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## **Poverty, Inequality, and Vulnerability in the Transition and Developing Economies of Europe and Central Asia**

Prepared by UNDP Regional Bureau for Europe and CIS,

UNDP Bureau for Policy and Programme Support<sup>1</sup>

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## ***Poverty, Inequality, and Vulnerability in the Transition and Developing Economies of Europe and Central Asia<sup>1</sup>***

**UNDP Regional Bureau for Europe and CIS,  
UNDP Bureau for Policy and Programme Support**

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**Abstract:** *This paper assesses poverty and inequality trends in the transition and developing economies of Europe and Central Asia, and links these trends to discourses regarding vulnerability, exclusion, and sustainability. It considers various definitions and indicators of poverty, inequality, exclusion, vulnerability, and sustainability; and concludes that—as is to be expected in a region that is dominated by middle-income countries—income poverty data offer important but incomplete insights into the region’s sustainable development challenges. The paper also finds evidence to support arguments that reductions in income poverty and inequalities go together, and are broadly consistent with the region’s development trends. And, it presents a new approach to monitoring vulnerability to poverty in the region.*

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## Executive summary (I)

- Data from the World Bank's POVCALNET database show that—after rising sharply during the 1990s—absolute income poverty levels fell significantly across the developing and transition economies of Europe and Central Asia in the decade leading up to the global financial crisis in 2008. Trends since 2008 are more nuanced: while some countries continue to show declining poverty rates, others show increases. The POVCALNET data also indicate that significant levels of income poverty were present in the USSR, before 1990.
- Still, when considered against thresholds that reflect higher living costs in the northern hemisphere, these data point to disturbingly high poverty levels in the region, even in some upper middle-income countries.
- While the regional picture regarding income inequalities is less clear cut, it seems that—for much of the region—the sharp increases in inequalities that took hold during the 1990s stopped, and in some countries were reversed, during the new millennium. Recent World Bank research points to further reductions in inequality during 2005-2010.
- Data on GDP growth, poverty, and income inequality from the region tend to support inclusive growth narratives. In many countries, reductions in/low levels of income inequality appear to have magnified the impact of economic growth on poverty reduction. By contrast, in countries that report high or rising income inequalities, GDP growth has been less likely to reduce poverty.
- Compared to other regions, women in the developing and transition economies of Europe and Central Asia score relatively well in terms of human development indicators. However, women in the region continue to face large inequalities vis-à-vis men, particularly in terms of incomes and access to the labour market.
- Vulnerability is more difficult to measure and monitor than income poverty and inequality. This is unfortunate, since perceptions of vulnerability, insecurity, and risk continue to affect millions of people in the region. These result in part from the civil/armed conflicts that have afflicted most of the Soviet and Yugoslav successor states, as well as Albania and Turkey. They are also a legacy of the dissolution of the Soviet and Yugoslav federations—which forced hundreds of millions of people to undergo unplanned citizenship changes. Millions more have become either stateless or residents of post-conflict territories whose legitimacy is not fully recognized by the international community. The region is also quite vulnerable to seismic, climatic, meteorological, and natural resource-related risks. Recent projections indicate that the May 2014 flooding reduce HDIs for Serbia and Bosnia and Herzegovina by .003-.005 points over the 2014-2018 period.
- The paper uses higher income thresholds to assess different countries' vulnerability to increases in income poverty. This analysis suggests that, in many countries that have reported good progress in poverty reduction, large shares of the population continue to be vulnerable to poverty. It also indicates that countries with lower levels of income inequality are likely to have smaller shares of their populations vulnerable to poverty.
- Development accomplishments that are not robustly sustainable may be particularly vulnerable to reversal. Unfortunately, efforts to operationalize sustainable development programming and policies in the region continue to be constrained by the absence of monitorable indicators that can integrate the environmental, social, and economic dimensions of sustainability. Addressing this shortcoming is particularly important in the context of preparing for the introduction of the sustainable development goals.

## Overview (II)

This paper provides an assessment of poverty and inequality trends in the transition and developing economies of Europe and Central Asia,<sup>2</sup> and links them to discourses regarding vulnerability exclusion, and sustainability. It considers various conceptualizations, definitions, and indicators of poverty, inequality, exclusion, vulnerability, and sustainability; and concludes that—as is to be expected in a region that is dominated by middle-income countries—income poverty data offer important but incomplete insights into prevailing sustainable development challenges. The paper also finds evidence to support arguments that reductions in income poverty and inequalities go together in the region. And it proposes a new approach to measuring and monitoring vulnerability to income poverty in the region.

## Introduction (III)

Poverty, inequality, and socio-economic vulnerability issues are particularly complex and controversial in the developing and transition economies of Europe and Central Asia.<sup>3</sup> How could it be that the USSR and Yugoslavia had fallen into deep systemic crisis by 1990,<sup>4</sup> if (as many narratives hold) they had largely succeeded in eradicating poverty and significant income inequalities? Why are absolute poverty rates today thought to be higher in virtually all these countries than was the case before 1990—even though most now report much higher national and household income levels? Are higher rates of poverty and inequality really unavoidable consequences of marketization and the dissolution of socialist federations? (And if so, were/are such transitions truly necessary and desirable?) Or have higher poverty rates resulted from otherwise avoidable mistakes made in the macroeconomics, political economy, or social aspects of transition? What about the role of the military conflicts that have afflicted many of these countries? Or perhaps significant problems of poverty and inequality were present during the pre-transition period as well—but were hidden by ideology and by the absence of the data, institutions, and policy frameworks needed for effective poverty measurement and monitoring?

These very large questions do not have simple answers, and this paper does not attempt to provide such. It seeks instead to contribute to discussions around these questions by reviewing the most recent internationally comparable data on poverty, inequality, vulnerability, exclusion, and sustainability in these countries—particularly (where possible) via the use of time series data that extend back to 1990 (or earlier). Of course, concerns regarding the quality and comparability of pre- and post-1990 poverty and inequality data in the region remain significant. Still, it is important to note that:

- Data from the World Bank's POVCALNET global poverty database<sup>5</sup> show that—after rising sharply during the 1990s—absolute income poverty levels fell significantly across the region in

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<sup>2</sup> The phrase “transition and developing economies” in this paper reflects standard economics lexicon, as is commonly found in the study of economic development and comparative economics. It does not reflect the taxonomies used in the UNFCCC negotiations (where “economies in transition” and “developing economies” refer to groups of countries for which commitments to reduce greenhouse gas emissions may or may not apply). Nor does it reflect crisis prevention and recovery references to countries recovering from conflict/undergoing transitions to more standard development circumstances.

<sup>3</sup> Except where otherwise specified, this classification refers to the programme countries whose development aspirations are supported by UNDP's Regional Bureau for Europe and CIS: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo (as per UNSCR 1244 (1999)), Kyrgyzstan, the Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Serbia, Tajikistan, Turkey, Turkmenistan, Uzbekistan, and Ukraine.

<sup>4</sup> The choice of 1990 as a pre- and post-transition temporal dividing line is a notional one; other years, such as 1991 (the year in which the Soviet Union was formally dissolved) or 1992 (the year in which Croatia's, Bosnia and Herzegovina's, and the Former Yugoslav Republic of Macedonia's declarations of independence from Yugoslavia were widely recognized by the international community) could also be selected. The choice of 1990 is here motivated by the facts that: (1) the first ambitious programmes for transitions from socialism to capitalism were introduced (in Central Europe), communist parties lost power in much of the Balkans, and the first referendum on independence from/sovereignty vis-à-vis the USSR by its constituent republics were approved, in that year; (2) POVCALNET poverty and inequality data are available for 1990, but not for the years immediately before and after; and (3) this year serves as the global baseline for measuring progress in achieving the MDGs.

the decade leading up to the global financial crisis in 2008. Trends since 2008 are more nuanced: while some countries continue to show declining poverty rates, others show increases. The POVCALNET data also show that significant levels of income poverty were present in the USSR (before 1990).

- While the picture regarding income inequalities is less clear cut, it seems that—for much of the region—the sharp increases in inequalities that took hold during the first decade of transition stopped, and in some countries were reversed, during the new millennium. Recent World Bank research points to some hopeful outcomes in this respect, during 2005-2010.<sup>6</sup>
- Still, when measured against poverty thresholds that reflect higher living costs in the northern hemisphere (e.g., associated with purchases of winter clothing and heating services), these data suggest that income poverty levels remain disturbingly high, even in some upper middle-income countries. These data also suggest that those countries that are today facing difficulties in poverty eradication also tend to be experiencing high or growing income inequalities.

#### **Measuring income poverty in transition economies (IV)**

The many dimensions of poverty—as measures of the extent to which people are deprived of the goods, services, capabilities, and opportunities needed to live long, healthy, fulfilling lives—are too complex to be effectively captured in a single composite indicator. Measures of absolute, relative, and subjective levels of poverty, based on individual reports of income, consumption, or perceived levels of welfare, are the most commonly used instruments in this respect. Absolute income poverty in most of the developing and transition economies in Europe and Central Asia is defined relative to the income needed to purchase a minimum (defined in social or biological terms) basket of consumer goods (see Table 1). The region's European countries are more likely to use relative poverty standards, measured vis-à-vis some average living standard (generally 40-60% of median income or consumption), either in addition to, or in lieu of, absolute poverty thresholds.<sup>7</sup> Growing numbers of statistical offices in the region are also reporting measures of multidimensional poverty—typically as composite indicators that combine various elements of income- and non-income poverty/material deprivation.<sup>8</sup> UNDP's human development index (HDI), and its related family of indicators, can also be seen as measures of multi-dimensional poverty.<sup>9</sup> These indicators may be further supplemented by subjective poverty assessments, by measures of time deficits (Box 1), and other tools.

Each of these methods has its strengths and weaknesses. National poverty measures are not very useful for inter-state comparisons, since the different methodologies that are used to calculate poverty thresholds, baselines, and the like reduce inter-country comparability. Relative poverty indicators really measure inequality; when judged by such indicators wealthy countries can seem to have greater shares of poor people than impoverished countries (if income inequality in the former exceeds levels in the latter). Multidimensional poverty indicators (and many other composite welfare/poverty/deprivation indicators) are often novelties in this region, without long time series associated with them.

In light of these factors, internationally comparable household budget survey data (measured in reported consumption expenditures) are commonly used in indicators of poverty and inequality. An absolute income poverty threshold of \$1 (or \$1.25) per person per day in equalized, purchasing-power-parity (PPP) terms, which was pioneered by the World Bank in the 1980s, has traditionally been used to measure and compare income poverty in developing countries, globally. This threshold has become one of

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<sup>6</sup> Maurizio Bussolo and Luis F. Lopez-Calva, *Shared Prosperity: Paving the Way in Europe and Central Asia*, The World Bank, 2014.

<sup>7</sup> This is due in part to the influence of the European Union (Eurostat uses a relative poverty line of 60% of the EU-wide medium income), as well as to the smaller scale of absolute poverty in European countries. The EU's 2020 Strategy contains a poverty reduction target that combines relative poverty with measures of severe material deprivation and household work intensity.

<sup>8</sup> See <http://hdr.undp.org/en/statistics/mpi>; <http://www.ophi.org.uk/multidimensional-poverty-index/>.

<sup>9</sup> <http://hdr.undp.org/en/statistics/hdi>

the best-known indicators associated with the Millennium Development Goals that have been used to monitor global progress in poverty reduction since 2000.<sup>10</sup>

**Table 1—Poverty indicators, thresholds in Europe, Central Asia**

| <b>Country</b>                      | <b>Indicator, threshold</b> |
|-------------------------------------|-----------------------------|
| Albania                             | <i>Cost of basic needs</i>  |
| Armenia                             | <i>\$4.30/day</i>           |
| Azerbaijan                          | <i>Cost of basic needs</i>  |
| Belarus                             | <i>Cost of basic needs</i>  |
| Bosnia and Herzegovina              | <i>Cost of basic needs</i>  |
| Kazakhstan                          | <i>Cost of basic needs</i>  |
| Kyrgyzstan                          | <i>Cost of basic needs</i>  |
| Macedonia, Former Yugoslav Republic | <i>70% of median income</i> |
| Moldova                             | <i>Cost of basic needs</i>  |
| Montenegro                          | <i>Cost of basic needs</i>  |
| Serbia                              | <i>Cost of basic needs</i>  |
| Tajikistan                          | <i>Cost of basic needs</i>  |
| Turkey                              | <i>Cost of basic needs</i>  |
| Turkmenistan                        | <i>50% of median income</i> |
| Ukraine                             | <i>75% of median income</i> |
| Uzbekistan                          | <i>Cost of food basket</i>  |

*Compiled by UNDP from various sources.*

As an income poverty measure, the PPP\$1.25/day threshold is widely seen as providing a poor guide to material deprivation in the region. According to the most recent POVCALNET data, this threshold indicates that income poverty in the developing and transition economies of Europe and Central Asia is virtually non-existent.<sup>11</sup> In light of this—and since low-income households in the northern hemisphere face additional expenditures for heating, winter clothing, and related goods and services not generally required in the more temperate African and Asian climates where the PPP\$1/day poverty standard was developed—the World Bank in 2000 began using an income poverty line of PPP\$2.15/day for European and Central Asian countries. The World Bank also introduced the income poverty threshold of PPP\$4.30/day at this time. This threshold has since come to be understood either as the per-capita income level needed to satisfy such basic human needs as education, healthcare, and access to information; or as a threshold below which low-income individuals in the region are “vulnerable” to poverty.<sup>12</sup>

In this paper, the PPP\$4.30/day poverty line is treated as a regional income poverty threshold, while the PPP\$2.15/day poverty line is treated as a regional threshold for extreme income poverty. This choice is motivated by the authors’: (i) subjective views about how much daily income is in fact necessary to keep individuals out of poverty in much of the region; and (ii) possession of a POVCALNET data set extending back to 1981, in which the PPP\$4.30/day and PPP\$2.15/day thresholds are used. (For most countries in the region, the POVCALNET data now available do not extend so far back in time.<sup>13</sup>) In so doing,

<sup>10</sup> For more on this, see Martin Ravallion, Shaohua Chen, and Prem Sangraula, *Dollar a Day Revisited*, World Bank Policy Research Working Paper 4620 (May 2008); and UNECE Statistical Division, *Indicators for Monitoring the Millennium Development Goal 1: Definitions and Use in Official MDG Reports in the UNECE Region* (2011).

<sup>11</sup> The only countries for which the most recent data show income poverty to be present at this threshold to be above 0% are Georgia (18%), Tajikistan (7%), Kyrgyzstan (5%), Armenia (2%), and Turkey (1%).

<sup>12</sup> For more on this, see the World Bank’s “The Face of Poverty in Europe and Central Asia” (<http://www.worldbank.org/en/news/feature/2014/02/10/face-of-poverty-in-europe-and-central-asia>).

<sup>13</sup> At present, the publicly available POVCALNET data do not extend further back than 1987. The time series data reported for a number of CIS countries (Azerbaijan, Turkmenistan, Uzbekistan) have likewise been reduced in scope, compared to what was available earlier. In Southeast Europe, there are no POVCALNET data for Serbia, Montenegro, and Bosnia and Herzegovina, before 2005, 2002, and 2001, respectively—and for Kosovo (as per UNSCR 1244/1999) for any year. This paper’s coverage of these countries is therefore more circumscribed.

this paper does not mean to challenge the validity of poverty analyses that use the PPP\$5/day threshold, or other thresholds. Other measures of poverty, and vulnerability to poverty, are in any case considered in section XIII below.

**Box 1—What can time deficits tell us about poverty? The case of Turkey**

*Living standards in households with similar incomes may vary significantly depending on how much time is available for household maintenance. The Turkish Statistical Institute<sup>14</sup> and its partners have therefore pioneered two new instruments for measuring household “time deficits”—the difference between the time needed for rest, the care of children and the sick/infirm, and other essential household responsibilities, versus the time actually devoted to these needs—as proxies for poverty and deprivation. These are: (i) an alternative to the official poverty threshold, developed with the Levy Economics Institute;<sup>15</sup> and (ii) a time-use survey (designed with UNDP assistance) that measures inequalities in time available for household activities. Use of these instruments in Turkey suggests that, when time deficits are taken into account, the numbers of people living in poverty expand significantly.*

*Consider two hypothetical four-person households with the same low (equivalized) incomes. The first consists of two children and two adults—one of which participates in the labour market on a full time basis, while the other performs most household maintenance activities. The other household consists of a single parent who is a full-time worker, and three children. Despite these households’ identical income levels, the second household is less likely to have the time needed to perform necessary household activities (e.g., child care)—while low incomes may preclude market procurement of child care services. As a result, living standards, and development possibilities in the second household are clearly lower than in the first.*

*Poverty definitions that include time deficits reflect three important insights:*

- **Poverty thresholds should be corrected** to reflect time deficits. Otherwise, official poverty rates may systematically, and significantly, understate the true extent of poverty and deprivation. In Turkey, for example, correcting the 2006 official poverty data for time deficits would boost the national poverty rate by more than one half (from 25% to 38%).<sup>16</sup>
- **Gender bias:** as women are more likely than men to be engaged in household maintenance, the failure to account for intra-household time allocations may introduce gender biases into poverty assessments.
- **Measures to boost employment growth (especially for women) that focus solely on the labour market may not be enough.** As in many developing countries, labour force participation rates for women in Turkey are well below those of men. Policies that seek to create new employment opportunities for women may therefore need to focus on reducing the intra-household time deficits they face—for example, by expanding child- or assisted-care support. Otherwise, their domestic responsibilities may prevent women from taking advantage of emerging job opportunities, and anticipated improvements in employment growth may not materialize.

The World Bank’s POVCALNET data set contains time series income poverty data, from methodologically comparable household budget surveys measuring per-capita equivalized consumption expenditures (as proxies for income) for most of the world’s developing and transition economies. These expenditures are made comparable by the use of global PPP exchange rates that were recently updated within the framework of the International Comparison Project.<sup>17</sup> This data base allows the researcher to calculate income poverty in a given country or region using whatever poverty threshold and geographic aggregation s/he wants.

<sup>14</sup> <http://www.turkstat.gov.tr/Start.do;jsessionid=BXyyTntGcZxMX1JRXyly3sxDY58J4rFYM2JlmmvCfFHLJptsXpSh!854967473>

<sup>15</sup> <http://www.levyinstitute.org/topics/time-deficits>.

<sup>16</sup> *How Poor is Turkey? And What Can Be Done About It?* Levy Economics Institute of Bard College, public policy brief 132, May 2014 ([http://www.levyinstitute.org/pubs/ppb\\_132.pdf](http://www.levyinstitute.org/pubs/ppb_132.pdf)).

<sup>17</sup> For more on the International Comparison Project, see <http://icp.worldbank.org/>.

Differences in ostensibly comparable goods and services included in different transition economies' minimal consumption baskets, the different paces at which prices for these goods and services have been liberalized over the course of transition, cultural influences on household willingness to honestly answer interviewers' questions about their incomes and spending—all this can bias estimates of household welfare or PPP exchange rates. In addition to these more generic problems common to most such exercises, the POVCALNET data raise some other, more specific concerns. These pertain to the: (i) reconciliation of multiple poverty estimates for a given year via unweighted averages; and (ii) methodological difficulties associated with comparing pre-1990 income poverty data for individual Soviet/Yugoslav republics with post-independence data (see Box 2).<sup>18</sup>

### **Poverty trends in the former Soviet Union (V)<sup>19</sup>**

During the Soviet period, incomes and consumer goods were formally distributed in a broadly egalitarian manner within the framework of central planning. Household incomes were in principle determined by centrally set wages, and were supplemented by significant public consumption that provided quasi-universal access to heavily subsidized (sometimes nominally free) public health, education, housing, transport, culture, and other social services. Social policy rewarded “service to the country” according to broad categorical principles, and supported such “deserving” social groups as war veterans, the elderly, families, and children—irrespective of individual risk of poverty or exclusion. This policy framework, and the ideology that accompanied it, precluded serious consideration of poverty issues; research into such questions was not well developed. Although a “living wage” was set by the statistical authorities at 75 Soviet roubles per person per month, this was not officially called a poverty line, nor did it serve an explicit social policy function.

The realities, of course, were more complicated. The differentials in wage incomes needed to induce migration from “labour surplus” to “labour shortage” regions, and to encourage workers to acquire human capital, generated wage inequalities that were on par with those reported in at least some capitalist countries.<sup>20</sup> The public services provided to collective farm workers (who did not receive state pensions until the 1960s) and other rural and small-town residents were often inferior to what urban dwellers enjoyed. Shortage conditions forced many households to pay whatever the (black) market would bear for consumer goods. Likewise, low wages in the state sector led workers to seek additional earnings in the informal sector, outside the protections offered by labour regulations.

Despite these caveats, the POVCALNET data base would seem to provide the best quality, methodologically comparable time-series data on income poverty (and inequalities) in the region, including for the pre-1990 period. In broad brush strokes, they show that:

- Income poverty was indeed present in these countries (both in the former Soviet republics and in Albania, as well as in Turkey) before 1990;
- Income poverty rates jumped sharply in all of the region's transition economies during the 1990s, and then dropped again in the new millennium—until the 2008 onset of the global financial crisis;
- While poverty rates in some countries have continued to fall since 2008, in others progress in poverty reduction has been arrested since then; and

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<sup>18</sup> While household budget surveys were conducted in the USSR, they focused primarily on monitoring the macroeconomic balance and ensuring that wage differentials remained within planned norms.

<sup>19</sup> The 11 members of the Commonwealth of Independent States, plus Georgia.

<sup>20</sup> Overall income inequalities in capitalist countries were generally much higher during the Soviet period, due to the presence of significant non-labour incomes that typically accrue disproportionately to wealthy households.

- Income poverty—and even extreme income poverty—remains a serious issue in most of the region’s lower middle-income countries (as well as in low-income Tajikistan).

| <b>Country</b> | <b>1981</b> | <b>1984</b> | <b>1987</b> | <b>1990</b> | <b>1993</b> | <b>1996</b> | <b>1999</b> | <b>2002</b> | <b>2005</b> | <b>2008</b> | <b>2010</b> |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Albania        | 48%         | 47%         | 43%         | 63%         | 63%         | 50%         | 48%         | 57%         | 48%         | 46%         | n.a.        |
| Armenia        | n.c.        | n.c.        | n.c.        | n.c.        | 83%         | 77%         | 89%         | 89%         | 77%         | 65%         | 76%         |
| Azerbaijan     | n.c.        | n.c.        | n.c.        | n.c.        | 86%         | 86%         | 84%         | 67%         | 55%         | 34%         | n.a.        |
| Belarus        | n.c.        | n.c.        | n.c.        | n.c.        | 16%         | 69%         | 33%         | 28%         | 7%          | 2%          | 1%*         |
| BiH            | 6%          | 5%          | 4%          | 4%          | 6%          | 6%          | 5%          | 3%          | 11%         | 5%#         | n.a.        |
| Georgia        | n.c.        | n.c.        | n.c.        | n.c.        | 37%         | 48%         | 77%         | 75%         | 74%         | 72%         | 74%         |
| Kazakhstan     | n.c.        | n.c.        | n.c.        | n.c.        | 62%         | 59%         | 57%         | 66%         | 50%         | 29%         | 30%         |
| Kyrgyzstan     | n.c.        | n.c.        | n.c.        | n.c.        | 58%         | 84%         | 85%         | 95%         | 83%         | 62%         | 70%*        |
| Macedonia, FYR | 27%         | 24%         | 22%         | 23%         | 31%         | 32%         | 36%         | 23%         | 24%         | 27%         | n.a.        |
| Moldova        | n.c.        | n.c.        | n.c.        | n.c.        | 85%         | 74%         | 93%         | 82%         | 80%         | 42%         | 38%         |
| Montenegro     | n.a.        | 14%         | 4%          | 7%          |
| Serbia         | n.a.        | 7%          | 22%         | 17%         | 9%          |
| Tajikistan     | n.c.        | n.c.        | n.c.        | n.c.        | 92%         | 99%         | 98%         | 95%         | 90%         | 87%#        | 79%^        |
| Turkey         | 60%         | 53%         | 42%         | 40%         | 42%         | 37%         | 38%         | 41%         | 30%         | 20%         | 24%         |
| Ukraine        | n.c.        | n.c.        | n.c.        | n.c.        | 14%         | 45%         | 65%         | 39%         | 15%         | 4%          | 3%          |

Source: World Bank POVCALNET database. Pre-2002 poverty rates for most countries are computed using 2005 ICP PPP exchange rates. Poverty rates for other years are computed using 2008 ICP PPP exchange rates.<sup>21</sup>

\* 2011 data.

^ 2009 data.

# 2007 data.

n.a.—Data are not available.

n.c.—Data are available, but not credible (see Box 2).

When measured against the PPP\$2.15/day threshold, the POVCALNET data suggest that, despite reductions in poverty levels during the 1980s, some 30 million Soviet citizens (roughly one in eight) were still living in extreme poverty at the time of the Soviet Union’s dissolution (1990). If the PPP\$4.30/day threshold is used, this figure rises to nearly 120 million—about half the Soviet population at that time.<sup>22</sup> According to another study, 16% of blue collar households and 39% of collective farm households in 1985 earned less than the officially set living wage.<sup>23</sup>

While these data are not without problems (see Box 2), they are broadly consistent with the argument that, as economic growth slowed to a crawl in the years prior to the dissolution the USSR, growing numbers of Soviet citizens found that their living standards dropping below socially accepted norms. Meanwhile, the upper echelons of the Soviet elite enjoyed such privileges of rank and status as access to scarce consumer goods (at official prices) and easier travel abroad. With the onset of *perestroika* in the mid-1980s, well connected members of the *nomenklatura* were increasingly able to transform these privileges into income and wealth. Accelerating social stratification combined with slowing economic growth could have further exacerbated absolute income poverty. Reasonable individuals will disagree about the extent to which the data on poverty and social stratification in these countries that began to appear in the 1990s simply reflected trends that had begun during the Soviet period, and became increasingly visible following the dissolution of the USSR.

