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Child Consumption Poverty in South Eastern Europe and the Commonwealth of Independent States

Leonardo Menchini
UNICEF Innocenti Research Centre, Florence

and

Gerry Redmond
Social Policy Research Centre, the University of New South Wales, Sydney

For additional information please contact:

Author Name(s) : Gerry Redmond
Author E-Mail(s) : g.redmond@unsw.edu.au

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Leonardo Menchini
UNICEF Innocenti Research Centre, Florence
&
Gerry Redmond
Social Policy Research Centre, the University of New South Wales, Sydney

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Comments welcome: please contact Gerry Redmond at g.redmond@unsw.edu.au

Child Consumption Poverty in South Eastern Europe and the Commonwealth of Independent States

Abstract

This paper examines consumption poverty in recent years among children in 19 countries of the Commonwealth of Independent States and South Eastern Europe. The main measure used – current household consumption tested against an absolute poverty threshold of US $2.15 converted at Purchasing Power Parity exchange rates – is found to be reasonably robust to sensitivity testing, and to correlate well with non-income indicators of well-being among children. Absolute poverty among children is highest where national income is lowest, and where the density of children in the population is highest. Relative poverty (using the same measure of resources) on the other hand is higher in countries with higher levels of national income.

The paper disaggregates child poverty in two ways – according to household composition, and according to its urban, rural and regional dimensions. The most important findings from a policy point of view are the strong rural character of child poverty in several countries, and the relationship between child population density (at the level of the country, the sub-national region, and the household) and child poverty: where child population shares are higher, child poverty is also higher. This relationship, moreover, may have strengthened over time. Child population density needs to be seen more as a trigger to redistribution. In addition, the paper finds that in some countries, poverty among children of single parents is mitigated by a number of factors particular to the region, in particular migration and remittances. However, parental migration to economically support children raises important questions about material versus other aspects of child well-being that warrant further analysis.

Child Consumption Poverty in South Eastern Europe and the Commonwealth of Independent States

Introduction

This paper considers recent evidence on child poverty in the 19 post communist countries of the Commonwealth of Independent States and South Eastern Europe. The analysis focuses on material poverty, defined as per capita household consumption. Children in this region have experienced considerable changes in their fortunes since the early 1990s, and a whole generation has arguably suffered greatly from the economic and social effects of the transition. In recent years, economies in the region appear to have turned the corner, and average incomes are now generally increasing. Nonetheless, this paper shows that severe problems remain, not least because recovery has been uneven. In particular, people in rural areas have benefited rather less than those in the cities.

The analysis aims to achieve two things in particular. First, it sets out to show that household consumption is an appropriate measure of children's well-being in the region, that it is possible to measure robustly, and that absolute poverty in terms of household consumption is correlated with other forms of deprivation. The analysis also shows that relative measures of household consumption poverty are of value for examining social exclusion faced by children. Second, the paper seeks to examine two hypotheses: (a) that poverty in the region is closely related to demography, and that high concentrations of children, particularly in individual households, but also at the level of the region within countries, and at the level of countries themselves, are associated with high child poverty rates; and (b) that the relationship between household composition and child poverty is strongly influenced in some countries by migration and remittances, which may be one explanatory factor for lower poverty rates among children in single parent families than among children in couple families.

These issues point to the need for greater public investment in children across the region – both in those countries where the child population continues to grow, to ensure that poverty is not reproduced with each new generation, and also in those countries where the child population is shrinking, sometimes at an alarming rate, to ensure that there is sufficient public support for families to help with raising children. These issues also raise important questions about how public redistribution policies relate to the distribution of child populations within countries, and how some households' responses to poverty, although they may raise children's living standards, also have important non-material side effects that need to be taken into consideration. For example, the migration of parents and their subsequent remittances may increase the material well-

being of the children they leave behind. But these children may suffer in other ways as a consequence of the absence of parents.

In carrying out this analysis, we use aggregate data and calculations from other sources, particularly a recent study by the World Bank (2005) to paint a broad picture of child poverty in nearly all countries across the region. We also use original analysis of household survey microdata for five countries to describe poverty in the region in greater depth, and to test the main hypotheses. While all countries in the region have unique characteristics that set them apart from other countries, the five for which we have microdata – Albania, Bulgaria, Moldova, Russia and Tajikistan do at least cover a broad range, in terms of geography, and in terms of economic development.

We begin our analysis with an examination of the region. Section 1 provides a brief summary of the context of child poverty – the changes that accompanied economic and social transition, and the recent period of economic growth. Section 2 compares child poverty across most countries in the region using a US$2.15 threshold proposed by the World Bank (2000, 2005). Section 3 examines the sensitivity of child poverty statistics to changes in assumptions, and examines relative poverty in a selection of countries. Section 4 looks at household structure and child poverty, focusing in particular on large families, and the situation of children in single parent families. Section 5 examines urban and rural differences in child poverty, and the relationship between child poverty and child population in regions within countries, and Section 6 concludes.

1.   The heritage of communism and a decade of transition

Poverty and inequality did not suddenly appear in CIS and SEE countries at the end of communism. Already by the mid 1980s, economic divergence was growing in the Soviet Union. In particular, average earnings grew more rapidly in Russia than in the already poorer Central Asian republics. Atkinson and Micklewright (1992) argue that within republics of the Soviet Union too, the dispersion of earnings grew during the 1980s, in many cases to above the level found in the United Kingdom in the same period. Flaherty (1988) demonstrates a similarly widening gap between the different republics of the Federal Republic of Yugoslavia from the 1970s onwards.

The fall of communism resulted in the fairly rapid creation of 15 countries out of the Soviet Union, and five countries out of FR Yugoslavia.[1] Of the 19 countries included in this analysis, only three pre-date the end of communism. Thus the end of the communist era heralded not only a time of economic crisis and declining living standards, but in many cases also of armed conflict and nation-building. Often, infrastructure was

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[1] In May 2006, a sixth country was added to the former Yugoslavian states, with the people of Montenegro voting in favour of independence from Serbia.

destroyed and economic recovery delayed. In Tajikistan, for example, public expenditure effectively collapsed during the civil war years of 1992-95. The uncertain legitimacy of post-communist regimes, moreover, coupled with the liberalization of markets and in some cases conflicts that were perpetuated for personal gain, contributed to public disillusion with the institutions of the state, rendering regulation and tax collection ineffective, with flow on effects for all areas of state activity, not least policies to protect people against poverty, and the provision of public and social services.

Table 1 shows that in most of the 19 countries in the region, GDP per capita declined between 1990 and 1998. The three countries that are now EU applicants - Croatia, Bulgaria and Romania succeeded in recovering early losses in average living standards by the end of the 1990s, as did Albania, Macedonia, Belarus and Uzbekistan. Other countries performed less well. In particular, the countries of Central Asia started off from a low base in 1990, and mostly experienced large declines in GDP through the 1990s. As GDP declined, so did public expenditure, including spending on social services that children had traditionally relied on. In ten countries, the decline in overall public expenditure as a percentage of GDP was greater than a tenth, suggesting huge falls in real terms, once falls GDP itself are factored in. In Armenia and Georgia, declines in real government expenditure on health care and education were precipitous. Romania and Belarus stand out as notable exceptions where public effort in heath care and education appears to have increased notably over the 1990s.

