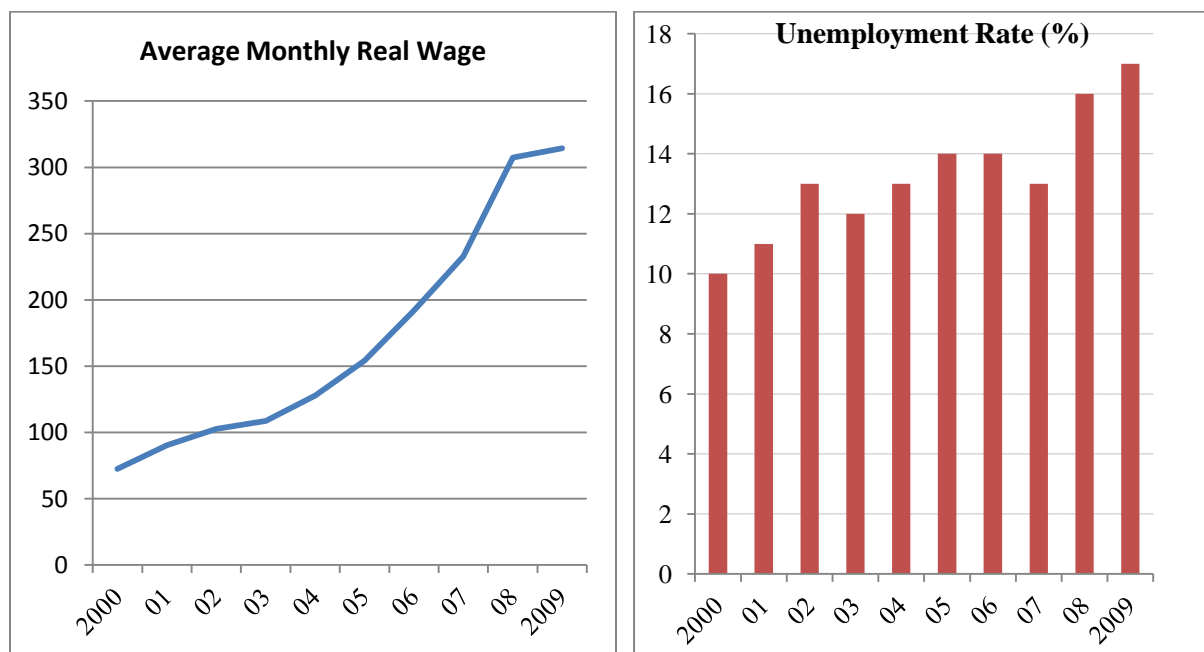
Source: Calculations based on 2007 LSMS, 2003 IHS, and 2008-2009 IHS.

What Explains the Observed Growth and Poverty Trends in Georgia?

21. *Economic growth in Georgia was not accompanied by sufficient job creation and increased labor force participation.* Labor market characteristic variables—such as the unemployment rate—worsened rather than improved during the period of robust growth between 2003 and 2007. As noted by the earlier World Bank poverty assessment report, the 2003-2007 economic growth did not result in a higher labor market participation of the population. As is often the case in countries undergoing deep economic restructuring, many labor market indicators worsened during this period and the crises of the 2008 and 2009 only further worsened the situation. The absolute number of employed declined from the pre-reform level of 1.8 million people in 2003 to 1.7 million people in 2007. A significant part of this decline is explained by downsizing of the public administration sector following public sector reform, and lower employment in the agricultural sector.

22. *During the 2000s, the level of unemployment worsened—on the other hand, there was a substantial increase in wages.* Between 2000 and 2009, the average real monthly wage increased over four-fold from 72.6 GEL to 314 GEL (see Figure 7). This increase, however, was driven by a few sectors (such as health, education, public administration, information technologies and financial services) that employed only a fraction of the labor force. The monthly salaries of those in public administration who retained their jobs after the public sector downsizing doubled in real terms during the growth years. Therefore, the weak linkage between economic growth and the labor market may largely explain the low growth elasticity of poverty during the years of economic growth.