<sup>21</sup> Income poverty data for the same year associated with the different years’ exchange rates typically do not differ significantly.

<sup>22</sup> Residents of the Russian Federation, and the Baltic states, are included here.

<sup>23</sup> Source: Falkingham, J., *Inequality and poverty in the CIS7, 1989-2002*, presented at the Lucerne Conference of the CIS-7 Initiative, 20-22 January 2003. See also Ovcharova, L.N., I.I. Korchagina, and E.V. Turuntsev, *Sistema indikatorov urovnya bednosti v perekhodnyi period v Rossii*. Moscow, 2009, EERC-Russia/The Eurasian Foundation.

Since the 1990s witnessed sharp declines in GDP, as well as the appearance of new sources of non-labour incomes that accrued disproportionately to wealthier households, the official data showing sharp increases in absolute (and relative) poverty in the former Soviet republics seem quite credible. Thus, the POVCALNET data show income poverty rates rising sharply during the 1990s—particularly in Central Asia. These data indicate that the numbers of people living below PPP\$4.30/day in the former Soviet republics (including the Russian Federation) rose from some 120 million in 1990 to nearly 150 million in 1999. Roughly 20 million of this 30 million person increase would seem to have occurred in the five Central Asian countries. The trends shown in these data are by and large consistent with the national data that emerged during the 1990s, reflecting *inter alia* more accurate (generally smaller) estimates of GDPs in these transition economies (especially for the [then] low-income countries in Central Asia, the Caucasus, and Moldova), and the obvious hardships experienced by millions of people during the 1990s. The emergence of poverty reduction strategy papers as policy frameworks for managing the links between macroeconomic policies and poverty alleviation in the late 1990s can be seen as official recognition (by governments and international financial institutions) that poverty had indeed become a serious issue that required a serious response.

| Table 3—Extreme income poverty trends (1981-2010, PPP\$2.15/day threshold) |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Country                                                                    | 1981 | 1984 | 1987 | 1990 | 1993 | 1996 | 1999 | 2002 | 2005 | 2008 | 2010 |
| Albania                                                                    | 8%   | 8%   | 6%   | 17%  | 17%  | 9%   | 8%   | 11%  | 10%  | 6%   | n.a. |
| Armenia                                                                    | n.c. | n.c. | n.c. | n.c. | 52%  | 42%  | 54%  | 51%  | 27%  | 15%  | 24%  |
| Azerbaijan                                                                 | n.c. | n.c. | n.c. | n.c. | 46%  | 47%  | 43%  | 22%  | 0%   | 3%   | n.a. |
| Belarus                                                                    | n.c. | n.c. | n.c. | n.c. | 1%   | 3%   | 4%   | 3%   | 1%   | 0%   | 0%*  |
| BiH                                                                        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | n.a. | n.a. |
| Georgia                                                                    | n.c. | n.c. | n.c. | n.c. | 10%  | 16%  | 39%  | 37%  | 36%  | 35%  | 38%  |
| Kazakhstan                                                                 | n.c. | n.c. | n.c. | n.c. | 20%  | 21%  | 17%  | 24%  | 13%  | 1%   | 2%^  |
| Kyrgyzstan                                                                 | n.c. | n.c. | n.c. | n.c. | 32%  | 58%  | 46%  | 70%  | 49%  | 23%  | 25%* |
| Macedonia, FYR                                                             | 4%   | 3%   | 3%   | 3%   | 5%   | 5%   | 8%   | 4%   | 4%   | 5%   | 5%   |
| Moldova                                                                    | n.c. | n.c. | n.c. | n.c. | 48%  | 36%  | 70%  | 44%  | 39%  | 8%   | 6%   |
| Montenegro                                                                 | n.a. | 1%   | 0%   | 0%   |
| Serbia                                                                     | n.a. | 1%   | 3%   | 1%   | 1%   |
| Tajikistan                                                                 | n.c. | n.c. | n.c. | n.c. | 56%  | 92%  | 86%  | 73%  | 56%  | 41%# | 31%^ |
| Turkey                                                                     | 22%  | 16%  | 9%   | 10%  | 12%  | 9%   | 10%  | 11%  | 8%   | 5%   | 5%   |
| Ukraine                                                                    | n.c. | n.c. | n.c. | n.c. | 0%   | 10%  | 16%  | 4%   | 1%   | 0%   | 0%   |

Source: World Bank POVCALNET database. Pre-2002 poverty rates for most countries are computed using 2005 ICP PPP exchange rates. Poverty rates for other years are computed using 2008 ICP PPP exchange rates.

\* 2011 data.

^ 2009 data.

# 2007 data.

n.c.—Data are available, but not credible (see Box 2).

The POVCALNET data also indicate that absolute poverty levels fell in virtually all the former Soviet countries between the mid-/late 1990s and 2008. Use of the PPP\$4.30/day threshold suggests that some 60 million people in these countries (including in the Russian Federation) moved out of income poverty between 1999 and 2005. This trend would seem to have continued prior to the onset of the global financial crisis in 2008. The higher household incomes and expenditures produced by these countries' post-1998 economic recoveries—as well as some improvements in social protection systems and large increases in remittances received in the region's low- and lower middle-income countries—would seem to have been a main cause of this progress. While post-2008 data income poverty data are sketchier, they point to continuing reductions in poverty in Belarus, Moldova, Tajikistan, and Ukraine (as well as in the Russian Federation) following the onset of the global financial crisis. By contrast, the POVCALNET data show increases in poverty rates after 2008 for Armenia, Georgia, and Kyrgyzstan.

### Box 2—Poverty in the Soviet Union

Poverty in the Soviet Union prior to its dissolution in 1991 is a subject of heated debates, multiple myths—and measurement challenges of enormous complexity. The two most common (and contradictory) myths about poverty are: “everybody was poor in the USSR”, and “there were no poor people in the USSR” (at least, not in the 1970s and 1980s). While neither of these myths is completely accurate, both include some elements of truth. Basic needs seem to have been satisfied for the majority of the population—particularly in terms of education, health, and other key social services. However, these needs were met by centralized instruments and institutions that typically offered their beneficiaries only modest elements of choice.<sup>24</sup> The provision of goods and services was the objective, rather than satisfying people’s needs. Citizens who were not happy with this lack of options, or with the often low standards that accompanied them, may have perceived this situation as poverty.

What do the data say? Attempts to measure poverty in the USSR (particularly when undertaken retrospectively) face a number of challenges. The methodology used in Soviet-era household budget surveys was not fully trustworthy; survey results were typically available only in tabulated form. Second, monetary incomes were just beginning of the story: significant amounts of goods and services were provided in kind, usually collectively, and often via state enterprises. Unrecorded consumption of foodstuffs produced on family plots was also significant—particularly in rural areas. Data from the 1980s suggest that such collective and in-kind consumption may have accounted for more than a third of total household incomes. And as these figures did not reflect large subsidies for communal services, this share could have been much higher. The absence of market-clearing prices, and significant shortage pressures for many goods and services, further complicate interpretations of household budget data. Relatively inexpensive food and health care certainly reduced poverty and improved living standards—except when they could not be obtained at prevailing prices, and households had to turn to other (often more expensive, less reliable, or both) alternatives.

These methodological problems may account for the anomalies apparent in the pre-1990 POVCALNET data. For instance, the POVCALNET data show much higher pre-1990 poverty rates for (what were then the Soviet Socialist Republics of) Ukraine and Moldova than they do for Kyrgyzstan, Tajikistan, and Uzbekistan. Not only is this ranking difficult to reconcile with many other pre-1990 development indicators, as well as with post-Soviet POVCALNET poverty rates—it is also inconsistent with the official Soviet household income distribution data (see Table 2a below). We therefore generally refrain from analysing Soviet-era country-/republic-specific POVCALNET data.

**Table 2a—Official Soviet\* and POVCALNET poverty rates compared (1987-1988, ordinal rankings)<sup>25</sup>**

| Republic     | Official Soviet data** | POVCALNET data |
|--------------|------------------------|----------------|
| Belarus      | First                  | First          |
| Ukraine      | Second                 | Eighth         |
| Moldova      | Third                  | Eleventh       |
| Kazakhstan   | Fourth                 | Second         |
| Georgia      | Fifth                  | Sixth          |
| Armenia      | Sixth                  | Fourth         |
| Azerbaijan   | Seventh                | Ninth          |
| Turkmenistan | Eighth                 | Tenth          |
| Kyrgyzstan   | Ninth                  | Third          |
| Uzbekistan   | Tenth                  | Fifth          |
| Tajikistan   | Eleventh               | Seventh        |

\* Defined as the share of the population of the given Soviet republic living below 75 roubles/month—the “maloobespechennost” (low living standard) threshold established in 1974.<sup>26</sup>

\*\* Source: Narodnoe Khozyaystvo SSSR.

All data are for 1988, except for the POVCALNET data for Armenia, Azerbaijan, Georgia, and Tajikistan (which are for 1987).

Note: the higher the country ranking, the higher the reported poverty level.

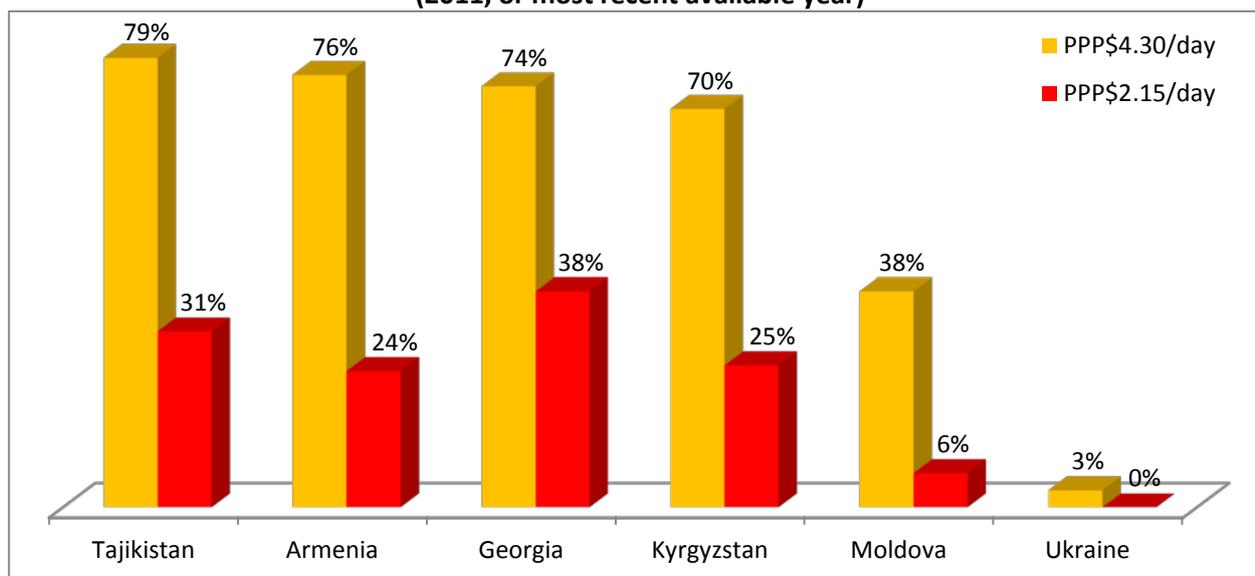
<sup>24</sup> For more on this, see Andrey Ivanov and Mihail Peleah, “From centrally planned development to human development”, UNDP Human Development Research Paper Nr.2010/38, 2010 ([http://hdr.undp.org/sites/default/files/hdrp\\_2010\\_38.pdf](http://hdr.undp.org/sites/default/files/hdrp_2010_38.pdf)).

<sup>25</sup> The different poverty thresholds used in the Soviet (versus POVCALNET) data should not affect inter-republican poverty rankings. Differences in equalization techniques across the two datasets could explain some of the differences in the ordinal rankings, as the unequalized Soviet data would tend to increase reported poverty rates in Central Asia relative to the Western Soviet republics, as household sizes in the former were (and remain) larger.

<sup>26</sup> See <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=ESU;n=404>

Perhaps most importantly, these data show the extent to which income poverty remains a serious problem in the less wealthy former Soviet republics. If the PPP\$2.15/day threshold is used, the most recent data available indicate that more than a third (38%) of the population in Georgia was living in extreme poverty in 2010; while the share of the population living in extreme poverty in Tajikistan, Kyrgyzstan, and Armenia was between one quarter and one third (Figure 1). This constitutes some 6.7 million people. If this figure were adjusted to reflect people living in comparable conditions of poverty in Uzbekistan (a lower middle-income country that does not share its household budget survey data with the public) the number of people living in extreme poverty in the region could exceed 10 million. The global financial crisis would seem to have exacerbated these problems: the POVCALNET data point to post-2008 increases in extreme poverty rates in all of these countries, except for Tajikistan (Table 3).

**Figure 1—Income poverty rates in low- and lower middle-income countries in Europe and Central Asia (2011, or most recent available year)**



*POVCALNET data; as per the World Bank country classification scheme.*

By contrast, the POVCALNET data indicate that income poverty (using the PPP\$4.30/day threshold) has been largely eradicated in Belarus and Ukraine—which for Ukraine is a bit of a surprise, as Ukraine continues to be a lower middle-income country (according to the World Bank classification scheme). Extreme poverty would likewise seem to have been eradicated in Kazakhstan, Azerbaijan, and (increasingly) Moldova—as well as in the Russian Federation. In these countries, the significance of income poverty would seem to be declining, relative to challenges posed by inequalities, vulnerabilities, and social exclusion.

### Poverty trends in Southeast Europe (VI)

Despite their geographic, cultural, political, and economic differences, the Soviet successor states share a common institutional heritage, when it comes to measuring, monitoring, and addressing problems of poverty, inequalities, vulnerabilities, and exclusion. By contrast, the countries of Southeast Europe<sup>27</sup> exhibit more historical diversity, reflecting multiple state/state formation legacies: Turkey, Albania, and the former Yugoslavia. Of these three, the development model pursued in socialist Albania was arguably closest to the Soviet approach, in terms of (strict) central planning, the criminalization of private enterprise, and the emphasis on autarchy over international integration. Full employment in state enterprises and collective farms was arguably the most important social policy characteristic.

<sup>27</sup> Understood as the states of the former Yugoslavia (minus Croatia, except where otherwise noted), Albania, and Turkey.

The Yugoslav republics combined more flexible, decentralized, market-oriented forms of socialism with the adoption of some West European social protection/insurance systems, as well as permitting “redundant” workers to migrate to Western Europe (and send back remittances). Social rights were in principle enjoyed by all public servants, workers, and their families; promises of universal access to education, health care, and pensions were largely realized; and significant social welfare institutional infrastructure was developed (e.g., municipal centres for social work, tertiary education institutions for social workers, etc.). On the other hand, some population groups (e.g., small farmers) were excluded from these services. And while inequalities between different republics and autonomous provinces were recognised, the effectiveness of the regional development policies used to address them was often questionable.

The oil shocks of the 1970s and subsequent economic crisis of 1980s sharpened and brought to light many issues of unemployment, inequality, and poverty in Yugoslavia. Poverty rates started to rise from 1983 onwards, with the Gini coefficient estimated between 0.3 and 0.32.<sup>28</sup> These trends in the 1980s lead Branko Milanović to note that: “While increased urban poverty can be politically accommodated if it is the result of people migrating from villages, looking for better jobs and accepting temporary decline in their standard of living in anticipation of an early improvement, a *descent into poverty* of people who are already living in cities is socially much more destabilising”.<sup>29</sup> This observation can be applied to the current economic and financial crisis affecting virtually all the countries of the region.

Turkey differs the most from the other countries considered here: it is a developing (rather than a transition) economy, exhibiting such more traditionally “southern” developmental characteristics as relative high levels of income (and gender) inequalities, low employment levels, and (until recently) under-developed (compared to most other countries examined here) social welfare systems. Poverty trends reported for Turkey followed a different logic. After dropping during the 1990s, poverty rates rose during 1999-2002, due to the impact of the currency and financial crises of 1999 and 2001. They dropped sharply after 2002, only to rise again after the onset of the global financial crisis in 2008. Turkey’s dual social protection system provides formal employment-related social protection for civil servants and industrial workers, while effectively excluding other, large population groups for which informal family networks and kinship support continue to play large roles. Such a dual social protection system deepens many inequalities, social cleavages, and regional disparities.

Despite these differences, these countries bear three important similarities in terms of poverty measurement and monitoring, and related social policy frameworks. First, all are currently negotiating for membership in the European Union. This means *inter alia* the harmonization of national poverty data and measurement and social protection systems with EU norms. Candidate countries are required to adopt the EU’s Statistics on Income and Living Conditions (EU-SILC) monitoring framework, which tracks trends in income distribution, relative poverty, and material deprivation. The EU-SILC data base<sup>30</sup> provides information that is comparable over time and across member states. Candidate countries must also prepare to introduce the European System of Integrated Social Protection Statistics—a common framework for collecting and analysing data on social benefits, receipts and expenditures, pensions beneficiaries, and the like.

Second, all the Southeast European economies (except for Kosovo<sup>31</sup>) are now classified by the World Bank as upper middle-income countries. The POVCALNET data indicate that virtually all had reduced extreme poverty (measured at the PPP\$2.15/day threshold) to 5-6% or less by 2008. As measured by the PPP\$4.30/day poverty threshold, Albania is the only Southeast European country in which more than a

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<sup>28</sup> Branko Milanović, “Poverty in Poland, Hungary, and Yugoslavia in the Years of Crisis, 1978-1987”, *World Development Report* background paper (1990), [http://www.wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/1990/09/01/000009265\\_3960929170334/Rendered/PDF/multi0page.pdf](http://www.wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/1990/09/01/000009265_3960929170334/Rendered/PDF/multi0page.pdf).

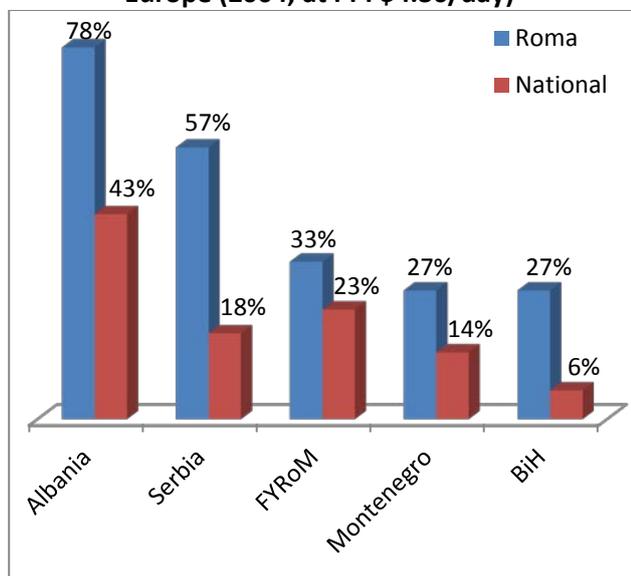
<sup>29</sup> Milanović, pp. 16-17 (italics in original).

<sup>30</sup> [http://epp.eurostat.ec.europa.eu/portal/page/portal/income\\_social\\_inclusion\\_living\\_conditions/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/data/database).

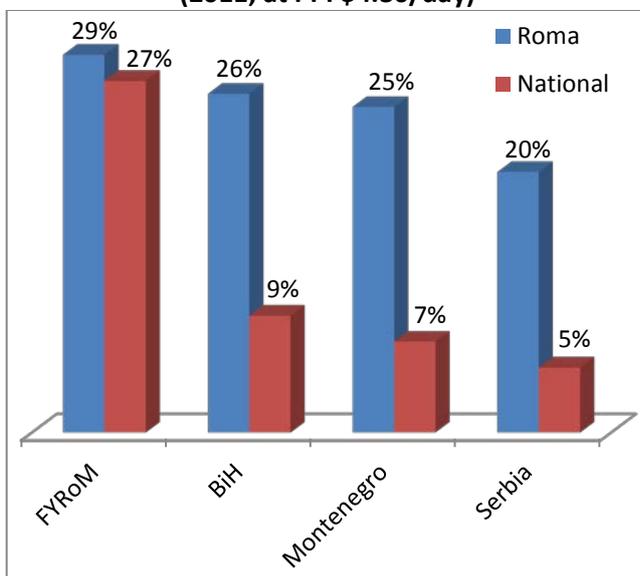
<sup>31</sup> As per UNSCR 1244 (1999).

third of the population was then living in income poverty. This share dropped to about a quarter for Turkey and the Former Yugoslav Republic of Macedonia, and to under 10% for Bosnia and Herzegovina, Montenegro, and Serbia. However, whereas Serbia has reported continued reductions in poverty after 2008, poverty rates in Montenegro and Turkey rose during 2008-2010.

**Figure 2—Income poverty rates in Southeast Europe (2004, at PPP\$4.30/day)**



**Figure 3—Income poverty rates in Southeast Europe (2011, at PPP\$4.30/day)**



Sources: POVCALNET, and the UNDP/EU/WB Roma regional database. National data reported for 2011 are from 2010 for Montenegro and Serbia; from 2008 for the Former Yugoslav Republic of Macedonia; and from 2007 for Bosnia and Herzegovina. National data reported for 2004 for Montenegro are from 2005.

Third, these low reported income poverty rates mask significant pockets of poverty and exclusion. As the data in the Figures 2 and 3 show, the income poverty rates (measured at the PPP\$4.30/day threshold) for Roma were significantly above national averages in 2004—and remained so in 2011. This underscores the importance of collecting and analysing poverty data in middle-income (and especially upper middle-income) countries that are disaggregated by relevant vulnerability criteria.

### Drivers of poverty and inequality—Location, gender, age (VII)

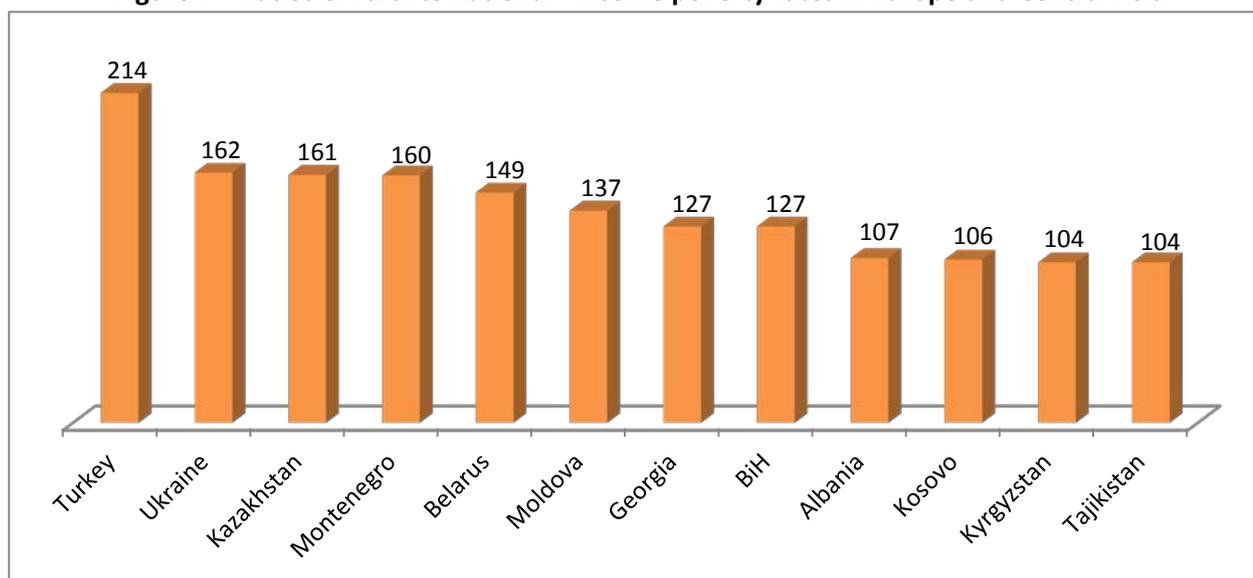
The available data suggest that the risks of poverty in the region are particularly high for residents of rural areas (Figure 4), those unable to work, individuals living alone, single-parent families, and families with many children.<sup>32</sup> They are also high for the “new poor” of the transformation, such as:

- the unemployed (including officially employed workers on unpaid or partly paid leave, or who have experienced significant wage arrears) and their families;
- the working poor, including public servants in such sectors as education, health, science, and the arts, as well as farm workers and petty traders, particularly in rural areas (and their families);
- residents of “company towns” where local economies rely heavily on small numbers of large companies; and
- refugees and internally displaced persons.

Poverty rates also tend to vary inversely with education levels.

<sup>32</sup> This is a particular issue in Central Asia, where average family sizes are relatively large.

**Figure 4—Ratios of rural to national\* income poverty rates in Europe and Central Asia**



Note: An indicator value of 100 implies no difference between rural and national (urban) poverty rates. An indicator value greater than 100 means that rural poverty rates exceed national (urban) rates.

\* Based on national poverty definitions.

Source: UNDP calculations, based on World Bank World Development Indicators data (2012, or most recent year).

These drivers underscore the fact that national aggregates are not enough to fully understand the extent and nature of poverty in this region of middle-income countries. More disaggregation is needed to identify “those left behind”—particularly since so many countries in the region inherited centralized systems for collecting and processing survey data. Effective responses to the challenges of social exclusion and regional disparities should likewise combine elements of decentralization.