[**Table 1** here]

Associated with declines in national income and public expenditure were growth in unemployment, informal employment, a return to the land, and increased migration. In Russia, 84 per cent of working age men and women were in employment in 1989. By 1999, this figure had dropped to 71 per cent.[2] While formal employment declined, employment in agriculture often rose, as Figure 1 shows. Some of the biggest increases were in Moldova and Kyrgyzstan, where by 1999 about half of all employment was in agriculture. The retreat to agriculture, very often subsistence in nature, was spurred in part by land redistribution policies implemented by several governments in the region (World Bank, 2005). While it served as a coping strategy for households to protect their food sources during the economic crisis of the 1990s, it may also have had longer term detrimental impacts on rural workers' skills and earning capacities, and child well-being, not least because capital investment and productivity among small farms was often low, and the capacity to take advantage of economic opportunities was often limited. When recovery came, it bypassed rural areas in many countries. In many

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[2] Data from the MONEE Project database, UNICEF Innocenti Resarch Centre, Florence. www.unicef.org/irc

countries too, migration emerged as a major response to the problems associated with the transition. Albania, Bosnia-Herzegovina, Kazakhstan and Moldova all saw large outflows of people, while Russia experienced a considerable inflow. As this analysis later shows, remittances from migrants have become an important influence on children's living standards in some countries.

[**Figure 1** here]

Declines in overall public expenditure, and in expenditure on social services, were also accompanied by increases in income inequality and poverty. In several countries, notably Russia, Moldova, Armenia, Georgia and Tajikistan, not only had inequality levels surpassed OECD averages by the late 1990s, but resembled those found in several Latin American countries (see Szekely and Hilgert, 1999). UNICEF (2001) estimates that by the late 1990s, the majority of children, in several countries, particularly in the Caucasus and Central Asia were living in households with incomes of less than what the World Bank (2000) describes as a very minimum consumption level of $2.15. In these countries too, problems of severe under-nutrition of children, and of very high rates of infant mortality, became apparent during the 1990s. In Tajikistan in 1996, four in ten of all children under five were small for their age (or stunted, indicating severe under-nutrition), as were a third of children in Albania and Uzbekistan. These figures compare with 10 per cent in Brazil and Turkey in the 1990s, and 2 per cent in the US (UNICEF, 2001). Survey data also suggest that infant mortality rates during the 1990s were at levels seen in many poor developing countries. About 60 out of every 1,000 children died within a year of their birth in Kazakhstan, as did 80 per 1,000 in Azerbaijan and Tajikistan (Aleshina and Redmond, 2005).

There is a consistent pattern to trends during the Transition. Across the board – economic decline and return to the land, income poverty, nutrition and mortality among children, and migration – the countries of the Caucasus and Central Asia (and in many cases Moldova) tended to experience the strongest negative effects. Within this group, four out of five countries of Central Asia are also where the child population grew fastest, as Table 2 shows. Most striking across the region are diverging trends in the child population. In the Western CIS and South Eastern Europe fertility declined to considerably below replacement levels during the 1990s. Countries such as Bulgaria and Russia now have some of the lowest fertility rates in the world, and the number of children in Bulgaria is now a third less than in 1990. In most countries of Central Asia on the other hand, fertility, even though declining, has remained above replacement levels, and the child population has continued to rise. In Tajikistan and Turkmenistan the child population increased by a fifth or more between 1990 and 2003. In consequence, the share of children in the overall population varies considerably across country groups. In the higher income EU applicant countries of South East Europe, two in ten or less of the total population are now aged under 18. Children make up a similar proportion of the

population in three of the four countries of Western CIS (Moldova is the exception). In the poor countries of Central Asia, children make up about four in ten or more of their countries' populations (here, Kazakhstan is an exception). Uzbekistan, one of the poorest countries in the region, has 13 per cent of all the region's children.

[**Table 2** here]

Another constant across the region has been the role of the state in social service provision for children. Despite the often large declines in public expenditure experienced during the 1990s, the importance of the state as a source of welfare, both in the form of service provision, and terms of cash transfers, should not be underestimated. In nearly all countries, the vast majority of children are born with the assistance of trained medical personnel. Enrolment in basic education is generally complete. And even in the poorest countries, high percentages of children live in households that receive public cash transfers. Moreover, a number of countries have adopted ambitious plans to reduce poverty using frameworks proposed by international organisations, such as Poverty Reduction Strategies, Millennium Development Goals, and recommendations of the European Union for aspirant members. Many states are now taking an active interest in poverty reduction. An important subtext to this analysis is that the state matters, and that policy can make a real difference to children's lives in the region.

2.   Consumption poverty among children in CIS and SEE

In the first analytical part of this paper, we focus on children living in households with low levels of consumption, an indicator of resources. This is a traditional approach to poverty measurement in both rich and poor countries, and is also the most common used in the countries of Eastern Europe and Central Asia (see for example, World Bank, 2000, 2005). Bradbury (2003) defines poverty as 'an unacceptably low standard of living'. This definition, he argues, encompasses both a statement about empirical conditions and a political judgement about the standard of acceptability. He states that

> 'Typically, researchers define children as poor when their family or household has a particularly low income. This is only a very indirect indicator of the consumption level of children. Children receive goods and services purchased from this income; they receive goods and services directly from outside the household (for example child care, education and health services) and they receive care from their parents.' (Bradbury, 2003, viii).

We supplement the partial picture of children's well-being that an income (or in our case, consumption) poverty analysis may paint by briefly summarising the relationship between household consumption and other indicators of child deprivation in Section 3.

The provision of care by parents is an important background factor in our study of child poverty, household composition and migration in Section 4.

As the large literature on the subject shows, the measurement of consumption (and income) poverty is laden with difficulty. For example, there is no single answer as regards how resources should be counted, where a poverty line should be drawn, whether absolute or relative poverty measures or other inequality based approaches are more appropriate, or how to compare households of different size and composition (Corak, 2005). The approach taken in this analysis is to some extent pragmatic, governed by the properties of the data (and in particular the survey microdata) available to us. We define household consumption as expenditure on food, energy and other utilities, clothing, education, alcohol and tobacco, transport, services such as hairdressing, and leisure activities. We exclude from our definition direct housing costs such as rent, expenditure on durables, and expenditure on health care.[3]

This definition is used by the World Bank (2005) in their study of poverty in Central and Eastern Europe and the CIS. By adopting the same definition, we can draw directly on their estimates of child poverty to expand the number of countries analysed, since the World Bank analysis examines survey microdata for several countries to which we do not have access. For the same reason, we also take the World Bank's lead in choosing a per capita equivalence scale to compare consumption across households of different size, and in using their threshold of US$2.15, converted from local currency to US dollars using Purchasing Power Parity exchange rates which are based on OECD estimates for the year 2000 (see OECD, 2003). The World Bank argues that this threshold is a suitable basic subsistence measure for the Europe and Central Asia region:

> "While in many parts of the world the one-dollar-a-day line is used to measure absolute deprivation, the two-dollar-a-day line is more appropriate for the Europe and Central Asia region because its very cold climate necessitates additional expenditures on heat, winter clothing and food. " (World Bank, 2000, p.34)

The World Bank states moreover that this line is roughly equal to the lowest national absolute poverty lines that are used in some of the poorer countries in the region. As with the dollar a day measure, used to track poverty in developing countries for the Millennium Development Goals, the two dollar measure (as the World Bank commonly calls it) is simple and telegraphic, and tells us something important about the relative

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[3] Analysis by the authors for a limited number of countries shows that the exclusion of these items does not greatly impact on poverty estimates. However, the treatment of housing costs does perhaps need further consideration – in particular the valuation of imputed consumption of owner occupied housing, and its treatment in terms of poverty.

well-being of people (and children) across countries. For these reasons, Deaton (2003) and Ravallion (2002) defend it. On the other hand, Reddy and Pogge (2002), and Kakwani (2004) argue that this measure undercounts the poor, and that the purchasing power parities used to construct formally equivalent poverty lines are seriously flawed. They argue instead in favour of nationally defined poverty lines, which however we do not use in this analysis for reasons discussed in Section 3 below.

