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in Eastern Europe
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Comments should be addressed by email to the author(s).

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Abstract

This paper examines changes in human development in Eastern Europe and the Commonwealth of Independent States (CIS) since 1990. Three main areas of human development in the region are discussed in detail: (i) changes in wage and income inequality; (ii) trends in mortality and life expectancy; and (iii) changes in political participation and empowerment. While all countries experienced declines in income, rising unemployment and increased inequality in the 1990s, by 2008 most countries had reached or surpassed their pre-transition levels of income per capita, and unemployment and inequality had declined or at least stabilized. Life expectancy declined sharply in the former Soviet Union in the 1990s and remains at low levels. In contrast, life expectancy across Eastern Europe has risen dramatically. Political trends have also diverged across the region, with most East European countries and the Baltics now considered to be reasonably well-functioning democracies, while a number of CIS countries have lost most of the gains in democratization achieved in the 1990s and turned toward authoritarianism.

Keywords: wage inequality, mortality, gender, empowerment, transitional economies

JEL classification: J10, J31, P36

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I. Introduction

If human development is defined as “the process of enlarging people’s choices,” then the collapse of the communist system across Eastern Europe and the former Soviet Union twenty years ago might be viewed as one of the most significant steps towards advancing human development in the twentieth century. Communism restricted individual choice in a myriad of ways, including political expression, civic participation, and freedom to migrate in search of better opportunities. Yet under communism most countries more than adequately provided for the basic needs of the population: education and health services expanded widely in the region and were largely provided for free, and most countries enjoyed a rising standard of living in the postwar period.

The transition to a market economy has been an arduous process in most countries; in many countries a full twenty years elapsed before GDP per capita had recovered to its pre-transition levels, and the upheaval of the lives of millions is evident in the steep increases in mortality rates and unemployment rates across the region. But alongside these trends must be balanced the vast expansion of freedom and opportunities in many formerly communist countries. Have these changes translated into better lives for individuals in this region? How has human development changed in Eastern Europe and the former Soviet Union since 1990? This report describes and assesses the trends in human development and its component indicators across the region over the past twenty years. While all countries experienced declines in income, rising unemployment and increased inequality in the 1990s, by 2008 most countries had reached or surpassed their pre-transition levels of income per capita, and unemployment and inequality had declined or at least stabilized. Yet, as emphasized below, these gains have been distributed unevenly both across and within countries. In many countries the adult population experienced

unprecedented increases in mortality rates; regional unemployment rates in some countries remain persistently high; and the promise of political freedom that heralded the start of the transition process has not materialized into increased political or personal empowerment in all countries. These trends in inequality, mortality and empowerment, along with the role of government policy in affecting these trends, are discussed in greater detail below.

II. Patterns and trends in human development

a. HDI and components

The human development index is only available for only a few selected countries for the period 1990 - 2007; the available data are illustrated in Figure 1. Most countries recorded a reasonably large increase in the HDI since the beginning of the transition period; for example, the HDI increased from .80 to .88 in Poland and from .81 to .88 in Hungary over the 1990 to 2007 period. These HDI levels put these countries close to the highest level of human development, approaching levels in western Europe (for a review of human development trends in Europe, see Stewart 2010). The human development index for the former Soviet Union was unchanged over this period, although this masks the wide diversity of experiences across the 15 former Soviet republics.

The components of the human development index are available for most countries and reveal the diversity of experiences across the region. While all countries registered steep declines in real GDP per capita in the early 1990s, the transitional recession was far deeper and more prolonged in the former Soviet republics and the former Yugoslavia than in Eastern Europe (Figure 2).¹ Within the former Soviet republics, the three Baltic countries were the first countries to reach their 1990 levels of per capita income (around 2002), while the other countries

have only reached this income level in recent years. As growth rates accelerated in the mid-2000s, the GDP growth rates of many East European countries exceeded those of the original EU member states, but these relative gains were halted by the economic crisis of 2008-2009 (see Box 1).

Literacy levels were close to 100 percent before 1990 and remained close to this level throughout the region, even during the depths of the recession in the early 1990s. Gross enrollment ratios have increased substantially in many countries (see Figure 3), which in most cases reflects the increase in tertiary enrollments across the region. This is illustrated in the case of Hungary in Figure 4, which shows the considerable increase in the share of men and women age 25-29 with higher education in that country since 1990. As is the case in many formerly socialist countries and in developed countries more generally, the share of young women with higher education in Hungary is significantly higher than that of men, and this disparity has widened markedly since the beginning of the transition period. The increase in tertiary enrollments is likely due (at least in part) to the increase in the return to education which has occurred in virtually every transition country for which data are available.²

The overall success in maintaining high literacy and enrollment rates since the fall of communism masks some deterioration of education indicators in several countries, however. As poorer regions such as the Caucasus and Central Asia in the first part of the 1990s; schooling was also likely disrupted in the war-torn areas of the former Yugoslavia. In Albania, Bulgaria and Romania, Roma continue to achieve education levels significantly below those of the majority population. A UN survey of Roma taken across these countries and the former Yugoslav countries in 2004 indicated, for example, that only 70 percent of 7-year-old Roma children were enrolled in primary school in that year, compared with nearly universal enrollment

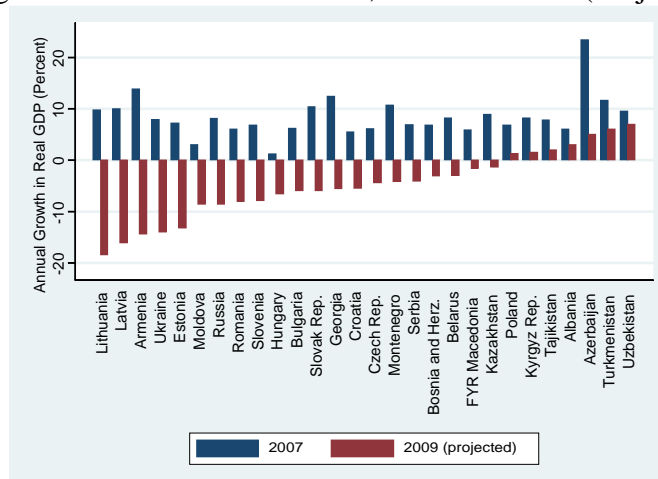
Box 1

The Economic Crisis: Reversals in Human Development?

The economic crisis that began in the fall of 2008 has severely impacted a number of post-socialist countries and tested the resiliency of the reforms across the region. The most vulnerable countries are those that experienced rapid credit expansion, rising current account deficits and high external debt in recent years. The hardest-hit countries include the three Baltic countries, Armenia, Ukraine and Moldova which all faced double-digit declines in GDP growth rates in 2009 (see Figure B1). While high capital inflows and dependence on foreign trade were some of the underlying conditions for vulnerability to the crisis in many countries, several countries were vulnerable due to their reliance on remittances; in 2007, for example, remittances were 34% of GDP in Moldova and 14% of GDP in Armenia (Darvas 2009). While the economic impact of the crisis has varied widely across the region, many countries recorded sharp increases in unemployment in 2009, and poverty rates likely increased as well. The highest unemployment rates were recorded in the Baltic countries: by the third quarter of 2009, the unemployment rate in Latvia had increased from 7.2% (2008Q3) to 18.5%, and from 6.2% to 14.5% in Estonia (Eurostat data).

A key question is whether the economic crisis will lead to back-sliding in the implementation of political and economic reforms. To date the evidence suggests that, while few countries have made forward progress in their reform efforts in the past year, there are few cases of outright reform reversals. Compared with the previous crisis in 1998, the European Bank for Reconstruction and Development (EBRD) concludes: “The number of instances of previous reforms being dismantled is well below that of the last big crisis” (EBRD 2009). This is a significant test of the resiliency of the reform process, and the early evidence indicates a positive assessment on this account.

Figure B1. GDP Growth Rates, 2007 and 2009 (Projected)



of majority-nationality children. By age 15 only 40 percent of Roma children are enrolled in school, compared with 90 percent of majority children (Milcher 2006).

Besides the dramatic declines in GDP per capita in the early 1990s, the area of human development which has elicited the greatest concern in the region is the large decrease in life expectancy which affected many CIS countries in the early 1990s. In many countries of the former Soviet Union, male life expectancy at birth fell by four or more years between 1989 and 1994; in Russia, for example, male life expectancy at birth was 64.2 years in 1989 and fell to 57.4 by 1994. While a few East European countries experienced declining male life expectancy in the early 1990s as well, the declines were much smaller than in the former Soviet countries, and life expectancy has since increased significantly across most of Eastern Europe (see Figure 5, which illustrates male life expectancy trends for selected countries, along with the U.S. for comparison). These divergent trends in life expectancy are analyzed in greater depth in section IV below.

b. Other aspects of human development

Although adult health deteriorated significantly in the former Soviet Union in the 1990s, the evidence indicates that child health and mortality were not negatively affected by the transition to capitalism. Infant mortality rates have fallen across the region – even in the less developed areas of Central Asia and the Caucasus – and child mortality rates have fallen as well. Despite the large decline in per capita GDP in most countries in the 1990s, indicators of child health, such as stature and body mass index, show little evidence of increased physical vulnerability or malnourishment during these years.³ The one exception to this is the physical well-being of girls in the Caucasus and Central Asia. In the Caucasus, recent census data

indicate a disturbing increase in sex ratios at birth (i.e., the number of males divided by the number of females). While typically this ratio is in the range of 1.03 - 1.06, in the Caucasus the sex ratio at birth now far exceeds this level. In Azerbaijan the sex ratio reached 1.168 in 2008; the 2001 Armenian census reveals a sex ratio of 1.145; and the 2002 Georgian census shows a sex ratio of 1.104. These sex ratios are at a level similar to those of China and India, where the most recent sex ratios for children age 0 to 4 are 1.145 and 1.106, respectively. While this increase in sex ratios at birth may be related to the increased availability of sex-revealing technology across the region, it is difficult to explain the underlying apparent increase in son preference that has resulted in this rise in sex ratios, and to date few studies on this phenomena have been conducted. Sex ratios at birth are not elevated in Central Asia, but some scattered evidence for this region suggests that girls' health has deteriorated during the transition while that of boys has not.⁴

Turning to employment-related indicators of human development, most transition countries experienced a significant increase in unemployment in the early 1990s as GDP and aggregate demand fell. These trends are illustrated for selected countries in Figure 6, which shows unemployment as measured by labor force surveys; this measure is considered a more reliable measure of unemployment than the registered unemployment rate.⁵ In the countries of the former Soviet Union, unemployment rates were relatively low in the early 1990s, at 4% to 6% of the labor force, then increased rapidly in the mid- to late-1990s. Unemployment rates peaked around 2000 – in part reflecting the economic disruption associated with the 1998 Russian financial crisis – but varied widely across the countries for which data are available, from a low of 10% in Russia to over 17% in Lithuania. Unemployment rates have declined markedly across many countries in recent years; for example by 2007 Lithuania's unemployment

rate had fallen to 4.3%. While it is difficult to find reliable data on unemployment rates for the low-income countries of the CIS, the data for some countries (such as Kyrgyzstan) suggest that unemployment rates are relatively low in the region. However, evidence suggests that underemployment may be a problem in Central Asia, as employment in subsistence agriculture and in the informal sector – both of which are associated with low wages – appear to absorb a significant share of the population who would otherwise be unemployed (Rutkowski 2006). In general informal sector employment plays a much larger role in the low-income CIS countries than in the higher income East European countries; in the CIS the informal sector is a primary source of income for individuals who cannot find work in the formal sector; whereas the informal sector in Eastern Europe more often provides a secondary source of income for workers and is more commonly associated with attempts to avoid taxes and regulations.