Figure 7: Average Nominal Wage and Employment Rate



Source: Georgia Statistical Office 2010

23. ***Georgia entered the global recession at the same time it faced conflict with Russia—in 2008.*** Georgia’s development before the crisis had been buoyed significantly by export and FDI—the crisis had an especially strong impact in these areas. The double shocks are largely responsible for the worsening of poverty during the past two years—the result has been around a 2% increase in overall poverty incidence, and a 1.4% increase in extreme poverty incidence.⁴

24. ***The launching of a targeted social assistance (TSA) program in 2006, was largely responsible for the improvement in living conditions from 2007-2008, particularly among the very poor.*** According to the 2009 Welfare Monitoring Survey (WMS), Georgia’s TSA is well targeted and one of the most generous social assistance programs in the ECA region. In addition, over 52% of all Georgians live in a household that receives pension income. The latter has increased substantially since 2003, when it was only GEL 14 per beneficiary per month. In 2009, the monthly pension benefit was increased from GEL 70 to 80. Also in 2009, the TSA monthly top-upper additional family member was doubled from GEL 12 to GEL 24, which is in addition to a base benefit per household of GEL 30 per month. The coverage of the TSA benefit expanded from about 131,000 households in December 2008, to about 155,000 households in April 2009, and to over 164,000 by April 2010.

25. ***Georgia’s GDP growth experience has not resulted in a commensurate reduction in poverty.*** Despite the rapid economic growth following the Rose Revolution, many Georgians—particularly those in rural areas—have not seen appreciable improvement in their living conditions. It is imperative for Georgia to implement policies that more fully integrate the poor and rural population into the growth process. Generating high and sustained growth is crucial, but it is particularly important that the benefits of that growth are widely shared. Concentrating investment in the rural population would provide Georgia the highest return in terms of overall poverty reduction.

⁴ The impact of the two shocks could not be disentangled as they took place more or less concurrently.

IV. Conclusions

26. *This note provides an analysis of the poverty dynamics in Georgia since the Rose Revolution in 2003.* This period has been characterized not only by sweeping economic reforms and subsequent strong economic growth, but also by two major economic shocks. In the aftermath of the Rose Revolution, the Georgian economy and institutions underwent major positive transformations and saw significant improvements in the functioning of public institutions. Buoyed by sound policies, the Georgian economy achieved an average annual GDP growth rate of more than 9% between 2004 and 2007. However, in 2008, Georgia suffered the conflict with Russia and the global recession, which resulted in an economic downturn. In 2009, Georgia's economy contracted by 3.8%, a sharp reversal from the nearly double-digit growth during the years preceding the crises. A key question of how much the policy reforms and the resulting economic growth contributed to the improvements in the living standards of the population remained largely unknown—as was the impact of the two shocks. Due to a lack of comparable and relevant data for poverty measurement, no robust assessments of the gains in living standards during the period of economic growth or the losses during the economic downturn could be made—this study was undertaken to remedy that situation.

27. *This note employed an empirical methodology to establish comparability of existing data sources and exploited the resulting comparability to track poverty over time.* It used an adjustment procedure based on a small area estimation methodology to provide empirical estimations of how much poverty declined during the growth years and increased during the downturn. The analysis showed that Georgia has made an overall gain in living standards since the Rose Revolution. Poverty decreased from 28.5% in 2003 to 23.4% in 2007, a 5.1% decline over 4 years of robust economic growth. While this is a statistically significant gain, it is not proportionate to the macroeconomic growth performance during the period. During the conflict with Russia and the global recession, most Georgians saw their living conditions deteriorate and overall poverty increased from 22.7% in 2008 to 24.7% in 2009. The study also showed that rural poverty incidence is significantly higher than urban poverty incidence, and that the gap has widened.

28. *Economic growth in Georgia was shown to have not been pro-poor from 2003-2009.* Georgia had one of the smallest growth elasticity of poverty indices in the world. During the robust growth years, growth elasticity of poverty was estimated at 1.3. During the crises when economic output declined, growth elasticity of poverty was higher at 2.5. This suggests that Georgia's poor tend to benefit less during episodes of growth, but suffer more during economic downturns. The fact that growth was not accompanied by sufficient job creation explains the weak linkage between growth and poverty reduction. Labor market characteristic variables—such as the unemployment rate—worsened, rather than improved, during the growth years. Therefore, in addition to implementing policies that ensure rapid national growth, it is imperative for Georgia to more fully integrate the poor and rural population into the growth process.

