

## 2. Social Conditions

Ultimately, the sustainability of transition progress hinges on the well being of the individual and a reasonably fair distribution of the gains and costs from the transition. Humanitarian considerations and support are important. However, equally if not more compelling are the links between living standards, popular expectations, and the level of public support for economic and political reforms--reforms which have coincided with, if not contributed to, both a dramatic initial drop in overall income and significant increases in income inequalities and poverty in most cases. The links between social conditions and macroeconomic performance may be growing in importance as well, particularly in a setting of sustained deterioration of social conditions. Productivity is eroded or stifled in such a setting.

*Tables 17 through 25 and Figure 3 highlight social conditions. Unemployment rates (Table 17 and Figure 3) are high and rising in most transition countries. Far and away, the highest rates are in the Southern Tier CEE, particularly in those countries that were part of the former communist Yugoslavia.<sup>42</sup> The unemployment rate on average for the subregion in 2000 was 21 percent, highest since the transition began. Unemployment rates range from 30-40 percent in Macedonia, Yugoslavia, and Bosnia-Herzegovina; 15-18 percent in Croatia, Bulgaria, and Albania; and is lowest in Romania, at 10.5 percent.*

Despite favorable macroeconomic trends, unemployment remains stubbornly problematic in the Northern Tier CEE, 12.8 percent on average in 2000. This compares to 8.2 percent in the EU. Earlier in the transition, through 1997, unemployment rates in the Northern Tier had been falling, coinciding with a similar trend in Western Europe. The Northern Tier CEE unemployment rate in 1997 (at 8.7 percent) had even fallen below the EU average (of 10.4 percent). Since then, however, Northern Tier unemployment rates have been increasing on balance (while EU rates continue to fall). Rates are highest in Slovakia (17.9 percent), Lithuania (15.4 percent), Poland (15 percent), Estonia (13.7 percent), and Latvia (13.2 percent). Unemployment in the Czech Republic is close to 9 percent, and represents a notable increase from rates in earlier transition years. The two Northern Tier exceptions are Hungary and Slovenia. In both, unemployment rates peaked early in the transition (1993 or 1994), and have fallen fairly steadily since, to levels that are now below the EU average: 6 percent in Hungary; and 7.2 percent in Slovenia.

Official unemployment rates are generally lower in Eurasia than in CEE; the 1999 Eurasian average was 8.4 percent. One reason why this is so is because the data are often less reliable in Eurasia, and/or are not directly comparable to those in CEE. In a handful of Eurasian countries, generally where recorded unemployment rates are lowest, registered unemployment figures are reported in lieu of survey estimates. The former technique tends to underestimate actual unemployment rates, particularly where there is little incentive to register one's unemployment (i.e., where unemployment compensation is minimal or insignificant). Registered unemployment rates are used in Uzbekistan, Moldova, Belarus, Tajikistan, and Kyrgyzstan, where, by these measures, unemployment ranges from 0.6

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<sup>42</sup> The striking exception to the trend of high unemployment among the countries of former communist Yugoslavia is Slovenia where unemployment is now 7.2% of the labor force.

percent in Uzbekistan to 5.4 percent in Kyrgyzstan. Unofficial estimates, however, indicate substantially higher rates in, for example, Kyrgyzstan (around 20 percent) and Tajikistan (30 percent). Armenia's official unemployment figures (10.7 percent in 2000) are also registered unemployed, though again, unofficial estimates indicate that substantially higher unemployment rates exist there as well. In Turkmenistan, unemployment does not officially exist since every citizen is "guaranteed" employment. However, a household survey found urban unemployment there to be 19 percent in 1998.

In some Eurasian countries, official unemployment rates are high, and closer to CEE norms. Russia, Georgia, and Azerbaijan (in addition to Armenia) all have official unemployment rates in double-digits, from close to 10 percent in Russia to 14 percent in Azerbaijan and 15 percent in Georgia.

To some extent higher open unemployment in Eurasia has so far been avoided because labor markets have been adjusting somewhat differently in Eurasia than in CEE. To a great extent this is another way of saying that enterprise restructuring continues to lag in much of Eurasia vis-à-vis CEE. Similarly, the degree of open unemployment currently experienced in CEE and some of Eurasia may be an indication of what is to come in the rest of Eurasia.

More specifically, the tendency in many firms in Eurasia to avoid labor shedding (or making "quantity adjustments") when demand for labor falls or shifts has put greater pressure on "price adjustments" in the labor markets, that is, on reducing real wages. *Figure 3* sheds some light in this regard. Real wages have dropped much more significantly in Eurasia than in CEE. From 1990 to 1995, real wages fell by more than 80 percent on average in the six Eurasian countries for which data are available, recovering to close to 40 percent by 1998. In contrast, real wages in the Northern Tier CEE countries never fell below 35 percent of 1990 levels, and by 1998 were roughly 10 percent less than 1990 real wages.

Other distinguishing labor market adjustments characterize Eurasia for which cross-country data are not readily available. These include wage arrears and hidden unemployment or, more broadly, substantial underemployment. Many workers in much of Eurasia have remained officially employed, but have often gone without pay for periods or are put on involuntary leave and/or are given fewer hours to work.<sup>43</sup> In short, labor market adjustments in much of Eurasia may be just as significant and tumultuous (if not more so) than those in CEE, though they have manifest in a variety of different often less transparent ways.

Another important consideration, and arguably a growing concern as the transition stretches, is *long-term unemployment*. We know that unemployment is a crucial determinant of poverty. In addition, there may be growing evidence that an underclass of poor is forming

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<sup>43</sup> According to Pinto, Drebensov, and Morosov (2000), wage arrears in the public sector alone at end 1999 were equivalent to roughly 1% of GDP in Georgia, 1.6% in Moldova, and 2.7% in Armenia. More broadly, wage arrears in Russia in four sectors of the economy (industry, agriculture, transport, and construction) equaled 2.9% of GDP in 1998. B. Pinto, V. Drebensov, and A. Morozov, "Dismantling Russia's Nonpayments System: Creating the Conditions for Growth," World Bank (2000).

in parts of the transition region. Long-term unemployment trends could shed light on this issue.

*Table 18* shows what data are available on long-term unemployment. Not surprisingly, and unfortunately, such data for most of Eurasia are not available. In any event, the data for the CEE countries plus Russia are striking: the proportion of unemployed that is long-term has increased greatly since 1992, and, as of 1996-1998, ranges from 31 percent in the Czech Republic to 81 percent in Macedonia.

It is also important to note, however, that the proportion of long-term unemployed in Western Europe is comparable to that found in most of CEE. Moreover, this proportion has been increasing in Western Europe as well. Fifty-six percent of the unemployed in Spain in 1996-1998 was long-term, an increase from 47 percent in 1992. In Germany, almost one-half of the unemployed in 1996-1998 had been unemployed for more than one year; in 1992 it was closer to one-third. The truly exceptional labor market is found in the United States where only 9 percent of the unemployed is long-term (and only 4 percent of the labor force is out of work).

Data that shed light on who is the long-term unemployed are needed. In Macedonia, for example, entrance into and out of the labor market is very restricted, and the majority of the long-term unemployed consists of new entrants to the labor force; relatively young Macedonians who have not yet landed a job. This unemployment profile is particularly disturbing in the current highly unstable context in Macedonia. How prevalent are these labor market rigidities in other transition countries?

*Table 19* looks at *per capita income* and how it is distributed. Income on average in the transition economies remains significantly below that in the advanced economies. In purchasing power parity (PPP) terms, per capita income (at \$6,240) for the transition region overall is only one-fourth the average of the advanced economies (\$25,690). It is considerably lower when market exchange rates are used to calculate average income, closer to one-twelfth the average of the advanced economies. Furthermore, the transition economy average masks wide variation. The Northern Tier CEE per capita income average is almost twice that found in the Southern Tier CEE and Eurasia in PPP terms. Four Northern Tier CEE countries have average income greater than \$10,000 (Slovenia, \$16,840; the Czech Republic, \$13,100; Hungary, \$11,750; and Slovakia, \$10,600), while four Eurasian countries have average income levels closer to \$2,000 (Armenia, \$2,420; Uzbekistan, \$2,210; Moldova, \$2,030; and Tajikistan, roughly \$1,100).

What may be more important for our purposes is how the income levels have changed during the transition, and how it has been distributed within countries. Other things equal, the greater the income disparities and collapse in incomes, the more pronounced are the hardships and the greater is the likelihood of “reform fatigue.”

Trends in the *distribution of income* and consumption (*Table 19*) are drawn primarily from the World Bank, *Making Transition Work for Everyone: Poverty and Inequality in Europe and Central Asia* (September 2000). This study represents a notable

advancement in efforts to quantify trends in inequality and poverty, and enables us to draw more (and presumably more accurate) conclusions on such trends.

Several observations on inequality stand out. First, income inequality has increased dramatically overall in the transition region. In little more than a decade (from 1987 to 1999), income inequality, as measured by gini coefficients, increased for the transition region as a whole by 50 percent. This likely represents a change of unprecedented magnitude in the given time period. To compare, income inequality increased by 2 percent in the EU from 1986 to 1993.