The unemployment experience in Eastern Europe differs from that of the former Soviet Union: in some countries, such as Bulgaria and Poland, very high unemployment rates marked the initial stages of transition in the early 1990s, followed by declines in the mid-1990s then increases until 2000, followed by declines (see Figure 6). Other countries, such as the Czech Republic, Romania and Hungary, have recorded relatively stable and low unemployment rates. There are large and persistent differences in regional unemployment rates within countries as well. For example, in 2000 the overall unemployment rate in Russia, as measured by the Russian labor force survey, was 10.5%. By region, the unemployment rate varied from a low of 3.8% in Moscow to very high rates in a diverse set of regions including Kaliningrad (15.4%), Tuva (22.9%) and Dagestan (25.6%) (Goskomstat 2001). Jurajda and Terrell (2009) confirm that the variation in regional unemployment rates in many East European countries exceeds that of West European countries, and argue that much of this is due to the wide variation in the

distribution of human capital across regions in these countries. Other research has clearly established that the burden of unemployment in formerly socialist countries is disproportionately borne by less educated workers; in all countries, workers with primary and lower secondary education have much higher unemployment rates than do workers with higher levels of education (Rutkowski 2006). The heterogeneity of unemployment trends across these countries is explained in part by differences in rates of restructuring, with the relatively slow adjustment process in the CIS reflected in the initially low then rising unemployment rates in that region, and by differences in product market competition which have sped the job creation and destruction process in the East European countries (Brown and Earle 2008). Differences in initial conditions appear to explain some of the cross-country patterns as well; countries which had partially restructured or had some private sector development before 1989 were more able to cushion the shock of transition than other countries (Münich and Svejnar 2007).

III. Inequality and life satisfaction in Eastern Europe and the CIS

a. Overall wage and income inequality

As with other measures of human development, patterns of inequality differ markedly between Eastern Europe and the former Soviet Union. All countries recorded significant increases in wage and income inequality in the early 1990s, which then roughly stabilized in most countries in later years. But inequality increased much more sharply in the former Soviet Union than in Eastern Europe, and remains at a relatively high level in the former region.

Some of these trends are illustrated in Figure 7, which shows the change in the Gini coefficient for wages between 1990/91 and 2000/01.⁶ The levels of wage inequality at the onset of the transition process were relatively low, with Gini coefficients in the range of .20 (Romania)

to .30 (Russia and Armenia). Relatively low wage inequality was achieved by the process of centralized wage-setting in most countries, in which a wage grid determined wages across workers and occupations and maintained relatively low returns to skill. The centralized wage-setting system was replaced in the early 1990s by decentralized wage-setting in which wages were set at the firm level and increasingly reflected returns to skill. The subsequent increase in wage inequality was predictable, although the size of the increase was surprising in the former Soviet countries. In Russia in 2000, for example, the Gini coefficient for wages was .52; the levels of wage inequality in most of the CIS countries are nearly as high. In contrast, wage inequality has increased in Eastern Europe but the levels are not nearly as high as in the CIS. The three Baltic countries occupy a middle ground, with wage inequality higher than in Eastern Europe but lower than in the poorer countries of the CIS. Compared to the much-studied increase in wage inequality in the United States that began in the 1980s, the increase in wage inequality in Russia (and likely most of the CIS) is far larger (Brainerd 1998).

Income inequality also increased across the region; these trends are shown for selected countries in Figure 8. Although the changes in income inequality are not as dramatic as those of wage inequality, the trends are similar: the greatest increases and highest levels of income inequality characterize the lower-income CIS countries, while income inequality is lower in most East European countries. In all countries, the current levels of income and wage inequality are higher than in the pre-transition period. Since income in most transition countries is largely comprised of wages (60-80%), most of the increase in income inequality is due to the increase in wage inequality.

b. Role of government policies in mitigating rising inequality

Most analysts have concluded that the primary cause of the increase in wage inequality across the region is the increase in the returns to education (Rutkowski 2006; Zaidi 2009). To the extent that higher returns to education induce individuals to acquire more skills and become more productive workers, this increase in wage inequality may enhance some aspects of the labor market adjustment process. On the other hand, the increase in wage inequality also reflects a decline in real wages for many less-skilled workers, raising concerns about equity and the possibility that the costs of economic adjustment have been disproportionately borne by the poorest members of society. Moreover, as discussed in the following section, it appears that rising inequality is one of the most important reasons for relatively high levels of unhappiness in post-socialist countries, with many viewing these disparities as unfair. Given the potential costs of rising inequality, it is worthwhile to explore the possible role for government policies in mitigating these trends.

A number of researchers have investigated the effectiveness of the tax and transfer system in reducing income inequality across the region. A comprehensive study of eight transition countries (Poland, Hungary, Slovenia, Slovakia, the Czech Republic, Latvia, Lithuania, and Estonia) using comparable household survey data concluded that the tax and transfer systems of most countries have been effective at reducing income inequality: “Had it not been for the redistributive impact of taxes and public transfers, income inequality in [these] countries would have been very high. Rather than low inherent (i.e. pre-tax) wage inequality *per se*, it is the tax and benefits systems that help explain the relatively low income inequality typically observed in these countries” (Zaidi 2009, p. 14). This is true even in countries that have adopted a flat tax system (Estonia, Lithuania and Slovakia), where the exemption level appears to maintain some progressivity of the tax system, and where government transfers are

progressive. However, the study finds that inequality in the Baltics is higher than in the other European countries in the study because taxes and public transfers play a smaller redistributive role than in the comparison countries. There are few rigorous studies of the effectiveness of the tax and transfer system in reducing inequality in CIS countries, but one study (World Bank 2000) concluded that the redistributive role of government policies was much weaker in the CIS than in the East European countries. A comparison of state tax and transfer policies in Hungary, Poland and Russia also concludes that these policies were much more effective in Hungary and Poland than in Russia in reducing income inequality (Giammatteo 2006).

In addition to the tax and transfer systems, an important policy lever for governments in reducing wage inequality is the minimum wage. All countries in the region have a minimum wage, but the level of the minimum wage relative to the average wage differs markedly across countries and has fluctuated sharply over time in some countries.⁷ Broadly speaking, the East European and Baltic countries have maintained relatively high minimum wages throughout most of the transition period, while minimum wages in some of the CIS countries reached extremely low levels in some periods, particularly the high-inflation years of the early 1990s. It is likely that these trends in the minimum wage explain at least some of the increase in wage inequality in the CIS, in particular the increase in wage inequality in the lower tail of the wage distribution.

Table 1 illustrates the minimum wage as a share of the average wage for selected countries for 1990/91, 1995, 2000, and 2007. In many of the East European countries the minimum wage fell relative to the average wage in the early years of transition – likely explaining some of the increase in wage inequality in these years – but has since stabilized at a relatively high level of 35 - 40% of the average wage (with the exception of Romania, where the minimum wage is somewhat lower). The contrast with Belarus, Russia and Ukraine is striking,

where the minimum wage failed to keep up with extremely high inflation rates in the early 1990s, leading to extraordinarily low replacement rates of less than 10% in both countries by 1995. And, as noted above, in both Russia and Ukraine the level of wage inequality in this period was significantly higher than in the East European countries. The correlation between the minimum wage (as a percentage of the average wage) and the Gini coefficient for wages across countries is shown in Figure 9. While one cannot interpret this as a causal relationship, it is suggestive that having a higher minimum wage relative to the average wage helps to mitigate high levels of wage inequality.

c. Gender disparities in wages

Changes in the minimum wage are also likely to explain some of the cross-country differences in the gender wage gap: since women are more likely than men to be earning the minimum wage,⁸ countries which maintained a relatively high minimum wage during the transition period are likely to have smaller gender wage gaps, all else equal. While it is difficult to find comparable data on the gender wage gap across countries, the available evidence indicates that the gender wage gap is smaller in the East European countries than in the CIS countries, and that the gender wage gap has narrowed in the more advanced countries of the region and widened in the lower-income countries. Most of these changes appear to have occurred in the early phases of the transition process, much like the overall changes in wage inequality.

Table 2 gathers some of the evidence on the gender wage gap in transition economies. Given the differences in data sources, sample definitions and empirical approaches used in the studies collected in this table it is difficult to compare the level of the gender wage gap across

countries. But the changes over time in the gender wage gap roughly follow the pattern described above: in many East European countries the gender wage gap narrowed in the early years of transition compared with the pre-reform gender wage gap. The opposite has happened in the CIS countries, with Russia, Ukraine, Belarus, and Kyrgyzstan all recording large increases in the gender wage gap.

A number of hypotheses have been advanced to explain these patterns. As noted above it is likely that the low level of the minimum wage in Russia and Ukraine had a disproportionately negative effect on female wages in those countries. A recent study analyzed the gender wage gap in Ukraine and demonstrates that the substantial increase in the minimum wage in Ukraine in 1998-2000 was a significant factor in reducing male-female wage inequality in Ukraine in those years (Ganguli and Terrell 2006). Another contributing factor is the change in female labor force participation rates: while female labor force participation rates have fallen in nearly all countries from their previously high levels, evidence suggests that less skilled (and lower-paid) women have dropped out of the labor force at higher rates than more skilled women. This leads to an increase in relative female wages although it does not represent a true improvement in the relative pay of women; this phenomenon appears to explain the narrowing of the gender wage gap in East Germany (Hunt 2002). A further possibility is that the more rapid pace of restructuring, privatization, and openness to trade have forced employers in Eastern Europe to reduce discrimination in order to become more competitive; see Brainerd (2000) for a discussion.

d. Changes in life satisfaction in Eastern Europe and the former Soviet Union

A growing area of research in economics investigates subjective well-being and its relationship with income and other social and economic variables. Such studies rely on

household surveys that include questions on one's overall satisfaction with life. The consensus that has emerged in this literature is that subjective well-being is a meaningful measure of well-being, and that levels and changes in well-being can be compared over time and across countries (Easterlin 2009).