References

- Bourguignon, F. "The growth elasticity of poverty reduction: explaining heterogeneity across countries and time periods", World Bank, 2003.
- Christiaensen, L. P, Lanjouw, J. Luoto, and D. Stifel. 2008. "The Reliability of Small Area Estimation Prediction Methods to Track Poverty", paper presented at the WIDER Conference on Frontiers of Poverty Analysis in Helsinki, 26-27 September, 2008.
- Elbers, Chris, Lanjouw, Jean O., and Peter Lanjouw. 2003. "Micro-Level Estimation of Poverty and Inequality." *Econometrica*, 71(1): 355-364. January.
- Elbers, C., Lanjouw, J. and Lanjouw, P. (2002) 'Micro-Level Estimation of Welfare', Policy Research Department Working Paper, No. WPS29 11, The World Bank.
- Kijima, Yoko, and Peter Lanjouw. 2003. "Poverty in India during the 1990s: A Regional Perspective." Policy Research Department Working Paper No. WPS3141, The World Bank.
- _____. 2005. "Economic Diversification and Poverty in Rural India." *Indian Journal of Labour Economics*, 8(2): 2005.
- Foster, J., J. Greer, and E. Thorbecke. 1984. "A Class of Decomposable Poverty Measures." *Econometrica* 52 (3): 761–766.
- Ravallion, M. 1996. "How Well Can Method Substitute for Data? Five Experiments in Poverty Analysis." *World Bank Research Observer*, 11(2): 199-221.
- Stifel, D. and L. Christiaensen. 2007. "Tracking Poverty Over Time in the Absence of Comparable Consumption Data." *World Bank Economic Review*, 21(2): 317-341.
- World Bank. 2008. *Georgia Poverty Assessment*, Report No. 4440-GE, World Bank, Washington, D.C.
- World Bank. 2010a. Technical Note #1: Poverty and Crisis Impact, Georgia Programmatic Poverty Assessment, unpublished.
- World Bank. 2010b. *The Jobs Crisis Household and Government Responses to the Great Recession in Eastern Europe and Central Asia*, World Bank, Washington, DC

Annex 1: Methodology for Data Comparability

Introduction

The availability of comparable and regularly updated household survey data is crucial for monitoring poverty, assessing the effectiveness of anti-poverty policies, and analyzing economic and social mobility over time. Analysis of poverty and distributional impacts of shocks (such as the 2008-2009 global economic crisis) also requires availability of comparable data before and after the events, to ensure robust welfare comparisons. Obtaining relevant, reliable and comparable data over time is elusive in many countries, including Georgia. Various sources of household survey data have been collected in Georgia over the past few years. These include: (i) the 2007 Living Standard Measurement Survey (LSMS); (ii) the yearly Integrated Household Survey (IHS); and (iii) the 2009 UNICEF Welfare Monitoring Survey (WMS). However, the data collected from these sources lacks comparability over time.

Existing sources of household data for Georgia are not suitable for analyzing the poverty dynamics of the period following the 2008 conflict with Russia and the 2008-2009 global economic crisis. The Government of Georgia has conducted regular annual IHS since 1996. However, the IHS data lack full comparability for many important reasons, including changes in the questionnaire design and changes in the training and supervision of field workers. The other sources of survey data such as the 2007 LSMS and the 2009 WMS are neither comparable to each other nor to the annual IHS, due to differences in design and implementation. Ample empirical evidence accumulated over the years by poverty practitioners in the World Bank and elsewhere shows that even small changes in the way expenditure/consumption or income data are collected can have a substantial impact on poverty estimates. Differences in poverty estimates may reflect differences in survey design rather than real changes in household welfare. For example, a shift from a daily to a weekly or longer recall period is likely to lead to underreporting in consumption—and therefore, over-estimation of poverty rates.