### **Inequalities in transition economies (VIII)**

It is customary to treat income inequality data as proxies for social cleavages. Doing so risks conflating inequalities of results and opportunities; policy makers should presumably be more interested in reducing the former than the latter. Without denying the importance of this distinction, this paper follows the approach of UNDP’s *Humanity Divided* report by treating *ex post* inequalities in results/income distributions (as measured by household budget survey data, as made comparable via the international comparison project, and as reported in the POVCALNET data base) as proxies for *ex ante* inequalities in opportunities, with both intrinsically linked with one another.<sup>33</sup>

Data on income inequality for transition economies suffer from many of the methodological drawbacks afflicting income poverty data, for many of the same reasons. On the other hand, international comparisons of relative poverty (income distribution) data are less likely to be distorted by price or exchange rate effects. The possible pitfalls of using other (than POVCALNET) datasets to compare trends in income inequalities across the region are therefore less than in comparing absolute poverty rates. Reference may therefore be made to the Gini coefficients reported in the [Standard World Income](#)

<sup>33</sup> “Inequality of outcomes and inequality of opportunities cannot be treated as separate issues; they are, in fact, two sides of the same coin. Equality of opportunities cannot coexist with deep inequality of outcomes—or, in other words, as outcomes become more unequal, opportunities to live a fulfilling life shrink for those who are born into relatively disadvantaged households. Furthermore, the persistence of unequal outcomes for specific groups can entrench underlying patterns of discrimination and cultural biases. Put differently: inequality cannot be effectively confronted unless the inextricable links between inequality of outcomes and inequality of opportunities are taken into account.”—*Humanity Divided*, page 4. (<http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/humanity-divided--confronting-inequality-in-developing-countries.html>.)

[Inequality Database](#) (see Appendix I), whose data may show a more nuanced (albeit less transparent) picture than what is apparent in the POVCALNET data base.

**Table 4—Income inequality trends: Gini coefficients (1981-2010)**

| Country        | 1981 | 1984 | 1987 | 1990 | 1993 | 1996 | 1999 | 2002 | 2005 | 2008  | 2010  |
|----------------|------|------|------|------|------|------|------|------|------|-------|-------|
| Albania        | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.28 | 0.33 | 0.35  | n.a.  |
| Armenia        | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.36 | 0.36 | 0.36 | 0.31  | 0.31  |
| Azerbaijan     | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.36 | 0.37 | 0.17 | 0.34  | n.a.  |
| Belarus        | 0.23 | 0.23 | 0.23 | 0.22 | 0.22 | 0.25 | 0.30 | 0.30 | 0.28 | 0.27  | 0.26* |
| BiH            | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.36 | 0.36^ | n.a.  |
| Georgia        | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.41 | 0.40 | 0.41 | 0.41  | 0.42  |
| Kazakhstan     | 0.26 | 0.26 | 0.26 | 0.29 | 0.33 | 0.35 | 0.33 | 0.35 | 0.32 | 0.29  | 0.29# |
| Kyrgyzstan     | 0.26 | 0.26 | 0.26 | 0.37 | 0.54 | 0.43 | 0.35 | 0.32 | 0.39 | 0.37  | 0.33* |
| Macedonia, FYR | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.31 | 0.39 | 0.39 | 0.44  | n.a.  |
| Moldova        | 0.24 | 0.24 | 0.24 | 0.29 | 0.35 | 0.36 | 0.39 | 0.37 | 0.36 | 0.35  | 0.33  |
| Montenegro     | n.a. | 0.30 | 0.30  | 0.29  |
| Serbia         | n.a. | 0.33 | 0.33 | 0.28  | 0.30  |
| Tajikistan     | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.29 | 0.33 | 0.34 | 0.33^ | 0.31# |
| Turkey         | 0.44 | 0.44 | 0.44 | 0.43 | 0.42 | 0.42 | 0.43 | 0.43 | 0.43 | 0.39  | 0.40  |
| Ukraine        | 0.23 | 0.23 | 0.23 | 0.25 | 0.26 | 0.35 | 0.29 | 0.28 | 0.28 | 0.28  | 0.26  |

Sources: POVCALNET database.

\* 2011 data.

^ 2007 data.

# 2009 data.

In any case, reported income inequalities—as measured by Gini coefficients, or by income decile ratios (*inter alia* via Palma ratios<sup>34</sup>)—increased in virtually all countries of the region during the 1990s, with the exception of Turkey. In some cases, the scale of these increases was shocking: in Kyrgyzstan, for example, the Gini coefficient for income inequality (reported in POVCALNET) more than doubled, from .26 in 1987 to .54 in 1993 (Table 4). The Palma ratio for income inequality in Kyrgyzstan likewise soared from 0.90 to 4.21 during this time (Table 5). Key drivers behind these increases included:

- The sharp declines in GDP in the 1990s, combined with the privatization (often at preferential prices to insiders) of state-owned companies, land, and other resources. This led to the appearance/expansion of new sources of non-labour incomes that accrued disproportionately to wealthier households, allowing them to claim larger shares of shrinking pies;
- The slow pace at which prices and commerce were liberalized in many countries, which created numerous arbitrage opportunities for well connected rent-seekers;
- The high/hyperinflations of the early 1990s, which sharply reduced real incomes for most workers and those living on fixed incomes;
- Drastic cutbacks in social benefits and minimum wages, due to fiscal pressures;
- The appearance of significant arrears in social benefit and wage payments, particularly from state-owned enterprises and budget-funded institutions;
- The paucity of effective, well funded social assistance programmes for low-income households;
- Disconnects between social assistance, social service provision, and labour market policies; and
- In some countries, the fact that large portions of social welfare budgets are directed to (and may be “captured” by) certain privileged/“deserving” groups (e.g., war veterans, public servants)—leaving less fiscal space for poverty reduction *per se*.

<sup>34</sup> For more on the Palma as a measure of income inequality and its differences vis-à-vis the Gini coefficient, see Alex Cobham and Andy Sumner, *Is It All About the Tails? The Palma Measure of Income Inequality*, Centre for Global Development Working Paper 343, September 2013; and “Putting the Gini Back in the Bottle? ‘The Palma’ As A Policy-Relevant Measure of Inequality”, 15 March 2013.

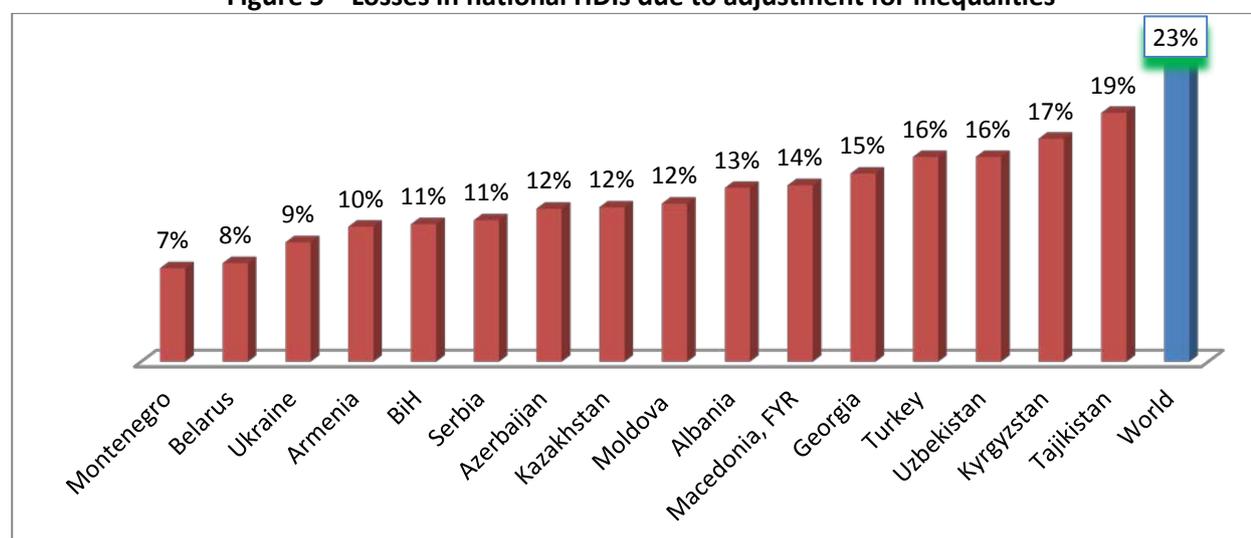
| Table 5—Income inequality trends: Palma ratios (1981-2010) |       |      |      |      |      |      |      |      |      |      |      |
|------------------------------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Country                                                    | 1988  | 1993 | 1996 | 1999 | 2001 | 2002 | 2005 | 2007 | 2008 | 2009 | 2010 |
| Albania                                                    | n.a.  | n.a. | n.a. | n.a. | n.a. | 1.00 | 1.30 | n.a. | 1.44 | n.a. | n.a. |
| Armenia                                                    | n.a.  | n.a. | 2.36 | 1.53 | 1.55 | 1.51 | 1.56 | 1.14 | 1.18 | n.a. | 1.22 |
| Azerbaijan                                                 | n.a.  | n.a. | n.a. | n.a. | 1.57 | n.a. | n.a. | n.a. | 1.36 | n.a. | n.a. |
| Belarus                                                    | .76   | .73  | n.a. | n.a. | 1.15 | 1.11 | .99  | 1.04 | .95  | .99  | .98  |
| BiH                                                        | n.a.  | n.a. | n.a. | n.a. | 1.00 | n.a. | n.a. | 1.52 | n.a. | n.a. | n.a. |
| Georgia                                                    | n.a.  | n.a. | 1.60 | 1.98 | 1.97 | 1.90 | 1.98 | 1.81 | 2.01 | 2.05 | 2.09 |
| Kazakhstan                                                 | .87   | 1.26 | 1.44 | n.a. | 1.99 | 1.43 | 1.18 | 1.18 | 1.09 | 1.07 | n.a. |
| Kyrgyzstan                                                 | .90   | 4.21 | n.a. | n.a. | n.a. | 1.21 | 1.81 | 1.35 | 1.62 | 1.53 | 1.55 |
| Macedonia, FYR                                             | n.a.  | n.a. | n.a. | n.a. | n.a. | 1.74 | 1.77 | n.a. | 2.34 | n.a. | n.a. |
| Moldova                                                    | .81   | n.a. | n.a. | 1.81 | 1.74 | 1.58 | 1.54 | 1.46 | 1.47 | 1.35 | 1.30 |
| Montenegro                                                 | n.a.  | n.a. | n.a. | n.a. | n.a. | n.a. | 1.12 | 1.14 | 1.12 | 1.13 | 1.02 |
| Serbia                                                     | n.a.  | n.a. | n.a. | n.a. | n.a. | 1.28 | 1.32 | 1.08 | 1.01 | .98  | 1.08 |
| Tajikistan                                                 | n.a.  | n.a. | n.a. | 1.05 | n.a. | n.a. | n.a. | 1.26 | n.a. | 1.16 | n.a. |
| Turkey                                                     | 2.25* | n.a. | n.a. | n.a. | n.a. | 2.16 | 2.15 | 1.79 | 1.76 | 1.74 | 1.87 |
| Ukraine                                                    | .78   | n.a. | 1.45 | 1.05 | n.a. | 1.02 | 1.01 | 1.09 | .98  | .93  | .89  |

UNDP calculations, based on POVCALNET data.

\* 1987 data.

For much of the region, this trend towards increasing inequalities halted around the turn of the millennium. For a number of countries (Moldova, Montenegro), this stabilization was followed by reductions in income inequality (as measured by Ginis or Palmas). For others, however (Albania, Georgia), income inequalities continued to increase.

Figure 5—Losses in national HDIs due to adjustment for inequalities



Source: HDRO (2012 data). National HDIs, adjusted for degrees of inequalities in their component indices.

How should these trends be interpreted? On the one hand, pre-transition income inequalities in the region were quite low by international standards: Gini coefficients for income inequality in these countries (or for the socialist federations to which they belonged) were generally well below 0.30 (see Appendix I). Not only were these below levels reported for many other developing countries (for whom Ginis above .40 or even .50 are not uncommon)—they were below those reported by many OECD countries as well. Some (moderate) increases in inequality may therefore have been during the initial years of the post-socialist transition, due to the impact of privatization and the appearance of new entrepreneurial

opportunities. Likewise, even after two decades of transition, broad measures of inequality—such as UNDP’s inequality-adjusted Human Development Index (IHDI)—indicate that the region continues to enjoy relatively high levels of equality (Figure 5). UNDP’s 2014 human development report also notes declines in the region’s IHDI during 2010-2014 (page 38). These factors may mitigate concerns about the growth in income inequalities reported since 1990.

On the other hand, a number of factors argue for a more critical assessment of the post-1990 growth in the region’s income inequalities:

- For a number of countries, income inequalities are no longer low, or even moderate, by global standards. The POVCALNET data indicate that Turkey—which is a developing and not a transition economy, and which is constructing (rather than inheriting) a social protection system—no longer reports the region’s highest levels of income inequalities. This somewhat dubious distinction instead belongs to Georgia (as measured by Palma ratios, for 2007-2010), or to the Former Yugoslav Republic of Macedonia (as measured by POVCALNET Gini coefficients, for 2008-2010).
- For ten of the 15 countries in the region for which time series data are available, favourable poverty reduction trends correspond to declining, or low, levels of income inequality. By contrast, less favourable poverty reduction trends tend to be found in countries with high, or rising, levels of income inequality. Reductions in income inequality and poverty in the region therefore seem to go together.
- The UN national and regional post-2015 consultations conducted during 2013 in the region highlighted inequalities as a major concern.<sup>35</sup>

### **Income inequality trends in the former Soviet Union (IX)**

In six of the former Soviet republics for which recent POVCALNET data are available, poverty and inequality trends since the turn of the millennium tend to move in tandem. In Belarus (Figure 6), Kazakhstan (Figure 7), Moldova (Figure 8), Tajikistan (Figure 9), and Ukraine (Figure 10), falling income poverty rates (vis-à-vis the PPP\$4.30/day threshold) were supported by low or falling levels of income inequality. By contrast, in Georgia (Figure 11) both poverty rates and inequalities have remained stubbornly high—illustrating the difficulties of trying to reduce poverty through economic growth that is not inclusive. Only in Armenia (Figure 12) and Kyrgyzstan (Figure 13) is no obvious relationship apparent between income poverty and inequality trends.<sup>36</sup>

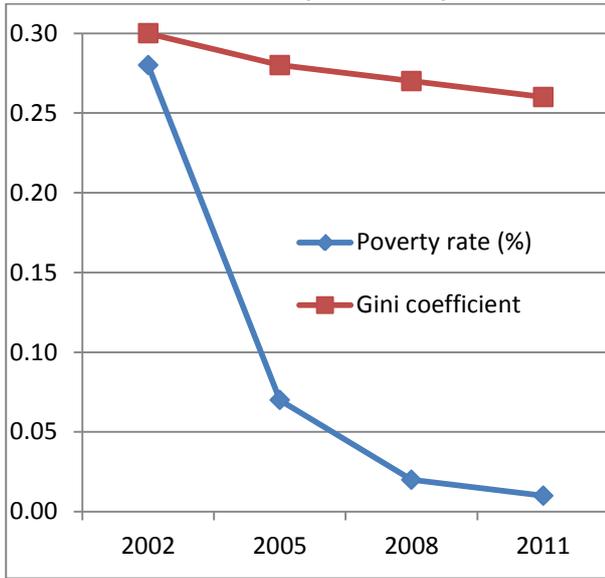
On the whole, these data support the argument that reductions in income inequality and poverty go together. This is particularly poignant for Ukraine, which—despite being a lower middle-income country that has one of the region’s weakest post-1990 economic growth records—seems to have largely eradicated income poverty, thanks in part to low and falling levels of income inequality.

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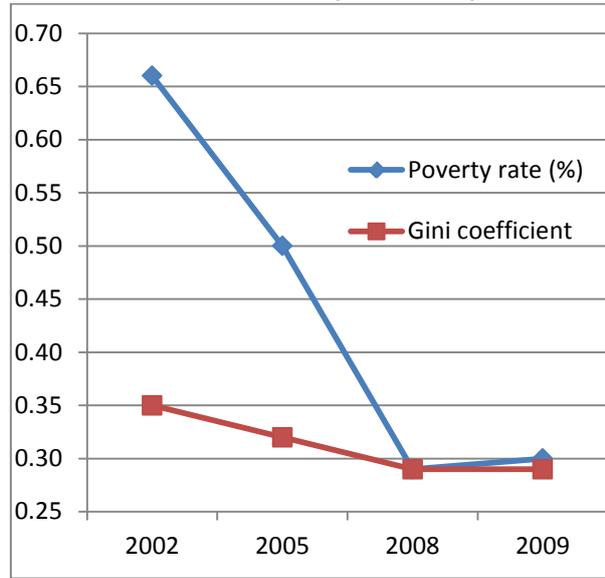
<sup>35</sup> See <http://www.worldwewant2015.org/EuropeCentralAsia>.

<sup>36</sup> Income poverty and inequality trends in the Russian Federation likewise exhibit no such correlation. POVCALNET data show the income poverty rate dropping sharply (from 42% to 7%, vis-à-vis the PPP\$4.30/day threshold) during 1999-2010, while the Gini coefficient rose from .37 in 1999 to .44 in 2007, before falling back to .40 in 2010. Compared to most other transition economies, income inequality levels in the Russian Federation remain quite high. (For more on inequality in Russia, see *After Equality: Inequality Trends and Policy Responses in Contemporary Russia*, Oxfam Discussion Paper, May 2014.)

**Figure 6—Income poverty and inequality trends in Belarus (2002-2011)**



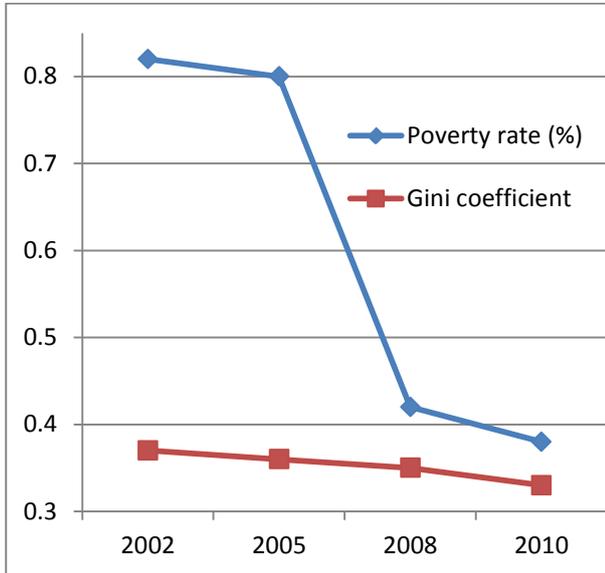
**Figure 7—Income poverty and inequality trends in Kazakhstan (2002-2009)**



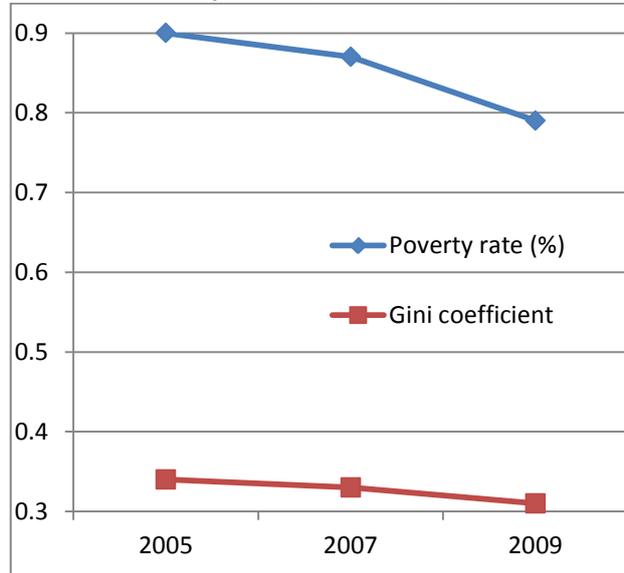
POVCALNET data. Note—poverty rate percentages:

- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

**Figure 8—Income poverty and inequality trends in Moldova (2002-2010)**



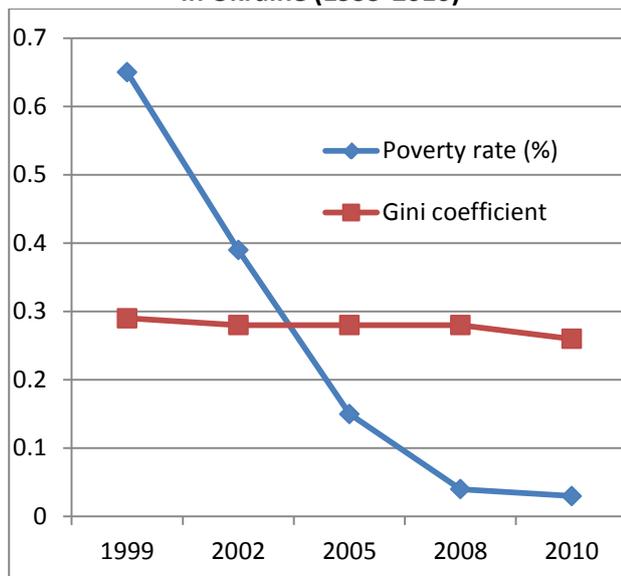
**Figure 9—Income poverty and inequality trends in Tajikistan (2005-2009)**



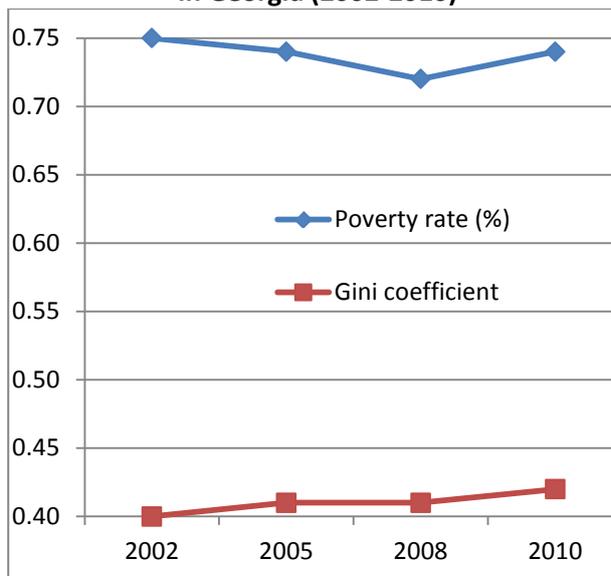
POVCALNET data. Note—poverty rate percentages are:

- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

**Figure 10—Income poverty and inequality trends in Ukraine (1999-2010)**



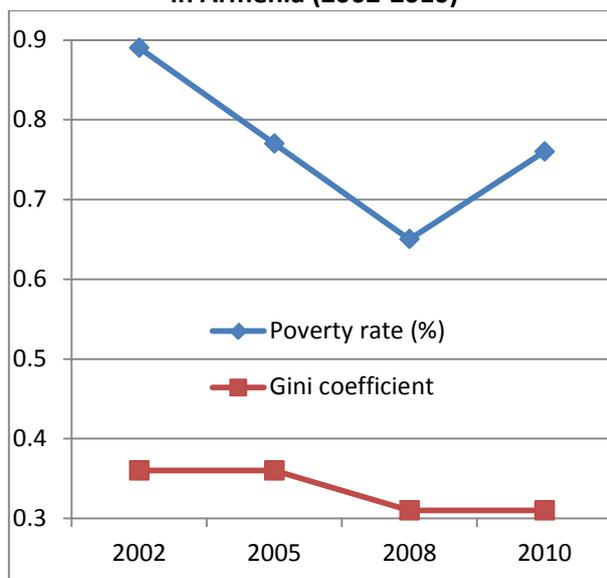
**Figure 11—Income poverty and inequality trends in Georgia (2002-2010)**



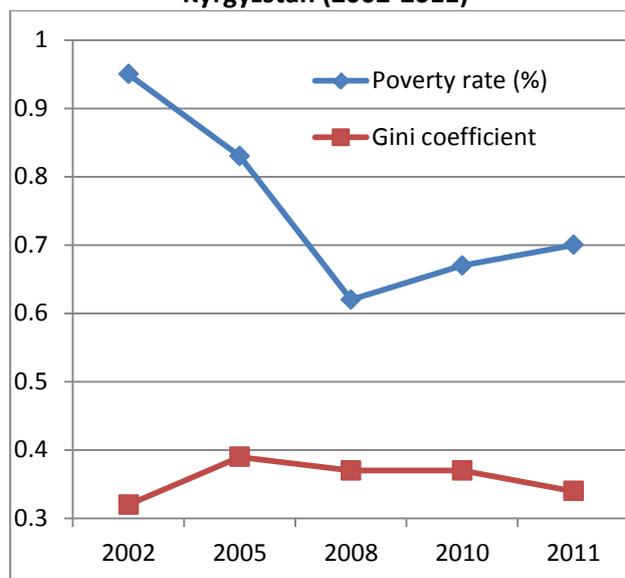
POVCALNET data. Note—poverty rate percentages are:

- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

**Figure 12—Income poverty and inequality trends in Armenia (2002-2010)**



**Figure 13—Income poverty and inequality trends in Kyrgyzstan (2002-2011)**



POVCALNET data. Note—poverty rate percentages are:

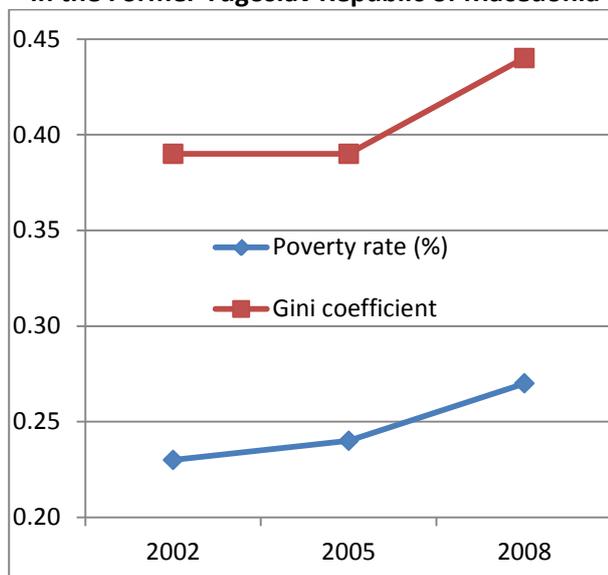
- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

### Income inequality trends in Southeast Europe (X)

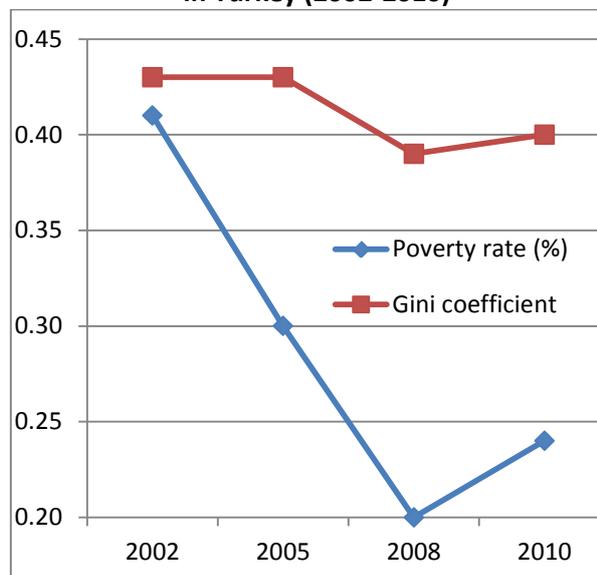
Similar (albeit somewhat less robust) links between growth, equality, and poverty reduction are apparent in Southeast Europe. They are most obvious in the case of the Former Yugoslav Republic of Macedonia (Figure 14), where both income poverty and inequality grew during 2002-2008—despite 36% cumulative GDP growth reported for this period. The Turkish data (Figure 15) tell a similar story: a decline in the Gini coefficient (from .43 to .39) combined with rapid GDP growth to cut the poverty rate in half

(from 41% to 20%) during 2002-2008. However, rising inequality helped push the poverty rate back up to 24% by 2010—despite cumulative per-capita GDP growth during 2008-2010.