Virtually all the transition economies had relatively equal income distributions prior to communism's collapse, generally more equal than those found in the developed market economies.<sup>44</sup> Since the transition began, however, income inequality trends have differed significantly between the subregions. Income inequality has increased far more in Eurasia (by over 60 percent) than it has in the Northern Tier CEE countries (14 percent) and the Southern Tier CEE (36 percent). For the Northern Tier CEE countries, income inequality is now on a par with that found in the EU, and slightly lower than all of the advanced economies on average. To a large extent, the increase in inequality in these advanced transition economies is an expected byproduct of developing a market-oriented economy.

In contrast, income inequality in a handful of Eurasian countries, most notably Armenia, followed by Russia, Tajikistan, and Kyrgyzstan, may approach those levels found among the most unequal economies worldwide, found in Latin America and Sub-Saharan Africa. The income distribution estimates of a handful of comparator countries in *Table 19* provide a rough basis for comparison.<sup>45</sup> Income inequality is among the highest worldwide in Brazil, Guatemala, and South Africa where gini coefficient estimates range from 0.59 in South Africa to 0.60 in both Brazil and Guatemala. Of the transition countries, income inequality in Armenia comes closest (with a gini coefficient estimate of 0.58). The gini coefficients for Russia and Tajikistan are 0.47; for Kyrgyzstan, 0.44. It is also worth noting, however, that income inequality in the United States (gini = 0.41) is not much lower than that found in the above-mentioned countries and in the overall Eurasian average (0.44).

Most of the increase in income inequality in the transition region appears to have taken place relatively early on in the transition, by the mid 1990s. The most recent changes in income inequality for which data are available show considerable slowing of the increase in inequality overall, and even a notable decrease in at least two countries, Slovenia and Kyrgyzstan. Since the mid-1990s, income inequality increased by only 2 percent on

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<sup>44</sup> It is probable, however, that the gini estimates of pre-transition income distribution, particularly in Eurasia, underestimate income inequality. Typically, pre-transition surveys excluded many of the poorer segments of society.

<sup>45</sup> The gini estimates of the comparator countries in *Table 19* are drawn from a different source from within the World Bank (its *World Development Indicators*), and hence are likely derived somewhat differently than the transition country estimates in the table.

average for the sixteen transition countries for which data are available; i.e., comparable to the recent trend in the EU.

The inequality gap between subregions is narrower if the *distribution of consumption* (rather than income) is used to measure inequality (*Table 19*). In general, consumption measures of inequality are superior to income measures since they better capture informal economic activities, self-employment, and nonwage earnings, and may be more likely to reflect underlying, longer-term (or "permanent") income trends. The distinction between the two inequality measures may be particularly key in the case of Eurasia where wages reportedly represent less than 40 percent of household incomes, and in some countries, such as Armenia and Georgia, perhaps less than 15 percent. In CEE, wages account for 60 to 80 percent of household incomes.<sup>46</sup> As shown in *Table 19*, consumption measures of inequality are lower than income measures on average in Eurasia and, to a lesser extent, in the Southern Tier CEE, while slightly higher in the Northern Tier CEE. Consumption inequality is considerably lower than income inequality in Tajikistan, Armenia, Kyrgyzstan, Georgia, and Bulgaria. These findings are consistent with existing cross-country estimates of informal economic activity that show that these five countries have among the largest informal economies (as a share of official GDP) of all the transition countries.<sup>47</sup>

Overall, these new data on inequality provide a more favorable picture of transition trends than previously depicted in past *Monitoring Country Progress* reports on at least three counts: (1) the increase in income inequality in the CEE countries since the beginning of the transition is less than previously calculated because these new estimates have adjusted for higher pre-transition inequality; (2) more time-series data reveal that most of the increase in income inequality occurred in the first part of the transition; since the mid-90s, the pace of increase has slowed considerably; and (3) the inequality gap between the subregions narrows some when the more accurate distribution of consumption measures are used in lieu of income measures.

Another important consideration in gauging the extent of transition hardships is the pattern of overall economic activity over the transition, or the *trends in GDP*. All the transition economies witnessed at least an initial significant drop in output before economic growth resumed. However, the pattern of economic decline and recovery has varied widely among the countries. For the Northern Tier CEE countries, official GDP on average fell by roughly 20 percent early on in the transition before economic growth resumed. In Eurasia, recorded GDP dropped closer to 50 percent of pre-transition income on average.<sup>48</sup>

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<sup>46</sup> World Bank, *Making Transition Work for Everyone* (September 2000). p. 143.

<sup>47</sup> For estimates of the size of informal economies, see S. Johnson, D. Kaufmann, and A. Shleifer, "Politics and Entrepreneurship in Transition Economies," *Working Paper Series*, No. 57, The William Davidson Institute, University of Michigan (1997); and F. Schneider and D. Enste, "Shadow Economies: Size, Causes, and Consequences," *The Journal of Economic Literature* 38 (March 2000), pp. 77-114.

<sup>48</sup> *Figure 3 of Monitoring Country Progress*, No. 6 (May 2000) shows the distinct GDP patterns of the three transition subregions, and *Figure 4* further disaggregates into seven GDP patterns among the transition countries.

*Table 20* provides an updated snapshot of these trends by comparing the size of the transition economies in 2000 with 1989 GDP levels. Two series are calculated, the officially recorded GDP trends and official GDP trends combined with very rough estimates of informal sector activity.

The official GDP estimates reveal that only a handful of countries have essentially regained pre-transition income levels. Most of these are Northern Tier CEE countries: Poland, Slovenia, Hungary, Slovakia, and the Czech Republic. However, Albania's economy is also now back to its pre-transition size by this measure, and Uzbekistan's economy is close. Albania's economy has been growing steadily since 1993 (except for 1997) after a precipitous drop. As noted previously, Uzbekistan's economy has yet to experience much of a drop in GDP, or robust economic growth; its pattern of economic activity is quite unique to the transition region.

At the other end of the spectrum is a handful of countries with formal economies that are at least one-half the size of what they were in 1989. All but one are Eurasian countries. Officially recorded 2000 GDP in Tajikistan, Azerbaijan, and Yugoslavia is roughly 50 percent of 1989 GDP. In Ukraine, Georgia, and Moldova, it is closer to one-third. These numbers suggest considerable hardship for many.

However, it is widely recognized that *unofficial economic activity* is very significant in virtually all the transition countries, and that unofficial income has likely greatly offset official income losses. Measuring the informal economy is by definition very difficult, though there are a variety of ways to get at rough orders of magnitude. Some stem from analyzing household survey data, which is done in some detail in *Appendix II of Monitoring Country Progress, No. 6* (May 2000).<sup>49</sup>

An increasingly common "back-of-the-envelope" technique to measure unofficial economic activity is to compare officially measured economic activity with electricity consumption. From this approach, one finds that many of those countries that have experienced a particularly large decrease in official economic activity have also seen relatively large increases in unofficial economic activity. Drawing from estimates by Johnson, Kaufmann, and Shleifer (1997), for example, one finds that unofficial economic activity in Eurasia is almost twice as large relative to official GDP as it is in CEE. In Eurasia, it was almost 40 percent of official GDP on average in 1995 (and still rising); in the CEE, it was closer to 20 percent (and falling).<sup>50</sup>

The second GDP series of *Table 20* attempts to account for this informal economic activity by combining estimates of the unofficial economy with the officially recorded GDP figures. Estimates of the size of the informal economy as a percent of official GDP for seventeen countries from 1989 to 1995 were taken from Johnson et. al. These estimates were then combined with official GDP figures to get total economic activity

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<sup>49</sup> It's also worthy to note that official income statistics are continually being revised, and efforts are often made to include informal economic activity into these figures.

<sup>50</sup> S. Johnson, D. Kaufmann, and A. Shleifer, "Politics and Entrepreneurship in Transition Economies," *Working Paper Series, No. 57*, The William Davidson Institute, University of Michigan (1997).

trends through 1995. Next, these trends were updated to 2000 by extrapolating the generally observed inverse relationship between changes in the official economy with changes in the informal sector. For example, an expansion of 15 percent of official GDP from 1996-2000 would translate into a contraction of 15 percent in the informal economy; a contraction in the official economy means an expansion of the unofficial economy by an equal proportion. While obviously very rudimentary in technique, the end-result hopefully provides a more complete picture of current overall economic activity in relation to pre-transition activity, and more realistic implications regarding the scope of hardships.

How do these estimates compare to official economy trends only? In general, adding informal economic activity narrows the spread in performance across the countries. The Northern Tier CEE countries are slightly less advanced in economic activity over the transition when this broader measure of economic activity is used; the decrease in informal economic activity started early in the transition for these countries and has slightly outweighed the growth in the formal economy. More striking are the trends in Eurasia where, on balance, economic activity is notably greater when the informal economy is combined with official GDP trends. On average, officially recorded GDP in 2000 is 61 percent of 1989 GDP; this increases (albeit in a smaller sample) to 71 percent with the informal sector included. The drop in official GDP has been mitigated the most by the informal economy in Russia, followed by Ukraine, Azerbaijan, Georgia, and Kazakhstan. The informal economy has offset official income drops to a lesser extent in Bulgaria, Moldova, and Latvia.