This note proposes an empirical methodology to tackle data incomparability issues, and thereby allow for an assessment of the dynamics of poverty in Georgia from 2003-2009. The proposed methodology draws heavily on the small area estimation and poverty mapping techniques.⁵ It relies on the assumption of stable returns to assets, and uses household assets to approximate the evolution of poverty. Clearly, the conflict with Russia in August 2008 adversely affected the well-being of a significant part of the population. However, it is nearly impossible to disentangle the impact of this shock from the impact of the global economic crisis that followed on its heels. Therefore, the proposed methodology aims to estimate the combined impacts of the conflict and the global economic crisis.

⁵ Lanjouw and Lanjouw (2001)

Background and Data

The most recent and comprehensive poverty assessment for Georgia was based on the 2007 LSMS survey, which reported an overall poverty incidence of 23.6% and an extreme poverty rate of 9.3% (World Bank, 2008). Since then, the Georgian economy faced a serious downturn in mid-2008, due to the conflict with Russia and the global economic crisis. The economy contracted by an estimated 3.8% in 2009, dampening the gains that had been achieved since the Rose Revolution. The crises affected the welfare of Georgian households on multiple fronts. These included: (i) reduced access to credit; (ii) increased difficulty in repaying debts dominated by foreign currencies; (iii) increased unemployment, and (iv) reduced wages and work hours. The poverty and distributional impact of the crisis remains unknown, due to lack of comparable data in the aftermath of these crises.

A post-crises WMS undertaken by UNICEF in June-July 2009, estimated a poverty headcount rate of 25.7% (World Bank, 2010a). However, the 2009 UNICEF data are not comparable with either the annual IHS or the 2007 LSMS—which makes it impossible to estimate the welfare and distributional impacts of the crises. Some of the questions in the UNICEF survey are the same as in the pre-crises surveys, but most of them are not. The consumption module in the UNICEF survey differs from earlier surveys in a number of significant ways. These include: (i) coverage of food and nonfood items; (ii) recall periods for nonfoods; and (iii) seasonal issues arising from the short two-month window in which the WMS was conducted—compared, for example, with the year round IHS. The 2007 LSMS and the annual IHS are also not comparable due to differences in the recall period and survey design—including differences in the lists of consumption items in their respective questionnaires.

The regular annual IHS, despite having a similar instrument, did not produce comparable data in the 2000s. The IHS—which is implemented by the Statistical Office of Georgia (Geostat)—has some of the basic tenets of a good survey, such as government financing and implementation. It has the potential to provide a solid foundation for poverty monitoring. In 2008, Geostat instituted changes in the survey implementation methodology. This included implementing stronger quality control and replacing a significant number of interviewers. While these changes to survey design and implementation are expected to improve the quality of 2009 IHS data, they compromise comparability with the earlier rounds.

Methodology to Predict Comparable Poverty Rates over Time

In the poverty literature, there are various approaches used to ensure data comparability for analyzing poverty trends over time. Confronted with incomparable data or a lack of regularly updated data, poverty practitioners have attempted to develop various poverty prediction methods for tracking poverty over time (e.g., Ravallion, 1996; Kijima and Lanjouw, 2003; Stifel and Christiaensen, 2007). The methods differ in their data sources, prediction techniques, and underlying assumptions (for a good survey of the different methods, see Christiaensen et al., 2008). One approach is to attempt to construct a comparable welfare aggregate by focusing solely on items that are similarly defined in the different data sources. In other words, the comparison is based on subcomponents of the household consumption expenditures common in the surveys of interest. Another approach is to use an adjustment procedure that relies on a few variables whose definition has not changed over time, to update the distribution of the poor over time.