Studies of subjective well-being in formerly socialist countries have shown that life satisfaction plummeted in the early transition years, but then rebounded, roughly following the course of GDP. However life satisfaction is lower in transition countries than is predicted by GDP levels, and there is a large gap in life satisfaction in the transition countries compared with countries with similar levels of per capita income (Easterlin 2009). Guriev and Zhuravskaya (2009) show that this gap in self-reported life satisfaction emerges from differences in life satisfaction by age: whereas in non-transition countries the relationship between age and happiness is U-shaped, reaching a nadir in middle age, subjective well-being declines monotonically with age in the transition countries. This is perhaps unsurprising given the widespread view that younger generations have gained the most from the transition process in terms of increased opportunities and choices, while the older generation has lost the most through loss of savings and depreciation of human capital. This view clearly emerged from a 2007 study commissioned by the European Bank for Reconstruction and Development (EBRD) of focus groups in nine Russian cities (EBRD 2007). This study investigated the attitudes and assessments of Russians of their past and current economic system and (among other findings) concluded that there is a generation gap in adapting to the new system and a resentment among those who believe they 'missed out.'⁹

Guriev and Zhuravshakaya (2009) used this same Russian focus group data to investigate the causes of the low levels of subjective well-being in Russia. Their results indicate three main

factors: (1) rising inequality and the perception that the new economic system is unfair; (2) the deterioration in the quantity and quality of public goods provision, such as education and health care; and (3) the increase in income volatility and economic uncertainty. The importance of increased inequality for the low levels of subjective well-being in Russia is striking and, given the high levels of inequality in the former Soviet Union, may explain why happiness levels are higher in the Central and East European countries than in the CIS (although happiness levels in all transition countries are still lower than predicted by GDP).

IV. Adult male mortality in Eastern Europe and the CIS

As noted above, death rates among working age men increased sharply in the early 1990s in Russia, Ukraine, Belarus, the Baltics, and Kazakhstan, with smaller (but still significant) increases occurring in Central Asia and the Caucasus. Despite undergoing a similar, if less economically devastating, economic transition, mortality trends in Eastern Europe differ markedly from those of the former Soviet Union: there was a small increase in mortality rates among working-age men in some countries in 1990-1992, but since then mortality rates have fallen and life expectancy has risen impressively throughout the region. This section explores some of the possible explanations and policy implications of these differing experiences.

a. Trends in life expectancy and age- and cause-specific mortality

In the former Soviet Union changes in life expectancy are erratic and appear to be sensitive to macroeconomic fluctuations; in Eastern Europe every country has experienced a sustained increase in life expectancy since the early- to mid-1990s (see Figure 5).¹⁰ Despite the recent improvements in life expectancy in the former Soviet Union since the mid-1990s, male

life expectancy remains extremely low, both historically and in comparison with other developed countries. In Russia, for example, male life expectancy at birth in 2007 was 61.4 years; this represents a decline of 1.6 years from the level of male life expectancy in Russia in 1958, and a difference of *over 16 years* with male life expectancy in France (77.6 years in 2007). East European countries are, in contrast, slowly closing the life expectancy gap with western Europe: the difference in male life expectancy between France and the Czech Republic in 1989 was 4.4 years, falling to 3.9 years by 2007.

Changes in death rates by five-year age group for Russia, Hungary and Romania are shown in Figure 10. In Russia the increase in death rates for men age 25 to 54 between 1989 and 1994 was extraordinarily high; this change in death rates by age groups is very similar to that in the three Baltic countries, Ukraine and Belarus. A number of studies have shown that the increase in death rates has been disproportionately concentrated among men with low levels of education, both in the Baltics and in Russia (e.g., Shkolnikov et al. 2007), suggesting another dimension along which inequality has increased in the region.

The East European countries did not entirely escape the increase in mortality; in many countries the death rate among middle-aged men increased during the early years of transition. This increase was most prominent in Hungary and in Romania; however, by 2007 all age groups in Hungary had experienced significant declines in mortality rates (Figure 10). This pattern of large declines in mortality rates across most age groups by 2007 is similar for all East European countries for which data are available, including the Czech Republic and Poland.

The increase in death rates in the former Soviet Union in the early 1990s was primarily due to a tremendous increase in deaths due to circulatory diseases (heart disease and strokes) and due to external causes. The external cause deaths include an epidemic of homicide and suicide

across the region, peaking around 1994 and again primarily affecting working age men. For example, in Lithuania the death rate due to suicide among men age 45-54 increased from 109 deaths per 100,000 population in 1985 – already extremely high compared with western countries – to 160 deaths per 100,000 population in 1995. After the mid-1990s these death rates declined but remain at least as high as in the pre-transition period in most countries.

In most East European countries deaths due to circulatory diseases for working age men declined substantially between 1989 and 2007. In the Czech Republic, for example, deaths due to cardiovascular disease fell from 354 to 170 deaths per 100,000 population between 1989 and 2007 for men aged 25 to 64. While nearly all developed countries have recorded significant declines in circulatory disease mortality in recent decades, the speed and magnitude of the decline in Eastern Europe appear to be higher than in other regions. Deaths due to external causes were always much lower in Eastern Europe than in the former Soviet Union (although about twice as high as in Western Europe), and these causes of death have changed relatively little during the transition period.

b. Possible causes of the mortality trends

It is difficult to explain the divergent patterns of mortality between Eastern Europe and the CIS. Most research has focused on the upsurge of mortality in the former Soviet Union while the striking declines in mortality in Eastern Europe have been relatively neglected. Most analysts believe that stress and alcohol consumption (perhaps combined with adverse dietary changes) explain in part the large swings in mortality in the former Soviet Union in the 1990s.¹¹ Other possible explanations, such as the deterioration of the health care system and the increase in material deprivation, do not appear to be supported by the evidence; see Brainerd and Cutler

(2005) for a discussion. Environmental degradation may play some role in the high mortality levels of the region, but, given the decline in pollution levels that resulted from the collapse of industrial output in the early 1990s (see Figure 11 for one measure of pollution for selected countries), this cannot explain the increase in mortality in those early years.¹²

Regarding alcohol consumption, researchers have argued that the binge-drinking style of alcohol consumption in the former Soviet Union negates the protective effect of alcohol on the heart and leads to increased arrhythmias and heart attacks (McKee and Britton 1998). Supportive evidence of this idea is provided in a study of adult male deaths in the Urals which showed that cardiovascular deaths are strongly associated with periods of heavy drinking among adult men (Shkolnikov et al. 2001). The most convincing evidence of the link between cardiovascular mortality and alcohol consumption comes from an analysis of nearly 25,000 forensic autopsies conducted in Barnaul (Siberia) between 1990 and 2004; the results indicate that 21 percent of all autopsied adult male deaths attributed to circulatory diseases had lethal- or near-lethal levels of ethanol concentration in the blood (Zaridze et al. 2009a). These authors have concluded that alcohol consumption may be responsible for more than half of all adult male deaths in Russia from 1990 to 2001, and one-third of adult female deaths (Zaridze et al., 2009b). Aside from the stress of the transition which may have fueled increased alcohol consumption, this trend may have been exacerbated by the large drop in the relative price of alcohol in the early 1990s (see Treisman 2010).

Recent research has also highlighted the important role the consumption of ‘surrogate’ alcohol has played in the mortality crisis in Russia. A significant amount of alcohol is consumed in the form of either homemade alcohol (samogon), which has high ethanol concentrations, or “non-beverage” alcohol, such as after-shave, anti-freeze and lighter fluid which contain both

high concentrations of ethanol and toxic ingredients (Leon et al. 2007). These forms of alcohol are untaxed and, per liter of pure alcohol, are much cheaper than vodka sold in retail stores. The combination of high ethanol concentrations and toxic ingredients also makes these surrogate alcohol products much more lethal than commercially-sold vodka.

In light of this, an important issue for CIS governments is whether and how to discourage drinking, particularly the binge drinking and samogon consumption that appear to be so harmful for health. An obvious solution to Russia's drinking problem might appear to be to raise taxes on alcohol; most studies of the U.S. population, for example, indicate that alcohol consumption and price are inversely related, and that higher alcohol prices reduce binge drinking among youth (Cook and Moore 2000). But it is possible that higher alcohol prices would worsen mortality in the former Soviet Union: higher prices for alcohol sold through official outlets may induce individuals to substitute low-quality surrogate alcohol and homemade alcohol for higher-quality alcohol, which in turn could lead to increased deaths from alcohol poisoning and cardiovascular mortality. In light of this the government's efforts may best be directed at tightened control over alcohol quality, as well as at policies and programs to discourage excessive alcohol consumption, particularly binge drinking. More broadly, government policies to address the social issues of isolation and impoverishment that are likely associated with excessive alcohol consumption, and to more effectively integrate less-skilled men into the labor market, may be the best long-term approach to reducing adult mortality in the former Soviet republics.

The few studies that have examined mortality trends in Eastern Europe have identified changing diet as the most likely explanation for the rapid improvement in cardiovascular mortality rates. The end of state subsidies for meat and the greatly increased availability of fruits and vegetables led to a radical change in the diet of much of the population in the region in the

early 1990s. Foremost among the changes was a shift in the consumption of animal fat to vegetable fat, and an increase in the intake of antioxidants. This dietary shift occurred in the Czech Republic (Dzúrová 2000) and in Poland (Zatonski 1998); Bobak et al. (1997) document a decrease in cholesterol levels among Czech men and women after 1988 which they attribute to the increase in consumption of vegetable fats. Evidence suggests that the health effects of dietary change can occur relatively quickly, appearing within two to three years from the change in diet (Zatonski et al. 1998).

A secondary reason for the reduction in mortality rates in East European may be improved quality of medical care. Evidence on this factor is very sparse, however. The study by Dzúrová (2000) identified improvements in the supply of cardiovascular medicines and medical equipment and an increase in cardiovascular operations as major reasons for improved cardiovascular mortality in the Czech Republic. And it is likely that the substantial reductions in infant and child mortality are attributable to improvements in medical care. Given the lack of evidence, however, the contribution of improved medical care to increasing life expectancy in Eastern Europe remains speculative.