Only two countries in Eurasia show a greater drop in output when the informal economy is included: Uzbekistan and Belarus. In other words, the relatively impressive performance of these two economies vis-à-vis other Eurasian countries is downgraded some by this score.<sup>51</sup>

New estimates of *poverty* are taken from the World Bank (September 2000) and are shown in *Table 20* (absolute poverty) and *Table 21* (relative poverty burden). Survey years range from 1995 to 1999, though most estimates are for poverty in 1998 or 1999, and are hence much more recent than the 1993-1995 estimates cited in *Monitoring Country Progress*, No. 6 (May 2000). Two international poverty lines are used in calculating absolute poverty (or the headcount index): \$4.30 and \$2.15 per person per day.<sup>52</sup> The \$2.15 poverty line may be the most appropriate for the transition countries.

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<sup>51</sup> Anders Aslund makes further adjustments from official figures to assess economic activity trends through 1995. In addition to including the informal sector, he attempts to account for the significant overestimation of GDP prior to communism's collapse from two sources: (1) those that stemmed from unsalable output (primarily manufacture production that essentially detracted value); and (2) those that derived from implicit trade subsidies in energy within the communist bloc. As expected, the resulting revisions further mitigate the declines in economic output across the transition region through the mid-1990s. Aslund, *The Myth of Output Collapse after Communism*, Carnegie Endowment for International Peace Working Paper, Number 18 (March 2001).

<sup>52</sup> To derive a poverty headcount or the percentage of those who are poor, the U.S. dollar poverty line is first converted into national currency using 1996 purchasing power parity (PPP) exchange rates (the most

This poverty line is roughly equal to the lowest absolute poverty lines that are used by many governments in the transition countries, and are based on a nationally determined minimum food basket plus an allowance for nonfood expenditures. The \$4.30 per day poverty line is included partly because most transition countries also have national poverty lines that exceed the \$2.15 threshold. Moreover, the most commonly cited cross-country poverty estimates of the transition region to date have been based on a \$4 per day poverty line.<sup>53</sup> The World Bank generally uses two absolute poverty thresholds in assessing absolute deprivation in the developing world: one and two dollars a day per person. For the transition countries, however, the two dollar-a-day threshold may be the more appropriate of the two since the colder climate in the region necessitates expenditures on heat, winter clothing, and food over and above what is typically incurred in the developing world.

As shown in *Table 20*, poverty rates vary widely both by country as well as by poverty threshold. Roughly four out of ten persons in the transition region are found to be in poverty at the higher poverty threshold of \$4.30 per day. However, the range in poverty rates by country is enormous, from 1 percent in Slovenia and the Czech Republic to 96 percent in Tajikistan. The subregional differences are large as well, from 15 percent in the Northern Tier CEE to 46 percent in Eurasia. The regional averages of poverty at \$4.30 per day are very similar to the earlier (1993-1995) estimates of poverty at \$4 per day by Milanovic, though some individual country estimates vary widely between the two series.

Poverty rates are much lower as expected when the poverty threshold is lowered to \$2.15 per day. By this measure, only one percent of persons in the Northern Tier CEE is poor, 6 percent is living in poverty in the Southern Tier CEE (vs. 36 percent with a \$4.30 per day threshold), and 17 percent in Eurasia. The differences between countries and subregions remain very large, and the country ranking is very similar, though not identical, with that of the higher threshold. However, poverty overall in the region is "reduced" by more than a multiple of three (from 39 percent to 12 percent) when the lower poverty threshold is used.

We can make a very rough comparison of poverty in the transition region with that found among the developing countries by using the World Bank's estimates of poverty at \$2 a day in the developing world.<sup>54</sup> Overall, poverty appears to be much lower in the transition region than it is in the developing world. The poverty rate in Latin America and the Caribbean (32 percent at \$2/day) is about 50 percent higher than in the transition region overall (21 percent at \$2/day).<sup>55</sup> The magnitude of poverty is much higher still in Sub-Saharan Africa (78 percent) and South Asia (84 percent) at this \$2 per day threshold.

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recent ones available). Next, the poverty line is adjusted for inflation to yield an absolute poverty line for the year in which the data are collected.

<sup>53</sup> These estimates derive from the work of Branko Milanovic. *Income, Inequality, and Poverty during the Transition to a Market Economy*, Washington, D.C.: World Bank, 1998.

<sup>54</sup> World Bank, *Global Economic Prospects and the Developing Countries 2001* (2001), p. 37.

<sup>55</sup> The World Bank's country classification of the transition region includes Turkey (which has a poverty rate of 18% at \$2/day).



There is much, of course, that these relatively favorable comparisons for the transition countries of absolute poverty rates do not capture. In important respects, as ably articulated in World Bank (September 2000), the transition country poor and their situation are very different than in other parts of the world, better in some ways, but clearly worse in others. In contrast to the majority of poor people in developing countries, most of the poor in the transition countries are literate, many are well educated, and before communism's collapse, had secure employment. The drop into poverty was sudden and chaotic, and the magnitude of the increase in the poverty rate has probably been without parallel. Milanovic (1998) estimates that the poverty rate at \$4 per day increased from roughly 4% in 1987-88 to 40% by 1993-1995 for the transition region overall. Moreover, these changes have occurred in the context of tumultuous change across the board in the economic, political and social domains, as well as in the context of an important legacy of the (Communist) past that associated poverty with individual failings or deviancy. Many of the mental and physical illnesses that have emerged during the transition are likely better understood in this context.

The relative poverty burden of various segments of the transition population is assessed in *Table 21* drawing from the same surveys used to measure the absolute poverty rates of *Table 20*. In this analysis, persons below the relative poverty line of 50 percent of median income, adjusted for household economies of scale, are defined as poor. The relative poverty burden is calculated by dividing the share of total poverty of a particular segment of the population (e.g., children or elderly, male or female) by that segment's share of the total population. Hence, a relative poverty burden in excess of "1" represents a disproportionate share (or burden) of the nation's poverty. Similarly, persons in groups that score higher than "1" are more at risk to being poor; those in groups with a score less than "1" are less at risk. The populations are segmented by age (children vs. elderly), education (with primary education only vs. higher education), location (rural vs. urban), and household head (male vs. female; employed vs. not employed).<sup>56</sup>

Perhaps the most striking result that emerges from an examination of the data is the significant differences across the categories between the CEE countries (particularly Northern Tier CEE) and Eurasia. In short, the poverty profiles tend to be much more sharply differentiated in CEE than in Eurasia; that is, distinctions based on one characteristic (such as education, location, age) reveal much greater differences in poverty risks in CEE than in Eurasia. Part of the explanation is because markets (from labor markets to product markets) are more advanced in the CEE countries; they are "working better" there. In Eurasia, on the other hand, there are more diverse factors that combine to affect a household poverty status, many of which are nonmarket-based.

More specifically, the data suggest the following. First, children are disproportionately at risk to being poor across the three subregions, but much more so in CEE, and particularly in the Northern Tier CEE. On the other hand, the elderly in the Northern Tier CEE countries have a lower poverty risk than the national averages of these countries, while the elderly in Eurasia are more at risk; they are disproportionately poor. Part of the

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<sup>56</sup> "Not employed" includes the unemployed and all those, including retirees, who are not in the labor force.

distinction likely stems from the tendency for the elderly in the Northern Tier countries to be better protected and supported by government safety nets, and pensions in particular.

Second, education appears to be a very significant determinant to financial well being in all three subregions, though particularly in the Northern Tier CEE. In other words, the chances of being poor in the Northern Tier are much greater if one has a primary education only and much less with advanced education. This tendency is less evident in Eurasia where apparently the returns to education are lower (and presumably the importance of political or personal connections and corruption towards securing a job are greater). These findings are consistent with the many anecdotal reports that well-educated persons in Eurasia are unable to find employment commensurate with their educational background.

Third, other things equal, rural populations are much more at risk than urban populations to being poor in CEE. The urban areas in CEE are presumably where most of the jobs and economic opportunities are. In Eurasia, in contrast, location matters little to poverty risks. There is little advantage to living in an urban setting in Eurasia presumably because of the absence of sufficient jobs and adequate economic infrastructure. There may be little to gain by living in rural areas in Eurasia as well, though farming the lands at least provides a means to cope and perhaps avert deep and/or sustained poverty.

Fourth, there seems to be a stronger link between gender and poverty in the Southern Tier CEE and Eurasia than in the Northern Tier CEE. In particular, women tend to be much more at risk to finding themselves in poverty than men in most of Eurasia and the Southern Tier CEE countries. In contrast, in the Northern Tier CEE countries, gender seems to be much less of a determinant of poverty.<sup>57</sup> This suggests that discrimination and the importance of connections are less significant in the Northern Tier CEE and market forces are more important.

Finally, being employed, or living in a household in which the head of the household is employed, reduces one's chances of being poor in all three subregions. However, with perhaps the exception of Poland, being employed confers more of a benefit in the Northern Tier CEE countries than elsewhere in the transition region. Similarly, not being employed carries more of a penalty in the Northern Tier; i.e., it increases the risk of being poor. These findings are consistent with our earlier observations on the distinctions in labor market trends between CEE and Eurasia. In Eurasia, where wage arrears often prevail and where real wages have fallen further, there is less of a guarantee that being employed will keep a person out of poverty. Moreover, given the greater prevalence of the informal economy in Eurasia, there is a weaker link between being officially unemployed (in the formal economy) and being poor.

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<sup>57</sup> At first look, the Czech Republic seems to be a salient exception to this rule: the relative poverty burden for females in the Czech Republic is very high (and serves to pull up the Northern Tier CEE average). However, this takes on much less meaning in the context of a negligible poverty rate nationwide (of 1% at \$4.30/day).