Most econometric prediction methods assume that the underlying relationship between welfare aggregate and its correlates remains stable over time, thereby ignoring any potential changes in the “returns” to factors such as education and labor. Stifel and Christiaensen (2007) predict poverty over time in Kenya by first estimating a model of consumption that is a function of household assets and other basic indicators derived from a Household Budget Survey, and then imputing this model into a series of Demographic and Health Surveys that contain comparable asset data. This is essentially a version of the small area estimation (SAE) methodology developed by Elbers, Lanjouw and Lanjouw (2003) to impute a definition of consumption from one household survey into another. The main features of this approach are presented below:

A Variant of Small Area Estimation Technique

The method uses a version of the small area estimation (SAE) methodology developed by Elbers, Lanjouw and Lanjouw (2003) to impute a definition of consumption from one household survey into another. The method involves using estimations from a consumption model—for example, the 2007 LSMS data—and then applying the estimated parameters from this model in order to forecast or predict the consumption for 2009. The final step is to add to the forecasted consumption an estimate of an unobserved part of the model (i.e., the error term) in order to recover full consumption. Kijima and Lanjouw (2003) and Stifel and Christiaensen (2007) have used this technique in India and Kenya, respectively. The SAE technique provides consistent estimates of both the mean and the variance of consumption, and thus also a consistent estimate of the change in poverty over time. The technique has been empirically verified using repeated nationally representative household surveys that are comparable over time from three widely divergent settings: Vietnam, Russia, and Kenya (Christiaensen et al., 2008).

The SAE methodology is used to predict per capita consumption at the household level in 2009 using the available information on these households in 2009 (e.g. assets and housing conditions), as well as the parameter estimates (including those concerning the distribution of the error term) derived from a model of consumption estimated from the 2007 LSMS data. By restricting the explanatory variables to those that are comparable across the two surveys, the method ensures an identical definition of consumption (welfare) across the two surveys, circumventing the need for price deflators, but assuming that the relationship between consumption and its correlates remains stable over time.

More formally⁶, let H represent the poverty headcount, based on the distribution of household-level per capita consumption, y_h . Using data at $t=2007$, model the log of consumption y_{ht} for household h at t as:

$$(1) \quad \ln y_{ht} = \mathbf{x}_{ht}\beta + \mu_{ht},$$

where $\mathbf{x}_{ht}\beta$ is a vector of k parameters and μ_{ht} is a disturbance term that satisfies $E[\mu_{ht} | \mathbf{x}_{ht}] = 0$.

The vector of consistent estimators $\hat{\beta}$ from equation (1) obtained using the survey data at t is

⁶ For a more detailed discussion of the application of the SAE technique to predict poverty over time, see Kijima and Lanjouw (2003) and Stifel and Christiaensen (2007).

then used to predict consumption levels at $t+1=2009$, generating a distribution of predicted values for \hat{y}_{ht+1} .

The conditional distribution of the national and subnational poverty headcounts, H , at $t+1$ are obtained based on the generated distribution of predicted values for \hat{y}_{ht+1} . A separate consumption model (1) is estimated for each subnational level (r). In particular, because the household-level disturbances at $t+1$ are unknown, the expected value of H is estimated using x_{ht+1} and the model of consumption in (1) as:

$$(2) \quad \lambda_r^s = E[H \mid X_r^s, \xi_r],$$

where ξ_r is the vector of model parameters, including those that describe the distribution of the disturbances, and the superscript ‘s’ indicates that the expectation is conditional on the sample of households at $t+1$ from region r rather than a census of households (Kijima and Lanjouw, 2003). Since the vector ξ_r is unknown, we replace them with the consistent estimators $\hat{\xi}_r$ estimated from the survey data at t to construct the estimator for λ_r^s and $\hat{\lambda}_r^s$. One hundred simulated draws are performed to derive the estimator $\hat{\lambda}_r^s$ in each model. The predicted log per capita consumption variable, along with the 2007 poverty line, is then used to produce estimates of comparable poverty rates in 2009.

Various sources of household survey data are used. As described above, between 2003 and 2009, we have access to five different sources of household survey data for Georgia: 2007 Living Standard Measurement Study (LSMS) Survey; 2003, 2007, 2008 and 2009 Integrated Household Survey (IHS); and 2009 UNICEF Welfare Monitoring Survey.