Figure 2 presents data on overall and child consumption poverty rates according to the $2.15 measure in 14 countries in the region around 2002. Here children are defined as under 16 years of age. Across the 14 countries, about one in four is poor according to this definition. There are three distinct country groups in the figure. The first group, with the lowest child poverty rates in the region, ranging from 5 to 12 per cent, includes countries of the former Yugoslavia (Bosnia-Herzegovina, FYR Macedonia, and Serbia and Montenegro), plus Bulgaria and Russia. These countries are the richest in the region. They also have low fertility rates (rates in Bulgaria are among the lowest in the world) and the share of children in their populations is generally low (less than a quarter of the total). The next group comprises Romania, Kazakhstan and Albania, with child poverty in the range 21 to 30 per cent. In Albania and Kazakhstan, children comprise a third of the total population, but in Romania, they comprise little more than a fifth. Given this fact, coupled with its relatively high average income and its status as an EU applicant country (Bulgaria and Romania are currently due to join the EU on 1 January 2007), the child poverty rate in Romania seems especially high, perhaps due in part to the very high poverty rate experienced by Roma children, as well as the very high levels of rural poverty.[4] Among the remaining countries - Uzbekistan, Moldova, Georgia, Tajikistan and Kyrgyzstan - more than half of all children are poor. In Tajikistan and Kyrgyzstan, close to four in five children live in households with less than $2.15 consumption per person per day. In Tajikistan, children comprise half the total population, the biggest share among all the countries in the region.

[**Figure 2** here]

Five of the 19 countries covered by this analysis – Azerbaijan Belarus, Croatia, Turkmenistan and Ukraine – are not included in Figure 2. Child poverty statistics for these five countries are either not available in comparable form, or appear to the authors to be unreliable. In particular, there are almost no useful statistics on poverty available for Turkmenistan, and the country is not well covered in this analysis. In general,

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[4] Zamfir et al (2005) show that while Roma children represent 5.3 per cent of all children, they account for 17 per cent of poor children, and 26 per cent of severely poor children (both poverty and severe poverty defined according to national criteria). Figure 4 in this paper also shows that child poverty in Bulgaria has a strong ethnic dimension.

however, Belarus and Croatia are likely to tend towards the left of Figure 2, while Azerbaijan is likely to tend more towards the right, with Ukraine and Turkmenistan more in the middle.

The statistics on figure 2 suggest a serious and ongoing problem of child poverty in the region, particularly considering the very low threshold used. This problem is clearly most serious in Moldova and the countries of the Caucasus and Central Asia. Figure 3 nonetheless shows that in almost every country, the proportion of children in living in households with consumption of less than $2.15 per capita has declined since the late 1990s, having peaked in most countries for which there are data in about 1998 or 1999, in the aftermath of the Russian financial crisis. (There are few data available for any country in the region that allow robust comparison of child poverty between the early and late 1990s, during which period poverty almost certainly increased.) Particularly notable is the decline in Tajikistan from 92 to 76 per cent of children between 1999 and 2003, during a period of continued population growth among children. In Moldova the proportion of children in poverty fell from 85 to 53 per cent over the same period, but this was probably helped by a continuing decline in the child population. The child poverty rate in Romania also fell considerably over the late 1990s and into the new century, but was nonetheless no lower in 2003 than it had been in 1998, even though the child population had declined by almost a fifth in this period. In both Georgia and Uzbekistan, the child poverty rate was on a worryingly upwards trend in 2003.

[**Figure 3** here]

Table 3 shows relative risks that people in different age groups in the population will fall below the $2.15 poverty line, where a risk of 1 indicates that an age group is no more or less likely than the average to fall into poverty. In every country, poverty risks are greatest for young children, gradually decreasing with age. In a few cases (Georgia, Moldova, Russia) the poverty risk increases again for the elderly, while in other countries, it continues to decline. The gradient of increase in poverty risk with decreasing age is steepest in Russia and Bulgaria where relatively few people fall below the $2.15 threshold, but flatter in the case of Tajikistan and Kyrgyzstan, where most people are poor. The relatively higher poverty risk for younger children in part reflects life cycle issues – young children are likely to have younger parents who have not yet reached their earnings peaks. But they also reflect the poor level of financial and other support given by states to young children in the region (see Stewart and Huerta, 2005). This lack of support is evident in both countries where the child population is increasing, and in countries where it is declining.

[**Table 3** here]

3.   Alternative poverty measures

How robust are the poverty estimates presented in Section 2 above? As emphasized in Section 1, any estimate of poverty is the result of a series of value-based technical decisions and assumptions. Annex I shows some analyses of sensitivity for the poverty statistics for the five countries (Albania, Bulgaria, Moldova, Russia and Tajikistan) for which we have microdata. Findings can be briefly summarized as follows:

- Varying the $2.15 poverty line by plus or minus ten per cent does not greatly alter the proportions of children in poverty, or the relative rankings between countries, suggesting that there is little "bunching" of children around this poverty line. Choosing another absolute poverty line of $4.30 PPP per capita does not alter the ranking of countries in terms of poverty rates.

- In four out of the five countries, varying the equivalence scale does not change the relative positions of children and the elderly– some very strong assumptions about economies of scale would need to be made before the proportion of elderly people falling below the $2.15 threshold exceeded the proportion of children below the threshold. In Moldova, however, a small change in the equivalence scale does change relativities between children and elderly quite significantly. In the case of Bulgaria, our conclusions are somewhat at variance with those of Lanjouw et al (2004), who find that poverty relativities among children and the elderly in that country are highly sensitive to the choice of equivalence scale. However, the poverty lines used in both analyses are different, and the data used by Lanjouw et al for Bulgaria are for 1995.

- In all five countries examined, the average gap between the consumption of households with children and the $2.15 threshold is high, ranging from about a fifth of the $2.15 poverty threshold in Albania, to two fifths (or over US$0.80 in PPPs) in Tajikistan. This confirms the finding noted above that children are not bunched near the poverty line, and suggests that most children who are poor would need quite a boost to their consumption in order to cross the $2.15 threshold. This is in line with Stewart and Huerta's (2005) finding that social security payments across the region, whether targeted at those with the lowest incomes or not, tend to have little impact in terms of lifting children out of poverty.

- For most available indicators, there is a reasonably strong relationship at the level of the individual child between poverty among children and deprivation in terms of outcomes, such as overcrowded housing, access to water and sanitation, and enrolment at school (see Annex 1 Tables A1.3 and A1.4). There is also a strong positive relationship at the regional level in several countries between child poverty rates and infant mortality rates (see the example for Russia on Annex 1

Figure 1.1). The strong correlation between household consumption and more direct outcome measures tends to underline the usefulness of the former as an indicator of children's well-being. However, household consumption by no means captures all aspects of children's well-being. Baschieri and Falkingham (2006) show that in the case of Albania, the relationship between under-nutrition and poverty among young children is weak, and also that different indicators can be widely dispersed across populations of children (and even populations of poor children), so that those who miss out on school are not always the same as those who live in poor housing conditions, or who lack easy access to clean drinking water. Household consumption can reveal a lot about children's well-being. But it does not reveal the whole story.