**Figure 14—Income poverty and inequality trends in the Former Yugoslav Republic of Macedonia**



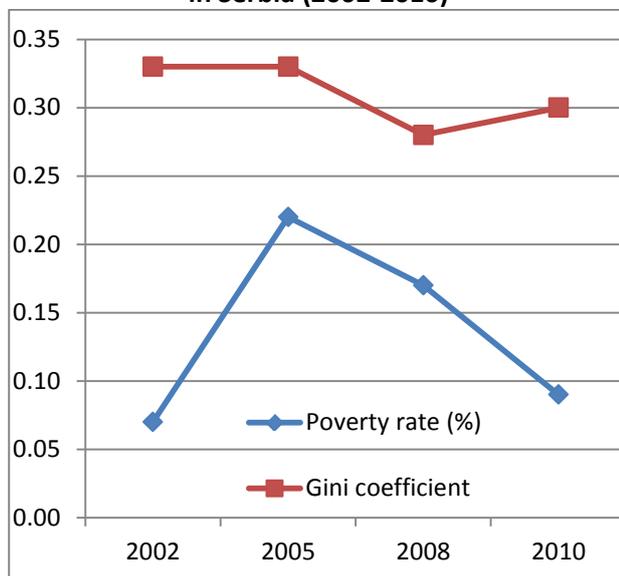
**Figure 15—Income poverty and inequality trends in Turkey (2002-2010)**



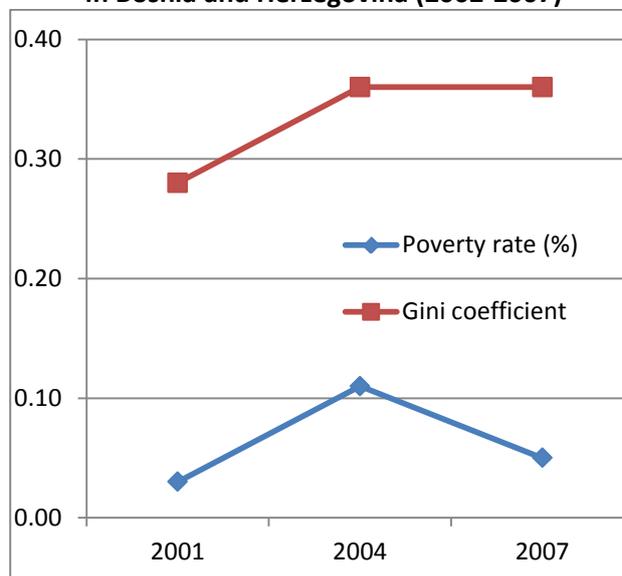
POVCALNET data. Note—poverty rate percentages are:

- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

**Figure 16—Income poverty and inequality trends in Serbia (2002-2010)**



**Figure 17—Income poverty and inequality trends in Bosnia and Herzegovina (2002-2007)**



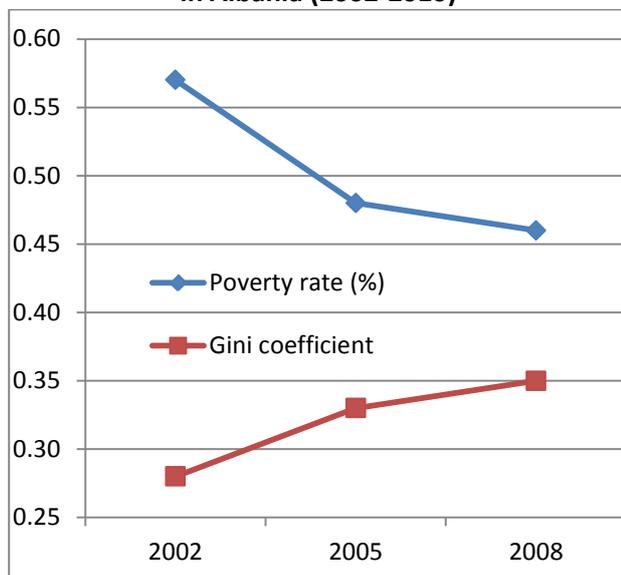
POVCALNET data. Note—poverty rate percentages are:

- Relative to the PPP\$4.30.day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

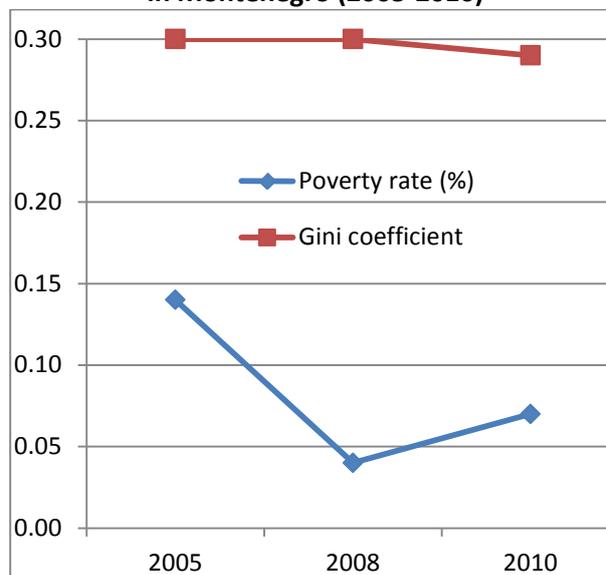
In Serbia (Figure 16), falling income inequality during 2005-2010 helped push the poverty rate down from 22% to 9%. In Bosnia and Herzegovina (Figure 17), rising inequality (the Gini coefficient during 2001-2004 went from .28 to .36) helped push the poverty rate up from 6% to 9% (although poverty apparently fell during 2004-2007, while the Gini coefficient remained unchanged). In Albania, by contrast (Figure 18), economic growth and falling poverty rates during 2002-2008 were accompanied by rising levels

of income inequality; while no obvious correlation between income poverty and inequality trends is apparent in (the short data series for) Montenegro (Figure 19).

**Figure 18—Income poverty and inequality trends in Albania (2002-2010)**



**Figure 19—Income poverty and inequality trends in Montenegro (2005-2010)**



POVCALNET data. Note—poverty rate percentages are:

- Relative to the PPP\$4.30/day threshold; and
- As a rule greater than 1 (i.e., a .50 value implies a poverty rate of 50%, not 0.5%).

### Pro-poor and inclusive growth in the region (XI)

UNDP's *Humanity Divided* study contrasts “early” development approaches to economic growth and inequality—some of which posit that growth in developing economies initially requires (or may be supported by) widening income inequalities—with approaches that emphasize complementarities between policy frameworks that support economic growth while also seeking to reduce inequality. Within this second category, a distinction is drawn between:

- **pro-poor growth**, in which economic growth is accompanied by falling poverty rates; versus
- **inclusive growth**, in which economic growth is accompanied by falling levels of income inequality.

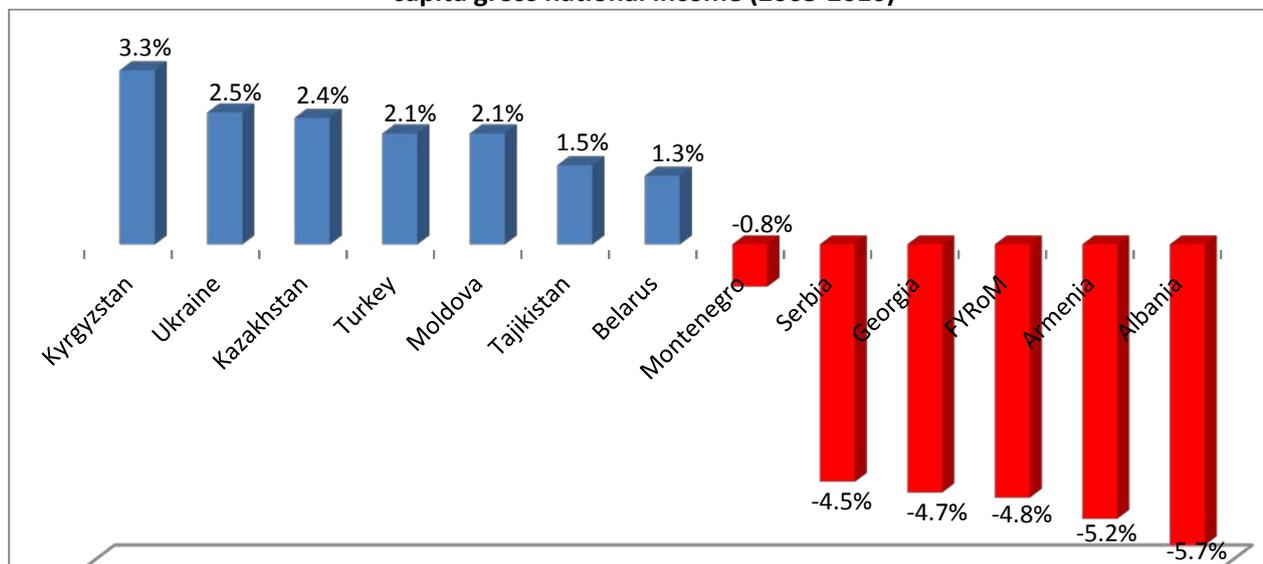
The growth record amassed by the region's transition and developing economies can be seen as being broadly consistent with the “pro-poor” approach. Poverty rates rose during the sharp declines in GDP reported during the “transition recessions” of the 1990s, and then fell with the ensuing “recovery growth”. According to the POVCALNET data, Albania, Bosnia and Herzegovina, Georgia, and possibly Serbia are the only countries in the region in which poverty rates in 2008 were not below (often significantly) the rates reported a decade earlier.

However, the region's growth record is also consistent with the “inclusive growth” narrative: for ten of the 15 countries in the region for which POVCALNET data are available, reductions in (or low levels of) income inequality (as measured by the Gini coefficient) and poverty rates (as measured vis-à-vis the PPP\$4.30/day threshold) have accompanied economic growth. A broadly similar picture is presented in the World Bank's recent *Shared Prosperity* regional study,<sup>37</sup> which focuses on the share of national income received by the “bottom 40” percent (lower four deciles) of the income distribution scale during

<sup>37</sup> Maurizio Bussolo and Luis F. Lopez-Calva, *Shared Prosperity: Paving the Way in Europe and Central Asia*, World Bank, 2014. See also World Bank, *Growth, poverty, and inequality: Eastern Europe and the former Soviet Union*, 2005.

2005-2010. This study finds that, for the region as a whole, the incomes of the “bottom 40” grew 1.2% faster than for the economy as a whole (on an annual average basis).<sup>38</sup> Figure 20 shows that incomes received by the bottom four deciles grew faster than per-capita gross national income during this time in Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkey, and Ukraine. By contrast, the “bottom 40” did less well (relative to national averages) in Albania, Armenia, Georgia, the Former Yugoslav Republic of Macedonia, Montenegro, and Serbia.

**Figure 20—“Bottom 40” annual average income growth, relative to annual average growth in per-capita gross national income (2005-2010)**



UNDP calculations, based on data presented in <<Shared Prosperity>> (page 12), and from the World Bank’s World Development Indicators database.

### Other measures of inequality, deprivation, and exclusion (XII)

Income poverty rates are incomplete measures of the extent to which people are deprived of the goods, services, capabilities, and opportunities they need to live long, healthy, fulfilling lives. Composite indicators—such as UNDP’s human development index (HDI), or the multidimensional poverty index (MPI) developed by the Oxford Policy and Human Development Institute (OPHI)—can provide fuller measures of development progress.

However, as applied to this region, the MPI has two weaknesses. First, it is not particularly sensitive to poverty trends—the most recent data indicate that no country in the region has more than 10% of its population living in multidimensional poverty (Table 6). Second, the time series associated with the MPI indicators are quite short.<sup>39</sup> And while longer MPI data series can be found for the four dozen countries whose relatively low HDIs place them in the “low human development” category, none of these are in Europe or Central Asia. In part for these reasons, UNDP’s Regional Bureau for Europe and CIS has developed the social exclusion index as an additional, more nuanced measure of the extent to which people are deprived of the goods, services, capabilities, and opportunities they need to live long, healthy, fulfilling lives (Box 3).

<sup>38</sup> (Page 14.) The “region” as defined here includes the Russian Federation and the countries that joined the European Union during 2004-2013.

<sup>39</sup> The most recent OPHI MPI data only show numbers for 2011-2012 (see <http://www.ophi.org.uk/multidimensional-poverty-index/mpi-2014/mpi-data/>).

| <b>Country</b> | <b>MPI (HDRO)*</b>    |             | <b>Income poverty** (POVCALNET)</b> |             |
|----------------|-----------------------|-------------|-------------------------------------|-------------|
|                | <b>Headcount rate</b> | <b>Year</b> | <b>Headcount rate</b>               | <b>Year</b> |
| Serbia         | 0%                    | 2010        | 9%                                  | 2010        |
| Belarus        | 0%                    | 2005        | 1%                                  | 2011        |
| Armenia        | 1%                    | 2010        | 76%                                 | 2010        |
| Ukraine        | 1%                    | 2007        | 3%                                  | 2010        |
| Kazakhstan     | 1%                    | 2011-2012   | 30%                                 | 2010        |
| FYRoM          | 2%                    | 2011        | 27%                                 | 2008        |
| Georgia        | 2%                    | 2005        | 74%                                 | 2010        |
| Albania        | 1%                    | 2008-2009   | 46%                                 | 2008        |
| Moldova        | 1%                    | 2005        | 40%                                 | 2010        |
| BiH            | 2%                    | 2011-2012   | 5%                                  | 2007        |
| Azerbaijan     | 2%                    | 2006        | 34%                                 | 2008        |
| Kyrgyzstan     | 3%                    | 2005-2006   | 70%                                 | 2011        |
| Turkey         | 7%^                   | 2003        | 24%                                 | 2010        |
| Tajikistan     | 8%                    | 2012        | 79%                                 | 2009        |

\* As reported in the 2014 Human Development Report.

\*\* Measured at the PPP\$4.30/day threshold.

^ Taken from the OPHI website.

Some worrisome inequalities are apparent in regional education enrolment trends. Early childhood education is crucial for sustainable human development. In addition to providing young children with important educational and socialization opportunities, early childhood education also allows young parents (especially mothers) to return to the labour force and avoid lengthy, undesired interruptions in their professional development.

Pre-school enrolment trends are diverging across the region (Figure 21). On the one hand, policies in Belarus and Ukraine have allowed virtually all children to be placed in pre-school; pre-school enrolment rates in Moldova are likewise above 80%. Countries like Albania, Montenegro, and Turkey have seen significant increases in pre-school enrolment rates since 2005. On the other hand, less than one third of young children in Azerbaijan, Bosnia and Herzegovina, Kyrgyzstan, the Former Yugoslav Republic of Macedonia, Tajikistan Turkey, and Uzbekistan are enrolled in pre-schools. These countries score well below the averages posted for middle-income countries and for the world as a whole.

While pre-school enrolment rates may correlate with income levels, the fact that enrolment rates in lower middle-income Kyrgyzstan exceed those reported in upper middle-income Bosnia and Herzegovina and the Former Yugoslav Republic of Macedonia suggests that household incomes do not decide everything. Likewise, low female labour force participation rates did not prevent significant increases in pre-school enrolment in Turkey during 2005-2012. By contrast, the declines in pre-school enrolment reported in Azerbaijan, the Former Yugoslav Republic of Macedonia, and Uzbekistan during this time may be causes for concern.

### Box 3—The Social Exclusion Index<sup>40</sup>

Progress in poverty reduction may be accompanied by continuing social exclusion, when significant shares of the population are unable to fully participate in economic, social, and political/cultural life. UNDP's 2011 [Regional Human Development Report on social inclusion: Beyond Transition: Towards Inclusive Societies](#) linked social exclusion to issues of human development in the transition and developing economies of Europe and Central Asia.

The social exclusion index (SEI), which was presented in this RHDR, was constructed to measure and monitor changes in perceived degrees of social exclusion on the basis of household polling data. Based on 24 sub-indicators/components (reflecting different forms of exclusion from economic life, social services, and civic life) the SEI is nuanced enough to capture complexity, yet simple enough for practical application in differing national contexts.

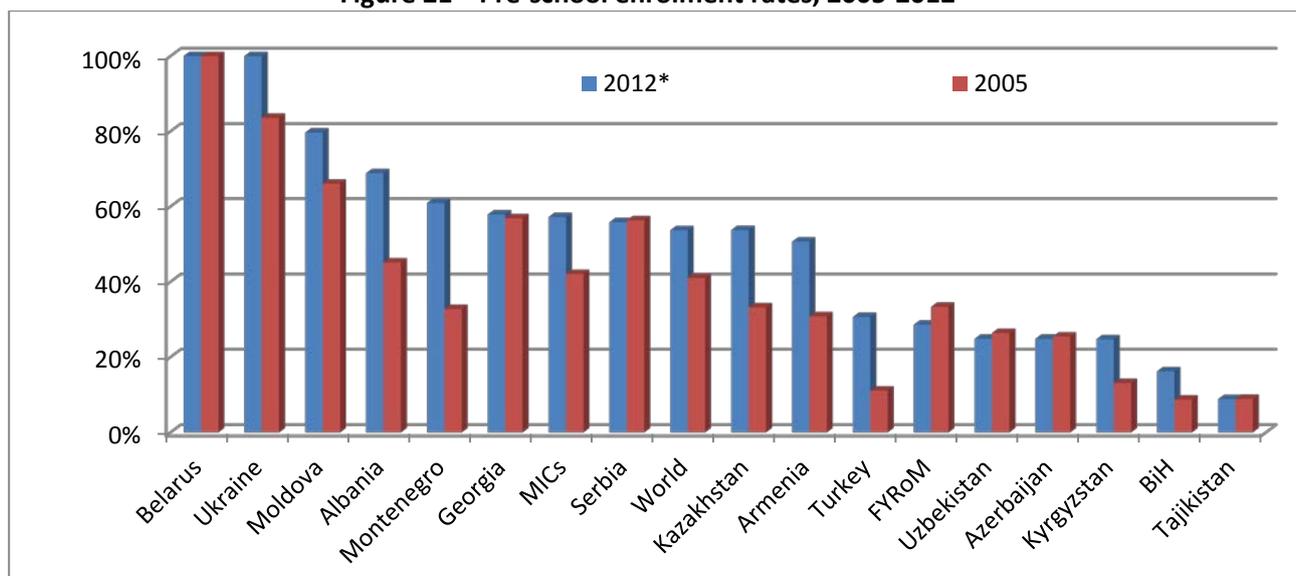
The SEI has been calculated on the basis of polling data collected from Central Asia (Kazakhstan, Tajikistan), the Caucasus (Armenia), Western CIS (Moldova, Ukraine), and the Western Balkans (Serbia, the Former Yugoslav Republic of Macedonia).<sup>41</sup> These data produced a number of interesting insights. For example:

- **Do business climates matter more than education?** Additional years of education were found to only marginally reduce the risk of exclusion among young people. By contrast, vibrant business environments (typically found in cities) were found to have a relatively strong inclusive impact—even for individuals with low levels of education. Of course, well educated young people working in economically vibrant areas enjoyed the lowest risks of exclusion. But for young people in depressed areas facing the question of “more school, or a move to a city?”, the answer is clear. (This may also reflect reputed declines in the quality of secondary and post-secondary education in much of the region.)
- **Location matters for social inclusion.** The risks of social exclusion faced by potentially disadvantaged individuals depend very much on local circumstances. For example, the risk of social exclusion for people living with disabilities was found to be much smaller in big towns. Likewise, in communities with educational systems that “mainstream” students with disabilities, these students were only half as likely to suffer from social exclusion as was the case in other communities.
- **Corruption and social exclusion go together.** A strong association was found between social exclusion and tolerance for corruption, especially in villages and small towns. This association doesn't necessarily imply causality; nor is it clear in which the direction the causality runs. It does, however, point to the importance of governance issues in addressing social exclusion in the region. It also suggests that anti-corruption campaigns should have social inclusion components, especially outside of big cities.
- In Moldova and Serbia, over 70% of survey respondents reported that **most people are not be trusted**, while levels for the other countries surveyed ranged between 40% and 55%. Given these findings, it is not surprising that levels of tolerance towards “stigmatized groups” are generally low. Large shares of respondents in all six countries preferred not to have homosexuals, people living with HIV, or former prisoners as neighbours.
- The incidence of exclusion by ethnic, cultural, political, and social criteria is likewise perceived to have increased in many countries. For example, more than 10% of the respondents in Kazakhstan and Tajikistan reported that their **language limits their access to education and employment opportunities** today, in ways that had not been the case in the past.
- Large shares of respondents in six of these seven countries reported that **being well connected politically**, in order to get ahead in life, is more important than it was 25 years ago.

<sup>40</sup> For more on this, see Andrey Ivanov and Mihail Peleah, “Capturing multiple and intersecting inequalities: Social Exclusion Index for Europe and Central Asia”, UNECE working paper 22, 25 November 2013. ([http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.15/2013/WP\\_22\\_UNDP\\_D\\_En.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.15/2013/WP_22_UNDP_D_En.pdf)).

<sup>41</sup> For six of these seven countries, these data were collected by UNDP in November 2009. For Armenia, they were collected by the Caucasus Research Resource Centre, within the framework of its **Social Cohesion Survey**.

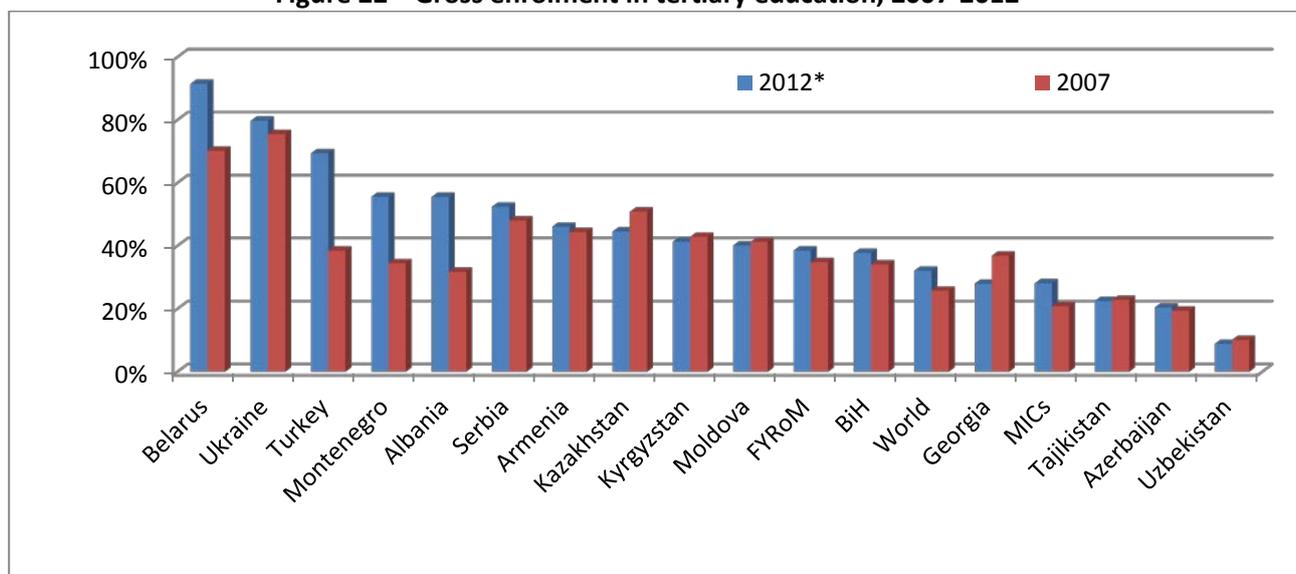
**Figure 21—Pre-school enrolment rates, 2005-2012\***



\* Or latest available year. Source: World Development Indicators.

Similar trends are apparent in tertiary education (Figure 22). Whereas Belarus, Ukraine, and Turkey are now reporting tertiary enrolment rates well above global averages, young people in Azerbaijan and Uzbekistan (as well as in Tajikistan) are on average less likely to have access to post-secondary educational opportunities than are young people in other middle-income countries. In Uzbekistan, less than 10% of the relevant age cohorts get the chance to pursue a higher education.<sup>42</sup> These inequalities may translate into reductions in human capital, lagging labour productivity growth, and greater social cleavages in the future.