Annex 2: Statistical Tables of Results

Table A. 1: First Stage Stepwise Regression Coefficients to Map 2003 IHS using 2007 LSMS data

Dependent Variable: Log Consumption per adult equivalent		No. Obs=5218, R-square =0.65	
<i>Regressor</i>	<i>Coef.</i>	<i>Std.Err.</i>	<i>z</i>
intercept	3.54554	0.04204	84.3304
DUMMY_INC_EMPL	-0.29533	0.05816	-5.0775
DUMMY_INC_SELF	-0.22198	0.0706	-3.1441
D_PC_1	0.14162	0.02092	6.7705
F_IMPROVED_1	0.30403	0.01676	18.1357
F_MAXEDN_INCOM	-0.06324	0.03041	-2.0798
HEADMARRIED_1	0.02922	0.01282	2.2797
H_HIGHER_1	0.05958	0.01785	3.3375
H_VOCATIONAL_1	0.02636	0.01492	1.7663
H_WAGEEMPLOYED	-0.07462	0.01674	-4.4581
LFOODEXP_BREAD	0.46931	0.01009	46.529
LHHSIZE	-0.15464	0.01958	-7.8959
LINC_EMPL	0.07989	0.01095	7.2987
LINC_SELFEMPL	0.06783	0.01378	4.9212
LVEGETABLE	0.04038	0.00617	6.5454
M_MAXEDN_HIGHE	0.05544	0.02069	2.6792
M_MAXEDN_SECON	0.033	0.01789	1.8443
NO_JOBS	0.02545	0.00578	4.402
POOR_1	0.16746	0.01374	12.1885
REGION_01	0.11774	0.01852	6.3562
REGION_02	-0.05303	0.02182	-2.4307
REGION_03	-0.20589	0.02333	-8.8237
REGION_04	0.14432	0.02052	7.0331
REGION_06	-0.09468	0.02362	-4.0079
REGION_07	-0.07552	0.03054	-2.4731
REGION_10	-0.21123	0.03644	-5.7963
SHARE_DURABLES	0.28105	0.07849	3.5808
SHARE_FOODEXP_	-0.91254	0.04404	-20.7215
SHARE_G10PC	1.3235	0.11305	11.7072
SHARE_G11PC	8.46683	1.2659	6.6884
S_AGE59PLUS	0.06689	0.02024	3.3048
URBAN2_2	-0.16775	0.01487	-11.2827

VWORSEN_1	-0.04133	0.01689	-2.4465
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Table A. 2: First Stage Stepwise Regression Coefficients to Map 2008 IHS using 2007 LSMS data

Dependent Variable: Log
Consumption per adult
equivalent

No. Obs=5218, R-square =0.73

<i>Regressor</i>	<i>Coef.</i>	<i>Std.Err.</i>	<i>z</i>
intercept	3.07628	0.04431	69.434
ADULT	0.03524	0.01156	3.0488
AGE017	0.04771	0.01834	2.6024
DUMMY_INC_EMPL	-0.07738	0.03535	-2.1889
DUMMY_INC_SELF	0.0891	0.0149	5.9815
DUSELAND_1	0.09919	0.01392	7.1239
D_REFRIGERATOR	0.0681	0.01144	5.9536
D_TV_1	0.08031	0.01505	5.3375
FAMILYSIZE	-0.03992	0.01096	-3.6435
F_MAXEDN_HIGHE	0.0504	0.0135	3.7344
F_MAXEDN_INCOM	-0.05642	0.02711	-2.0814
G7PC	-0.00048	0.00054	-0.8886
HEADMARRIED_1	0.03965	0.01161	3.4143
H_HIGHER_1	0.03392	0.01624	2.0886
H_PENSIONAGE_1	0.03014	0.01958	1.5397
H_SELFEMPLOYED	0.04549	0.01947	2.3361
H_VOCATIONAL_1	0.03985	0.01302	3.06
LFOODEXP_BREAD	0.34423	0.00527	65.3528
M_MAXEDN_HIGHE	0.02996	0.01458	2.0542
NONFOODEXP	0.00589	0.00014	41.2105
NO_COW	0.04354	0.00644	6.7591
PENSIONER_W_3	-0.41935	0.23031	-1.8208
REGION_01	0.12354	0.01689	7.3134
REGION_03	-0.11034	0.02069	-5.3326
REGION_04	0.09557	0.01862	5.1335
REGION_06	-0.04492	0.02132	-2.1072
REGION_07	-0.06224	0.027	-2.3047
REGION_09	0.02883	0.01508	1.911
REGION_10	-0.10556	0.03212	-3.286
SHARE_DURABLES	0.13174	0.02286	5.7618
SHARE_G10PC	0.48671	0.10032	4.8517
SHARE_INC_EMPL	0.20787	0.04129	5.0347
S_AGE017	-0.18051	0.07571	-2.3843