Relative poverty among children was also estimated for the five countries for which we have access to microdata, and the results are worth considering at greater length, because they tell a different story to that told by the absolute poverty statistics. While it is possible to argue that relative poverty can lose much of its meaning where even the median is below a very low absolute threshold such as the $2.15 poverty line (this is the case in some countries in the region, for example Tajikistan), there are two reasons why we believe it is nonetheless important to monitor relative child poverty, even in the poorest countries. First, while economic growth, as shown above, may be associated with strong declines in absolute poverty rates, it may also be accompanied by an increase in relative poverty, if inequality in the bottom half of the income distribution rises. Relative poverty measures can be used as a check on the fairness of the distribution of economic growth, particularly where such growth has been rapid, as has happened in the region since 1998. We do not have data to examine trends in relative child poverty in the region. However, Zamfir et al (2005) suggest that in the case of Romania, relative poverty among children did not decline at all between 2000 and 2004, in spite of a substantial fall in absolute poverty over this period.

The second reason for monitoring relative child poverty even in poorer countries is because research shows that children themselves are often aware of how their living standards may differ from those of their peers, and can sometimes experience exclusion from the activities that their peers engage in because of their relative poverty (Micklewright, 2002; Van der Hoek, 2005). Arguably, children (and their parents) are more likely to compare themselves, not with ' the average child', but with children in their age group.[5] If relative poverty rates among a particular age group of children are

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[5] Children may also compare themselves just with children in their immediate community, for example, the school that they attend. However, they (or their parents) may also be aware of their community's standing in relation to other communities. Among smaller countries such as Bulgaria and Moldova, it is plausible that children and their parents develop a national perspective in assessing their relative well-being. However, in large countries such as Russia, a

notably lower than relative poverty rates among all children (even where absolute poverty overall may be high), this may suggest a lesser degree of social exclusion than the overall poverty rate implies. Moreover, greater equality in living standards among children of similar age suggests perhaps greater equality in opportunities for growth and development.

Table 4 shows relative poverty statistics all children, and only children aged 0-6. In each case, the poverty threshold is 60 per cent of median household consumption with a per capita equivalence scale. However, the population from which the median is calculated changes: from all persons (the first and third rows of poverty statistics in the table), to all children (the second and fourth rows), and just children aged 0-6 (the fifth row). In Albania, Moldova and Tajikistan, all the relative poverty lines are below the $2.15 PPP threshold, while in Bulgaria and Russia they are all above. When measured against the 'all persons' poverty line, relative poverty among all children and among young children is highest in Bulgaria, Moldova and Russia, and somewhat lower in Albania and Tajikistan. When measured against the 'all children' and the 'children aged 0-6' thresholds, however, children's poverty is clearly highest in Bulgaria and lowest in Albania, suggesting perhaps a greater degree of social exclusion among children in the former country.

[**Table 4** here]

It is also worth comparing the different poverty statistics within each country for the 0-6 age group. As the population from which the poverty line is calculated changes from 'all persons', to 'all children' to 'children aged 0-6', the relative poverty rate falls furthest in Albania (from 21 to 14 per cent) and Moldova (from 31 to 17 per cent), and to a lesser extent in Russia and Tajikistan (from 28 to 21 per cent, and from 21 to 16 per cent, respectively). This suggests that in these countries there is rather more homogeneity in terms of living standards among young children (or at least, those in the poorer half of the population) than among children overall. This may be because young children's parents are likely to be at a similar stage in their earnings and career cycles. If young children (or their parents) compare their material well-being with other young children of their age, then they may feel less relatively deprived in these countries than if they compare their well-being with all children, or all people. Moreover, if opportunities for children's intellectual and physical development are closely related to their current living standards, then such opportunities are likely to be more equal in these countries than the overall relative poverty statistics suggest.

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national perspective may be lacking, and it is not clear whether children in Irkutsk would compare themselves with children in St Petersburg, or just with other children in Siberia.

In Bulgaria, on the other hand, the poverty rate among children aged 0-6 shifts relatively little (from 33 to 27 per cent) as the population from which the poverty threshold is calculated changes. This suggests that the degree of heterogeneity in living standards among young children in Bulgaria is almost the same as among all children: whether children or their parents compare themselves with the average person, or with the average child, or just with children in their age group, they are almost equally likely to feel socially excluded. This may be due to the structure of poverty in Bulgaria, which is particularly concentrated in two ethnic minority groups – Roma and Turks. Figure 4 shows that although these two groups make up respectively 18 and 10 per cent of all children in the country, with ethnic Bulgarians comprising nearly all of the remaining 72 per cent, they are heavily concentrated in the lowest two or three deciles of the distribution of household consumption. There may be less of a 'life cycle' element to poverty in Bulgaria. Rather, the differences between ethnic Bulgarian children on the one hand, and Roma and Turk children on the other, are likely to be reflected not only in higher levels of social exclusion now for the latter, but also in correspondingly unequal opportunities for growth and development in the future.

[**Figure 4** here]

While this section and Section 2 above have mostly compared poverty as measured by household consumption across the region at the national level, Sections 4 and 5 will disaggregate these data according to family composition, and according to geography (urban/rural and regions within countries). These two disaggregations are chosen because they reveal important and policy relevant findings on children's well-being across the region. For the most part, the analysis in the next two sections focuses on only those five countries for which we have survey microdata. Where possible, we supplement this with information for other countries.

4.   Poverty and household composition

There is considerable evidence to suggest that in rich countries, child poverty is strongly associated with household structure. In particular, it is heavily concentrated among children living in large households, and in single parent households (UNICEF, 2000). The analysis in this section shows that poverty among children in large households is also severe in CIS and SEE countries, although the picture of poverty among children in single parent households is somewhat more varied.

Table 5 presents detailed information on household composition and poverty for two countries - Russia and Tajikistan. The two countries differ greatly, not only in terms of child share in the total population (see Table 2), but also in terms of the distribution of children across households. Most notable are the large number of adults who live in households without any children in Russia (almost half of the population, or two thirds of households), compared with the much smaller proportion in Tajikistan (less than one

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in twenty of the population). Also very notable is the very small proportion of persons who live in households with three or more children in Russia (4 per cent of the total population, and just over a tenth of children), compared with the very large proportions in Tajikistan (nearly 60 per cent of the total population, and over 70 per cent of all children), as well as the greater percentage of children who live in households with just one adult in Russia compared to Tajikistan (12 versus 2 per cent).

[**Table 5** here]

Poverty rates for households of different types, however, share some features across the two countries. Common to both is the rough equality in poverty rates among children living in households with just one adult or with two adults. This does not fit with the rich country experience of child poverty. The reasons are likely to vary quite a bit from country to country within the region, and the issue is explored in greater detail below. Common to both countries too are the higher rates of poverty among households with three or more adults. This is to some extent counter-intuitive, since a greater number of adults in a household should imply more economic activity, or perhaps more pension income, and therefore less poverty. However, most households with three or more adults are also more likely to live in rural areas, where economic opportunities tend to be fewer, and poverty rates tend to be higher.

Also common to both countries are the extremely high rates of poverty among households with three or more children. In Russia, the increase in poverty rates as the number of children in the household rises is particularly steep, rising to over 40 per cent among households with three plus adults and three or more children. Across the region, poverty among children in large households is notably higher than poverty among children in smaller households (see Annex 2, Figure A2.1). This has two important implications. First, the child poverty rate is closely related not only to the size of the child population, but also to the concentration of children in large households. Second, in every country, even those with low rates of child poverty, children in large families are especially disadvantaged.