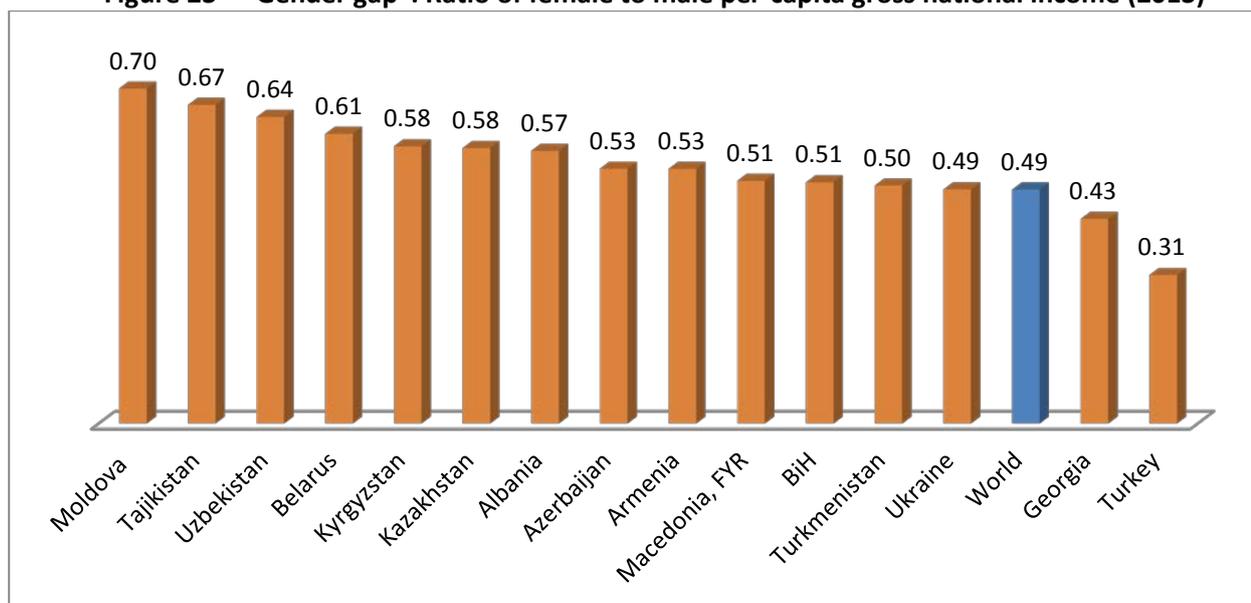
**Figure 22—Gross enrolment in tertiary education, 2007-2012\***



\* Or latest available year. Source: World Development Indicators.

<sup>42</sup> For more on these issues in Uzbekistan, see UNDP Policy Brief, 2009 "Higher Education in Uzbekistan: Structure Development and Reform Trends" - <http://www.undp.uz/en/publications/publication.php?id=242>.

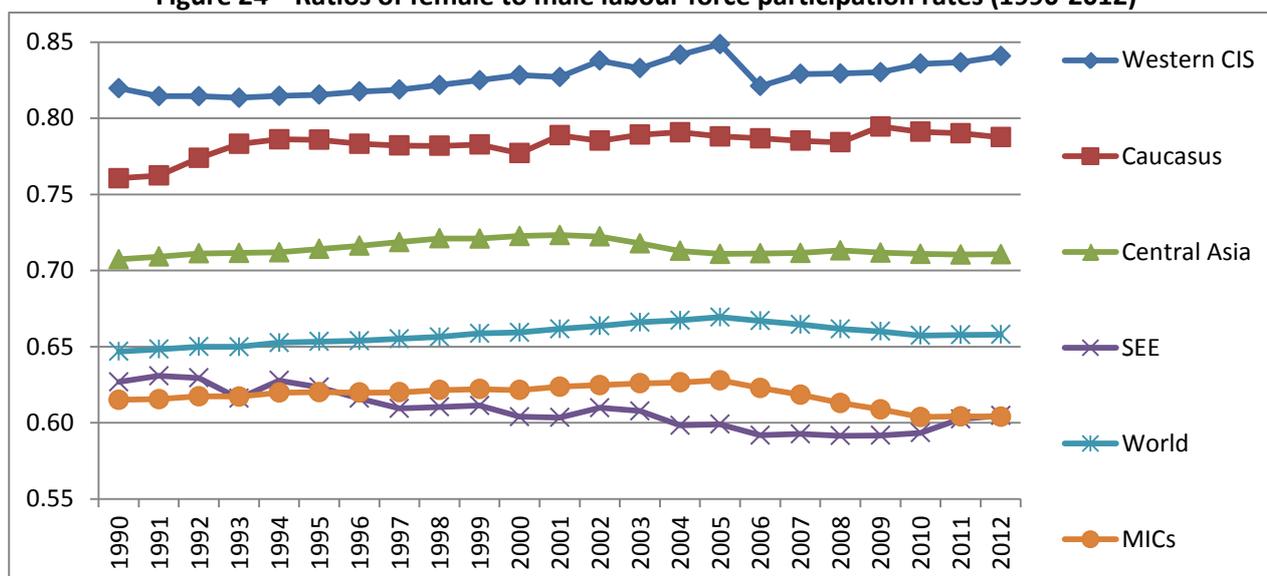
**Figure 23—“Gender gap”: Ratio of female to male per-capita gross national income (2013)**



HDRO estimates.

The gender dimensions of poverty and inequality in the region defy easy characterization.<sup>43</sup> On the one hand, recent HDRO estimates find that the gender gap in terms of incomes earned by women relative to men (as measured by gross national income per-capita, disaggregated by gender) in most of the region is below global averages (Figure 23). And while female labour force participation rates are below those of men, ratios of female to male labour force participation and unemployment rates in the region compare favourably with global averages (Figures 24, 25)—especially in the former Soviet republics. Maternal mortality rates in the region are likewise well below global averages—and in many cases, below the averages reported in OECD countries (Figure 26).

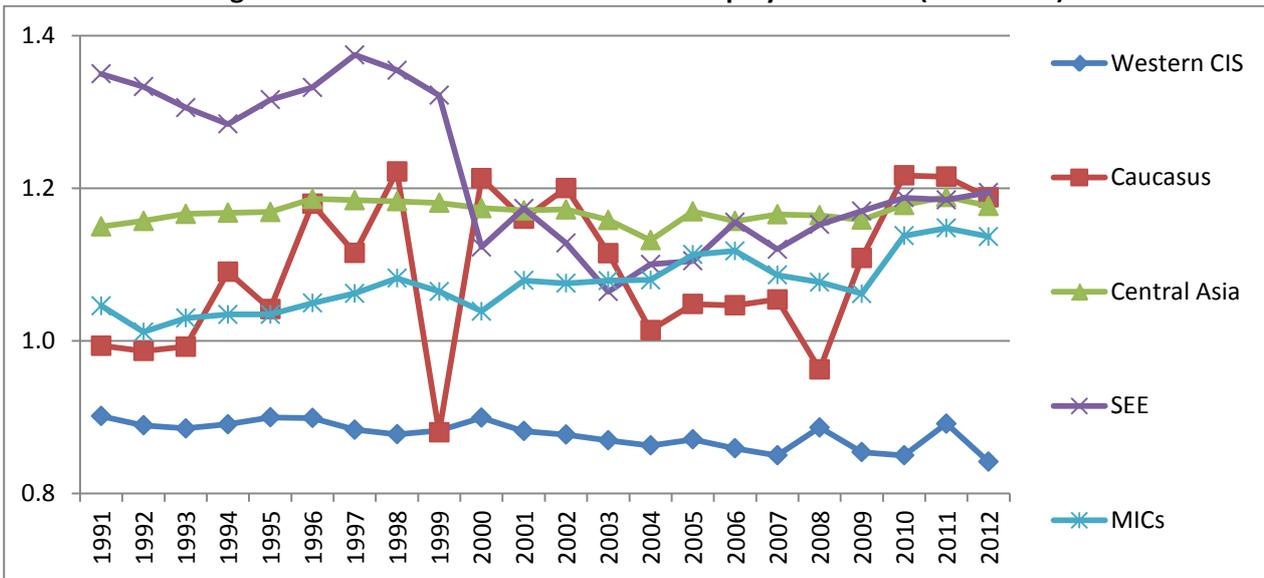
**Figure 24—Ratios of female to male labour force participation rates (1990-2012)**



UNDP calculations of unweighted averages, based on data from the World Development Indicators database.

<sup>43</sup> For more on gender issues in the region, see Nick Maddock and Elena Danilova-Cross, “Economic effects of gender equality: a summary of the evidence” (<http://www.worldwewant2015.org/file/423086/download/460371>).

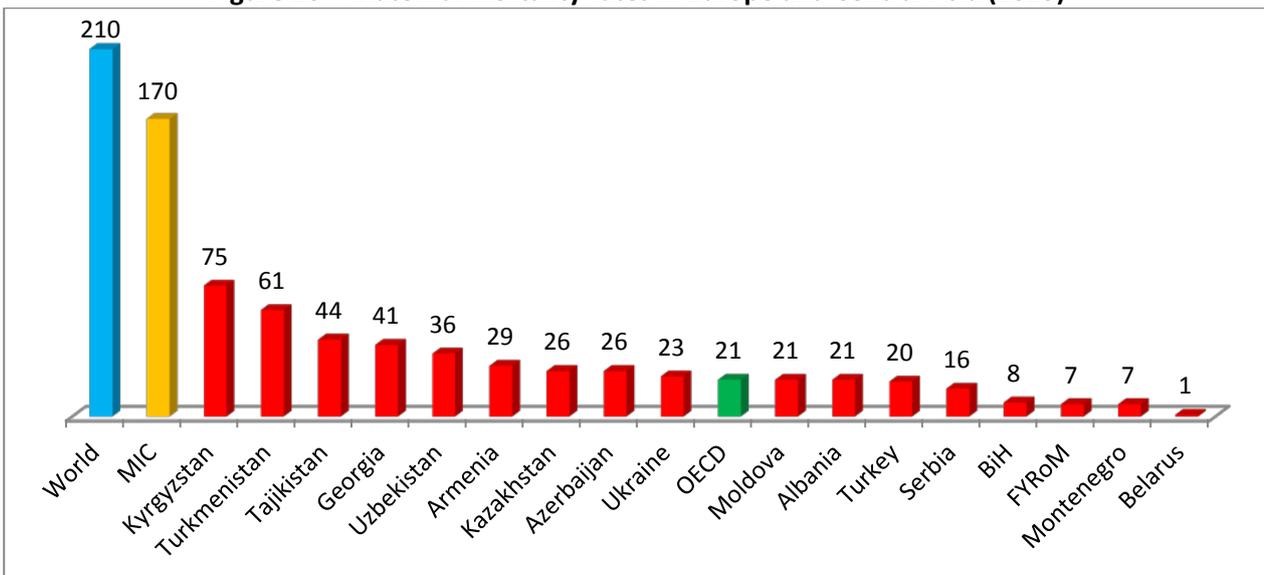
**Figure 25—Ratios of female to male unemployment rates (1991-2012)**



UNDP calculations of unweighted averages, based on World Development Indicators data.

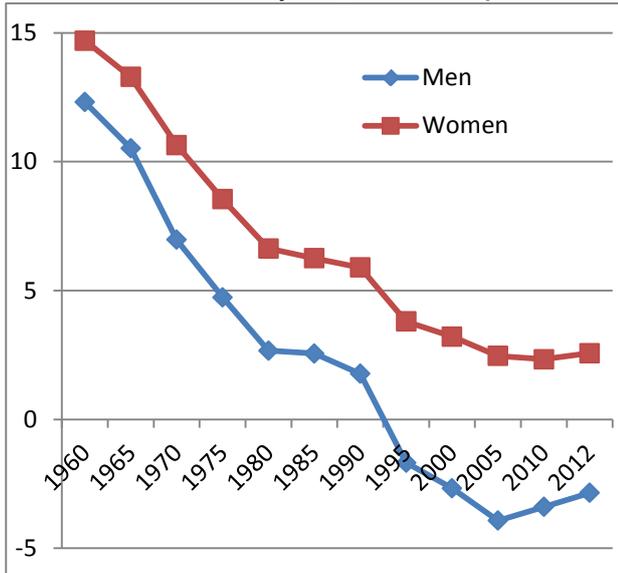
Instead, declines in male life expectancy took hold during the 1980s in a number of the former Soviet republics, and accelerated in the 1990s, before stabilizing after the new millennium and recovering somewhat in the last few years. Men in Moldova, Kazakhstan, and Ukraine (and Russia) today live about as long as their fathers did; in Belarus, they live about as long as their grandfathers did. By contrast, life expectancy for women in the region remains well above levels reported during the Soviet period.

**Figure 26—Maternal mortality rates in Europe and Central Asia (2013)**

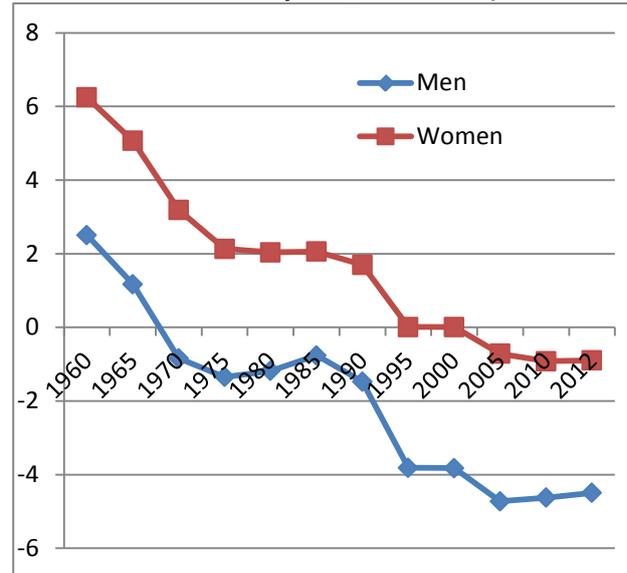


Maternal deaths per 100,000 live births. Source: World Bank World Development Indicators data.

**Figure 27—Differences in life expectancy in the Western CIS, relative to global averages (in number of years, 1960-2012)**



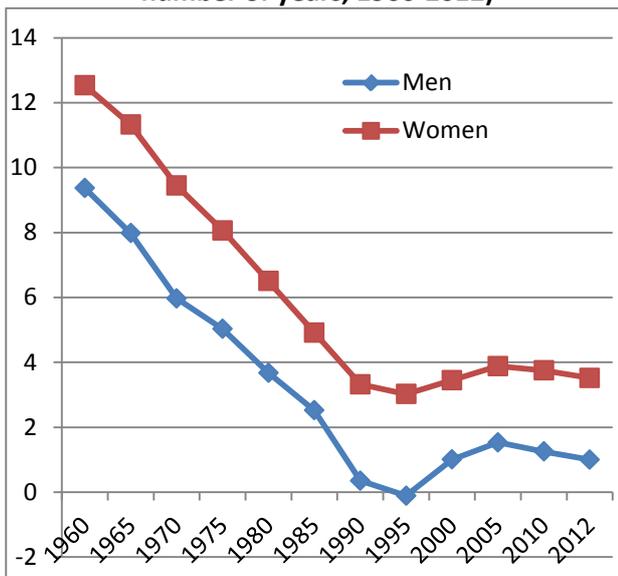
**Figure 28—Differences in life expectancy in Central Asia, relative to global averages (in number of years, 1960-2012)**



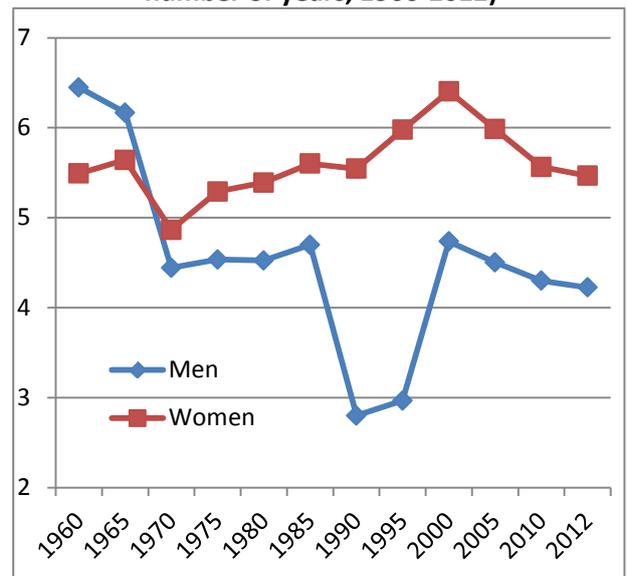
UNDP calculations of unweighted averages, based on World Development Indicators data.

However, when global improvements in life expectancy are taken into account, both men and women are losing ground in most of the region. Whereas men living in (what are now) the Western CIS countries in 1960 lived 12 years longer than global averages, by 2012 their lifespan was on average two years less than the global average (Figure 27). A similar (but not quite as steep) decline for women in the Western CIS countries is likewise apparent: whereas a woman in the Western CIS in the early 1960s on average lived more than 14 years longer than women in other countries, by 2012 this differential had dropped to about two years. While these declining trends seem to have bottomed out, for men they have stabilized at levels that remain below global averages for male longevity.

**Figure 29—Differences in life expectancy in the Southern Caucasus, relative to global averages (in number of years, 1960-2012)**



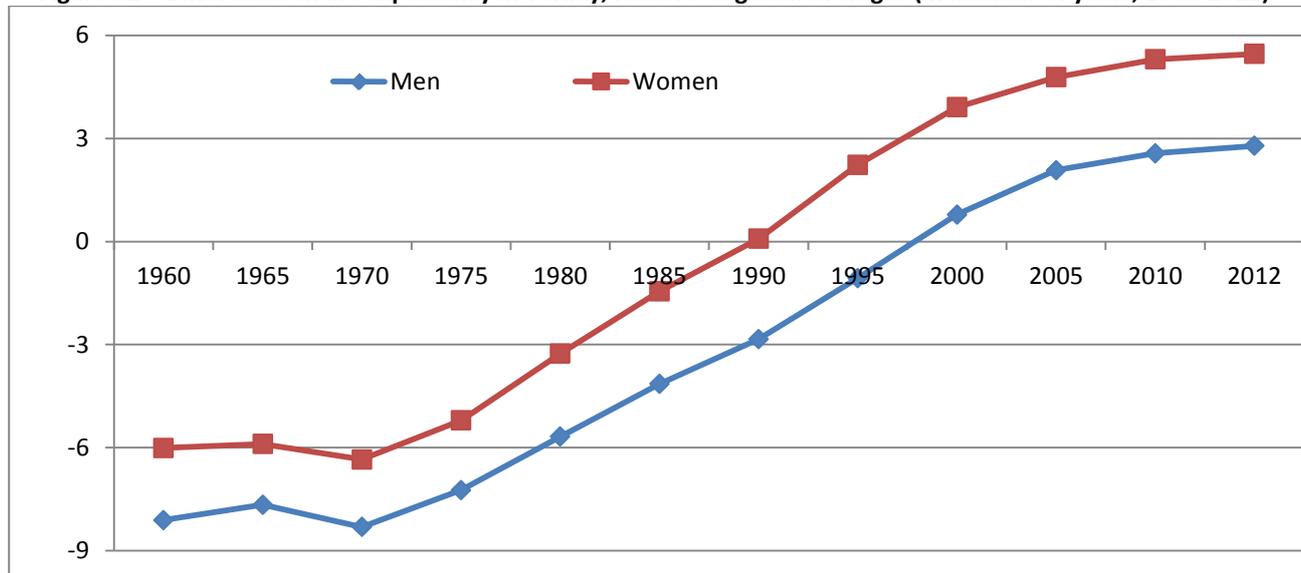
**Figure 30—Differences in life expectancy in Southeast Europe, relative to global averages (in number of years, 1960-2012)**



UNDP calculations of unweighted averages, based on World Development Indicators data.

Similar trends are apparent in Central Asia (Figure 28).<sup>44</sup> Central Asian women, who in 1960 on average lived six years longer than women in other countries, by 2012 were living some six months less. In the Southern Caucasus, declines in female and male life expectancy differentials seem to have bottomed out somewhat above global averages (Figure 29). It is only in Southeast Europe that women have more or less retained their position, relative to women in other countries. Likewise, the deterioration in men's relative position in Southeast Europe has been rather moderate (Figure 30). Turkey's performance within this sub-region is quite impressive for both men and women (Figure 31), and stands in sharp contrast with the rest of the region.

**Figure 31—Differences in life expectancy in Turkey, relative to global averages (in number of years, 1960-2012)**



UNDP calculations, based on World Development Indicators data.

Still, despite these indicators of progress (or at least relatively good performance compared to some other regions), it is clear that gender remains an important indicator of vulnerability in the region. The facts that women in these countries are less likely to be excluded from the labour force than women in other regions, or that differentials in their pay (relative to men) are smaller than in other regions, are unlikely to make women's losses in opportunities and income easier to bear. Moreover, the sharp cutbacks in social services that took hold in the 1990s disproportionately affected women, for whom the role of primary care giver within the household increases the importance of access to quality child care, health care, and education. The weakening of the emancipatory policies, programming, and narratives promulgated under the socialist federations has also meant the reappearance or deepening of traditional gender roles (particularly in the countryside), which may sometimes be difficult to reconcile with contemporary approaches to gender, development, and reproductive rights. Perennial concerns about domestic violence remain across the region.

### Poverty, inequality, and vulnerability (XIII)

While many quantitative markers of income poverty and inequality have been developed and applied, vulnerability remains harder to measure. This is unfortunate, since perceptions of vulnerability, insecurity, and risk continue to affect millions of people in the region. These result in part from the civil/armed conflicts that have afflicted most of the Soviet and Yugoslav successor states, as well as Albania and Turkey. They are also a legacy of the dissolution of the Soviet and Yugoslav federations—due to which hundreds of millions of people underwent unplanned citizenship changes. Millions more have become either stateless or residents of post-conflict territories whose legitimacy is not fully recognized by the

<sup>44</sup> Trends in the Russian Federation also correspond to this pattern.

international community. These perceptions also reflect serious problems of social exclusion—particularly from the labour market (the region has relatively high unemployment and low labour force participation rates), and from social services for which formal labour market participation is often required.

**Box 4—Human development and vulnerability aspects of flooding in the Western Balkans**

*Heavy rainfall in May 2014 produced extensive flooding in Serbia, Bosnia and Herzegovina (BiH), and Croatia. Three months' worth of rain fell in only three days—for BiH it was the heaviest rainfall since record keeping began in 1894. Hundreds of thousands of households were left without electricity and access to clean water. More than 500,000 people were evacuated in the three countries; many remain in collective centres.*

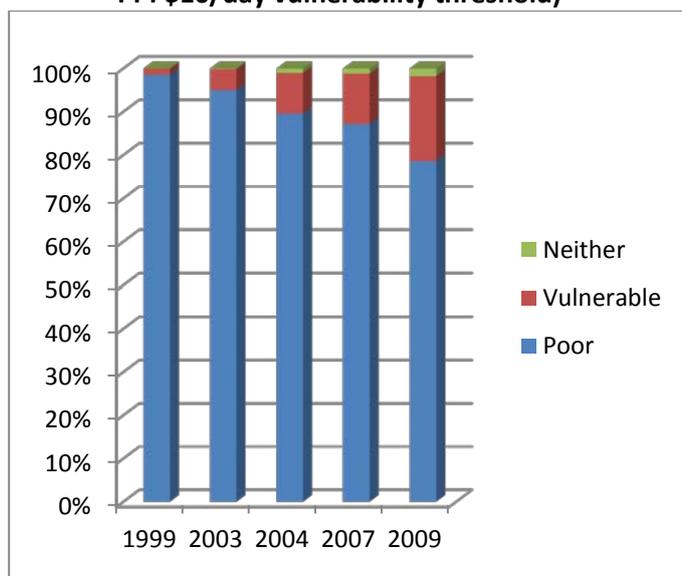
*Rapid needs assessments were conducted by UN country teams in Serbia and BiH to assess damages and recovery requirements in flood-stricken municipalities for which a state of emergency had been declared. The impact of the flooding was found to be quite different for different population groups. For example:*

- **Roma**, who are among Serbia's most vulnerable communities, are particularly likely to live in flood plains (and other high-risk, under-serviced areas). They are therefore more likely to have had their homes and prospects for livelihoods damaged or destroyed by the floods. Children in poor and vulnerable Roma families were at greater risk of not enrolling in school in September 2014, due to worsened income and living conditions. Considering that Roma educational achievements have stagnated during the past 8 years, this would be most unfortunate.
- **Persons with disabilities**, who are among the most vulnerable groups in Serbia, comprise about 8% of the population in flood-hit municipalities. The reconstruction of public buildings damaged by the floods should make these structures more accessible for people with disabilities, by constructing ramps and flat flooring (for wheel-chairs), hand rails for blind people, and the like.
- Two out of the three most severely flooded cantons in BiH (Posavina and Bijeljina) have been identified by UNDP's Regional Disparities Assessment as the country's least developed. The flooding could further set these areas back from national averages—to the detriment of their current and future residents.
- Because **women** in both countries perform more than twice as much unpaid labour as men, the post-disaster needs assessments (PDNAs) sought to avoid responses to the flooding that could widen gender gaps or further lock women into disadvantaged or marginalized roles. An attempt was therefore made to monetize women's unpaid labour in calculating losses from the flooding, inter alia by using time-use survey data.