V. Agency and empowerment

a. Political participation and representation

The fall of the Berlin Wall in 1989 inaugurated a period of democratization, civic engagement, and freedom of political expression in the transition countries, developments that had long been suppressed under the authoritarian regimes that ruled during the communist era. Much like the developments in inequality and mortality discussed above, the path toward democracy and political participation has diverged markedly between Eastern Europe and the

former Soviet Union since the early years of reform: the countries of Eastern Europe, along with the Baltics, are now considered to be reasonably well-functioning democracies with open, contested elections and independent media. The CIS countries have a more diverse record, with some countries (Russia, Ukraine, Georgia, Moldova) making initial gains in democratization in the early years of transition then stalling along the path, while other countries (Kazakhstan, Uzbekistan, Turkmenistan, Belarus, Azerbaijan) have lost most of the gains in democratization achieved in the early 1990s and become at least as authoritarian as prior to the fall of communism.¹³

One indicator of the ability of the population to influence electoral outcomes is illustrated in Figure 12, which shows the Freedom House index of political pluralism and participation across countries for 2007. This measure encompasses the ability of people to organize political parties, to express political preferences free from outside influences, and the opportunity for political opposition parties to attract electoral support. The measure ranges from (0) worst to 16 (best). Turkmenistan and Uzbekistan receive the lowest possible score, followed closely by Belarus, Kazakhstan and Russia, reflecting the increasing authoritarianism in those countries. There is a stark contrast with all of the countries of Eastern Europe which achieve high scores on political openness by this measure. The three Baltic countries have achieved impressively high ratings on this dimension of empowerment, although it should be noted (as discussed in Treisman 2010) that Estonia currently falls somewhat short of the democratic ideal by effectively disenfranchising the Russian-speaking minority population.¹⁴

A second measure of the ability of citizens to participate in the political process (and which includes indicators of media independence) is illustrated in Figure 13, which shows the change between 1996 and 2008 in the World Bank's country rankings of voice and

accountability. This ranking covers 192 countries; in 2008 the formerly socialist countries that were ranked highest on this measure were Estonia, Slovenia, the Czech Republic and Hungary (the highest-ranked countries in the world were Norway and Sweden). Most of the East European and Baltic countries had already achieved high levels of “voice” by 1996, and most improved slightly in this measure by 2008. In contrast, the lower-income CIS countries had lower rankings in 1996 than the East European countries, and many of these countries had slipped further down the rankings by 2008. Turkmenistan and Uzbekistan are among the lowest-ranked countries in the world by this measure, just one step above Eritrea, North Korea and Myanmar. Despite the shortcomings of the Soviet state, it is difficult to argue that, by this dimension of human development, the populations of Turkmenistan, Tajikistan, Uzbekistan and Belarus are in a better situation now than before the fall of communism. The weakness of these states is also reflected in high levels of corruption; see Box 2 for the case of official corruption in Tajikistan.

The record of the last two decades indicates that most East European countries have successfully implemented institutional and economic reforms, albeit at differing speeds and with varying outcomes, while the progress and achievements of the CIS countries have been more erratic. The policy reforms undertaken by the more advanced reformers appear not only to have achieved better political outcomes, but to have also translated into better outcomes in terms of human development. While it is difficult to measure policy reforms, one widely-used measure is the EBRD’s Transition Index, which is an average of the EBRD’s scores for various elements of reform including privatization, price liberalization and openness to trade, and institutional reform. The index ranges from a low of one to a high of four, with “four” indicating the level achieved by an advanced market economy. Almost all of the East European countries now

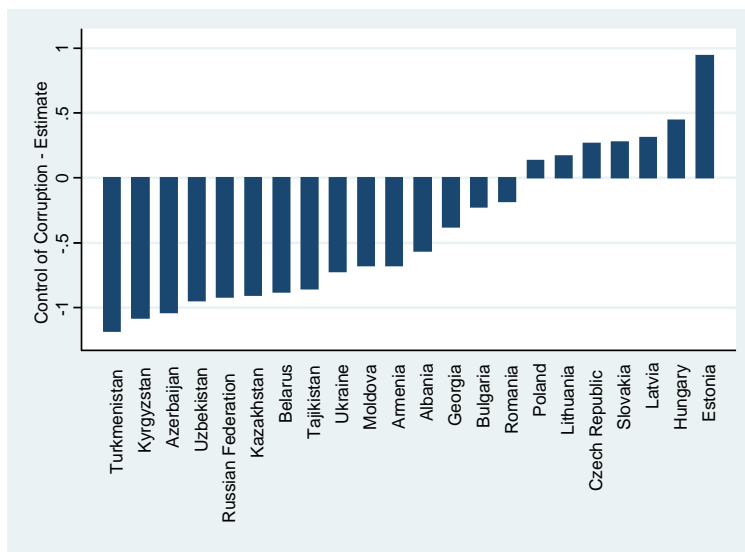
Box 2

Human (In)security and Corruption: The Case of Tajikistan

Many countries of the former Soviet Union have struggled with the legacy of conflict and the growth of organized crime from the early years of the transition. These trends have most affected the Central Asian countries, the Caucasus, and the former Yugoslav republics. But even countries with stronger political and institutional structures suffer from problems of perceived corruption (such as Bulgaria and Romania); this is illustrated in Figure B2, which shows the population perceptions of the control of corruption from the World Bank's Worldwide Governance Indicators database. The scores are standardized to have a mean zero and standard deviation of one across countries, with higher scores indicating less corruption.

The case of Tajikistan is particularly striking. As detailed in Engvall (2006), Tajikistan has become a major drug transit route for the opium trade originating in Afghanistan. The effects of this drug trade have permeated society, from increasing drug use and addiction to skyrocketing HIV/AIDS infection rates. Alongside this has emerged shocking examples of high-level official involvement in the drug trade. For example, Tajikistan's ambassador to Kazakhstan was twice caught transporting drugs, once with 62 kilos of heroin and \$1 million in cash. A former deputy defense minister used a military helicopter to transport drugs, and the mayor of Dushanbe is reported to be a major player in the drug trade. This involvement of government officials in the drug trade clearly undermines the legitimacy of the Tajik state and the population's faith -- if any remains -- in the rule of law.

Fig. B2. Perceptions of Corruption Across Countries, 2007



achieve scores in the 3.5 to 4 range, while the CIS countries have lower scores on average. These measures of policy reform are highly correlated with the Human Development Index across countries: Figure 14 demonstrates this relationship for the most recent year available; there are virtually no countries that have achieved high levels of human development in the absence of real progress on reforms. Figure 15 illustrates the correlation between changes in the EBRD Transition Index over the 2000 - 2009 period and changes in the Human Development Index over the same period. While the relationship is not as strong as in Figure 14, it seems clear that policy changes to improve institutions and facilitate private economic activity are associated with improvements in human development.

b. Civil society and NGOs

Most attempts to explain the divergent political paths between Eastern Europe and the CIS have failed to find convincing relationships in the data between measures of democratization and economic, social, or institutional variables. Treisman (2010), for example, examines many correlates of democracy across these countries and concludes that only geography (i.e., proximity to Dusseldorf) and the share of the population that is Muslim are correlated with democratization at a statistically significant level. One factor he did not consider was civil society development, however: Bruszt et al. (2009) collect a unique data set of measures of civil society engagement across the transition countries prior to 1989, and demonstrate that countries with higher levels of political opposition prior to the fall of communism were more likely to choose a democratic regime after 1989. This finding suggests that the development of civil society may be an important factor in the continuing movement towards democratization in the more-slowly reforming countries of the CIS.

The Civicus organization (Civicus 2006) has surveyed civil society organizations and activism in nine transition countries (Bulgaria, Croatia, Czech Republic, Georgia, Macedonia, Poland, Romania, Slovenia, and Ukraine). Despite the advances in most measures of democratization and participation in Eastern Europe over the 1990s and 2000s, the report concludes that civil society organizations remain weak in the region. Virtually no tradition of support – either by individuals or corporations – for non-profit organizations developed under communism, and this lack of institutional capacity continues to reverberate in these countries even two decades after the end of communism. Most civil society organizations continue to be donor-driven rather than responsive to grassroots needs, and few individuals volunteer to work in these organizations. The low levels of trust in public organizations and low levels of social capital that Civicus (and others) have found in post-socialist countries will likely hamper the ability of these societies to change through community action.

c. Agency and empowerment within the household

A further dimension of agency and empowerment occurs within the household: do women have the ability to seek opportunities in the labor market, to obtain higher education, even to make their own choices in the marriage market? Are women's choices and ability to invest in themselves (and their children) constrained by tradition, culture, or lack of opportunity? In most of the formerly socialist countries the position of women within the household is not an issue of major concern: female labor force participation rates remain high (if lower than prior to the transition), and, as noted above, women tend to have higher average levels of education than men in many countries. The vastly increased availability of modern contraception has led to a large decline in abortion rates and greatly enhanced women's ability to control their fertility.

While women's empowerment has improved along many dimensions in the post-socialist countries, there are reasons to be concerned that some of the gains have been reversed, particularly in the countries of Central Asia and the Caucasus. One indicator of declining female position is the increase in sex ratios at birth in the Caucasus discussed above and the possible deterioration in health status among girls in Kazakhstan. These adverse developments are surprising given the Soviet state's longstanding efforts to promote secularization of the Central Asian republics and equal treatment of women, including compulsory education for both boys and girls beginning in the 1930s.

Prior to the imposition of Soviet rule, most regions in the Caucasus and Central Asia were traditional, agricultural societies with limited roles for women outside the household. Predominantly Muslim countries such as Azerbaijan, Tajikistan and Uzbekistan practiced patrilocality, in which a woman moves in with her husband's extended family upon marriage. This type of family system provides little incentive to invest in daughters, since a married women's contribution to a household will accrue to the husband's family rather than the parents.

With the imposition of Soviet rule and the official policy of atheism in Central Asia and the Caucasus, many of the traditional customs favoring men over women were discouraged: the nuclear family was promoted over patrilocality; arranged marriages and polygamy were banned; women were 'unveiled' and required to attend school along with boys. This changed the incentives for parents to invest in girls and, combined with the increased availability of childcare, health care, and a pension system, opened up new opportunities for women to work outside the home (Grogan 2007; Heyat 2002).

The collapse of Soviet rule has led to some local government leaders in the region calling for a return to a more "traditional" society, which in effect means a return to the previous norms

of patrilocality and a male-dominated society. In practice there are many reports that suggest an upsurge of traditionalism and setbacks for women's empowerment in the region. For example, widespread efforts have been made in Kazakhstan, Kyrgyzstan and Uzbekistan to re-establish polygamy and to change divorce laws to make it more difficult for women to initiate divorce (Khalid 2007). There has been an increase in the use of arranged marriages and the re-emergence of bride payments and bridenapping in some countries (Bauer et al. 1997). The Demographic and Health Surveys also document relatively high rates of domestic abuse in the region (for example, in the 2007 Azerbaijan DHS, 14% of women age 15-49 reported experienced physical violence by their husband or partner); however it is difficult to know whether the levels of domestic violence have increased since the beginning of transition. The possible deterioration of women's status within the household in some of the low-income CIS countries is a topic which has been little researched to date but is clearly an issue of growing concern.

VI. Concluding remarks

The experience across the transition economies has been diverse, ranging from relative success stories in Hungary, Poland, the Czech Republic and the Baltics to delayed restructuring and political reversals in some of the poorer regions of the Commonwealth of Independent States. The economic changes have also been diverse, but at least in recent years the core measures of human development – GDP per capita, education and life expectancy – improved markedly across many of the transition countries (although the current economic crisis could reverse some of these gains). Continuing concerns remain relating to the relatively high levels of inequality in some countries, the regional disparities in unemployment, the worsening status of

women in Central Asia and the Caucasus, and the turn towards authoritarianism in some countries. Perhaps of most concern is that the costs of adjustment appear to have been disproportionately borne by less-educated workers, particularly older men, both in terms of reduced wages, much greater economic insecurity, and lower life expectancy. Social policies aimed at improving the lives and opportunities of these individuals would do much to ensure that the gains of the last twenty years accrue more broadly across the populations of these countries.