The analysis of Table 5 above considers household composition in very crude terms – the number of adults and children only. In the remainder of the section we look more specifically at the living arrangements of children and their parents, and the poverty rates that children in different arrangements experience. Table 6 organizes children in Bulgaria, Albania, Moldova, Russia and Tajikistan into different household and family composition groups – nuclear family households (that is, just parents and their dependent children aged under 18) and non-nuclear family households, with both parents present, or just one, or no parents present. In all countries, a majority of children live in two parent nuclear family households. The proportion of children living in households comprising only a single parent and her (for the most part) children varies

from 2 per cent in Albania to 16 per cent in Moldova. The remaining 30-40 per cent of children live in households that contain not only their immediate family, but also other adults, often grandparents or grown-up siblings. In Bulgaria, more children of single parents live in non-nuclear than in nuclear family households.

[**Table 6** here]

Table 6 shows that Albania is the only country where children living with a single parent are clearly more likely to be in poverty (as measured by the $2.15 threshold) compared to children living with both parents. In Moldova and Tajikistan (and perhaps in Bulgaria, but sample sizes are small), children living in households containing only a single parent family have relatively low probabilities of falling into poverty compared with the average for their countries. More surprising, children in Moldova and Tajikistan living in households without either parent also have relatively low probabilities of falling into poverty. In Russia, poverty rates change little according to the number of parents present in the household.

The data on Table 6 suggest that children in single parent families (and even in families where neither parent is present), whether they live in extended family arrangements or not, are to some extent protected from poverty, which is not the case in most rich countries. Table 7 decomposes poverty among children in single parent families by cause of single parenthood in Moldova and Russia. This shows a more nuanced picture. In Russia, the most common cause of single parenthood is separation or divorce: 14 per cent of all children live with a single divorced/separated parent. These children experience poverty rates that are not very different to the average. Nine per cent of Russian children live in households with a widowed or never married single parent. Among this group, poverty rates are considerably higher, particularly where the children live in non-nuclear families. In the case of Moldova, children living with a widowed, separated or divorced single parent experience poverty rates not far removed from the averages for children in two parent nuclear and non-nuclear families. However, where at least one parent is a migrant or both parents are absent (we presume them also to be migrants), poverty rates drop to considerably less than the two parent averages.

[**Table 7** here]

The picture that emerges from Table 7 largely confirms Kanji's (2004) findings in the case of Russia, which emphasize the degree of heterogeneity among Russian single mothers. In the case of Moldova, on the other hand, differences in poverty rates among children of single parents appear to be driven by issues surrounding migration. Migration may also be an explanatory factor in lower poverty rates among children of single parents in Tajikistan shown in Table 6. Both countries have experienced very high rates of migration since the mid 1990s. The International Monetary Fund (2005a) cites

reports which estimate that 571,000 people in Moldova could be classified as part of a migration contingent in 2005 – 400,000 who are already abroad, and a further 171,000 recent returnees to Moldova who intend to migrate again. These two groups make up almost four in ten of the working age population in Moldova. Most are between the ages of 20 and 40, and 62 per cent of them married. In common with what is found in other countries with large numbers of out-migrants, married migrants tend to stay abroad for shorter periods than unmarried or divorced migrants. Russia and Ukraine are the most common destinations, followed by Western European countries. On average, migrants send back to Moldova over 50 per cent of their earnings, amounting to US$367 per transfer. Small scale research indicates that the impact of such remittances on family living standards in Moldova is considerable.[6] Notably, the IMF also reports that a large proportion of remittances is spent on education (although for whom, it is not made clear). The IMF (2005b) also reports large remittance flows (90 per cent of them from Russia) also to Tajikistan, which may be worth up to half of GDP for that country. However, it does not present any information on the characteristics of migrants from Tajikistan, or their family circumstances.

The suggestion that remittance flows lift many children (and perhaps especially children in single parent families) out of poverty in Moldova and Tajikistan is a plausible one. However, it prompts important questions about the relationship between children's material well-being and their emotional and intellectual development, what Bradbury (2003) refers to as parental care and home production. It suggests that substantial numbers of parents in the region may be making definitive trade-offs between provision of economic support and non-economic support in seeking to provide for their children. In a study of children of international migrants in South East Asia, Bryant (2005) argues that the migration of parents improves the material well-being of children left behind, which may flow to health and schooling. However, he argues that the social costs of migration in South East Asia (principally the absence of parents) are mitigated to a large extent by the active support of extended families who support the children. The sources of social support for children of migrants from countries such as Moldova and Tajikistan are not currently documented. And while some indications for Moldova suggest that most married migrants leave their country only temporarily (for example, for seasonal work), it is not clear how many children are left without one or both parents for extended periods, or who looks after them during these absences. Considering the size of the migrant populations from these countries, research on these issues is urgently needed.

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[6] Cornia (2004) reports that information in the Household Budget Survey (used in this analysis) on remittances received by households in Moldova is poor, and appears to greatly understate the real impact of remittances on household living standards.

5.   Urban, rural and regional child poverty

In most countries, poverty rates tend to be higher in rural than in urban areas. World Bank (2005) shows that in Kazakhstan 13 per cent of people in urban areas were living in households with per capita consumption of less than $2.15, compared with 31 per cent in rural areas. This pattern is reflected in varying degrees across the region for children, as Table 8 shows for five countries. In Russia and Bulgaria, the proportions of children living in households with less than $2.15 per capita are miniscule in the capital cities (Sofia and Moscow), and vastly lower in other urban areas than in rural areas. In Albania, child poverty in the capital city (Tirana) is slightly lower than in other urban centres, and about a third lower than in rural areas. In Moldova and Tajikistan, on the other hand, while child poverty in the capital cities is relatively lower, there is little difference between rates of child poverty in other urban areas and in rural areas. Cornia (2004) argues that in the case of Moldova, extreme poverty tends to be most acute in small towns, in part because many of their inhabitants (unlike people in rural areas) cannot rely on subsistence farming to provide food, and in part because the towns themselves do not have the industry or economic base to take advantage of national economic growth. Many were developed as one-company towns in the communist era, and have languished in decline since the start of the Transition. Economic expansion has tended to pass them by. In Russia, however, where many small and medium sized towns face similar structural problems of industrial decline, child poverty rates across all regions tend to gradually increase as the size of the city or town diminishes, and the poverty rate is still notably higher in villages and rural areas compared with even the smallest towns (see Annex II Table A2.1).

[**Table 8** here]

Notwithstanding the generally higher child poverty rates in rural areas, Table 8 also shows that differences between children living in large households (with three or more children) in urban and rural areas are often small. In Albania, poverty rates among children living in large households are the same in urban and rural areas. In Bulgaria and Russia, overall poverty rates for children living in rural areas are more than double those for children living in urban areas. Among children in large households, the difference between urban and rural poverty rates is considerably smaller. Children in large households, no matter where they live, are highly vulnerable to poverty.

Table 8 also shows that absolute poverty rates experienced by children living in large households in rural areas of Russia and Bulgaria are actually greater than poverty rates experienced by children in large households in Albania. This finding is surprising given the considerable difference in GDP per capita between the two former countries and Albania: in 2002, GDP for Russia and Bulgaria (US$7,993 and US$7,130 PPP respectively) was about two thirds greater than that for Albania (US$4,830 PPP). Part of

the explanation lies in the greater level of regional inequality in Bulgaria and Russia than in Albania, exacerbated in the Bulgarian case by very large differences in economic well-being between ethnic Bulgarians and minority ethnic groups, particularly Roma (see Section 3 above). While disparities between urban and rural areas in Albania are not insignificant, they are probably minimised by the relative wealth of rural areas in the south of the country (next to Greece), which may have the effect of reducing average rural poverty rates and bringing them closer to urban averages (see World Bank, 2003).