S_AGE1865	-0.05668	0.03389	-1.6722
S_AGE59PLUS	0.13264	0.0266	4.9869
URBAN_1	0.02622	0.01459	1.7967

Table A. 3: First Stage Stepwise Regression Coefficients to Map 2009 IHS using 2007 LSMS data

Dependent Variable: Log Consumption per adult equivalent	No. Obs =5218, R-square =0.75		
<i>Regressor</i>	<i>Coef.</i>	<i>Std.Err.</i>	<i>z</i>
intercept	2.5705	0.04697	54.7241
BREAD	0.00154	0.00029	5.3901
DUMMY_INC_EMPL	-0.06832	0.03344	-2.0428
DUMMY_INC_SELF	0.08666	0.01425	6.0814
DUSELAND_1	0.11302	0.01114	10.1438
D_TV_1	0.06842	0.01434	4.7725
F_IMPROVED_1	0.09125	0.01189	7.6732
F_MAXEDN_HIGHE	0.04837	0.01225	3.9478
F_MAXEDN_INCOM	-0.05996	0.02712	-2.2109
F_WORSEN_1	-0.1332	0.01547	-8.6113
HEADMARRIED_1	0.03677	0.01018	3.6118
HOMEOWNER_1	0.02621	0.01717	1.5266
H_INCOMP_SECON	-0.03969	0.01647	-2.4094
H_PENSIONAGE_1	0.01917	0.01309	1.464
H_SECONDARY_1	-0.03196	0.01126	-2.8393
H_SELFEMPLOYED	0.02861	0.01851	1.5457
LFOODEXP_BREAD	0.41471	0.00856	48.4414
M_MAXEDN_HIGHE	0.03358	0.01266	2.6523
NONFOODEXP	0.00596	0.00011	55.5012
PENSIONER_W_3	-0.35868	0.21926	-1.6359
REGION_01	0.15499	0.01393	11.1232
REGION_03	-0.13012	0.01897	-6.8598
REGION_04	0.12069	0.01679	7.1896
REGION_05	0.07292	0.02289	3.1853
REGION_06	-0.04314	0.01937	-2.2272
REGION_07	-0.03724	0.02514	-1.4816
REGION_10	-0.13056	0.03012	-4.3346
SHARE_BREAD	0.58941	0.04356	13.5306
SHARE_INC_EMPL	0.18537	0.03926	4.7218
S_AGE59PLUS	0.13018	0.0172	7.5704

Table A. 4: Labor Market Participation during the 2000s*(percent, working-age population)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Labor Force Participation ('000 persons)	2,049	2,113	2,104	2,051	2,041	2,024	2,022	1,965	1,918	1,992
Employed ('000 persons)	1,837	1,878	1,839	1,815	1,783	1,745	1,747	1,704	1,602	1,656
Unemployed ('000 persons)	212	236	265	236	258	279	275	261	316	336
Economic Activity Rate (%)	65	66	65	66	65	64	62	63	63	64
Employment Rate (%)	58	59	57	59	57	55	54	55	52	53
Unemployment Rate (%)	10	11	13	12	13	14	14	13	16	17

*Source: Georgia Statistical Office***Table A. 5: Average monthly nominal wage (GEL)**

Year	Georgia		Public Sector		Private Sector	
	Wage	Annual growth (%)	Wage	Annual growth (%)	Wage	Annual growth (%)
2001	95	30	86	29	124	30
2002	114	20	104	21	145	17
2003	126	11	114	10	167	15
2004	157	24	144	26	191	14
2005	204	30	194	34	228	19
2006	278	36	249	29	316	39
2007	368	32	312	25	438	38
2008	535	45	481	54	603	38
2009	557	4	513	6	609	1

Source: Georgia Statistical Office