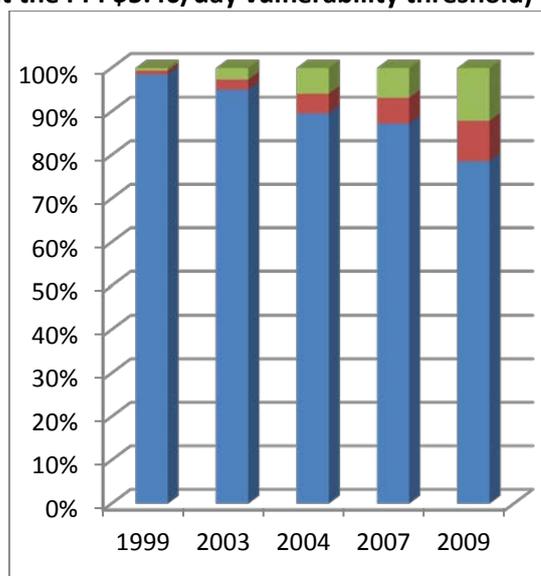
*Projections by UNDP's Regional Centre for Europe and CIS found that, due to flood-related declines in production and incomes, reduced access to health care in flood-affected areas, and possible reductions in education attainment for children living in these areas, the May 2014 flooding could reduce 2018 HDIs for BiH and Serbia by .003-.005 points. Such projections underscore the importance of efforts to prevent such disasters from occurring—and of building back better when they do.*

The region is also quite vulnerable to seismic, climatic, meteorological, and resource-related risks. Many major population centres (Almaty, Ashgabat, Bishkek, Istanbul, Skopje, Tashkent, Yerevan) face significant seismic risks. The 1999 Izmit earthquake outside Istanbul killed 17,000 people. A major earthquake in any of these cities could result in a humanitarian disaster, damage to regional infrastructure, significant refugee flows, and increased strain on (often limited) state capacity and social cohesion. Decades of mismanaged water resources in Central Asia have resulted in the desiccation of the Aral Sea (producing hundreds of thousands of environmental refugees) and falling crop yields. Forecasts point to significant future climate risks for much of the region, ranging from drought threats for irrigated agriculture in Central Asia and the Caucasus to increased risks of flooding and damages to coastal areas in the Adriatic, Black, and Caspian Sea basins. The flooding that hit the Western Balkans in May 2014 seems to have had a disproportionate impact on vulnerable communities (Box 4). The inability of energy infrastructures to keep up with growing demand now leaves millions of people in Kyrgyzstan, Tajikistan, and Uzbekistan without reliable year-round heat, electricity, and gas supplies. This can be life-threatening during cold winters.

**Figure 32—Poverty, vulnerability in Tajikistan (at the PPP\$10/day vulnerability threshold)**



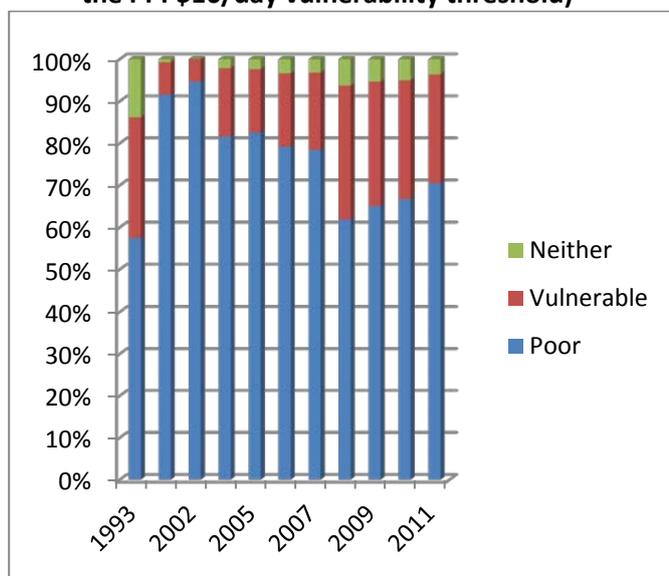
**Figure 33—Poverty, vulnerability in Tajikistan (at the PPP\$5.40/day vulnerability threshold)**



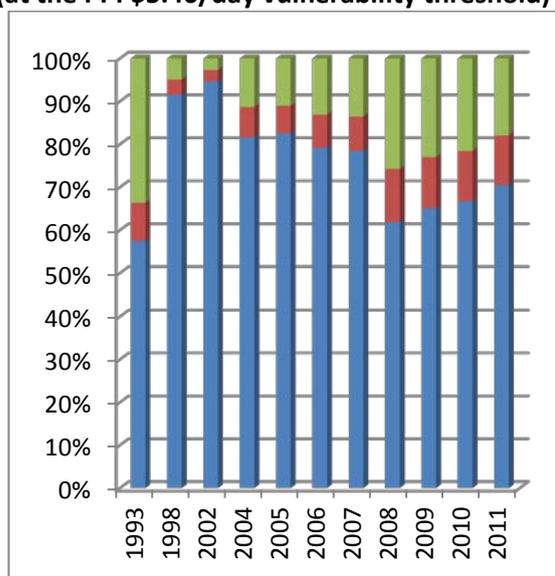
UNDP calculations, based on POVCALNET data.

In light of this, how is the relationship between vulnerability and poverty most appropriately conceptualized? One answer to this question could be found by applying the calculations performed by UNDESA in its identification of least-developed countries—the constituent criteria for which include an “economic vulnerability index”.<sup>45</sup> A second answer may be found in UNDP’s 2014 human development report, which asserts that those living in (extreme) poverty are by definition vulnerable.<sup>46</sup> However, the report likewise refrains from developing an overall “human vulnerability index”, noting (on page 28) that: “There is clearly a lot more thinking to be done and much to be learned from existing work. This Report does not propose new measures, preferring instead to focus on embedding vulnerability firmly within the human development approach, which might then pave the way for new measurement work.”

**Figure 34—Poverty, vulnerability in Kyrgyzstan (at the PPP\$10/day vulnerability threshold)**



**Figure 35—Poverty, vulnerability in Kyrgyzstan (at the PPP\$5.40/day vulnerability threshold)**

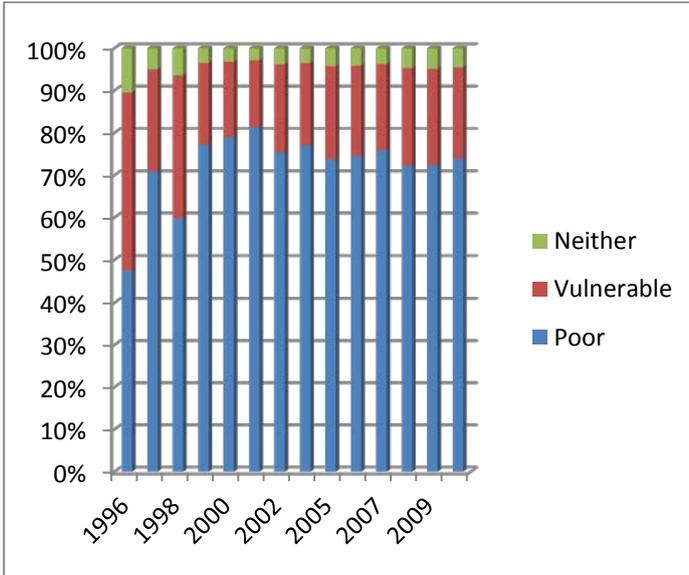


UNDP calculations, based on POVCALNET data.

<sup>45</sup> [http://www.un.org/en/development/desa/policy/cdp/ldc/ldc\\_methodology.shtml#reference](http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_methodology.shtml#reference). Interestingly, Turkey is the only country from the region included in the reference group of countries, the data from which are used in calculating the economic vulnerability index, and in assessing possible LDC status.

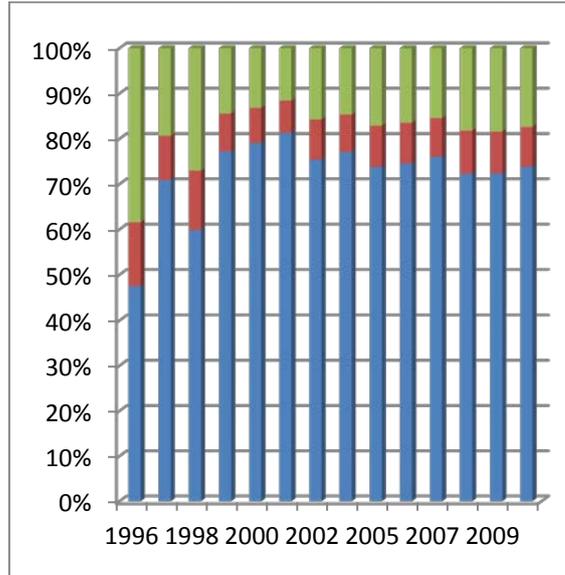
<sup>46</sup> “Those living in extreme poverty and deprivation are among the most vulnerable”—presumably to shocks to/reversals in human development gains (*Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*, page 3. See also box 1.3, page 28.)

**Figure 36—Poverty, vulnerability in Georgia (at the PPP\$10/day vulnerability threshold)**

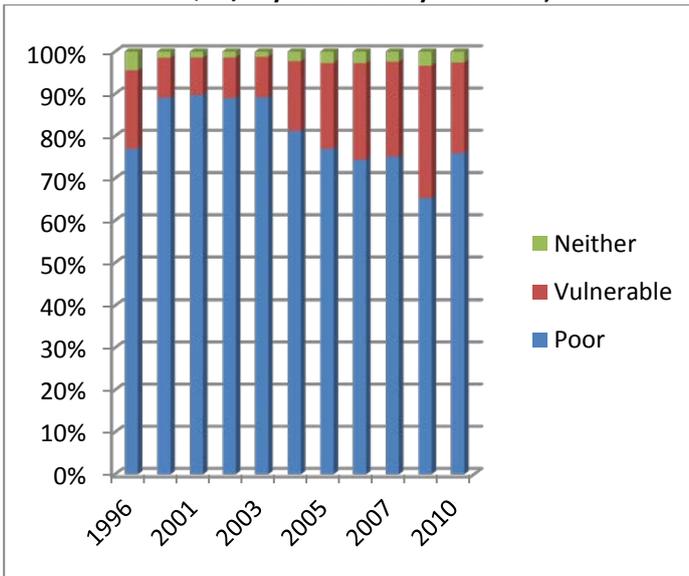


UNDP calculations, based on POVCALNET data.

**Figure 37—Poverty, vulnerability in Georgia (at the PPP\$5.40/day vulnerability threshold)**

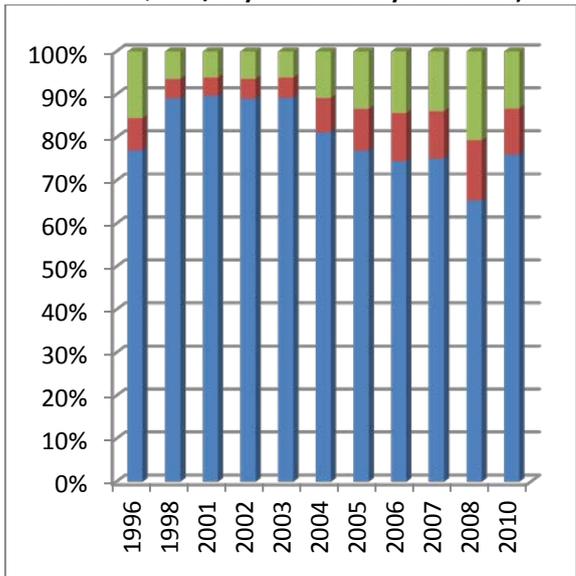


**Figure 38—Poverty, vulnerability in Armenia (at the PPP\$10/day vulnerability threshold)**



UNDP calculations, based on POVCALNET data.

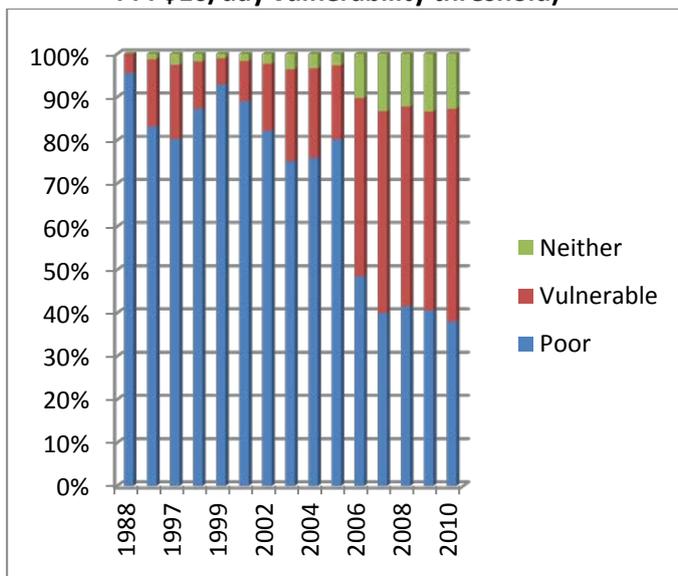
**Figure 39—Poverty, vulnerability in Armenia (at the PPP\$5.40/day vulnerability threshold)**



Approaches that calculate the numbers of people who are vulnerable to falling into poverty may also be worth pursuing—particularly in a region like Europe and Central Asia, where data show overall poverty levels to be rather low—but (at least in some countries) with many people located not far above poverty thresholds. This raises the question of how the “vulnerable to income poverty” threshold(s) should be defined. If the PPP\$4.30/day level is taken as the relevant poverty threshold, then the “vulnerable to income poverty” would be those whose incomes are above this threshold by some certain amount. The below analysis is based on calculations have been performed (using the POVCALNET data) for thresholds of PPP\$5.40/day (roughly 125% of—one quarter above—the PPP\$4.30/day threshold); and PPP\$10/day.<sup>47</sup>

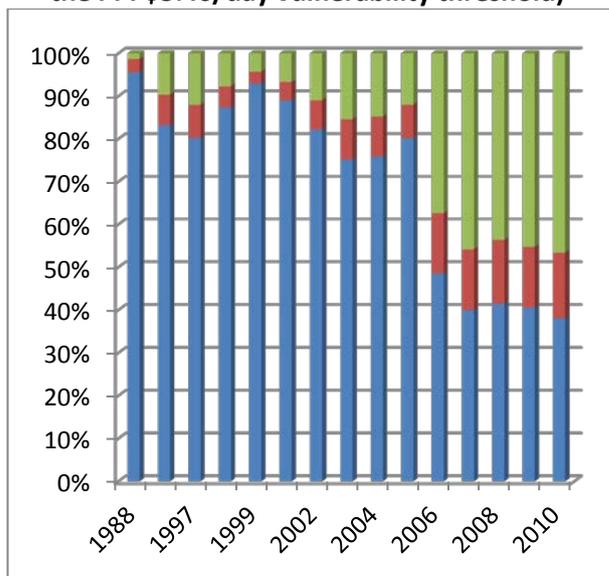
<sup>47</sup> Such approaches clearly contain certain arbitrary elements. A more rigorous approach would be based on the empirical identification of the per-capita income levels below which individuals show some critical likelihood of falling below the poverty line. Such thresholds seem to be few and far between, and are not necessarily compatible across countries. Alternatively, if the

**Figure 40—Poverty, vulnerability in Moldova (at the PPP\$10/day vulnerability threshold)**



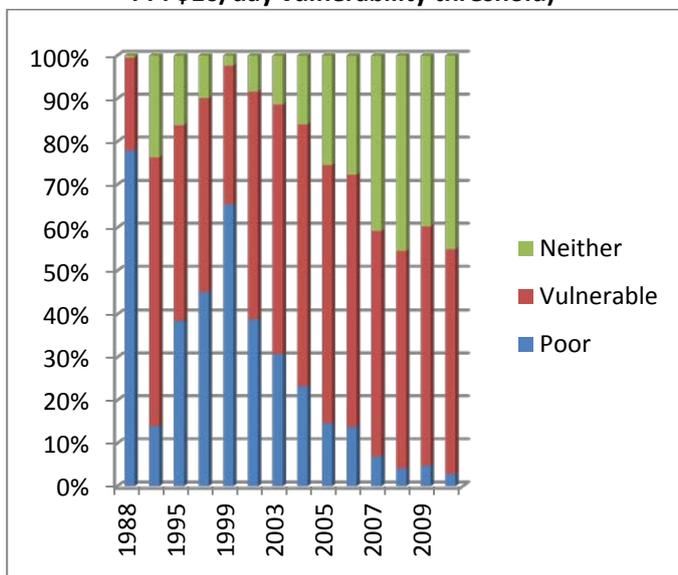
UNDP calculations, based on POVCALNET data.

**Figure 41—Poverty, vulnerability in Moldova (at the PPP\$5.40/day vulnerability threshold)**



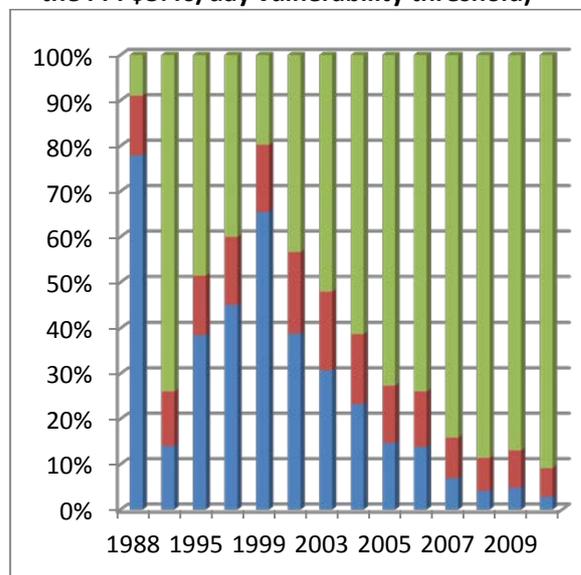
This approach suggests a number of insights. First, when the highest (PPP\$10/day) vulnerability threshold is chosen, the vast majority of the population the region’s sole low-income country (Tajikistan—Figure 32), and in some of the lower middle-income countries (Kyrgyzstan, Georgia, Armenia, and Moldova—Figures 34, 36, 38, 40), has either been poor, or has been vulnerable to income poverty, for most of the past two decades. This is a sobering thought.

**Figure 42—Poverty, vulnerability in Ukraine (at the PPP\$10/day vulnerability threshold)**



UNDP calculations, based on POVCALNET data.

**Figure 43—Poverty, vulnerability in Ukraine (at the PPP\$5.40/day vulnerability threshold)**

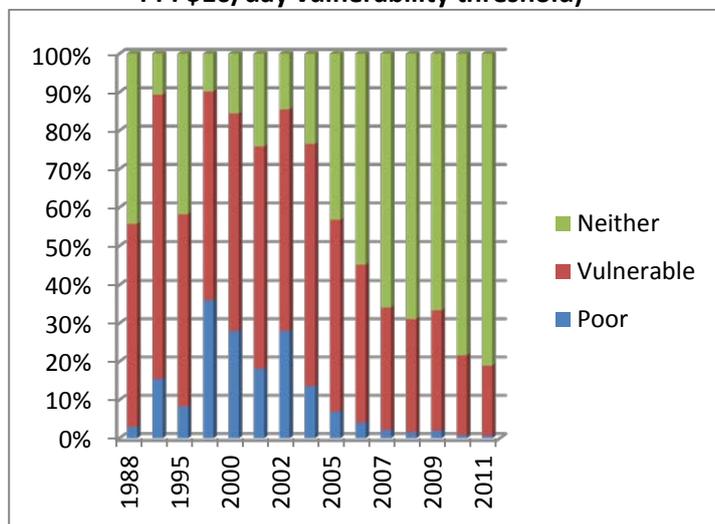


This approach also suggests that reported reductions in poverty in these countries during the last decade have been matched nearly one-to-one by increases in vulnerability. That is: while growing numbers

PPP\$4.30/day threshold is deemed to be too low a measure of income poverty, then the PPP\$5.40/day or PPP\$10/day thresholds can be seen as alternative poverty thresholds. (The reader may wish to ask her/himself whether s/he could live in any capital city in the region on \$10/day . . . )

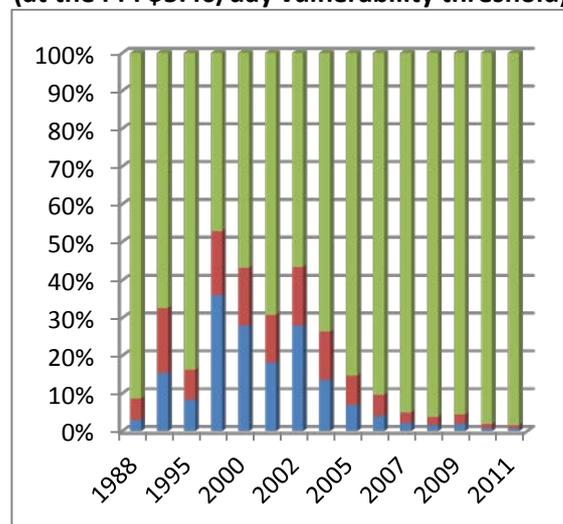
of people have moved out of poverty (i.e., rising above the PPP\$4.30/day threshold), little progress has been recorded in reducing the numbers of people vulnerable to income poverty (i.e., living below the PPP\$10/day threshold). By contrast, when the lower (PPP\$5.40/day) vulnerability threshold is chosen (Figures 33, 35, 37, 39, 41), the population shares that are vulnerable to poverty are much lower (typically 10% or less, a bit larger for Moldova) than the 25% differential vis-à-vis the PPP\$4.30/day poverty rate.

**Figure 44—Poverty, vulnerability in Belarus (at the PPP\$10/day vulnerability threshold)**



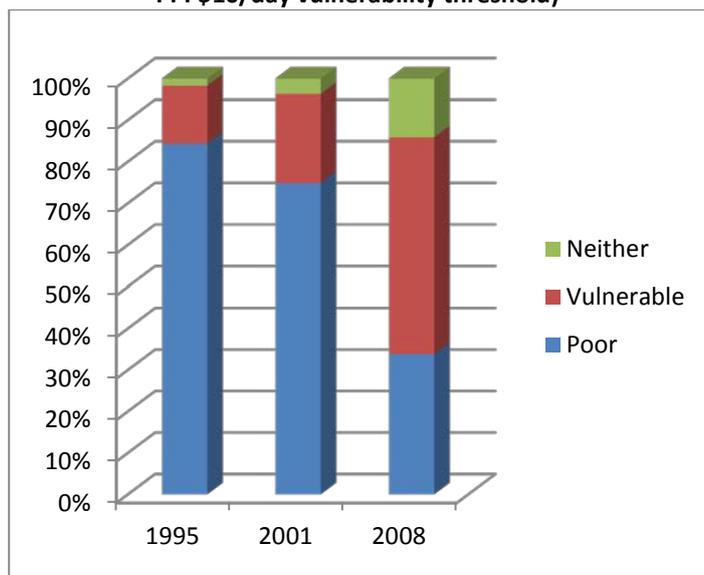
UNDP calculations, based on POVCALNET data.

**Figure 45—Poverty, vulnerability in Belarus (at the PPP\$5.40/day vulnerability threshold)**



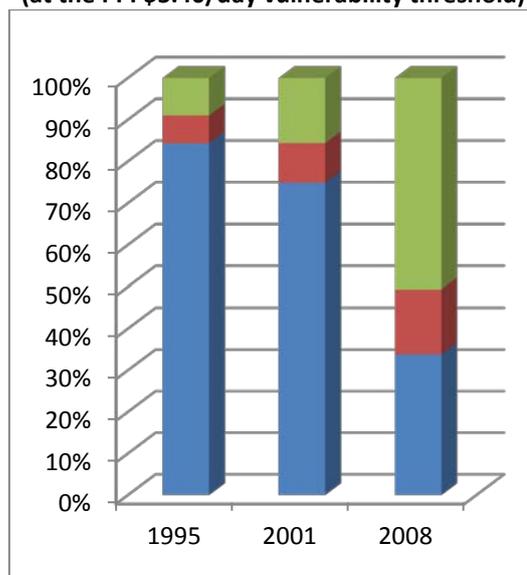
While Ukraine is also a lower middle-income country, its vulnerability profile looks somewhat different. The sharp declines in reported poverty rates that began after 1999 have been accompanied by roughly constant (measured vis-à-vis the PPP\$10/day threshold—Figure 42) or by falling (measured vis-à-vis the PPP\$5.40/day threshold—Figure 43) levels of vulnerability.

**Figure 46—Poverty, vulnerability in Azerbaijan (at the PPP\$10/day vulnerability threshold)**



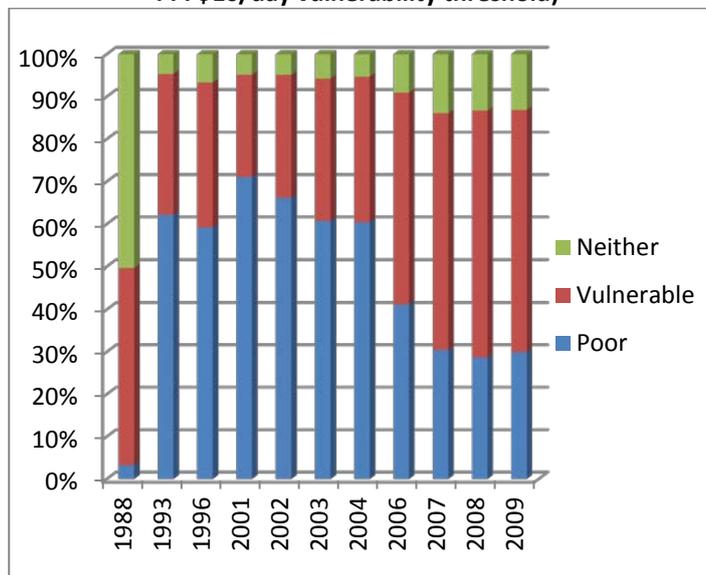
UNDP calculations, based on POVCALNET data.