The World Bank (2005) argues that rural poverty has declined less than urban poverty since the late 1990s, because across the region most rural poor people's livelihoods are based on subsistence agriculture. During the 1990s, subsistence agriculture became in many cases a mechanism for coping with the loss of formal employment or other opportunities to earn income, and a resource in the face of uncertainty and food insecurity that rural households may still be reluctant to give up. However, it also means that many rural people often benefit less from economic growth, since they do not have the resources to improve the productivity of their farms, and cannot take advantage of the economic opportunities that growth presents to the same extent that their urban counterparts can (Von Braun and Lohlein, 2003).

Moreover, much of the consumption that contributes to their living standards is not based on cash expenditure but on eating what they produce. In Bulgaria, more than a quarter of the value of all consumption among rural households with children is 'in kind', compared than less than a tenth of consumption among urban households with children. While the value of cash income, for example wages of employees, often increases with economic growth, the value of subsistence food production may not. Indeed, the availability of economic opportunities to earn cash may prompt rural children to leave school early and take up paid work. Research points to this occurring in both Kyrgyzstan and Moldova in recent years (see Ablezova *et al*, 2004; Murrugarra and Signoret, 2003). Or it may prompt children's parents or adult siblings to migrate to where opportunities are more plentiful, leaving the farm more dependent on children's labour, as one study of child labour in Albania attests:

> Child labour in farming can be explained in part by the fact that adult family members have gone abroad or to towns to try to earn more money. If, for example, the father, the elder brother or the uncle is away from the fields, they are replaced by one or more children from the same family, especially during harvesting. (Grumiau, 2004).

Comparison of urban and rural poverty among children is important because it highlights in particular the difficult situation of children in rural areas who not only live in households with lower levels of consumption, on average, but who also have to contend with fewer economic opportunities, as well as inadequate access to services

such as water and sanitation, education and health care (UNICEF, 2004; World Bank, 2005; Stewart and Huerta, 2005). And while urban and rural differences capture some significant aspects of the geographical disparities that children experience in CIS and SEE countries, differences between regions within countries are also important. Every country is subdivided into administrative regions. First order subdivisions (the largest) are usually given the name of oblasts in the countries of the former Soviet Union, and districts, prefectures or provinces in other countries. Russia is divided into 89 oblast-level units. Some of these are ethnic homelands, while others are strictly administrative units. The latter include the federal cities of Moscow and St. Petersburg. Albania is divided into 12 prefectures, while Kyrgyzstan is divided into seven oblasts plus the two cities of Bishkek and Osh. Across the region, first order administrative units have important functions in terms of delivery of social services, and in some cases, in terms local government and policy setting, and tax collection. The distribution of state resources among these administrative units can have an important influence on the availability and quality of services for children.[7]

In general, those administrative units with the greatest concentration of children in their populations also have the greatest concentration of poverty among children. Table 9 presents summary information on the sub-national distribution of child shares in the population, and on the distribution of child poverty, for eight countries. The standard deviations are measures of dispersion in the two indicators, and the correlation coefficients are measures of the extent to which the two indicators are associated. There are notable differences in the dispersion of both child population shares and poverty rates across the eight countries. In Ukraine, child population shares vary between 15 and 23 per cent of the total population in the capital city of Kiev and in the largely rural region of Transcarpathia. In Albania, they vary between 35 per cent in Korçe in the South East, near the Greek border, and 48 per cent in Kukes, in the mountainous North East, next to Kosovo. These differences are significant for child centred policy formulation. Heavier concentrations of children in particular oblasts or districts should trigger appropriate investments to ensure that they are not disadvantaged.

[**Table 9** here]

Across the eight countries on Table 9, child poverty rates also vary considerably, and are invariably lowest in the largest cities. In Russia, child poverty rates range from less than two per cent in St Petersburg to over 50 per cent in the Republic of Tuva in the far east of the country. Such large differences, evident also in several other countries, suggest an enormous gap among sub-national oblasts and districts, not only in living standards, but also in children's life chances. Moreover, the correlation coefficients show that in six

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[7] Heleniak (2005) Provides a fuller account of the administrative division of countries in the region.

of the eight countries for which data are available, there is a strong positive relationship between child population shares and child poverty. Where the child population share is high, the child poverty rate is also high. What is true internationally, that countries such as Tajikistan and Uzbekistan with high child population shares tend to have high child poverty rates, is also true within countries. Child population is a powerful predictor of child poverty.

How have different administrative units within countries fared in terms of child poverty reduction since the late 1990s? Figure 5 shows that in Kyrgyzstan, the relationship between child population and child poverty strengthened between 1998 and 2002. That is, while the overall rate of child poverty declined in Kyrgyzstan, it declined least in those regions with the highest share of children in their populations. In the oblast of Naryn in the centre of the country, for example, where more than 80 per cent of people are classed as living in rural areas and where the child share in the population is greater than in any other region, the child poverty rate was already the highest in the country in 1998, and it declined less than in any other oblast. On the other hand, the rate of child poverty fell more than the national average in Bishkek, the capital and largest city (and also the region with the lowest poverty rate), between 1998 and 2002. In addition, the child share in the population of Bishkek fell by more than the average.[8] This suggests that in Kyrgyzstan at least, reductions in child poverty were accompanied by greater geographical polarization between poor children and those above the poverty line.

[**Figure 5** here]

6. Conclusions

This paper shows that household consumption is a reasonable indicator for considering child poverty and well-being in the CIS and SEE region. Results for absolute child poverty using the World Bank's $2.15 per person per day poverty line (exchanged from local currencies at Purchasing Power Parity exchange rates) are quite robust to alternative assumptions, and correlate well with many other non-income indicators of deprivation (but not all of them). The analysis also shows that relative poverty among children is important to monitor among children in the region, even in poorer countries, since it can reveal whether the fruits of economic growth are being evenly shared, and whether particular groups of children experience perhaps greater social exclusion than others. The analysis reveals that in some countries (for example Moldova), relative

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[8] However, Falkingham and Ibramigova (2004) comment: "Interestingly, it seems that children living in urban areas have been hardest hit by the recent slowdown in economic growth, with urban child poverty rates worsening between 2001 and 2002 whilst those in rural areas continued to improve." This is also consistent with the World Bank thesis that poverty rates in urban areas are considerably more elastic than those in rural areas.

poverty rates are low among very young children, even though relative poverty among all children is high, whereas in other countries (for example Bulgaria), relative poverty is much the same among all children, and among young children. The finding for Moldova is arguably more comforting, given that children (and their parents) are more likely to compare themselves with children of their own age, rather than all children in general.

This paper also highlights the strong relationship between child population and child poverty. In countries with a greater share of children in their populations, the child poverty rate tends to be higher. This is also true of regions within countries, and indeed of households – across the region, households with more children are much more likely to experience poverty. This suggests that policy should pay attention to demography, and that resources need to be better concentrated where the children are. This is equally important for those countries where fertility rates remain high and the child population continues to grow, and those countries where fertility is low and the child population is falling. In all countries, greater public investment in children is needed to ensure that poverty and disadvantage are not reproduced across generations.

Finally, the paper shows that while migration may have a positive impact on poverty rates among children living with just one, or even no parents, this must come at a price. As yet, this price has not been calculated. But there is important research to be done on the trade-offs that parents make between home production and care, and economic support for their children, particularly where that economic support involves migration and separation of parents from children. Where one of the factors influencing parents' choices is the absolute poverty that they and their children experience, understanding better the consequences of their choices for child well-being in the wider sense become urgent indeed.