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Figure 1. Human Development Index, 1990 and 2007

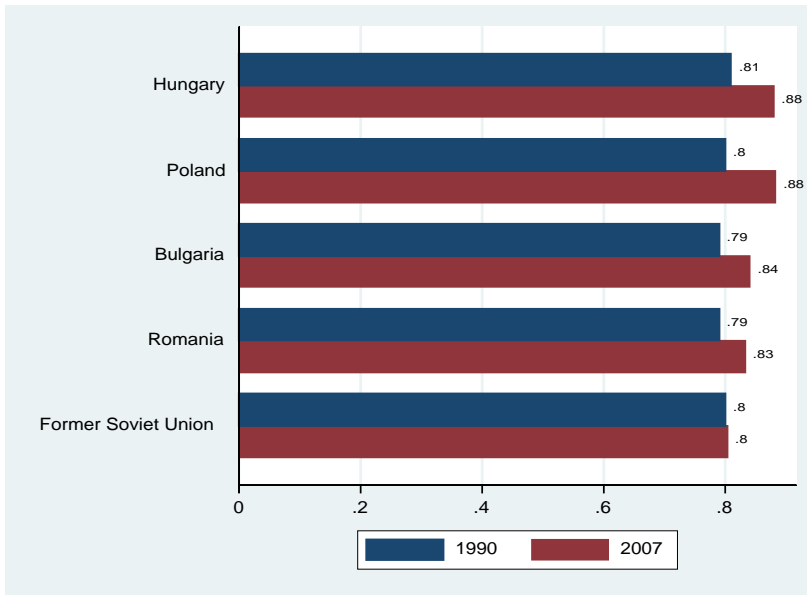
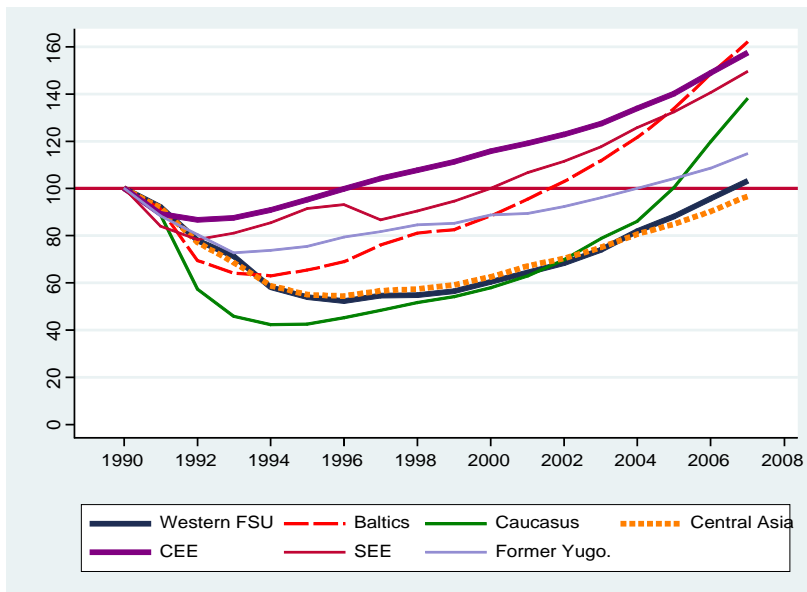


Figure 2. Real GDP Per Capita, 1990=100



Source: World Bank, World Development Indicators

Figure 3. Gross Enrollment Ratio, 1990 and 2007

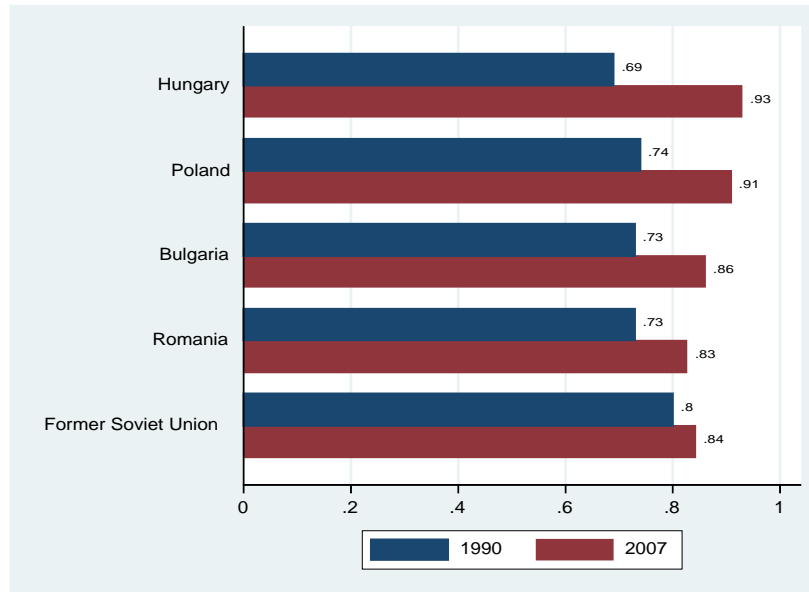
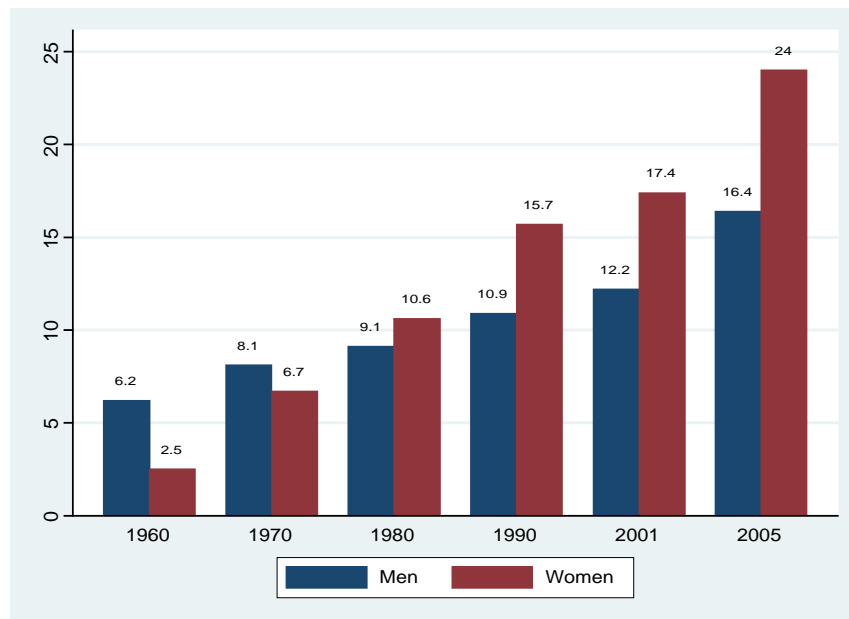
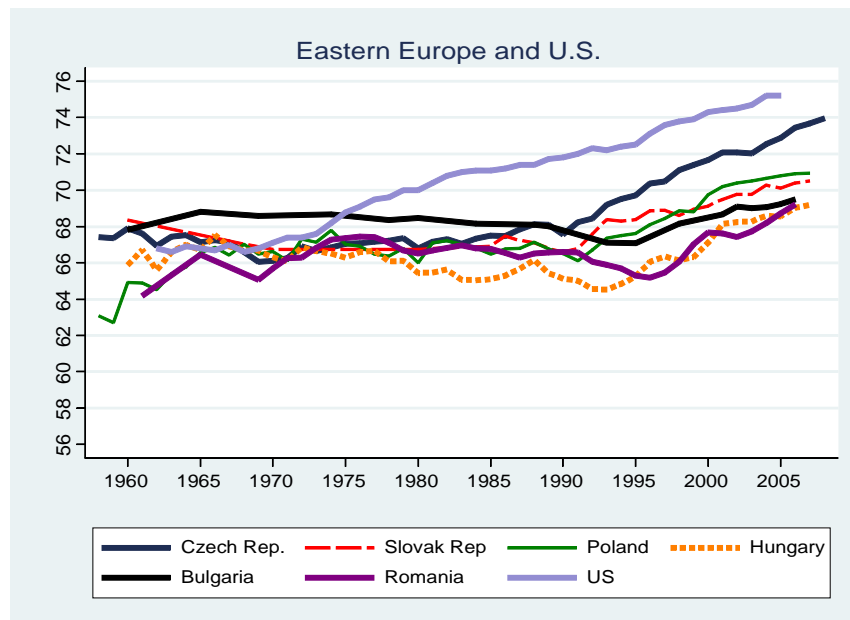
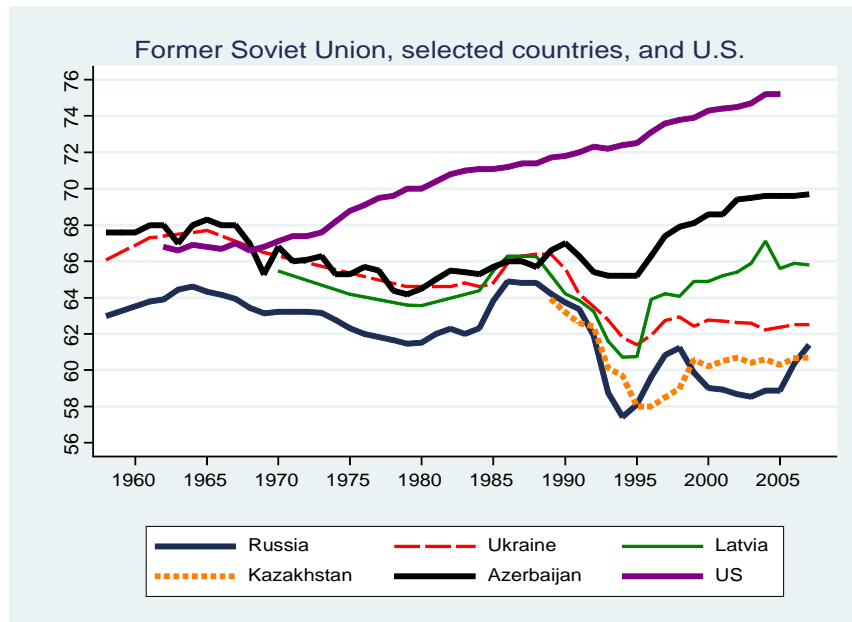