**Figure 47—Poverty, vulnerability in Azerbaijan (at the PPP\$5.40/day vulnerability threshold)**

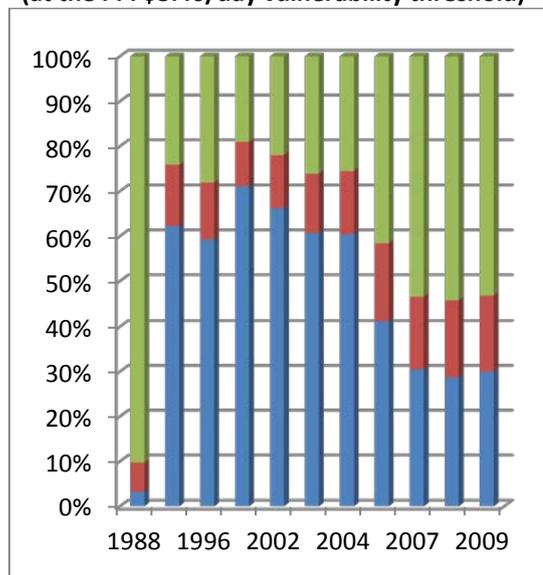


Belarus, by contrast, is at the other end of the spectrum. At the PPP\$5.40/day vulnerability threshold (Figure 45), less than 5% of the population appears vulnerable to income poverty after 2006. By 2011, only 2% of the population was either living in poverty or was vulnerable to such. When the PPP\$10/day threshold is chosen (Figure 44), the share of the population vulnerable to poverty significantly exceeds the share of those living in poverty—as might be expected in an upper middle-income country. But even so, by 2011, the share of the population vulnerable to poverty had dropped to 18%. 81% of the population was reported to be living above the PPP\$10/day threshold.

**Figure 48—Poverty, vulnerability in Kazakhstan (at the PPP\$10/day vulnerability threshold)**



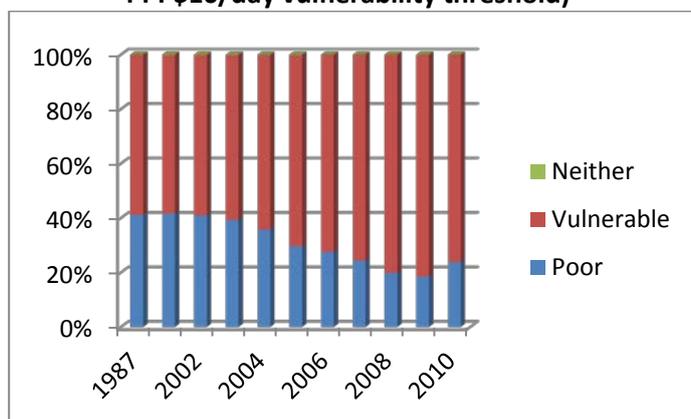
**Figure 49—Poverty, vulnerability in Kazakhstan (at the PPP\$5.40/day vulnerability threshold)**



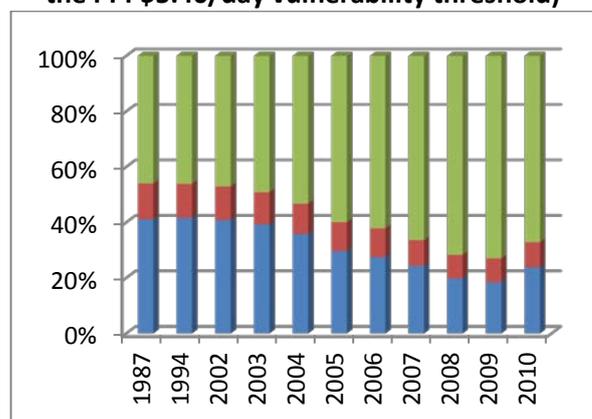
UNDP calculations, based on POVCALNET data.

While Azerbaijan and Kazakhstan are both upper middle-income countries, they present rather different vulnerability profiles. The share of the population vulnerable to poverty in Azerbaijan expands significantly over time, regardless of whether the PPP\$10/day (Figure 46) or PPP\$5.40/day (Figure 47) threshold is chosen. Despite this, the share of the population that is neither poor nor vulnerable to poverty also expanded significantly during 1995-2008. Thus, the many people who moved out of “poverty” and into “vulnerability” status were accompanied by at least some others who moved out of “vulnerability” into the category of “neither poor nor vulnerable”. In Kazakhstan, larger (than in Azerbaijan) shares of the population would seem to be vulnerable to poverty, at both the PPP\$10/day (Figure 48) and PPP\$5.40/day (Figure 49) vulnerability thresholds. As a result, only slightly more than half the population is neither poor nor vulnerable to poverty, at the PPP\$5.40/day threshold (through 2009). And at the PPP\$10/day threshold, less than 15% of the population (as of 2009) was neither poor nor vulnerable to poverty.

**Figure 50—Poverty, vulnerability in Turkey (at the PPP\$10/day vulnerability threshold)**



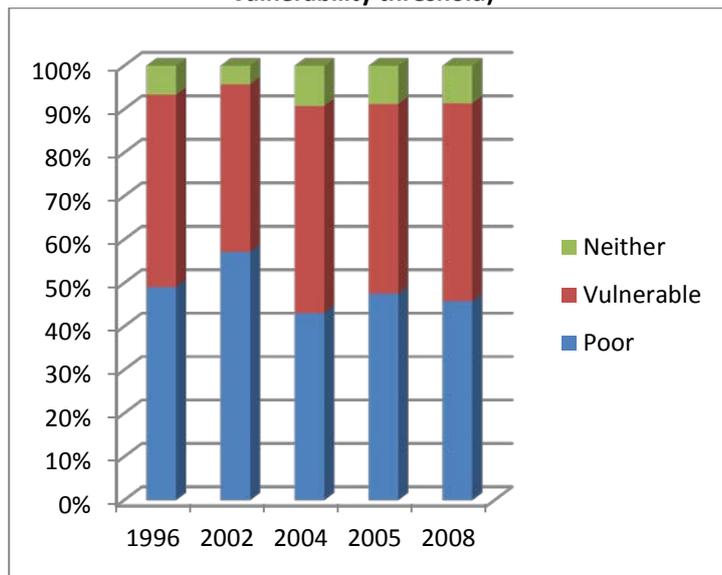
**Figure 51—Poverty, vulnerability in Turkey (at the PPP\$5.40/day vulnerability threshold)**



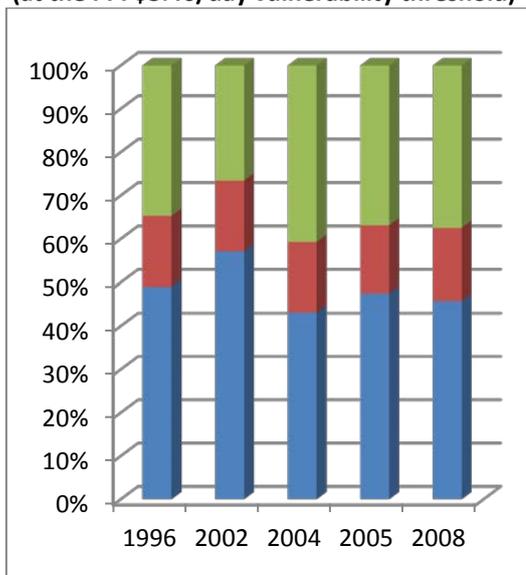
UNDP calculations, based on POVCALNET data.

All the Southeast European economies (except Kosovo,<sup>48</sup> for which POVCALNET data are not available) are now classified by the World Bank as upper middle-income countries. However, they display quite different vulnerability profiles. For example, Turkey's vulnerability profile is closer to those of the region's low- and lower middle-income countries. When the PPP\$5.40/day threshold is chosen (Figure 51), the share of the population vulnerable to income poverty remains relatively small (10-12%, or less). But at the PPP\$10/day threshold (Figure 50), virtually the entire population was either poor or vulnerable to poverty (as of 2010). Turkey's good record in poverty reduction may not be matched by an equally good record in reducing vulnerability to poverty.

**Figure 52—Poverty, vulnerability in Albania (at the PPP\$10/day vulnerability threshold)**

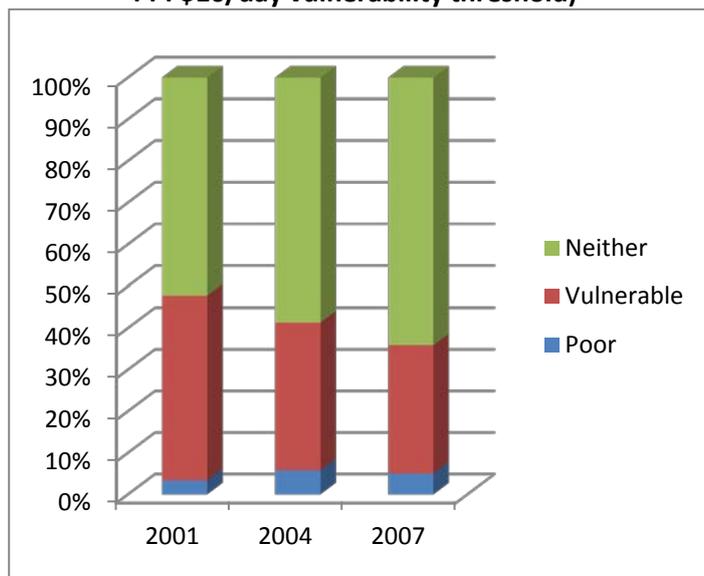


**Figure 53—Poverty, vulnerability in Albania (at the PPP\$5.40/day vulnerability threshold)**

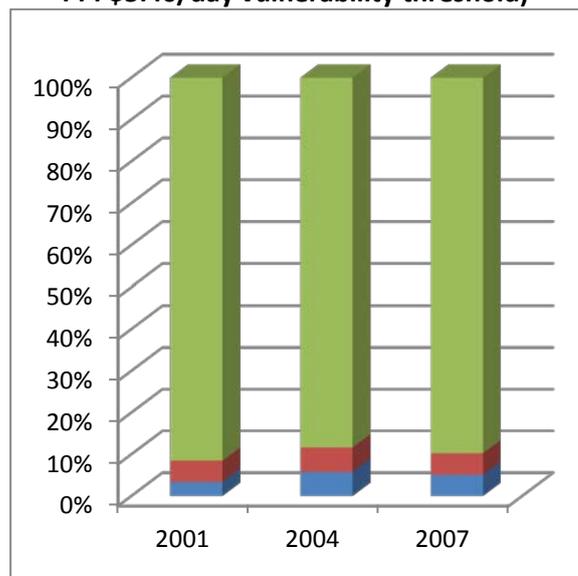


UNDP calculations, based on POVCALNET data.

**Figure 54—Poverty, vulnerability in BiH (at the PPP\$10/day vulnerability threshold)**



**Figure 55—Poverty, vulnerability in BiH (at the PPP\$5.40/day vulnerability threshold)**

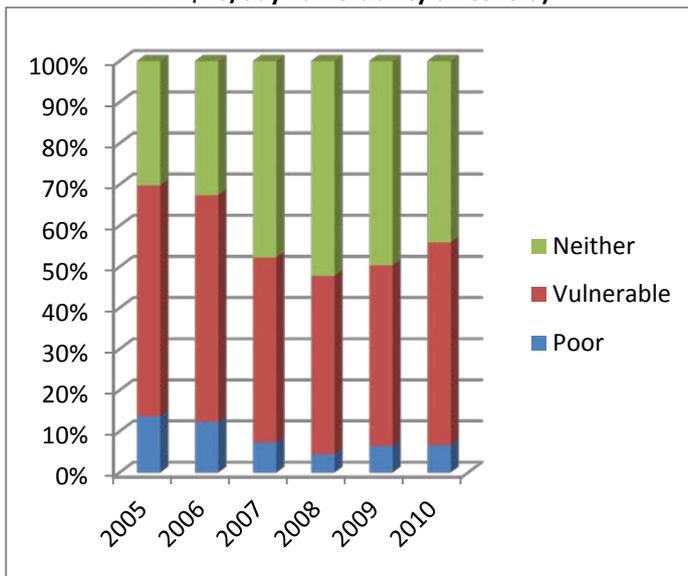


UNDP calculations, based on POVCALNET data.

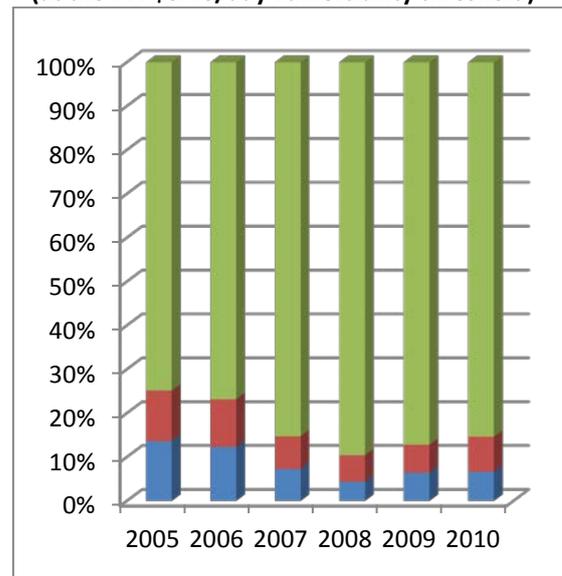
<sup>48</sup> As per UNSCR 1244/1999.

Albania's vulnerability profile also resembles the region's low- and lower middle-income countries'. At the PPP\$10/day vulnerability threshold, 85% (or more) of the country appears to be living in poverty, or vulnerable to it, during those years for which POVCALNET data are available (1996-2008—Figure 52). At the PPP\$5.40/day threshold (Figure 53), the share of the population vulnerable to poverty drops to around 15%. However, at least 60% of the population during this time continued to be living in poverty, or to be vulnerable to it. Albania's vulnerability profile differs from most other countries', however, in that neither reported vulnerability nor poverty rates fall significantly during 1996-2008.

**Figure 56—Poverty, vulnerability in Montenegro (at the PPP\$10/day vulnerability threshold)**

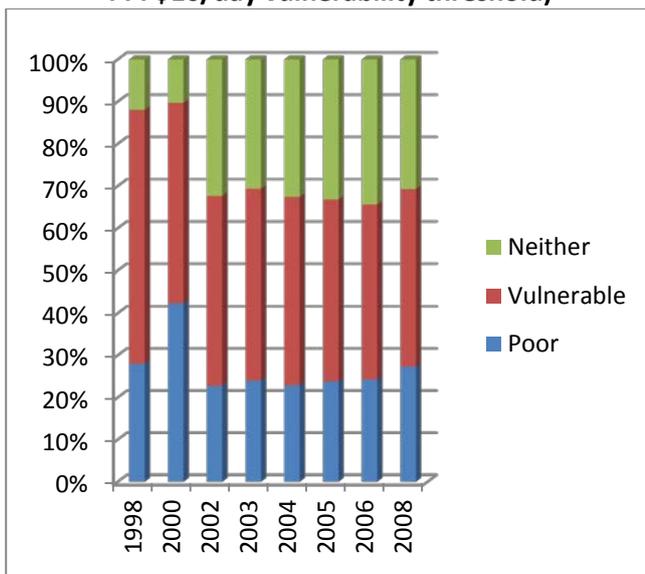


**Figure 57—Poverty, vulnerability in Montenegro (at the PPP\$5.40/day vulnerability threshold)**

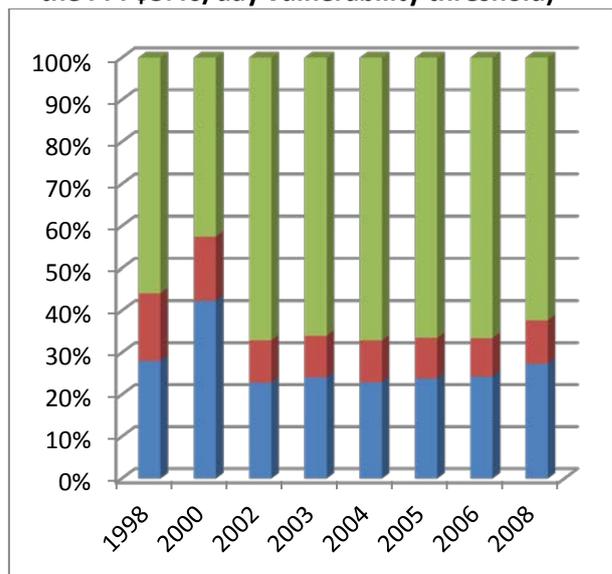


UNDP calculations, based on POVCALNET data.

**Figure 58—Poverty, vulnerability in FYRoM (at the PPP\$10/day vulnerability threshold)**



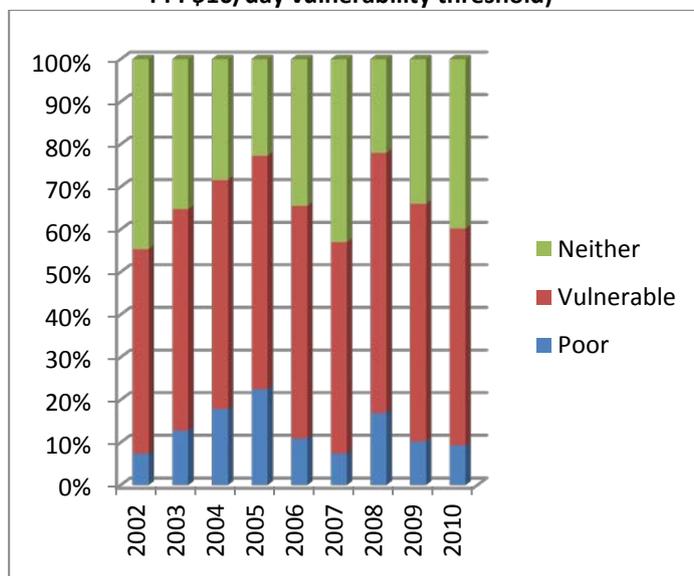
**Figure 59—Poverty, vulnerability in FYRoM (at the PPP\$5.40/day vulnerability threshold)**



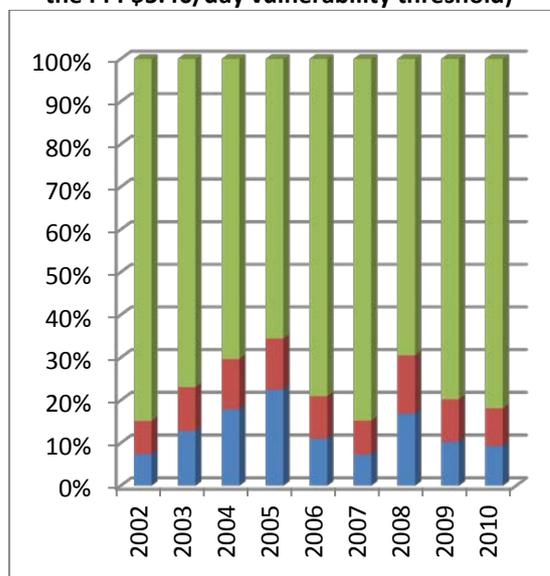
UNDP calculations, based on POVCALNET data.

Bosnia and Herzegovina (BiH) is at the other end of the spectrum, in Southeast Europe. At the PPP\$5.40/day vulnerability threshold (Figure 55), less than 10% of the BiH population was poor or vulnerable to poverty during 2001-2007 (the years for which POVCALNET data are available). At the PPP\$10/day threshold (Figure 54), vulnerability goes up significantly—but even so, the vulnerable share of the population fell during this time. (Whether this trend continued after 2007 is uncertain—particularly in light of the sharp impact of the global financial crisis on the BiH economy.)

**Figure 60—Poverty, vulnerability in Serbia (at the PPP\$10/day vulnerability threshold)**



**Figure 61—Poverty, vulnerability in Serbia (at the PPP\$5.40/day vulnerability threshold)**



UNDP calculations, based on POVCALNET data.

The vulnerability profiles suggested by the POVCALNET data for Serbia, Montenegro, and the Former Yugoslav Republic of Macedonia are less hopeful than for BiH (at least, during 2001-2007), but perhaps more so than for Turkey and Albania. For Serbia, Montenegro, and the Former Yugoslav Republic of Macedonia, the data indicate that, at the PPP\$5.40/day threshold (Figures 57, 59, 61), the share of the population measured as poor or vulnerable to poverty has not generally exceeded 10%. At the PPP\$10/day threshold (Figure 56), around half the population in Montenegro during 2007-2010 was neither poor nor vulnerable to poverty; in the Former Yugoslav Republic of Macedonia, this share was around one third, during 2002-2008 (Figure 58). In Serbia, the share of the population that was neither poor nor vulnerable to poverty exhibits surprising variability: after dropping from 45% to 23% during 2002-2005 (Figure 60), it recovered (to 43%) in 2007, dropped again (to 22%) in 2008, before returning to 40% in 2010.

Thus, unlike Turkey, these three countries managed to keep significant shares of their populations out of poverty and vulnerability to poverty during the transition. Unlike Albania, they have managed (albeit with some variation) to significantly reduce the shares of their populations living in poverty and vulnerability to poverty. Somewhat worrying, however, is the fact that the shares of the population living in poverty, as well as of those vulnerable to poverty, did rise toward the end of this period in Montenegro and Serbia. Moreover, it is startling that the data on population shares living in/vulnerable to income poverty in these countries are broadly comparable to the data for Ukraine—even though 2011 per-capita GNI (in PPP terms) in these countries is well above (by 30-45%) Ukraine's.<sup>49</sup>

In sum, this section suggests two broad conclusions. First, the most recent available data indicate that some 67 million people in these countries are living in poverty, or are vulnerable to such (at the

<sup>49</sup> This may also be an indication of weaknesses in these countries' poverty or national income accounting data—or in the tools used to compare them.

PPP\$4.30/day and PPP\$5.40/day thresholds, for poverty and vulnerability to poverty, respectively).<sup>50</sup> Turkey and Kazakhstan—upper middle-income countries that are generally regarded as being among the region’s development success stories—by themselves account for about half of this figure. In Albania, Armenia, Georgia, Kyrgyzstan, Moldova, and Tajikistan, more than half the population is either poor or vulnerable to poverty (Table 7). This underscores how relatively low income poverty levels—even in upper middle-income countries—may be an imperfect guide to vulnerabilities and developmental risks and threats.

| <b>Country</b>         | <b>Poverty rate*</b> | <b>At the PPP\$5.40/day threshold:</b> |                                    | <b>At the PPP\$10/day threshold:</b> |                                    |
|------------------------|----------------------|----------------------------------------|------------------------------------|--------------------------------------|------------------------------------|
|                        |                      | <b>Vulnerable</b>                      | <b>Neither poor nor vulnerable</b> | <b>Vulnerable</b>                    | <b>Neither poor nor vulnerable</b> |
| Albania                | 46%                  | 17%                                    | 37%                                | 46%                                  | 9%                                 |
| Armenia                | 76%                  | 11%                                    | 13%                                | 21%                                  | 3%                                 |
| Azerbaijan             | 34%                  | 16%                                    | 51%                                | 52%                                  | 14%                                |
| Belarus                | 1%                   | 1%                                     | 98%                                | 18%                                  | 81%                                |
| Bosnia and Herzegovina | 5%                   | 5%                                     | 90%                                | 31%                                  | 64%                                |
| Georgia                | 74%                  | 9%                                     | 17%                                | 22%                                  | 4%                                 |
| Kazakhstan             | 30%                  | 17%                                    | 53%                                | 57%                                  | 13%                                |
| Kyrgyzstan             | 70%                  | 12%                                    | 18%                                | 26%                                  | 4%                                 |
| Macedonia, FYR         | 27%                  | 10%                                    | 62%                                | 42%                                  | 31%                                |
| Moldova                | 38%                  | 15%                                    | 47%                                | 49%                                  | 13%                                |
| Montenegro             | 7%                   | 8%                                     | 85%                                | 49%                                  | 44%                                |
| Serbia                 | 9%                   | 9%                                     | 82%                                | 51%                                  | 40%                                |
| Tajikistan             | 79%                  | 9%                                     | 12%                                | 20%                                  | 2%                                 |
| Turkey                 | 24%                  | 9%                                     | 67%                                | 76%                                  | 0%                                 |
| Ukraine                | 3%                   | 6%                                     | 91%                                | 52%                                  | 45%                                |

UNDP calculations, based on POVCALNET data.

\* At the PPP\$4.30/day threshold.

Second, lower levels of income inequality tend to offer greater protection against vulnerability to income poverty. This is particularly apparent in the case of Ukraine—a lower middle-income country—in which low levels of income inequality seem to have reduced both poverty and vulnerability to poverty. It is also apparent in Turkey, where—due in part to its relatively unequal income distribution—the POVCALNET data indicate that nearly all of the country was either living in poverty, or was vulnerable to such, at the PPP\$10/day threshold (as of 2010).

#### **Poverty, inequality, vulnerability—and sustainability (XIV)**

UNDP’s 2007-2008 and 2011 human development reports,<sup>51</sup> the 2012 UN Conference on Sustainable Development in Rio de Janeiro (“Rio+20”), the Open Working Group’s report on the sustainable development goals, the growing awareness of the strains being imposed on ecological carrying capacities by “business as usual” economic development—all this points towards the critical links between the economic, social, and environmental strands of sustainable development. Reductions in poverty or inequality that result from environmentally or socially unsustainable development patterns may be especially vulnerable to reversal. This is apparent, for example, in rural development patterns in some

<sup>50</sup> These figures of course rise significantly if the PPP\$10/day vulnerability threshold is chosen. These figures should not be equated with the total numbers of vulnerable people in the region’s programme countries, however, since data for Kosovo (as per UNSCR 1244/1999), Turkmenistan, and Uzbekistan are missing.

<sup>51</sup> These reports, which focused on *Fighting climate change: Human solidarity in a divided world*, and *Sustainability and Equity: A Better Future for All*, argued that, to be effective, efforts address longer-term environmental sustainability concerns must do so in ways that address the needs of the marginalized and vulnerable—and vice versa.