*Table 22* highlights trends in **infant and child mortality rates** as estimated by the World Bank. The source of these data is an important issue because there are considerable discrepancies in some of the country estimates between World Bank figures and other sources, most notably, UNICEF. UNICEF estimates generally show infant and child mortality rates to be higher than World Bank measures in many countries of the former Soviet Union and in the Southern Tier CEE.<sup>58</sup> However, both data sets are reasonably consistent in regards to how mortality rates are changing over time. Here, the results are striking and very encouraging. From *Table 22* we see that infant and child mortality rates have fallen in all three subregions over the transition, by about 20 percent for the transition region overall. Only two countries, Ukraine and Latvia, have not experienced a drop in infant mortality rates from 1990-1999.

The decrease in infant mortality rates in the 1990s is consistent with significantly falling rates in the 1980s. However, the overall dramatic drop over the past twenty years has not been a linear one, at least for most of the Southern Tier CEE countries and for countries of the former Soviet Union where infant mortality rates increased in the early transition years.

The Northern Tier CEE trends have been the most impressive: infant and child mortality rates were the lowest in the Northern Tier at the outset of the transition and have fallen the most there during the transition, by almost one half. Northern Tier rates still exceed EU rates (which also have been dropping notably), but the gap has been closing. In 1999, infant mortality rates in the Northern Tier CEE on average was eight deaths per 1,000 live births, while the under five mortality rate average was 10 deaths; the EU average for both mortality rates is five deaths. The Czech Republic is the only transition country that has infant and child mortality rates equal to the EU averages.

The average infant and child mortality rates in the Southern Tier CEE are slightly less than the Eurasian averages, and about twice the averages of the Northern Tier CEE rates. The average mortality rates in both the Southern Tier and Eurasia are well below developing country norms, almost one-half the mortality rates incurred in Latin America and the Caribbean. However, the subregional averages mask large differences between countries. Infant and child mortality rates are highest in the five Central Asian Republics, Albania, and Romania. Some of these countries, Turkmenistan most notably, do have mortality rates that are comparable to those in some developing countries.

One might expect to see fairly consistent patterns between infant/child mortality rates and **life expectancy** in the transition countries, since the former trends contribute to the latter. However, overall life expectancy trends are much less encouraging than trends in infant and child mortality (*Table 23*). Even though infant and child mortality rates have improved substantially, life expectancy has fallen for the transition population as a whole from 1989-1999. Most of the declines occurred earlier in the transition. Still, more recent trends are not all favorable. The latest data available show life expectancy

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<sup>58</sup> The largest discrepancies are found in mortality estimates in the Central Asian Republics. Infant mortality rates on average in these five countries is roughly fifty deaths per 1,000 live births according to UNICEF, and twenty-five deaths by World Bank estimates.

dropping in Russia in 1999 (after stabilizing for several years), from 67 to 66 years, while only two countries, Estonia and Uzbekistan, witnessed an increase in life expectancy from 1998-1999.

The overall decline in life expectancy during the transition also contrasts with life expectancy patterns in the decade prior to communism's demise. In particular, with the exception of Armenia, life expectancy remained steady or increased throughout the communist world in the 1980s.

As with virtually all transition trends, however, life expectancy patterns differ greatly by subregion. During the early transition years, life expectancy fell fairly uniformly in virtually all the countries, even in the Northern Tier CEE countries. However, this fall was particularly short-lived for persons in the Northern Tier. By 1996, life expectancy in the Northern Tier countries on average was higher, for both males and females, than it had been at the outset of the transition. In contrast, life expectancy for males in the Southern Tier CEE, as of 1998, remains below pre-transition levels, and about the same as pre-transition levels for females in the subregion. Life expectancy has dropped for both males and females in Eurasia, though much more so for males. The largest drops in total life expectancy from 1989-1999 have occurred in Kazakhstan, Russia, Ukraine, and Belarus.

Average life expectancy in the Northern Tier countries is now about 73 years. In the Southern Tier CEE countries, it is 71 years, and in Eurasia, 67 years. Even the Northern Tier levels remain well below developed country norms. Life expectancy for persons in the Czech Republic and Slovenia, at 75 years, comes closest to the 78 years life expectancy in the EU. Southern Tier CEE and Eurasia levels are roughly comparable to levels in Latin America and the Caribbean where life expectancy is 70 years on average.

*Table 24* sheds light on trends in education, ***primary and secondary school enrollments***, in part to help gauge the extent, if any, to which human capital may be deteriorating over the transition. The first conclusion to draw may be that more information is needed. The data are taken from two sources (the World Bank on the secondary school enrollment series and UNICEF on primary school enrollment), and they do not always appear to be consistent and/or compatible. More data are needed as well, including those for years that are more recent.

Overall, the data show a small decline in primary and secondary school enrollments in the transition region from 1989/90 to 1997/98 from relatively high enrollment levels. Most of the Northern Tier CEE countries have largely been immune to this trend. Secondary school enrollment in this subregion has increased by about 15 percent from 1990 to 1997, and primary school enrollment is roughly the same in 1998 as it was in 1989, after a small decline early on in the transition.

Available data show that the greatest percentage drops in either or both secondary and primary school enrollments have occurred in the Central Asian Republics, the Caucasus, and several Southern Tier countries (Yugoslavia, Albania, and Romania). If the data are

to be believed, secondary school enrollments have dropped significantly from 1990-1997 in Albania (52%), Tajikistan (24%), Kyrgyzstan (21%), Georgia (19%), Romania (15%), Azerbaijan (14%), and Kazakhstan (11%). Available primary school enrollment data show substantial percentage drops from 1989-1998 in Yugoslavia (27%), Georgia (13%), Turkmenistan (12%), Armenia (11%), and Tajikistan (8%). However, data gaps exist (particularly for Turkmenistan and Yugoslavia), and/or the two series do not always closely mesh (particularly in the cases of Albania, Kyrgyzstan, and Armenia).

For the Southern Tier CEE and Eurasia countries on average, secondary school enrollments declined fairly steadily from 1990-1997. However, this has not been the trend in primary school enrollments: initial drops (from 1989-1993) in these subregions on average have been followed by small increases from 1993-1998. There are exceptions of course to this "U" shaped trend in primary school enrollments. Yugoslavia and Turkmenistan are the salient ones.

School enrollment levels in the transition countries generally compare favorably to much of the rest of the world. For example, secondary school enrollment ratios in Latin America and the Caribbean are about 60 percent on average, and in Sub-Saharan Africa, it is less than 30 percent. In the Northern Tier CEE, secondary school enrollment is 97%; in the Southern Tier, it is 72%; and in Eurasia, 87%. However, these levels in the transition region fall short of standards in the developed countries. Secondary school enrollment is 108% in the EU.

Finally, *Table 25* provides data from the UNDP that attempt to gauge trends in **human development** in the transition countries. The UNDP's Human Development Index (HDI) is based on three indicators: longevity, as measured by life expectancy; educational attainment, as measured by a combination of adult literacy (two-thirds weight), and combined primary, secondary and tertiary enrollment ratios (one-third weight); and standard of living, as measured by real GDP per capita (PPP\$). The HDI ranges from zero to one; the higher is the value, presumably the greater is the human development. The UNDP classifies 174 countries into three categories in the *Human Development Report 2000*: high; medium; and low human development.

Human development is considered high in six transition countries (the Northern Tier countries except Lithuania and Latvia), and medium in the rest. Slovenia ranks the highest, 29<sup>th</sup> out of 174 countries in the worldwide sample. The Eurasian countries have the lowest HDI rating of the three transition subregions on average, though the differences in scores among the Eurasian countries are large, ranging from Belarus (ranked 57<sup>th</sup>) to Tajikistan (ranked 110<sup>th</sup>).

The level of human development in the Northern Tier CEE countries on average is well-below OECD standards, and comparable to that in Chile or Uruguay. Human development in the Southern Tier is slightly more advanced than that in Latin America and the Caribbean on average, comparable to that found in Venezuela or Malaysia. Human development in Eurasia on average comes closest to that in Brazil or Thailand.