Figure 4. Share of Men and Women Age 25-29 With Higher Education, Hungary



Source: <http://www.mikrocenzus.hu/>

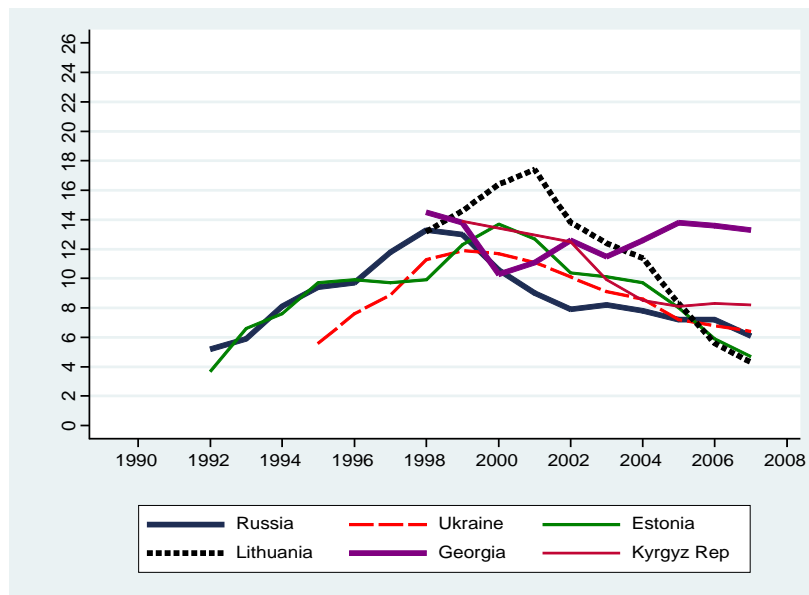
Figure 5. Male Life Expectancy at Birth



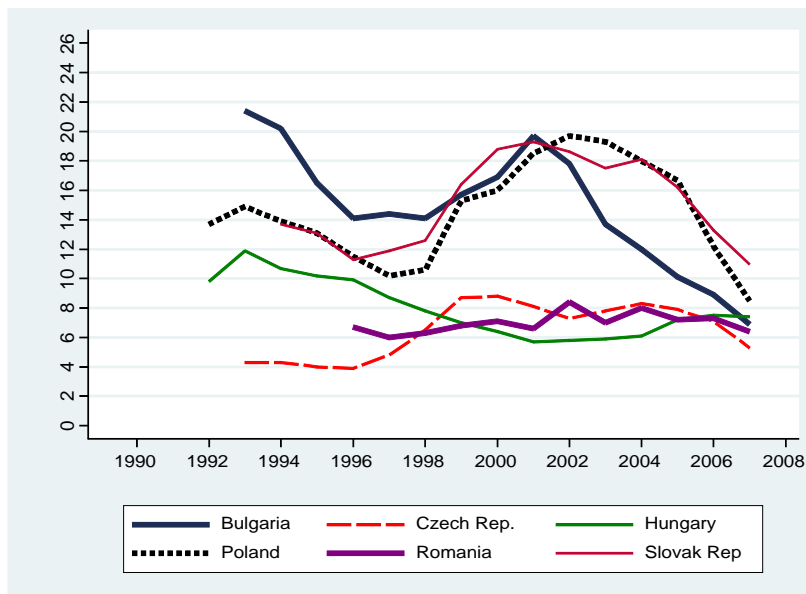
Sources: National statistical yearbooks; TransMONEE database.

Figure 6. LFS Unemployment Rate

a. Former Soviet Union

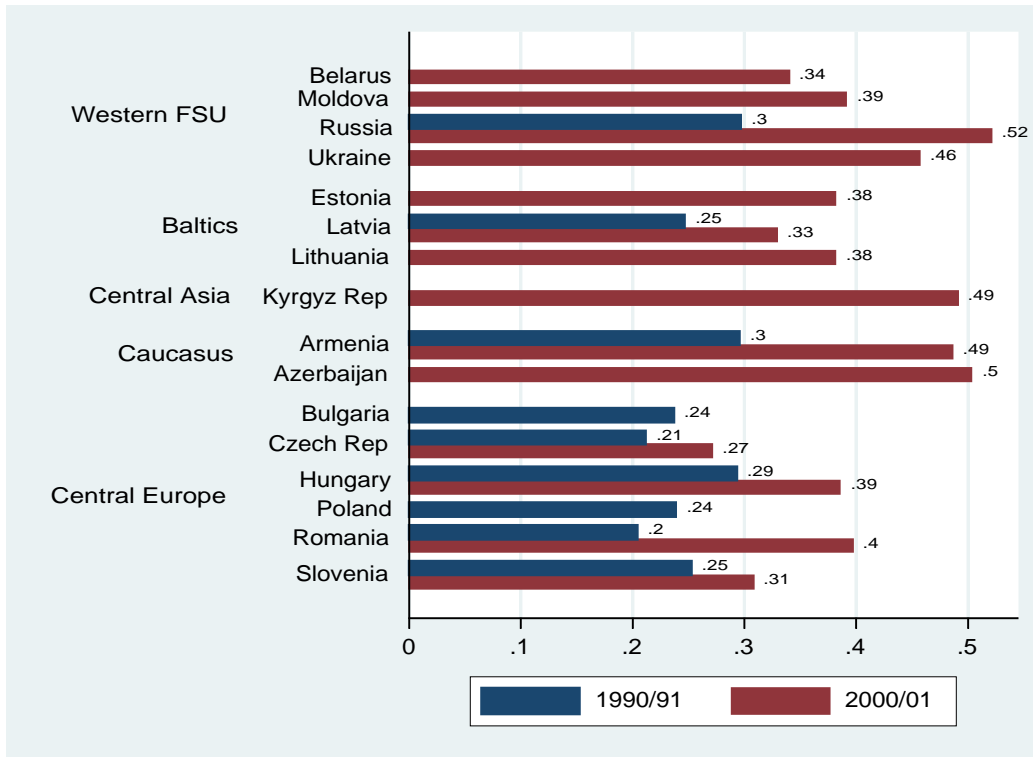


b. Eastern Europe



Source: TransMONEE database.

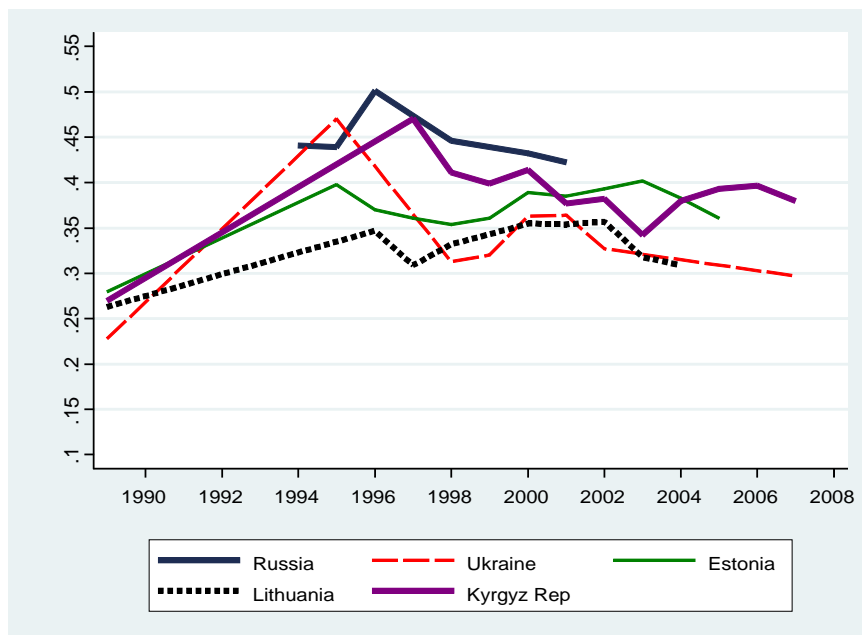
Figure 7. Gini Coefficient for Wages, 1990/91 and 2000/01



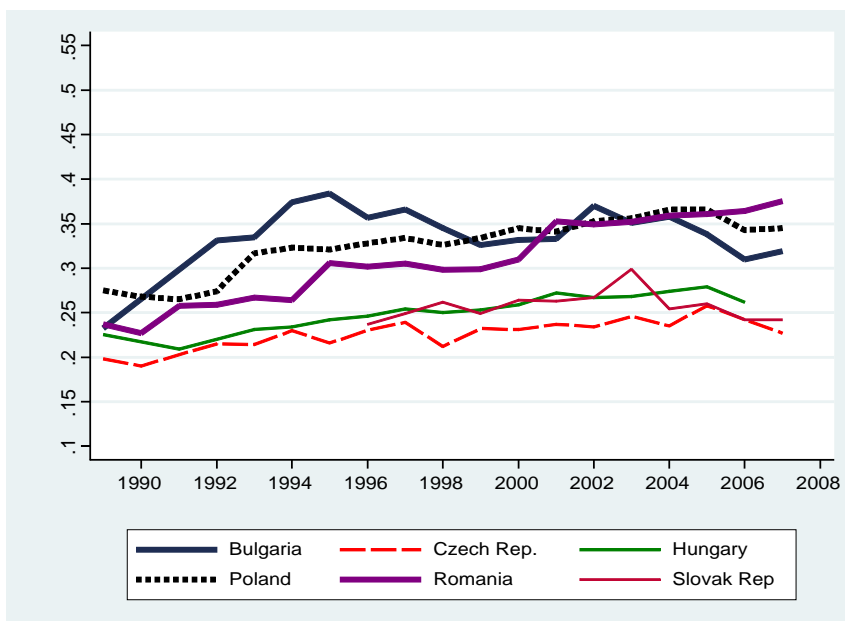
Source: TransMONEE database.

Figure 8. Gini Coefficient for Income, Selected Countries

a. Former Soviet Union



b. Eastern Europe



Source: TransMONEE database.

Table 1. Minimum Wage as % of Average Gross Wages
(selected countries)

	1990/91	1995	2000	2007
Bulgaria	46	34	33	42
Czech Rep.	53	26	33	37
Hungary	37	30	29	35
Poland	21	36	37	35
Romania	na	27	35	28
Slovak Rep.	52	34	40	na
Estonia	na	na	29	32
Latvia	na	31	33	30
Lithuania	na	37	44	39
Belarus	39	8	6	26
Russia	24	9	6	17
Ukraine	32	1	51	34

Sources: National statistical yearbooks; European Industrial Relations Observatory on-line (www.eurofound.europa.eu).