Central Asian countries, in which decades of unsustainable management of land, water, and energy resources are now resulting in falling crop yields and growing household energy shortages. In addition to deepening rural disparities and deprivation and exacerbating food insecurity concerns, these developments are leaving millions of people to spend the winter without access to reliable electricity and heating supplies, as well as fuelling extensive internal and external labour migration. Should such trends continue, they could easily make “business as usual” development approaches—particularly in terms of reductions in income poverty and improvements in access to basic services—unsustainable or irrelevant.

Unfortunately, designing holistic development indicators that can measure and monitor the extent of these sustainability risks/vulnerabilities is quite a challenge. For example, it is generally recognized that many of the most severe global threats to environmental sustainability come from non-point source pollutants that are discharged into the global commons, and whose effects are quickly externalized, such as greenhouse gas (GHG) emissions. However, there is no globally accepted conceptual (not to mention binding legal) framework for determining “sustainable” levels of national GHG emissions. The national commitments to reduce GHG emissions to 1990 levels undertaken by some developed countries within the framework of the Kyoto Protocol and the UN Framework Convention on Climate Change are certainly steps in this direction. So are the nationally appropriate mitigating actions now being designed and implemented by many developing countries. Still, the absence of binding national commitments for GHG reductions undertaken by the world’s two largest GHG emitters (the USA and China), and the philosophical and political disagreements reflected in many other governments’ refusals to adopt such commitments, underscore the difficulties associated with the national disaggregation of the global carbon budget.

Questions of sustainability (and vulnerability to development reversals) can likewise be posed to the social and economic dimensions of sustainable development, as well as to the environmental dimension. The large increases in household energy tariffs introduced in Kyrgyzstan in January 2010 may have been necessary in terms of environmental sustainability (i.e., by reducing pressures on water/hydro-electric resources), and in terms of fiscal/economic sustainability (i.e., by reducing poorly targeted quasi-fiscal subsidies, generating the cash flow needed to finance energy-sector modernization). But the national protests that followed—which caused the president to flee the country and contributed to deadly clashes between ethnic Kyrgyz and Uzbeks—demonstrated the social unsustainability of these policies.<sup>52</sup> Similar arguments can be made about the socially vulnerable/unsustainable nature of the development models pursued in many Middle Eastern/North African countries that precipitated the “Arab Spring”. It would be difficult, however, to identify a single/small group of social sustainability indicator(s) that would have pointed to critical, or growing, vulnerabilities in the social fabric in these countries *ex ante*.<sup>53</sup> Meanwhile, slews of rating companies, investment banks, hedge funds, consulting firms, and international financial institutions offer (often sharply differing) assessments of the sustainability of economic growth patterns reported by various countries—and the vulnerabilities thereto. Here, too, dispassionate observers seeking robust indicators of macroeconomic sustainability/vulnerability, which lend themselves to unambiguous interpretation *ex ante*, are likely to be disappointed.<sup>54</sup>

Still, some indicators can shed light on the environmental sustainability challenges and vulnerabilities facing the region. One such indicator is GDP produced per ton of GHG emissions (Figure 62). These data do not show that these countries make a particularly large contribution to climate change, in either absolute or per-capita terms. They do suggest, however, that economic activity in the region is exceptionally carbon-intensive: the most recent data indicate that the value of the GDP produced per ton of associated GHGs in all of these countries was below global averages. Relatively low levels of energy efficiency, and extensive reliance on fossil fuels, are primarily responsible for this outcome.

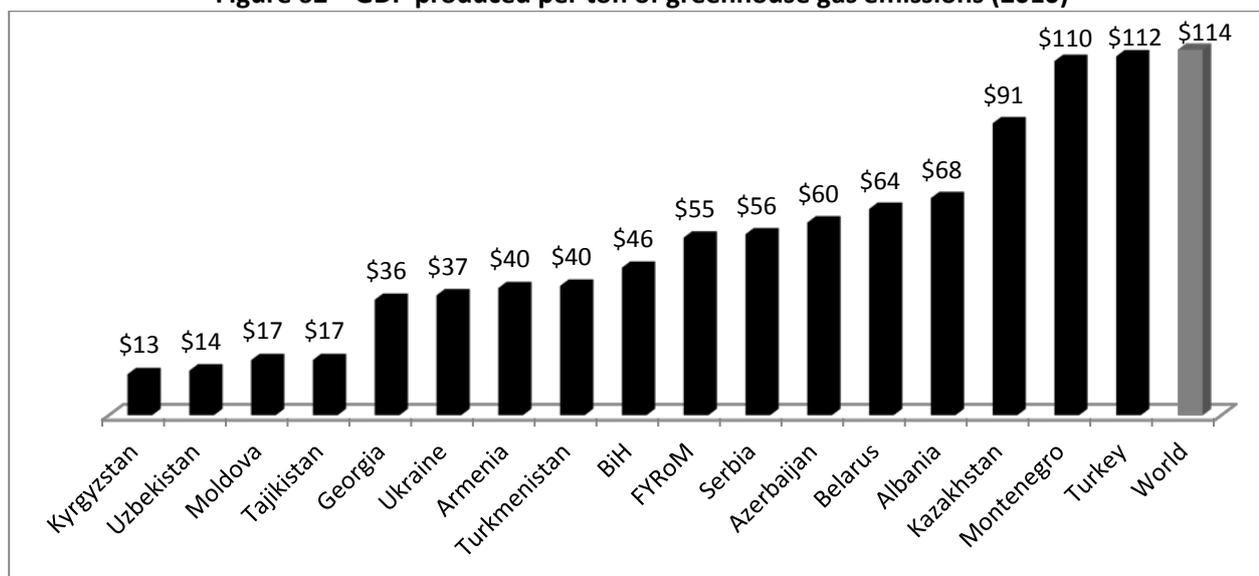
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<sup>52</sup> Other factors—particularly concerns about corruption in the president’s family—also contributed to these developments.

<sup>53</sup> For example, the IHDI values reported by HDRO for the “Arab States” suggest greater inequalities than in some other regions (e.g., Europe and Central Asia, East Asia)—but smaller than in others (e.g., South Asia, Latin America and Caribbean).

<sup>54</sup> Additional, more technical complexities are associated with the specification of/interactions between indicator components. For more on attempts to explicitly build sustainability components into UNDP’s human development index, see Jose Pineda, “Sustainability and human development: a proposal for a sustainability adjusted HDI (SHDI)” ([http://mpr.a.ub.uni-muenchen.de/42636/1/MPRA\\_paper\\_42636.pdf](http://mpr.a.ub.uni-muenchen.de/42636/1/MPRA_paper_42636.pdf)). See also Andrey Ivanov and Mihail Peleah, “Development that lasts: The Affordable Human Development Index”, UNECE working paper 16, 25 November 2013.

**Figure 62—GDP produced per ton of greenhouse gas emissions (2010)**



UNDP calculations, based on IMF-WEO and HDRO data.

While these carbon intensities may not pose immediate threats to these countries' development prospects, they do point to wasted development opportunities—particularly in terms of possible gains from improvements in energy efficiency. They also highlight the vulnerabilities of the region's energy importers to energy price shocks—as well as the reliance of its undiversified exporters on a handful of energy and other primary products. Moreover, for Central Asia's low- and lower middle-income countries, these data also reflect growing roles of high-sulphur coal and biomass (firewood, cotton stalks, dung) in national and household energy balances, in response to winter gas and electricity shortages.<sup>55</sup>

Virtually all the countries in the region have experienced significant increases in energy prices in the last two decades. These have resulted from reductions in energy subsidies—reflecting attempts to put energy sectors on more economically and environmentally sustainable footing, as well as to reduce the share of energy subsidies accruing to relatively well-off users. However, higher household energy tariffs have raised the issue of energy poverty—particularly in the region's low- and lower middle-income countries, where energy and food expenditures together absorb 50-60% of household budgets. Some studies have found that energy price increases have reduced household food and healthcare purchases.<sup>56</sup>

In principle, social assistance targeted at low-income households is a more effective mechanism (than blanket subsidies) for addressing energy poverty. Unfortunately, few countries in the region possess well targeted social assistance programmes that provide large enough benefits to mitigate the social impact of higher energy (and food) prices. This underscores the importance of social policy reform in the region.

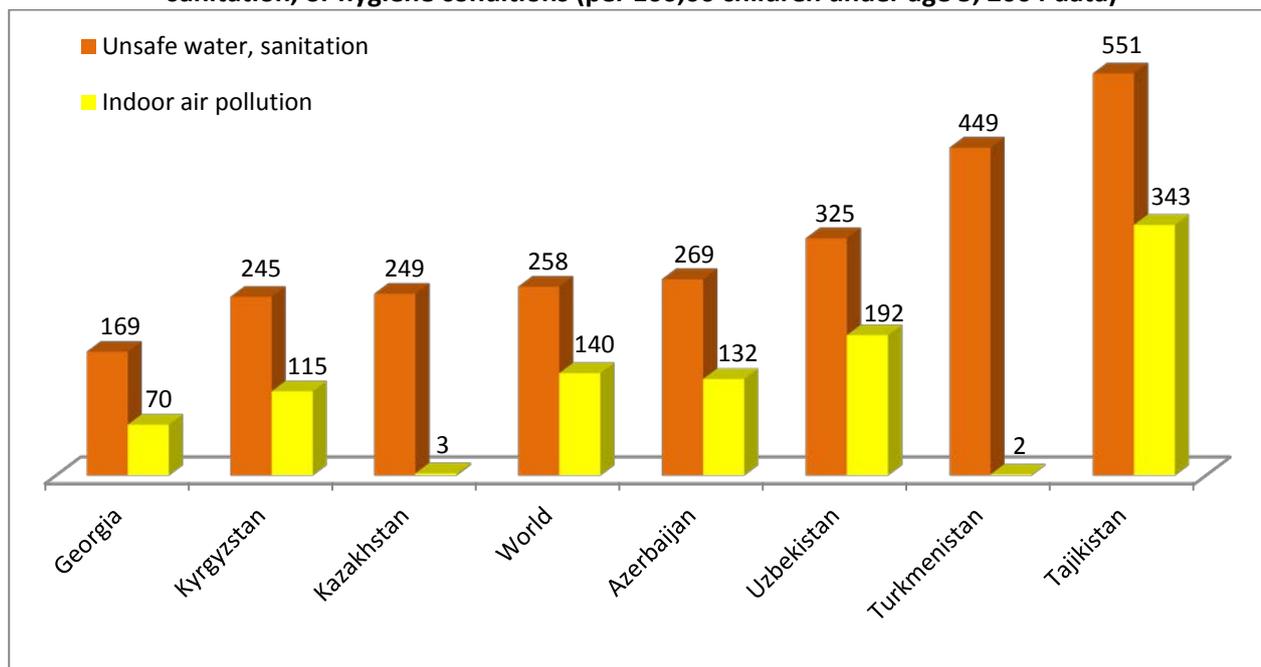
In addition to boosting GHG emissions, extensive household reliance on biomass combustion for heating and cooking has well documented health effects, particularly for women and young children. HDRO data indicate that the number of children under age 5 who died from indoor air pollution in 2004 (per 100,000 children) were above global averages in Uzbekistan and Tajikistan, and were close to global averages in Azerbaijan and Kyrgyzstan (Figure 63). While the development of national heating infrastructures would seem to have significantly improved household access to gas in Azerbaijan, survey data point to growing household reliance on biomass (and coal) in Kyrgyzstan and Tajikistan after 2004—

<sup>55</sup> For more on these issues, see *Sustainable Energy and Human Development in Europe and the CIS*, UNDP, 2014.

<sup>56</sup> See, for example, Laderchi, C. R.; Olivier, A.; Trimble, C., *Balancing Act: Cutting Energy Subsidies While Protecting Affordability*, World Bank, 2012.

particularly in rural areas.<sup>57</sup> Anecdotal evidence concerning growing winter-time electricity and gas shortages suggest increasing problems in Uzbekistan as well.

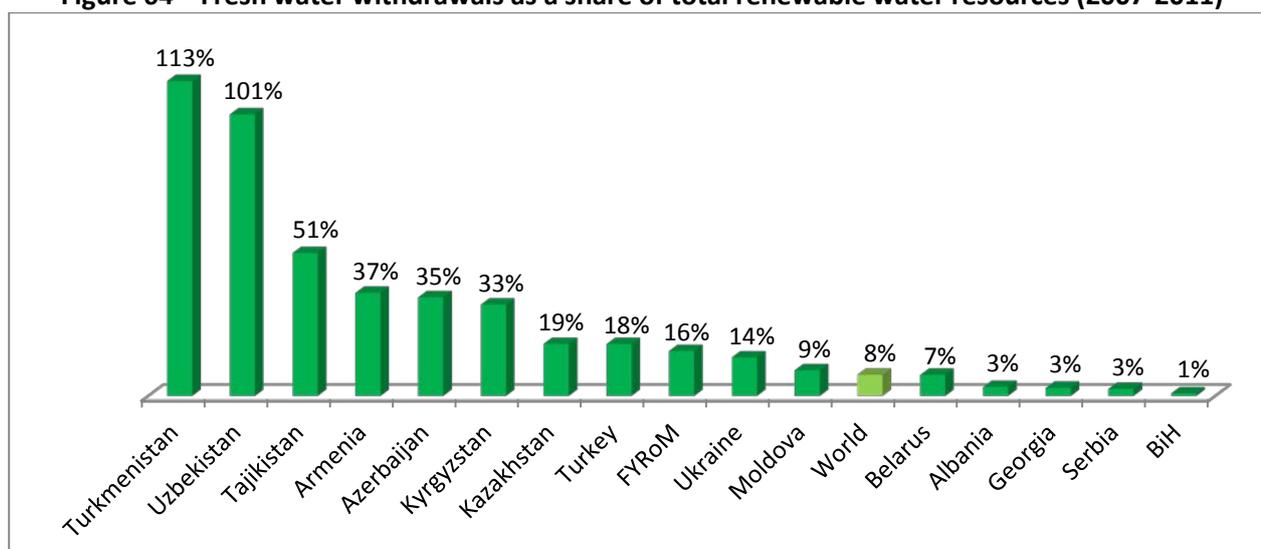
**Figure 63—Numbers of children who die each year due to indoor air pollution, or to poor water, sanitation, or hygiene conditions (per 100,00 children under age 5, 2004 data)**



HDRO data.

The 2004 data in Figure 63 regarding child deaths due to inadequate water, sanitation, and hygiene standards—which seem particularly high for Georgia, Kazakhstan, and Turkmenistan, as well as for the other Caspian basin countries mentioned above—also raise questions about the sustainability of water management practices. Data on fresh water withdrawals (Figure 64) indicate that, at a time of growing pressures on global water supplies, water resources in the region are coming under particular stress. Most of the countries seem to be withdrawing water from ecosystems at rates that exceed global averages. For some of these countries (e.g., Turkmenistan, Uzbekistan), the available data raise particular questions about the sustainability of water use patterns.

**Figure 64—Fresh water withdrawals as a share of total renewable water resources (2007-2011)**



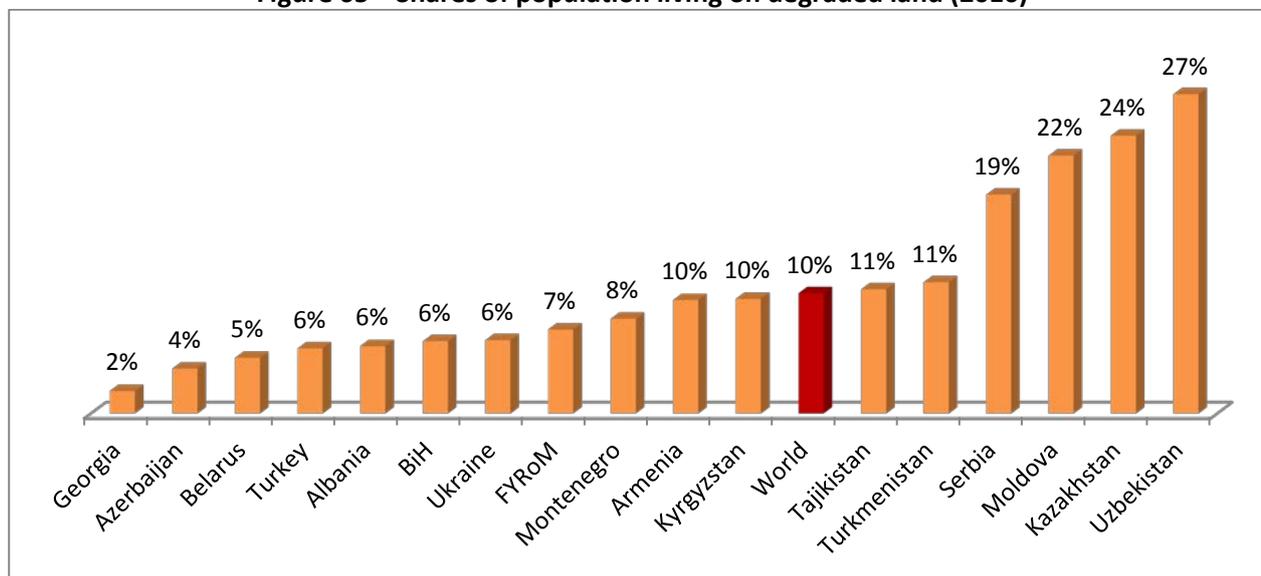
HDRO data, most recent available year.

<sup>57</sup> For more on these issues in Tajikistan and Kyrgyzstan, see *Energy and Communal Services in Kyrgyzstan and Tajikistan: A Poverty and Social Impact Analysis*, UNDP, 2011.

Perhaps most unsettling is the fact that above-average water withdrawal rates tend to be found in the region's low- and lower middle-income countries (e.g., Uzbekistan, Tajikistan, Kyrgyzstan, Armenia). Most of these countries (as well as Kazakhstan and Turkmenistan) rely heavily on irrigated agriculture, for which (in some countries) declining agricultural yields are now being reported. Moreover, the Central Asian countries are expected to face growing climate change adaptation challenges associated with the anticipated reductions in water flow in the Aral Sea basin.

In response to these pressures, many of these countries are reducing the cultivation of water-intensive crops like cotton and rice, and are adopting drip irrigation and other modern water management technologies. Still, the continued presence of wasteful Soviet-era water management practices (e.g., flood irrigation), and weaknesses in regional cooperation on water issues in these sub-regions, does not bode well for the early resolution of these vulnerabilities. While these issues may be particularly difficult in the Caspian basin, water withdrawals data in Turkey and the Former Yugoslav Republic of Macedonia (as well as in Ukraine and Moldova) suggest the importance of sustainable water management issues in other parts of the region as well.

**Figure 65—Shares of population living on degraded land (2010)**



HDRO data.

A related concern is raised by the data in Figure 65, which point to relatively large population shares (above global averages) in these countries living on degraded land. The particularly large shares for Kazakhstan and Uzbekistan can presumably be explained in part by the desiccation of the Aral Sea—underscoring the close link between sustainable water and land management practices.

### Implications for the post-2015 agenda (XV)

This paper provides an evidence-based assessment of the region's human development status—with a particular focus on, poverty, inequalities, and vulnerabilities—using the most recent, internationally comparable data available. In so doing, it also highlights the limitations of these data—particularly in terms of their abilities to monitor progress towards sustainable development, and especially for vulnerable groups, and at the sub-national level. These limitations are apparent *inter alia* in data quality (a description of the inconsistencies between and across various data sets concerning related development issues would merit a separate paper), and availability (as is apparent, for example, in the absence of POVCALNET data for Turkmenistan, Uzbekistan, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and

Albania after 1998, 2003, 2007, and 2008, respectively). Without internationally comparable household budget survey data, timely regional (and global) assessments of trends in income poverty and inequalities (and in related issues of exclusion and vulnerability) are impossible. These limitations are also apparent in the absence of indicators that can provide an integrated overview of the economic, social, and environmental dimensions of sustainability—and of vulnerability to development reversals.

These lacunae underscore the importance of the statistical/data dimensions of the debates around the sustainable development goals (SDGs) and the post-2015 development agenda. The Millennium Development Goals have been criticized for their allegedly reductionist nature, and for deviating from the spirit of the 2000 Millennium Declaration from which they were drawn. The MDGs' focus on national averages have also been criticized for drawing attention away from sub-national disparities and those left behind. These apparent shortcomings can in large measure be explained by data availability: more ambitious frameworks for monitoring development progress were precluded by the absence in many countries of the requisite statistical data needed for monitoring more useful indicators. The data reviewed in this paper suggest that, as the region prepares for the post-2015 global development framework, too little has changed in this respect in the last 15 years.

Moreover, even for targets and indicators for which supporting national data would seem to be robustly available (e.g., income poverty), differences in national and international data sets and indicator definitions can produce differing assessments of whether individual countries are meeting individual MDG targets—and by extension the MDGs as a whole.<sup>58</sup> Moreover, indicators showing progress at the national level can mask its absence in remote or isolated sub-national regions, or among such traditionally excluded groups as Roma, the long-term unemployed, or people living with disabilities.

In the absence of a stronger focus on the timely production and release of the data needed for internationally comparable indicators, efforts to monitor progress towards meeting the SDGs could easily meet with a similar fate. Moreover, the anticipated thematic breadth of the SDGs—which should in principle cover the entirety of the sustainable development agenda (in contrast to the MDGs' focus on poverty reduction and basic service provision), and which should be applied to all countries (in contrast to the MDGs' focus on developing economies)—suggests that the consequences of unresolved data and indicator lacunae could be even greater for the SDGs and the post-2015 agenda than they were for the MDGs. This underscores the importance of the “data revolution” needed to underpin the post-2015 regional, and global, development frameworks.

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<sup>58</sup> For more on this, see UNECE Statistical Division, *Indicators for Monitoring the Millennium Development Goal 1: Definitions and Use in Official MDG Reports in the UNECE Region* (Geneva, 2011); and Ben Slay, Elena Danilova-Cross, and Tuya Altangerel, *Reflections on the MDGs, and the Post-2015 Agenda, from Europe and Central Asia* (UNDP, 2013). For a recent overview of progress in the region, see *The UNECE Report on Achieving the Millennium Development Goals in Europe and Central Asia* (Geneva, 2012).



Empowered lives.  
Resilient nations.

**Appendix I—Gini coefficients of income inequality from the SWIID database<sup>59</sup>**

| Country      | 1981  | 1984  | 1987  | 1990  | 1993  | 1996  | 1999  | 2002  | 2005  | 2008  | 2009  | 2010  | 2011  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Albania      |       |       |       |       |       | 0.282 | 0.286 | 0.298 | 0.315 | 0.341 |       |       |       |
| Armenia      |       |       | 0.248 | 0.242 | 0.384 | 0.410 | 0.385 | 0.354 | 0.327 | 0.327 | 0.344 | 0.354 | 0.368 |
| Azerbaijan   | 0.221 | 0.241 | 0.270 | 0.309 | 0.403 | 0.459 | 0.395 | 0.240 | 0.188 | 0.313 |       |       |       |
| Belarus      | 0.219 | 0.224 | 0.221 | 0.212 | 0.245 | 0.262 | 0.272 | 0.295 | 0.258 | 0.268 | 0.265 | 0.260 | 0.258 |
| BiH          |       |       |       |       | 0.351 | 0.323 | 0.295 | 0.295 | 0.343 |       |       |       |       |
| Georgia      | 0.224 | 0.244 | 0.262 | 0.246 | 0.432 | 0.439 | 0.440 | 0.434 | 0.413 | 0.455 | 0.492 | 0.485 | 0.505 |
| Kazakhstan   | 0.228 | 0.231 | 0.233 | 0.234 | 0.312 | 0.328 | 0.327 | 0.321 | 0.345 | 0.301 | 0.286 | 0.282 | 0.282 |
| Kyrgyzstan   | 0.223 | 0.222 | 0.220 | 0.226 | 0.411 | 0.447 | 0.356 | 0.306 | 0.337 | 0.367 | 0.356 | 0.360 | 0.350 |
| FYRoM        |       |       |       | 0.273 | 0.321 | 0.309 | 0.325 | 0.343 | 0.366 | 0.411 | 0.414 | 0.426 |       |
| Moldova      | 0.217 | 0.228 | 0.236 | 0.243 | 0.355 | 0.386 | 0.421 | 0.416 | 0.394 | 0.364 | 0.355 | 0.354 | 0.346 |
| Montenegro   |       |       |       |       |       |       |       | 0.320 | 0.309 | 0.298 | 0.300 | 0.293 |       |
| Serbia       |       |       |       |       |       |       |       | 0.319 | 0.320 | 0.288 | 0.285 | 0.287 |       |
| Tajikistan   | 0.222 | 0.244 | 0.270 | 0.296 | 0.302 | 0.308 | 0.314 | 0.324 | 0.327 | 0.316 | 0.314 |       |       |
| Turkey       | 0.615 | 0.509 | 0.430 | 0.445 | 0.460 | 0.471 | 0.480 | 0.455 | 0.465 | 0.402 | 0.399 | 0.398 | 0.401 |
| Turkmenistan | 0.231 | 0.219 | 0.215 | 0.240 | 0.291 | 0.361 | 0.410 | 0.419 | 0.405 |       |       |       |       |
| Ukraine      | 0.236 | 0.256 | 0.222 | 0.212 | 0.405 | 0.372 | 0.325 | 0.279 | 0.277 | 0.272 | 0.264 | 0.256 | 0.003 |
| Uzbekistan   | 0.223 | 0.229 | 0.238 | 0.248 | 0.336 | 0.367 | 0.371 | 0.337 | 0.352 |       |       |       |       |

<sup>59</sup> SWIID standardizes the United Nations University’s World Income Inequality Database, the OECD Income Distribution Database, the Socio-Economic Database for Latin America and the Caribbean generated by CEDLAS and the World Bank, Eurostat, the World Bank’s PovcalNet, the UN Economic Commission for Latin America and the Caribbean, the World Top Incomes Database, national statistical offices around the world, and many other sources. It seeks to minimize “problematic assumptions by using as much information as possible from proximate years within the same country”.