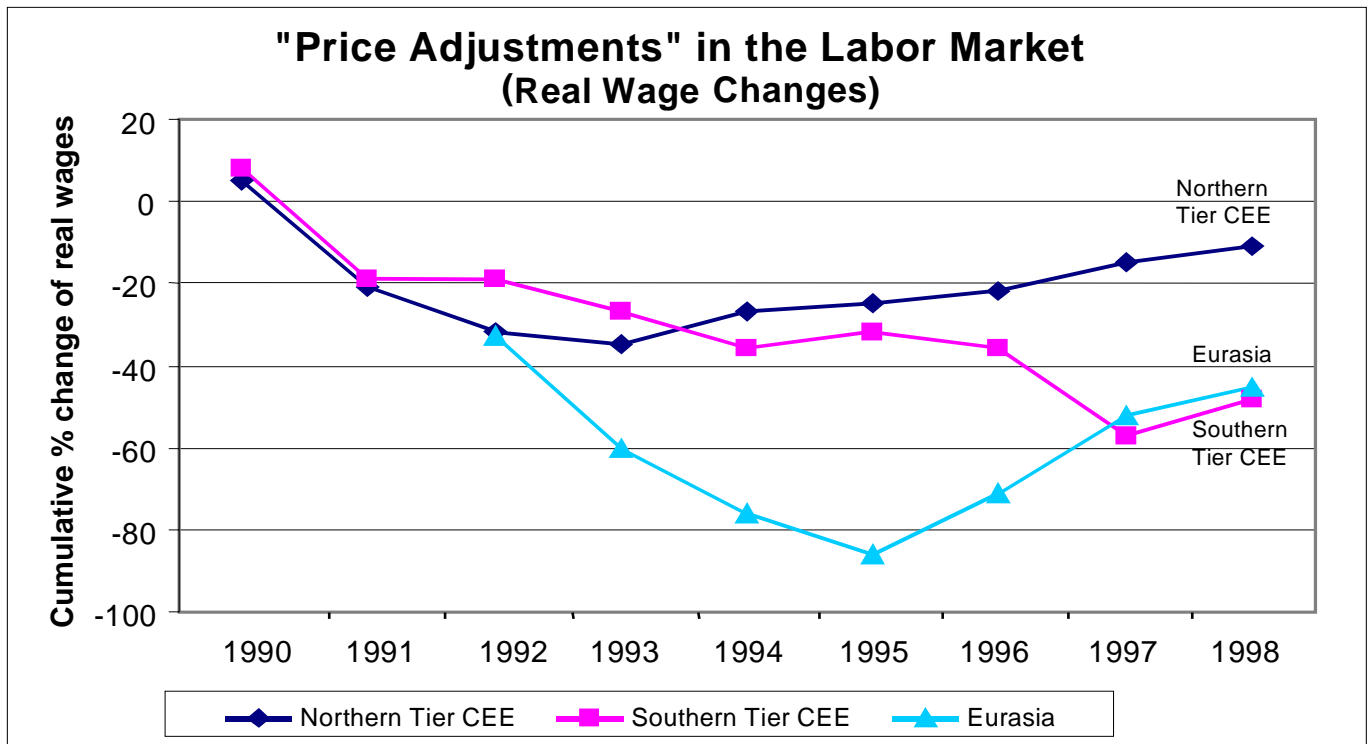
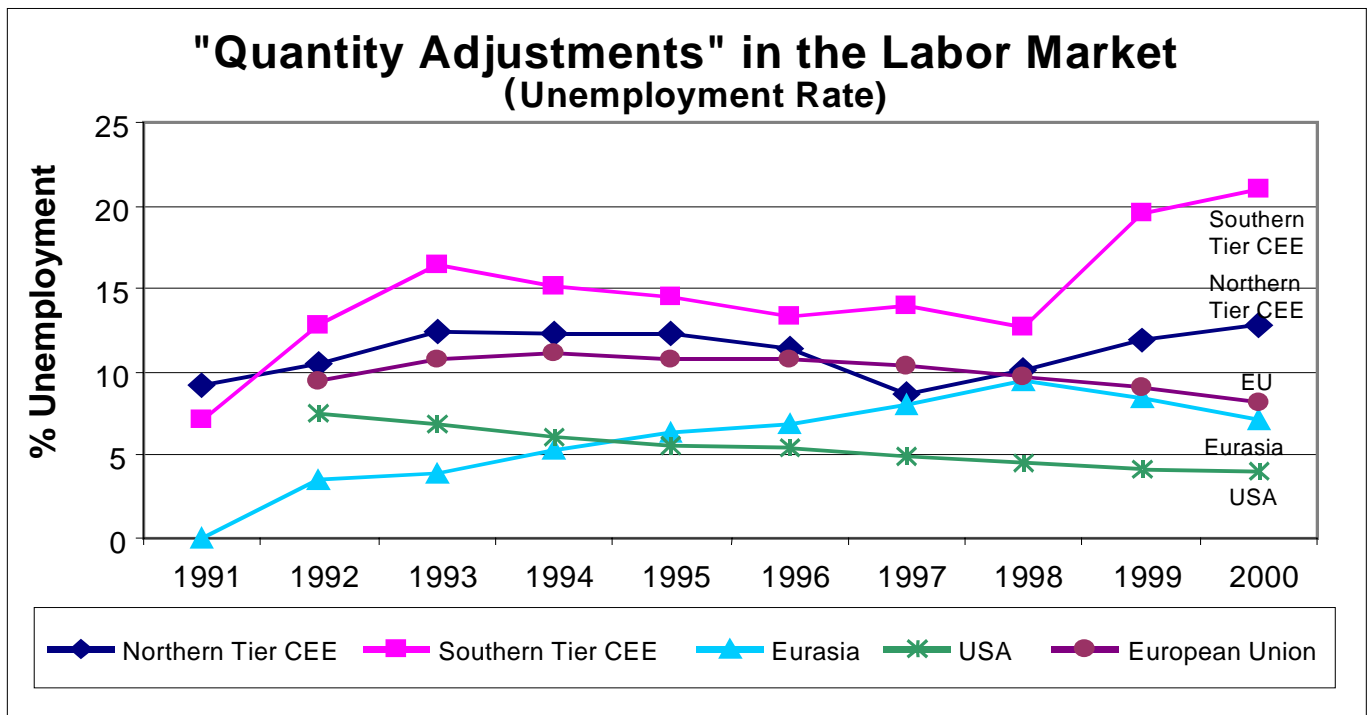
Since 1990, human development has advanced in the Northern Tier CEE countries on average (though the three Baltic countries are the exception), has remained the same in the Southern Tier CEE, and has fallen fairly significantly in Eurasia. The greatest drops from 1990-1998 have occurred in Moldova, Tajikistan, Ukraine, and Russia.

**Table 17. Unemployment Rate**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	1998-2000 <sup>1</sup> (average)
<b>CEE</b>										
Hungary	9.7	<b>10.9</b>	9.7	9.9	9.2	7.7	7.0	6.5	6.0	6.5
Slovenia	8.3	9.1	<b>9.1</b>	7.4	7.3	7.1	7.6	7.4	7.2	7.4
Czech Republic	2.6	3.5	3.2	2.9	3.5	5.2	7.5	<b>9.4</b>	8.8	8.6
Romania	8.2	10.4	10.1	8.2	6.5	7.4	10.4	<b>11.5</b>	10.5	10.8
Estonia	...	6.6	7.6	9.8	10.0	9.7	9.9	12.3	<b>13.7</b>	12.0
Poland	14.3	<b>16.4</b>	16.0	14.9	13.2	8.6	10.4	13.0	15.0	12.8
Croatia	13.2	14.8	14.5	14.5	10.0	9.9	11.4	13.6	<b>15.1</b>	13.4
Latvia	3.9	8.7	16.7	18.1	<b>19.4</b>	14.8	14.0	13.5	13.2	13.6
Lithuania	1.3	4.4	3.8	<b>17.5</b>	16.4	14.1	13.3	14.1	15.4	14.3
Bulgaria	15.3	16.4	12.8	11.1	12.5	13.7	12.2	16.0	<b>17.9</b>	15.4
Slovakia	10.4	14.4	14.6	13.1	12.8	12.5	15.6	<b>19.2</b>	17.9	17.6
Albania	27.9	<b>28.9</b>	19.6	16.9	12.4	14.9	17.8	18.0	17.1	17.6
Yugoslavia	...	23.1	23.1	24.6	25.7	24.5	25.1	32.6	<b>40.1</b>	32.6
FYR Macedonia	27.8	28.3	31.4	<b>37.7</b>	31.9	36.0	34.5	32.4	32.1	33.0
Bosnia-Herzegovina	...	...	...	...	...	37.0	38.0	40.0	<b>40.1</b>	39.4
<b>Eurasia</b>										
Uzbekistan	0.1	0.3	0.4	0.4	0.4	0.4	0.5	0.5	<b>0.6</b>	0.5
Moldova	0.7	0.7	1.1	1.4	1.8	1.5	1.9	<b>2.0</b>	...	1.8
Belarus	0.5	1.4	2.1	2.7	<b>3.9</b>	2.8	2.3	2.1	2.1	2.2
Tajikistan	0.3	1.2	1.7	2.0	2.6	2.8	<b>2.9</b>	2.8	2.5	2.7
Ukraine	0.2	0.3	0.3	0.5	1.3	2.3	3.7	<b>4.3</b>	4.2	4.1
Kyrgyzstan	...	...	3.1	4.4	<b>6.0</b>	4.3	4.3	5.4	...	4.7
Kazakhstan	0.4	0.6	8.1	<b>13.0</b>	8.6	7.3	6.6	6.3	...	6.7
Armenia	3.5	6.3	5.8	8.4	10.1	11.3	8.9	<b>11.6</b>	10.7	10.4
Russia	5.3	6.0	7.8	9.0	9.9	11.2	<b>13.3</b>	11.7	9.7	11.6
Georgia	5.4	9.1	3.6	3.1	2.8	7.5	14.7	<b>14.9</b>	...	12.4
Azerbaijan	<b>15.4</b>	9.6	10.4	11.7	12.1	12.7	12.9	13.9	...	13.2
Turkmenistan	...	...	...	...	...	...	...	...	...	...
<b>CEE &amp; Eurasia</b>	5.8	7.1	7.8	8.5	8.5	8.9	9.9	<b>10.6</b>	10.4	10.3
<b>Northern Tier CEE</b>	10.6	12.5	12.3	12.3	11.4	8.7	10.1	12.0	<b>12.8</b>	11.6
<b>Southern Tier CEE</b>	12.8	16.4	15.2	14.5	13.3	13.9	12.7	19.6	<b>21.0</b>	17.8
<b>Eurasia</b>	3.5	3.9	5.3	6.4	6.8	8.0	<b>9.4</b>	8.4	7.1	8.6
Advanced Economies	7.2	<b>7.6</b>	7.4	7.0	7.1	6.8	6.7	6.4	5.9	6.3
USA	<b>7.5</b>	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.2
EU	9.4	10.7	<b>11.1</b>	10.7	10.7	10.4	9.7	9.1	8.2	8.9
Benchmarks										< 10.0