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Table 1: National income and public expenditure in the 1990s

	GDP per capita 1990 ($US, PPP)	Growth in GDP per capita ($US, PPP), 1990-98 (1990=100)	Change in government expenditure as percent of GDP 1990-98(1990=100)	Change in real public expenditure on health care 1990-98 (1990=100)	Change in real public expenditure on education (1990=100)
South East Europe – EU applicants					
Croatia	7,870	108.3	120	-	-
Bulgaria	5,950	92.4	56	45	66
Romania	5,320	104.3	88	139	115
South East Europe – other					
Albania	2,550	122.7	87		70
FYR Macedonia	5,730	102.4	54	50	98
Bosnia-Herzegovina	-	-	-	-	-
Serbia and Montenegro	-	52.0	-	63	-
Western CIS					
Belarus	4,310	97.9	103	185	112
Moldova	3,040	42.4	157	46	48
Russia	8,340	72.3	73	84	74
Ukraine	6,930	52.8	122	48	-
Caucasus					
Armenia	2700	77.0	91	47	16
Azerbaijan	2,970	67.3	58	46	26
Georgia	4,060	41.6	58	10	15
Central Asia					
Kazakhstan	4,620	78.6	83	40	-
Kyrgyzstan	1,980	70.2	93	68	51
Tajikistan	1,880	36.7	28	-	
Turkmenistan	4,640	53.2	64	-	
Uzbekistan	1,490	92.6	65	51	

Source: MONEE Project database.

Note: GDP data for Serbia and Monenegro represents change in real GDP in national currency. Earlier year GDP for Uzbekistan is for 1991, and for Azerbaijan is for 1992.

Figure 1 Employment in agriculture 1990 and 1999 (per cent total employment)

Country	1990	1999
Uzbekistan	39	39
Turkmenistan	42	49
Tajikistan	45	46
Kyrgyzstan	33	52
Kazakhstan	22	22
Azerbaijan	31	42
Ukraine	20	23
Russia	14	14
Moldova	34	49
Belarus	22	21
Romania	29	42
Bulgaria	19	26
Croatia	15	17
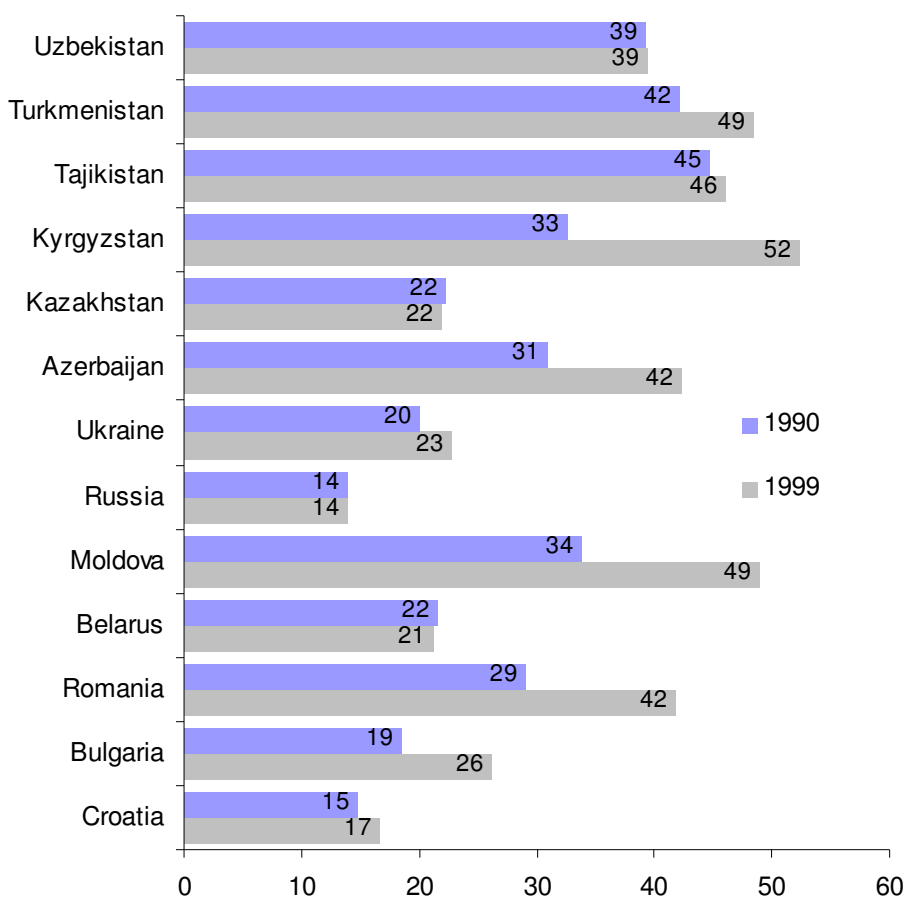
Source: Cazes and Nesporova (2003), Table 3.1., the 1999 figure for Turkmenistan is referred to 1998 and is taken from the World Development Indicators 2004

Table 2: Child population, 1990-2003

	Number of children aged under 18 years 1990 (thousands)	Number of children aged under 18 years 2003 (thousands)	Share of the region's children 2003 (per cent)	Child population as a percentage of total population 2003
South East Europe – EU applicants				
Croatia	1,149	925	1.1	20.8
Bulgaria	2,188	1,459	1.7	18.6
Romania	6,635	4,754	5.7	21.8
South East Europe – other				
Albania	1,261	1,078	1.3	35.0
Bosnia-Herzegovina	1,311	962	1.2	24.4
FYR Macedonia	595	538	0.6	26.4
Serbia and Montenegro	2,916	2,548	3.0	23.9
Western CIS				
Belarus	2,793	2,171	2.6	21.9
Moldova	1,439	971	1.2	26.8
Russia	40,174	30,548	36.6	21.3
Ukraine	13,325	9,843	11.8	20.6
Caucasus				
Armenia	1,243	964	1.2	30.0
Azerbaijan	2,743	2,798	3.3	34.1
Georgia	1,582	1,110	1.3	25.6
Central Asia				
Kazakhstan	6,066	4,771	5.7	32.1
Kyrgyzstan	1,894	1,984	2.4	39.8
Tajikistan	2,588	3,094	3.7	47.6
Turkmenistan	1,721	2,197	2.6	43.2
Uzbekistan	9,522	10,850	13.0	42.7

Source: MONEE Project database.