Fig. 9 Correlation between the Gini coefficient for Wages and the Minimum Wage Across Countries, 1990 - 2007

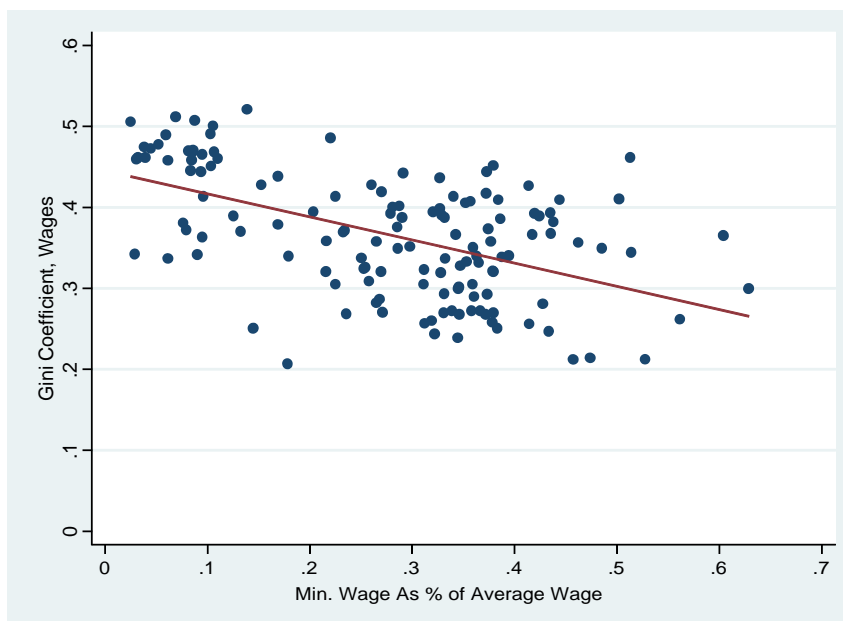
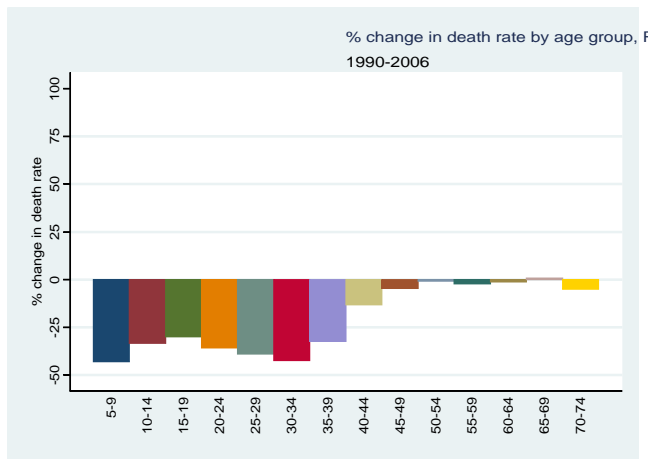
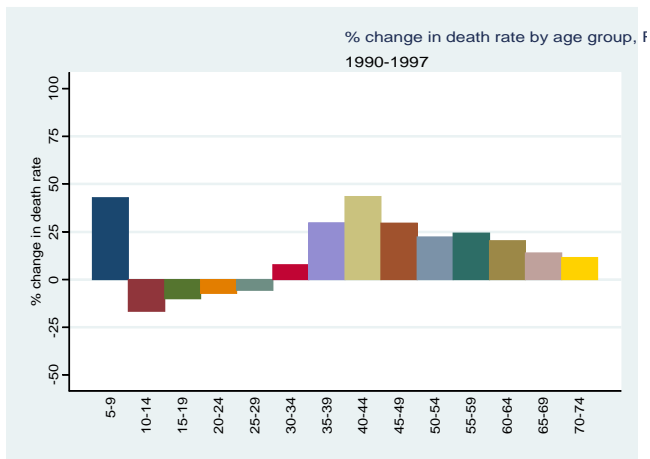
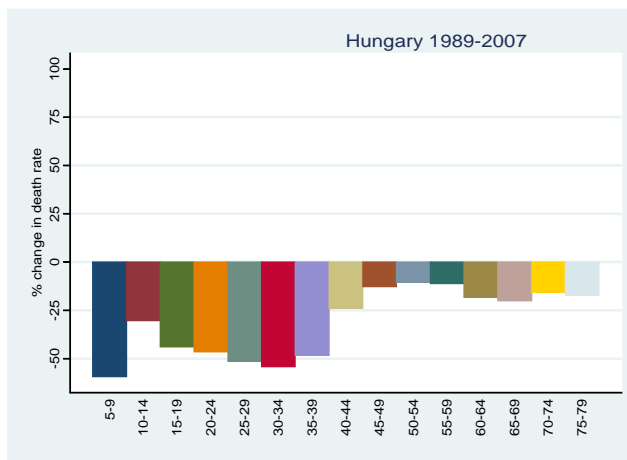
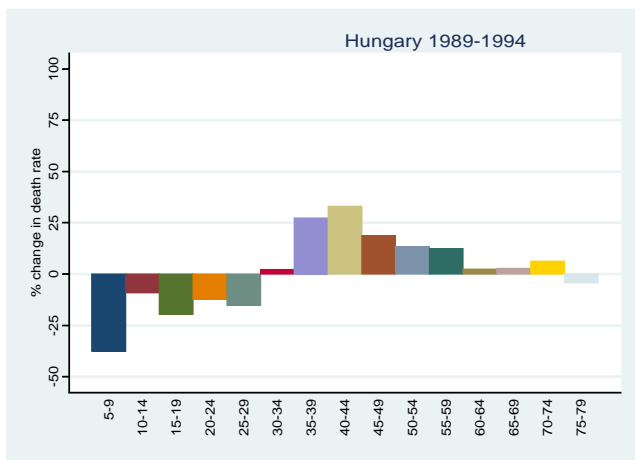
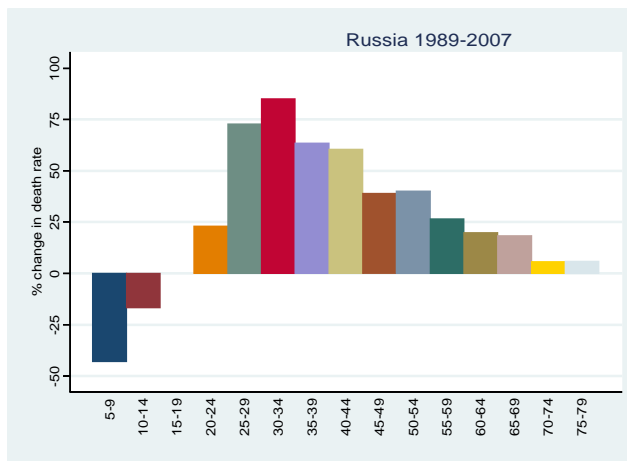
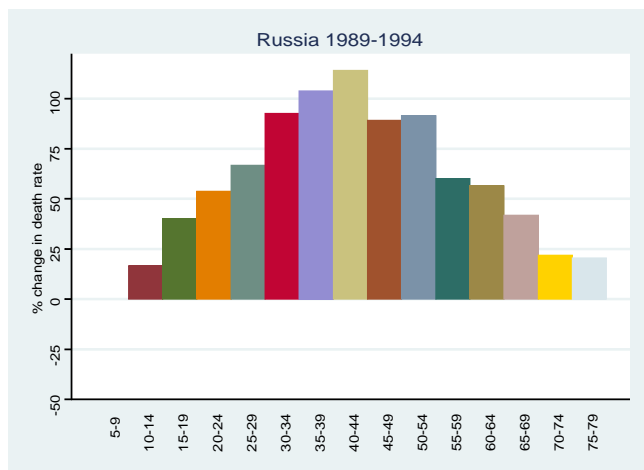


Table 2. The Gender Wage Gap in Transition Countries

Country	Early transition		Late transition	
	Period	% change in GWG	Period	% change in GWG
Kyrgyzstan	1993-1997	.304		
Ukraine	1991-1994	.274		
Russia	1991-1994	.150		
Belarus			1996-2004	.096
Estonia	1989-1994	-.140		
Hungary	1989-1992	-.090	1992-1998	-.02
Poland	1986-1992	-.124		
Czech Rep.	1984-1992	-.049		
Slovak Rep.	1984-1992	-.093		
Slovenia	1987-1991	-.030		
Romania	1985-1993	-.262	1994-2000	.001
Bulgaria	1986-1993	-.087		

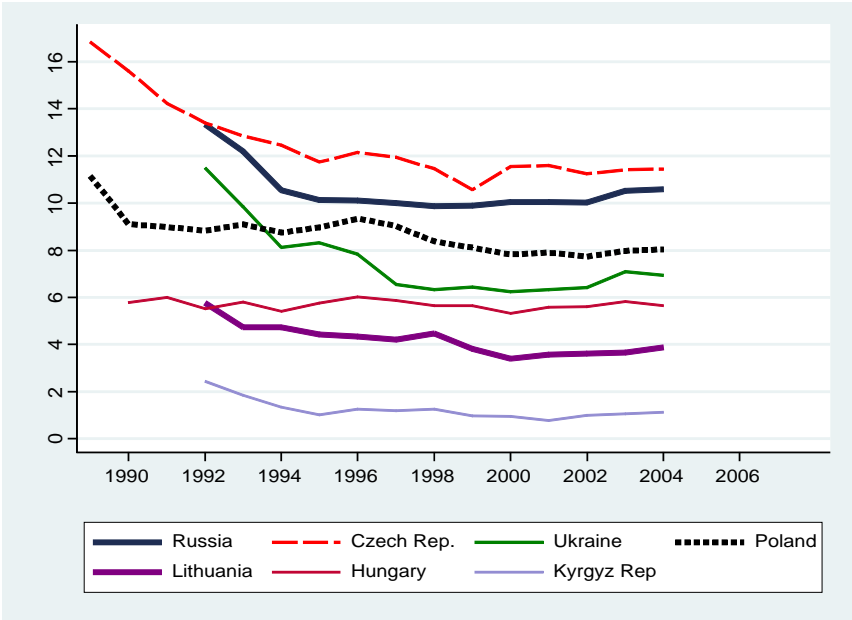
Sources: Anderson and Pomfret 2003 (Kyrgyzstan); Brainerd 2000 (Russia, Ukraine, Poland, Czech Rep., Slovak Rep.); Giddings 2002 (Bulgaria); Jolliffe and Campos 2005 (Hungary); Orazem and Vodopivec 2000 (Estonia, Slovenia); Pastore and Verashchagina 2007 (Belarus).