1 Average for Moldova, Georgia, Azerbaijan, Kazakhstan and Kyrgyzstan are from 1997-99. Some of the estimates, most notably for Eurasia, remain registered unemployment figures that typically underestimate the true unemployment rate. This includes figures for Armenia, Belarus, Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan. In Kyrgyzstan, e.g., the rate of unemployment is unofficially estimated to be around 20%; in Tajikistan, the World Bank estimates the unemployment rate in 1998 at about 30%. In Turkmenistan, unemployment does not officially exist since every citizen is guaranteed employment. However, a household survey found urban unemployment at 19% in 1998. Unofficial estimates in Armenia indicate substantially higher unemployment. The figures for Yugoslavia exclude workers that are on "forced holidays" (or about 20-25% of the labor force). The figures for Albania do not account for emigrant workers abroad (about 18% of the labor force in 1995). Peak years are in bold print.

Figure 3.



EBRD, *Transition Report Update* (April 2001); IMF, *World Economic Outlook* (May 2001). The samples for real wage changes are limited in the case of the Southern Tier CEE (n=2, Romania and Bulgaria only), and Eurasia (n=6, Moldova, Russia, Azerbaijan, Georgia, Kazakhstan, and Kyrgyzstan). EBRD, *Transition Report 2000* (November 2000); UNICEF, *Young People in Changing Societies*, Regional Monitoring Report, No. 7 (2000).



**Table 18. Long-Term Unemployment in CEE and Russia**  
(% of Total Unemployed)

Country	1992	1993	1994	1995	1996	1996 - 98	% Change: 1992 -98 <sup>1</sup>
Albania	...	65	...	...	...	...	...
Bulgaria	...	53	59	<b>66</b>	64	60	14
Croatia	58	<b>58</b>	55	...	...	...	...
Czech Republic	14	19	22	31	<b>33</b>	31	118
Hungary	18	33	41	48	<b>52</b>	51	185
Latvia	...	...	...	...	...	63	...
FYR Macedonia	86	87	<b>88</b>	82	81	...	-6
Poland	24	36	38	<b>42</b>	38	38	58
Romania	21	...	45	47	42	<b>47</b>	124
Slovakia	...	33	43	54	<b>56</b>	50	52
Slovenia	46	55	<b>57</b>	53	53	55	20
Russia	12	15	...	30	...	<b>33</b>	173
<b>Northern Tier CEE</b>	22	33	37	<b>43</b>	41	41	87
<b>Southern Tier CEE</b>	31	<b>60</b>	52	54	50	51	61
<b>CEE Overall</b>	25	39	42	<b>46</b>	44	44	76
France	36	34	38	40	38	<b>41</b>	14
Germany	33	36	38	40	...	<b>48</b>	45
Spain	47	50	56	<b>57</b>	...	56	18
Sweden	8	11	17	16	17	<b>30</b>	270
UK	30	38	<b>40</b>	38	36	39	29
US	...	...	...	...	...	9	...

1 Percentage change for Bulgaria and Slovakia are 1993-98, and for FYR Macedonia 1992-96.

The long-term unemployed are those who are unemployed for more than one year. Peak years are in bold print.

EBRD, *Transition Report 2000* (November 2000); World Bank, *World Development Indicators 2001* (2001); C. Allison and D. Ringold, *Labor Markets in Transition in Central and Eastern Europe: 1989-1995*; World Bank, *Social Challenges of Transition Series* (December 1996); and Bureau of the Census, *Populations at Risk in CEE: Labor Markets*, No. 2, prepared for USAID/ENI/PCS (February 1995).

**Table 19. Per Capita Income and Distribution of Income and Consumption**

	Distribution of Income <sup>1</sup>				% change		Distribution of Consumption 1997-99 <sup>3</sup>	2000 Average Income	
	87/90	93/94	95/96	97/99	1987-99	Most Recent <sup>2</sup>		US\$	PPP\$
Slovenia	22	29	...	25	14	-14	27	10,490	16,840
Czech Republic	19	23	24	...	26	4	24	5,130	13,100
Hungary	21	23	...	24	14	4	27	4,940	11,750
Slovakia	...	20	...	...	...	...	...	3,840	10,600
Poland	28	28	...	30	7	7	31	4,260	8,770
Estonia	24	35	...	36	50	3	37	3,580	8,610
Croatia	36	...	...	35	-3	...	30	4,700	7,530
Russia	26	48	...	47	81	-2	46	2,390	7,430
Belarus	23	...	25	25	9	0	30	2,670	7,000
Lithuania	23	33	...	33	43	0	32	2,690	6,610
Latvia	24	...	31	32	33	3	32	2,550	6,520
Romania	23	29	...	30	30	3	...	1,500	6,060
Bulgaria	23	38	40	...	74	5	27	1,480	5,300
Kazakhstan	30	33	34	...	13	3	...	1,350	5,170
FYR Macedonia	...	...	36	...	...	...	32	1,740	4,810
Turkmenistan	28	36	...	39	39	8	...	790	3,920
Ukraine	24	...	27	31	29	15	32	870	3,470
Albania	...	...	25	...	...	...	...	1,000	3,460
Yugoslavia	...	...	...	...	...	...	...	870	2,760
Georgia	29	...	...	41	41	...	35	640	2,610
Azerbaijan	28	43	...	42	50	-2	...	490	2,600
Kyrgyzstan	31	55	...	44	42	-20	39	320	2,510
Armenia	27	...	...	58	115	...	31	510	2,420
Uzbekistan	...	33	...	...	...	...	...	720	2,210
Moldova	27	...	...	41	52	...	40	400	2,030
Bosnia-Herzegovina	...	...	...	...	...	...	...	1,400	...
Tajikistan	28	...	...	47	68	...	31	290	...
<b>CEE &amp; Eurasia</b>	26	40	...	40	50	2	38	2,170	6,240
Northern Tier CEE	24	24	...	28	14	5	29	4,460	9,950
Southern Tier CEE	25	31	...	31	36	4	29	1,590	5,140
Eurasia	26	47	...	44	61	1	41	1,690	5,600
<b>Advanced Economies</b>		32			3			26,440	25,690
EU		28			2			22,250	22,180
<b>United States</b>				41					
<b>Italy</b>			27						
<b>Germany</b>		30							
<b>Austria</b>	23								
<b>Sweden</b>		25							
<b>Brazil</b>			60						
<b>Guatemala</b>	60								
<b>South Africa</b>		59							

Note: Average (or per capita) income is measured in US\$ converting through official exchange rates, and through purchasing power parity (PPP) figures, using 1999 World Bank figures and updating to 2000 with 2000 per capita economic growth rates. The distribution of income and consumption are measured by the gini coefficient, which ranges from 0 to 100; the higher the figure, the greater the inequality. Most gini coefficient estimates, particularly the later years, are adjusted for household economies of scale ( $\theta = 0.75$ ). For the Advanced Economies and the EU, percent change in income distribution is roughly from 1986 to 1993.

1 A consumption gini coefficient was used in lieu of income due to insufficient income data in the case of Azerbaijan (in 1993-94 and 1997-99), Albania (1995-96), Kazakhstan (1995-96), Ukraine (1995-96), Romania (1997-99) and Turkmenistan (1997-99).

2 From 1995/96 to 1997/99 if available; otherwise from 1993/94 to 1997/99 or 1993/94 to 1995/96. 3 Data for Bulgaria, Czech Republic and FYR Macedonia are for 1995-96.

World Bank, *World Development Indicators* (2001), IMF, *World Economic Outlook* (May 2001), World Bank, *Making Transition Work for Everyone* (September 2000); P. Gottschalk and T. Smeeding, "Cross-National Comparisons of Earnings and Income Inequality," *Journal of Economic Literature* 35 (June 1997), pp. 633-687.

**Table 20. GDP Trends, the Informal Economy, and Poverty**

Country	2000 GDP % 1989 GDP		Survey Year	Absolute Poverty (%) (Head count Index)	
	Official	Official & Informal Sector <sup>1</sup>		\$4.30/day	\$2.15/day <sup>2</sup>
Slovenia	114	...	1997/98	1	0
Czech Republic	98	102	1996	1	0
Croatia	80	...	1998	4	0
Belarus	85	84	1999	10	1
Poland	127	121	1998	18	1
Hungary	105	102	1997	15	1
Estonia	82	79	1998	19	2
Slovakia	103	101	1997	9	3
Ukraine	39	52	1999	29	3
Bulgaria	70	79	1995	18	3
Lithuania	64	67	1999	23	3
Kazakhstan	68	79	1996	31	6
Latvia	64	71	1998	35	7
FYR Macedonia	77	...	1996	44	7
Romania	77	76	1998	45	7
Turkmenistan	75	...	1998	34	7
Albania	102	...	1996	59	12
Russia	62	76	1998	50	19
Georgia	34	45	1999	54	19
Azerbaijan	52	64	1999	64	24
Armenia	63	...	1999	86	44
Kyrgyzstan	66	...	1998	84	49
Moldova	32	39	1999	85	55
Tajikistan	47	...	1999	96	68
Uzbekistan	96	90	...	...	...
Yugoslavia	48	...	...	...	...
<b>CEE &amp; Eurasia</b>	71	79		39	12
<b>Northern Tier CEE</b>	112	109		15	1
<b>Southern Tier CEE</b>	72	...		36	6
<b>Eurasia</b>	61	71		46	17
<b>Latin Amer. &amp; Carib.</b>					32
<b>South Asia</b>					84
<b>Sub-Saharan Africa</b>					78

1 Informal economic activity data from 1989 to 1995 are taken from S. Johnson, D. Kaufmann, and A. Shleifer, *Politics and Entrepreneurship in Transition Economies*, Working Paper Series, No. 57, The William Davidson Institute, University of Michigan (1997). Informal economic activity from 1996 to 2000 is estimated by calculating the inverse of the changes of official GDP. 2 Absolute poverty is based on \$2/day in 1998 for the comparator countries.

EBRD, *Transition Report Update* (April 2001); World Bank, *World Development Indicators 2001* (2001); Johnson, Kaufmann, and Shleifer (1997); A. Aslund, *The Myth of Output Collapse after Communism*, Working Paper No. 18, Carnegie Endowment for the International Peace (March 2001); World Bank, *Making Transition Work for Everyone* (September 2000); World Bank, *World Economic Prospects* (2001).

**Table 21 Relative Poverty Burden**

Country	Age		Education		Location		Household Head			
	Children	Elderly	Primary	Higher	Rural	Urban	Male	Female	Employed	Not Employed
Slovenia	1.0	1.7	1.7	0.1	...	...	0.9	1.1	0.6	1.8
Czech Republic	2.3	0.1	1.2	0.3	0.9	1.0	0.8	2.6	0.6	2.4
Croatia	0.8	2.2	1.9	0.1	1.3	0.9	0.9	1.4	0.5	1.8
Belarus	1.2	1.3	1.4	0.2	1.3	0.9	0.9	1.1	0.8	1.4
Poland	1.6	0.6	1.2	0.1	1.6	0.6	1.0	1.0	1.0	1.1
Hungary	1.6	0.6	1.5	0.0	1.5	0.7	1.0	1.0	0.7	1.6
Estonia	...	...	...	...	1.2	0.9	1.0	1.0	0.7	1.5
Ukraine	1.0	1.5	1.3	0.8	0.7	1.2	0.8	1.2	0.6	1.2
Bulgaria	1.2	1.3	1.0	1.3	1.3	0.9	0.9	1.4	0.6	1.3
Lithuania	1.4	1.0	1.2	0.1	1.7	0.7	0.8	1.3	0.9	1.4
Kazakhstan	1.2	1.1	1.4	0.5	1.1	0.9	1.0	0.9	0.8	1.3
Latvia	1.3	0.8	1.4	0.2	1.4	0.8	0.9	1.1	0.8	1.3
FYR Macedonia	1.3	0.9	1.1	0.0	1.3	0.7	1.0	0.6	1.0	1.0
Romania	1.5	0.8	1.2	0.1	1.5	0.6	0.9	1.4	0.9	1.1
Turkmenistan	1.2	0.7	0.7	0.5	1.4	0.4	1.0	0.8	0.9	1.1
Albania	1.6	0.5	0.9	0.2	1.4	0.3	0.9	1.8	1.0	0.8
Russia	1.1	1.2	...	0.4	1.1	1.0	0.9	1.5	0.8	1.4
Georgia	1.0	1.1	1.4	0.6	1.0	1.0	0.9	1.3	0.9	2.0
Azerbaijan	1.0	1.1	2.6	0.3	1.1	0.6	0.9	1.4	...	1.2
Armenia	1.1	1.1	1.3	0.5	1.0	1.0	0.9	1.3	0.8	1.3
Kyrgyzstan	1.1	1.0	0.9	0.2	1.3	0.3	1.0	1.1	0.9	1.2
Moldova	1.1	1.0	1.1	0.5	1.2	0.8	1.0	1.0	1.0	1.1
Tajikistan	1.1	0.9	0.9	0.5	1.0	1.0	0.9	1.4	1.0	1.0
CEE & Eurasia	1.2	1.1	1.3	0.4	1.2	0.9	0.9	1.3	0.8	1.3
Northern Tier CEE	1.7	0.6	1.3	0.1	1.5	0.7	1.0	1.3	0.9	1.4
Southern Tier CEE	1.4	1.0	1.2	0.3	1.4	0.7	0.9	1.4	0.8	1.2
Eurasia	1.1	1.2	1.4	0.5	1.0	1.0	0.9	1.3	0.8	1.3

Relative poverty burden is calculated by dividing a particular population segment's share of total poverty in the country by its share of the total population. Anything over "1" represents a disproportionate share (or burden) of the nation's poverty. The estimates are drawn from the surveys used to calculate absolute poverty (of *Table 20*); see *Table 20* for survey years. The relative poverty line used is 50% of the median income. Estimates are adjusted for household economies of scale ( $\Theta=0.75$ ). Children are from 0-15 years of age; elderly, 65 years and older. Definitions vary some across countries in terms of education categories and rural vs. urban, though are roughly comparable. Employed heads of households include those who are self-employed; not employed heads include the unemployed plus all others not in the workforce, such as retired household heads.

World Bank, *Making Transition Work for Everyone: Poverty and Inequality in Europe and Central Asia* (September 2000).

**Table 22. Infant and Child Mortality**

	Infant Mortality (per 1,000 live births)					% Change 1990-99	Under 5 Yrs. mortality rates		
	1980	1990	1993	1999	1990		1999	% Change 1990-99	
Czech Republic	16	11	9	5	-55	12	5	-58	
Slovenia	15	8	7	5	-38	10	6	-40	
Croatia	21	11	10	8	-27	13	9	-31	
Hungary	23	15	13	8	-47	17	10	-41	
Slovakia	21	12	11	8	-33	14	10	-29	
Poland	26	19	16	9	-53	22	10	-55	
Lithuania	20	10	16	9	-10	14	12	-14	
Estonia	17	12	16	10	-17	17	12	-29	
Belarus	16	12	13	11	-8	16	14	-13	
Yugoslavia	33	23	22	12	-48	26	16	-38	
Bulgaria	20	15	16	14	-7	19	17	-11	
Ukraine	17	13	15	14	8	...	17	...	
FYR Macedonia	54	32	24	16	-50	33	17	-48	
Bosnia-Herzegovina	...	15	23	13	-13	21	18	-14	
Armenia	26	19	17	14	-26	24	18	-25	
Latvia	20	14	16	14	0	18	18	0	
Georgia	25	16	18	15	-6	...	20	...	
Russia	22	17	20	16	-6	21	20	-5	
Azerbaijan	30	23	28	16	-30	...	21	...	
Moldova	35	19	22	17	-11	25	22	-12	
Romania	29	27	23	20	-26	36	24	-33	
Kazakhstan	33	26	28	22	-15	34	28	-18	
Uzbekistan	47	35	32	22	-37	...	29	...	
Tajikistan	58	41	47	20	-51	...	34	...	
Albania	47	28	33	24	-14	42	35	-17	
Kyrgyzstan	43	30	32	26	-13	41	38	-7	
Turkmenistan	54	45	46	33	-27	...	45	...	
<b>CEE &amp; Eurasia</b>	26	19	20	15	-18	23	19	-20	
<b>Northern Tier CEE</b>	23	16	14	8	-46	18	10	-47	
<b>Southern Tier CEE</b>	30	23	21	16	-27	29	19	-29	
<b>Eurasia</b>	26	20	22	17	-9	23	22	-7	
<b>LDCs</b>		66		59	-11	91	85	-7	
<i>Latin Amer. &amp; Carib.</i>		41		30	-27	49	38	-22	
<i>Sub-Saharan Africa</i>		101		92	-9	155	161	4	
<b>High Income Countries</b>		8		6	-25	9	6	-33	
<b>Europe EMU</b>		8		5	-38	9	5	-44	
<b>Benchmarks</b>					no worsening				

From 1998-1999, only one country, Estonia, witnessed an increase in its infant mortality rate; 11 countries witnessed a decrease (Poland, Hungary, Yugoslavia, Latvia, Romania, Russia, Armenia, Moldova, Albania, Azerbaijan, and Tajikistan).

World Bank, *World Development Indicators 2001* (2001). For 1999 under 5 mortality in Albania: UNICEF, *State of the World's Children 2001* (December 2000).