Figure 10 % Change in Death Rate By Age Group, Men



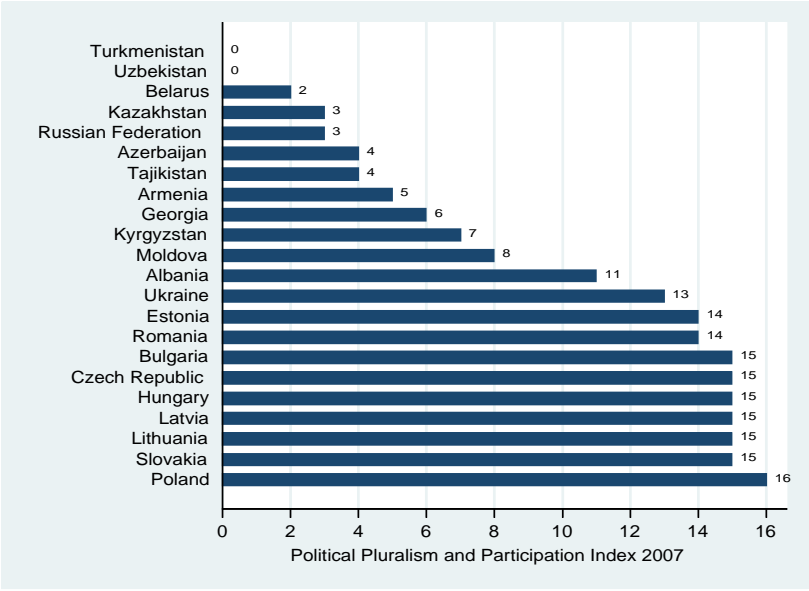
Source: WHO Mortality Database (January 2009 version).

Figure 11. CO2 Emissions Per Capita, Tons



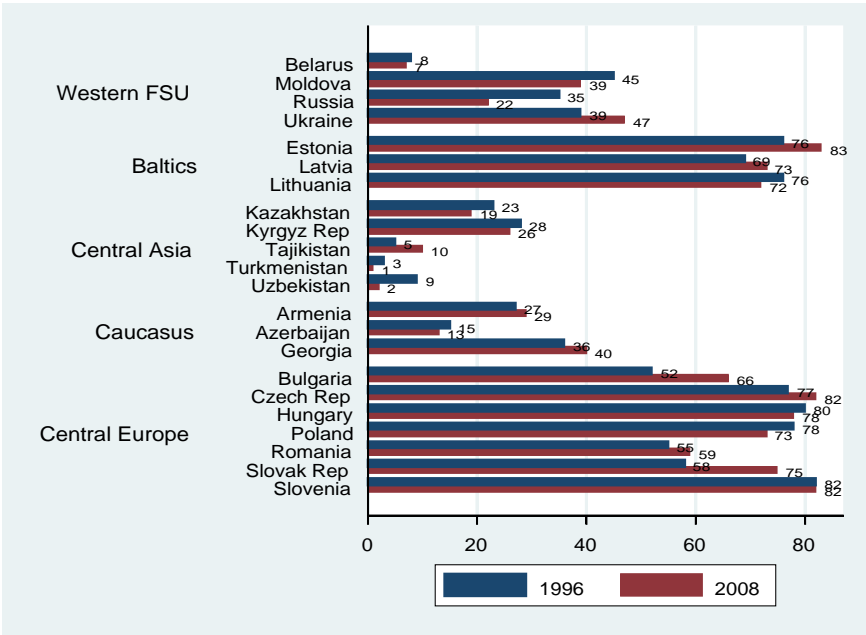
Source: World Bank World Development Indicators

Figure 12. Freedom House Political Pluralism and Participation Index, 2007



Source: Freedom House measure, Quality of Government Dataset.

Figure 13. Voice and Accountability Ranking, 1996 and 2008



Source: World Bank Governance Indicators (Kaufman et al. 2009).

Fig. 14 Correlation Between HDI 2007 and EBRD Transition Index 2009

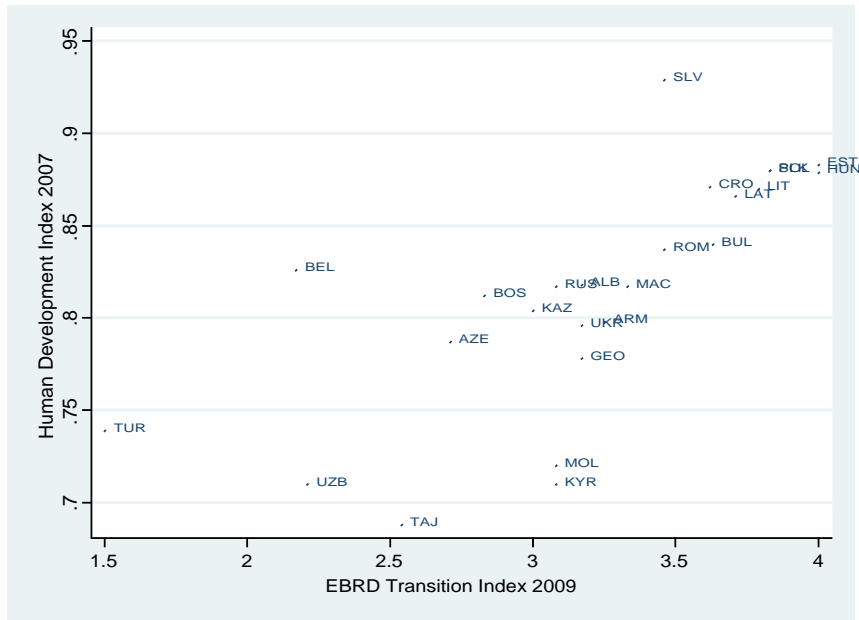
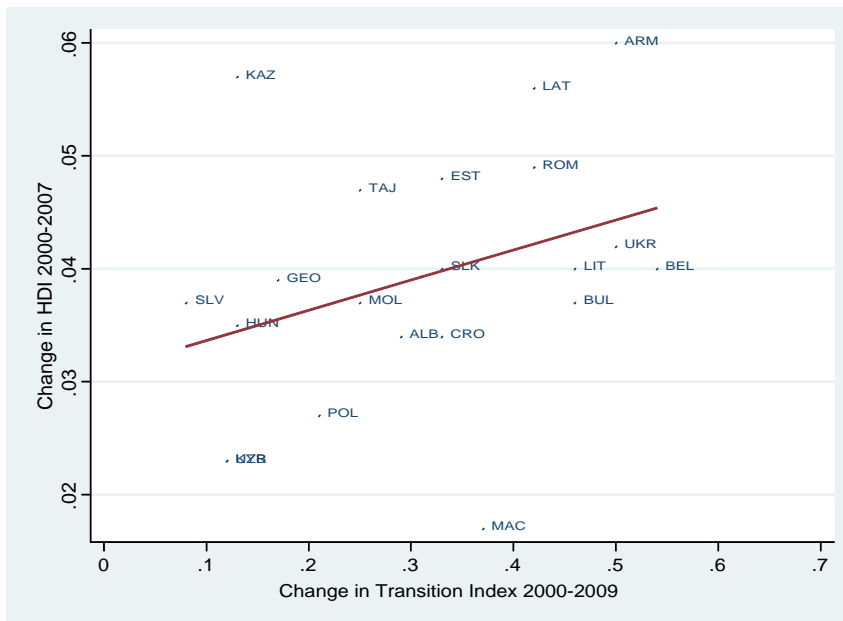


Fig. 15. Correlation Between Change in HDI 2000-2007 and Change in EBRD Transition Index 2000-2009



Endnotes

1. Throughout this paper the following terminology is used to designate different groups of countries within the region: ‘Eastern Europe’ refers to Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovenia, and the Slovak Republic; ‘western former Soviet Union’ is Russia, Belarus, Ukraine, and Moldova; the ‘Baltics’ are Estonia, Latvia, and Lithuania; ‘Central Asia’ is Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan; ‘the Caucasus’ refers to Armenia, Azerbaijan, and Georgia; ‘former Yugoslavia’ includes Bosnia and Herzegovina, Croatia, Montenegro, Serbia, and TFYR Macedonia. The Commonwealth of Independent States (CIS) includes all of the former Soviet republics except for the three Baltic republics.
2. See Flabbi et al. (2008) and Fleisher et al. (2005) for overviews of changes in returns to education before and after transition. Campos and Jolliffe (2007) analyze data on 4 million wage earners in Hungary between 1986 and 2004 and find that returns to higher education increased significantly over this period, and the gains were larger for women than for men.
3. See Stillman (2006) for a survey of the literature on adult and child health in transition countries.
4. For example, Dangour et al. (2003) provides evidence of increased stunting among girls, but not boys, in Kazakhstan in the 1990s.
5. Unemployment rates calculated from labor force surveys define a person as ‘unemployed’ if they are not working and actively seeking work. Registered unemployment rates may be lower than these official unemployment rates because workers may have exhausted their unemployment benefits so no longer register for benefit receipt, or because the benefits are so low or the benefit qualification process so difficult that it is not worthwhile to apply. The official unemployment rates generally understate the true unemployment rate because they exclude ‘discouraged’ workers, i.e. workers who would like to work but have given up searching for a job. For a discussion of these issues and a comparison of alternative measures of unemployment across several transition countries, see Brown et al. 2006.
6. These data are from the TransMONEE database, available at www.transmonee.org. Note that there are difficult issues associated with measuring wage and income inequality across countries (and over time), and the measures can be sensitive to small changes in definition. Mitra and Yemtsov (2006) discuss these issues and examine trends in transition countries using comparable household surveys and find similar trends to those described here. See also Henderson et al. (2008) for further discussion of inequality measures in transition countries.
7. Before 1990, in most socialist countries the primary function of the minimum wage was to act as a base wage for occupational wage scales, where wages were set as a multiple of the base wage. The minimum wage was not viewed as a tool for setting a ‘floor’ for wages, as it is currently used in most countries today.
8. In Ukraine in 2003, for example, the likelihood of earning the minimum wage for women was more than double that of men (Ganguli and Terrell 2006).
9. To quote a few respondents to demonstrate these views: “People who found a good place for themselves in life are very satisfied. But we are not. Just because we missed the last train.” “I

am afraid of retiring. Maybe the situation will have improved for my children, but not for me....I think my future will be difficult and I am afraid” (EBRD 2007; see also CESSI 2007).

10. The quality of mortality statistics in the post-socialist countries is considered to be reasonably reliable. A few exceptions include the likely underestimation of infant mortality rates in the Caucasus and Central Asia (Aleshina and Redmond 2005), questionable adult mortality data for Armenia and Georgia (Badurashvili et al. 2001; Stillman 2006) and possible over-reporting of deaths due to ‘ill-defined conditions’ and underreporting of deaths due to external causes in Russia (Gavrilova et al. 2008).

11. For further analysis of mortality trends in transition economies, see Bobadilla, Costello and Mitchell (1997), Becker and Bloom (1998), and Cornia and Paniccà (2000).

12. This is not to say that the former Soviet countries have avoided the health consequences of environmental disasters. The radiation exposure from the Chernobyl nuclear accident in 1986 led to increased rates of thyroid cancer in the affected areas of Ukraine (OECD 2002); the radiation fallout also appears to have impaired cognitive ability in children exposed *in utero* to the radiation (Almond et al. 2009).

13. See Treisman (2010) for further discussion of democratization trends in Eastern Europe and the CIS.

14. In order to become a citizen of Estonia (and therefore vote in national elections and join political parties), an individual must pass difficult oral and written exams in the Estonian language; this is true even for Russians who lived in Estonia prior to 1991 (Treisman 2010). In 2007 Russians comprised 16.3% of the Estonian population.