**Table 23. Life Expectancy at Birth  
(Years)**

	Male			Female			Total Population			% change	% change	
	1989	1998	% change	1989	1998	% change	1980	1989-92	1998	1999	1980-99	1989-99
Czech Republic	68	71	4.3	75	78	3.4	70	72	75	75	7.1	4.2
Slovenia	69	71	3.2	77	79	3.0	70	73	75	75	7.1	2.7
Armenia	69	71	2.9	75	78	4.4	73	70	74	74	1.4	5.7
Bosnia-Herzegovina	69	...	...	74	...	...	70	71	73	73	4.3	2.8
Croatia	68	69	1.2	76	77	1.9	70	73	73	73	4.3	0.0
FYR Macedonia	70	70	0.0	74	75	1.9	72	72	73	73	1.4	1.4
Georgia	68	69	1.3	76	77	1.7	71	72	73	73	2.8	1.4
Poland	67	69	3.3	76	77	2.0	70	72	73	73	4.3	1.4
Slovakia	67	69	3.1	75	77	2.1	70	71	73	73	4.3	2.8
Albania	70	69	-0.9	76	75	-0.7	69	72	72	72	4.3	0.0
Lithuania	67	67	0.0	76	77	0.9	71	71	72	72	1.4	1.4
Yugoslavia	69	...	...	74	...	...	70	72	72	72	2.9	0.0
Azerbaijan	66	68	2.4	74	75	1.1	68	71	71	71	4.4	0.0
Bulgaria	69	67	-2.3	75	75	0.0	71	72	71	71	0.0	-1.4
Hungary	65	66	0.9	74	75	1.6	70	71	71	71	1.4	0.0
Estonia	66	64	-2.6	75	75	0.0	69	70	70	71	2.9	1.4
Latvia	65	64	-2.0	75	76	1.1	69	69	70	70	1.4	1.4
Uzbekistan	66	66	0.0	72	73	1.2	67	69	69	70	4.5	1.4
Romania	67	66	-0.9	73	73	0.0	69	71	69	69	0.0	-2.8
Tajikistan	66	66	0.0	71	71	0.0	66	69	69	69	4.5	0.0
Belarus	67	63	-6.1	76	74	-3.0	71	71	68	68	-4.2	-4.2
Kyrgyzstan	64	63	-1.9	72	71	-1.1	65	66	67	67	3.1	1.5
Moldova	66	63	-3.8	72	70	-3.2	66	68	67	67	1.5	-1.5
Ukraine	66	62	-6.2	75	73	-2.9	69	70	67	67	-2.9	-4.3
Russia	64	61	-5.0	75	73	-2.0	67	69	67	66	-1.5	-4.3
Turkmenistan	62	63	1.9	68	70	2.3	64	66	66	66	3.1	0.0
Kazakhstan	64	59	-7.7	73	70	-4.0	67	68	65	65	-3.0	-4.4
<b>CEE &amp; Eurasia</b>	66	64	-2.9	74	74	0.0	68	70	69	69	0.4	-2.1
<b>Northern Tier CEE</b>	67	69	2.9	75	77	1.9	70	72	73	73	4.1	1.8
<b>Southern Tier CEE</b>	68	67	-1.5	74	74	0.0	70	72	71	71	1.6	-1.1
<b>Eurasia</b>	65	62	-4.4	74	73	-1.8	68	69	67	67	-0.9	-3.2
<b>LDCs</b>		63		67			60		64			
<i>Latin Amer. &amp; Carib.</i>		67		73			65		70			
<i>Sub-Saharan Africa</i>		49		52			48		47			
<b>High Income</b>		75		81			74		78			
<b>Europe EMU</b>		...		...			74		78			
<b>Benchmarks</b>			no decline			no decline						

World Bank, *World Development Indicators 2001* (2001); World Bank, *World Development Report 2000-2001* (September 2000) and earlier editions.

**Table 24. Education**

Country	Secondary School Enrollment <sup>1</sup>				Primary School Enrollment <sup>1</sup>			
	(% of age group)			% change	(% of age group)			% change
	1990	1993	1997	1990-97 <sup>2</sup>	1989 <sup>3</sup>	1993	1998 <sup>4</sup>	1989-98
Hungary	78.6	94.3	97.8	24.4	99.0	99.1	99.2	0.2
Slovenia	91.1	90.3	91.7	0.7	96.1	97.8	98.2	2.2
Poland	81.5	93.9	97.6	19.8	97.9	97.2	98.1	0.2
Czech Republic	91.2	91.8	98.7	8.2	97.6	99.1	97.6	0.0
Romania	92.0	79.4	78.4	-14.8	93.6	90.3	97.0	3.6
Belarus	93.0	90.9	92.9	-0.1	95.6	93.3	96.5	0.9
Lithuania	91.9	80.9	86.3	-6.1	94.6	91.6	96.1	1.6
Estonia	101.9	93.9	103.8	1.9	96.5	91.4	95.0	-1.6
Croatia	76.2	82.8	81.8	7.3	94.0	89.0	94.3	0.3
Bulgaria	75.2	70.1	76.8	2.1	98.4	94.0	94.3	-4.2
Slovakia	...	88.6	94.0	6.1	96.0	94.9	93.9	-2.2
Kazakhstan	98.0	92.0	87.0	-11.2	94.7	94.0	93.2	-1.6
Moldova	80.0	84.0	80.5	0.6	95.0	79.1	92.5	-2.6
Azerbaijan	90.0	87.0	77.0	-14.4	88.4	89.2	91.6	3.6
Latvia	92.7	87.0	83.7	-9.7	95.4	89.1	90.9	-4.7
Uzbekistan	99.0	94.0	94.0	-5.1	92.2	87.9	89.7	-2.7
Kyrgyzstan	100.0	90.0	79.0	-21.0	92.5	89.7	89.7	-3.0
Russia	93.3	87.0	...	-6.8	90.8	88.3	89.1	-1.9
Ukraine	92.8	91.2	...	-1.7	93.0	91.0	89.0	-4.3
Tajikistan	102.0	82.0	78.0	-23.5	95.6	87.1	87.8	-8.2
Albania	78.3	41.2	37.5	-52.1	90.8	86.6	87.6	-3.5
FYR Macedonia	55.7	57.3	62.9	12.9	89.4	86.2	86.9	-2.8
Armenia	...	88.0	90.0	2.3	93.7	84.6	83.2	-11.2
Turkmenistan	...	...	...	...	94.3	92.0	83.1	-11.9
Georgia	95.0	77.0	77.0	-18.9	94.4	82.3	81.8	-13.3
Yugoslavia	...	...	62.0	...	95.0	72.5	69.2	-27.2
CEE & Eurasia	91.2	87.7	86.5	-2.9	93.3	90.2	90.9	-2.6
Northern Tier CEE	84.2	92.3	96.5	14.7	97.6	96.9	97.5	-0.1
Southern Tier CEE	83.9	73.7	71.7	-10.5	94.4	86.5	89.3	-5.3
Eurasia	94.0	88.5	86.9	-6.5	92.0	89.0	89.5	-2.7
European Union	96.7	108.4	108.4	12.1				
Benchmark	no decline in enrollment							

1 Calculated as gross enrollment ratios; i.e., the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown, primary or secondary. 2 For Russia and Ukraine % change is from 1990-93; for Slovakia and Armenia % change is from 1993-97; 3 1990 for FRY Macedonia; 4 1995 for Albania; 1996 for FYR Macedonia; 1997 for Croatia, Turkmenistan and Uzbekistan.

World Bank. *World Development Indicators 2001* (2001); UNICEF, *Young People in Changing Societies*, Regional Monitoring Report, No. 7 (2000).

**Table 25. Human Development**

(Human Development Index)

Country	1990	1998		1990-98
	Score	Score	Rank	% Change
Slovenia	0.840	0.861	29	2.5
Czech Republic	0.830	0.843	34	1.6
Slovakia	0.812	0.825	40	1.6
Hungary	0.798	0.817	43	2.4
Poland	0.785	0.814	44	3.7
Estonia	0.806	0.801	46	-0.6
Croatia	0.786	0.795	49	1.1
Lithuania	0.809	0.789	52	-2.5
Belarus	0.804	0.781	57	-2.9
Bulgaria	0.782	0.772	60	-1.3
Russia	0.812	0.771	62	-5.0
Latvia	0.797	0.771	63	-3.3
Romania	0.771	0.770	64	-0.1
FYR Macedonia	...	0.763	69	...
Georgia	...	0.762	70	...
Kazakhstan	0.784	0.754	73	-3.8
Ukraine	0.793	0.744	78	-6.2
Azerbaijan	...	0.722	90	...
Armenia	0.750	0.721	93	-3.9
Albania	0.697	0.713	94	2.3
Kyrgyzstan	...	0.706	98	...
Turkmenistan	...	0.704	100	...
Moldova	0.757	0.700	102	-7.5
Uzbekistan	0.690	0.686	106	-0.6
Tajikistan	0.712	0.663	110	-6.9
<b>CEE &amp; Eurasia</b>	<b>0.790</b>	<b>0.765</b>		<b>-2.8</b>
<b>Northern Tier CEE</b>	<b>0.798</b>	<b>0.818</b>		<b>2.4</b>
<b>Southern Tier CEE</b>	<b>0.769</b>	<b>0.768</b>		<b>0.0</b>
<b>Eurasia</b>	<b>0.791</b>	<b>0.751</b>		<b>-4.8</b>
OECD		0.893		
Latin Amer. & Carib.		0.758		
Sub-Saharan Africa		0.464		

The HDI is based on three indicators: longevity, as measured by life expectancy; educational attainment, as measured by a combination of adult literacy (two-thirds weight), and combined primary, secondary and tertiary enrollment ratios (one-third weight); and standard of living, as measured by real GDP per capita (PPP\$). The HDI ranges from zero to one; the higher is the value, presumably the greater is the human development.

UNDP, *Human Development Report 2000* (2000) and earlier editions.