Figure 2 All persons and children aged 0-15 under the $2.15 poverty line, 2002-03 (per cent)
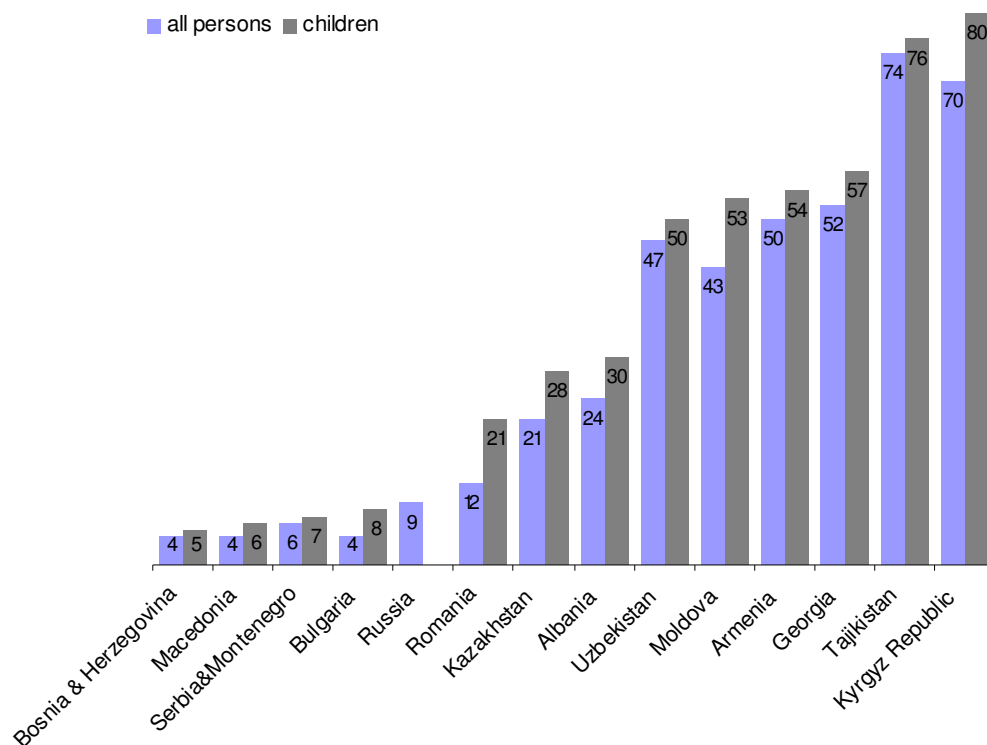
Source: World Bank (2005), Annex tables 2 and 4.

Figure 3 Children living under the $2.15 poverty line, 1990s-2003 (per cent)
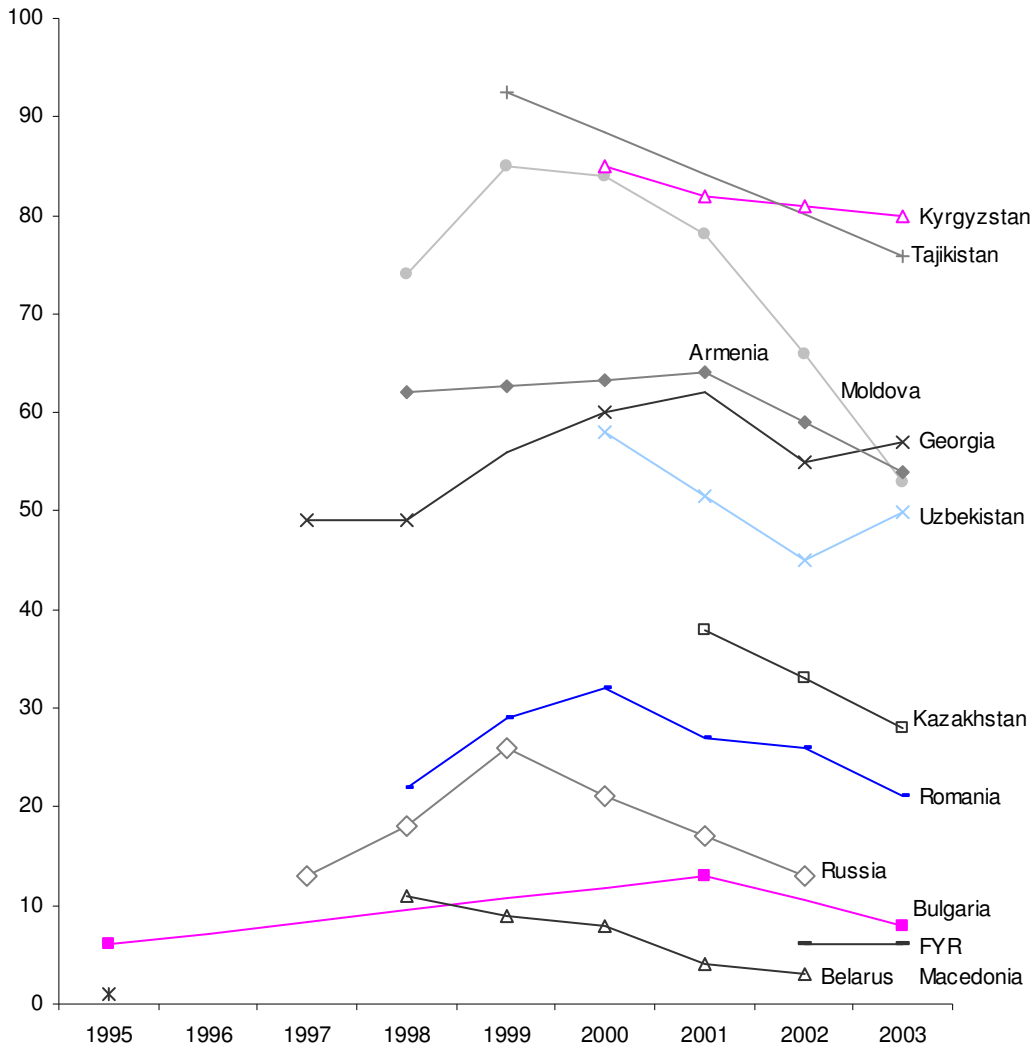
Source: World Bank (2005)) *Growth, Poverty, And Inequality: Eastern Europe and the Former Soviet Union*, The World Bank, Washington, DC. Annex Table 4.

Note: Measures are described in more detail in notes to Figure 3.1.

Table 3 Poverty risks by age 2002-03 (1=average risk)

	Russia 2002	Bulgaria 2003	Albania 2002	Georgia 2002	Armenia 2003	Kyrgyzstan 2002	Moldova 2003	Tajikistan 2003
0-6 years old	1.79	2.18	1.36	1.20	1.15	1.13	1.24	1.07
7-14years old	1.47	1.64	1.28	1.09	1.06	1.13	1.17	1.02
15-17 years old	1.22	1.33	1.20	1.00	1.03	1.11	1.09	0.97
18-65 yearls old	0.90	0.88	0.86	0.96	0.97	0.94	0.93	0.97
66 years and older	0.93	0.61	0.72	1.02	0.93	0.73	0.98	0.98

Source: calculated from Household Budget Surveys and Living Standards Measurement Surveys. Data for Russia, Bulgaria, Georgia, Armenia and Kyrgyzstan were calculated by the World Bank. Calculations for Albania, Moldova and Tajikistan were made by the authors.

Note: Poverty estimates refer to individuals, and are based on current household consumption (excluding consumption of health care, durables and rental payments). Equivalence scale equals 1. Poverty line is US $2.15 at Purchasing Power Parity exchange rates. Relative risks represent the probability that a person in a given age group will be poor, divided by the average risk for the country's entire population.

Table 4 Relative child poverty (per cent)

	Albania 2002	Bulgaria 2001	Moldova 2003	Russia 2003	Tajikistan 2003
Poverty line is 60 per cent of median consumption of :					
			Poverty among all children		
All persons	19.0	25.6	24.5	25.9	18.2
All children	13.5	23.6	17.1	20.6	16.8
			Poverty among children aged 0-6		
All persons	20.9	32.9	31.4	28.1	20.7
All children	15.1	29.8	22.8	22.4	19.1
Children aged 0-6	13.7	27.0	17.0	21.0	16.1

Source: authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey 2001, Moldovan Household Budget Survey 2003, Russian NOBUS Survey 2003, and Tajikistan Living Standards Survey 2003. Note: Poverty lines are calculated on the basis of household consumption, with an equivalence scale of 1, and each person, or child, or child aged 0-6, counted once.

Figure 4 Distribution of children across consumption deciles by ethnic group, Bulgaria 2001
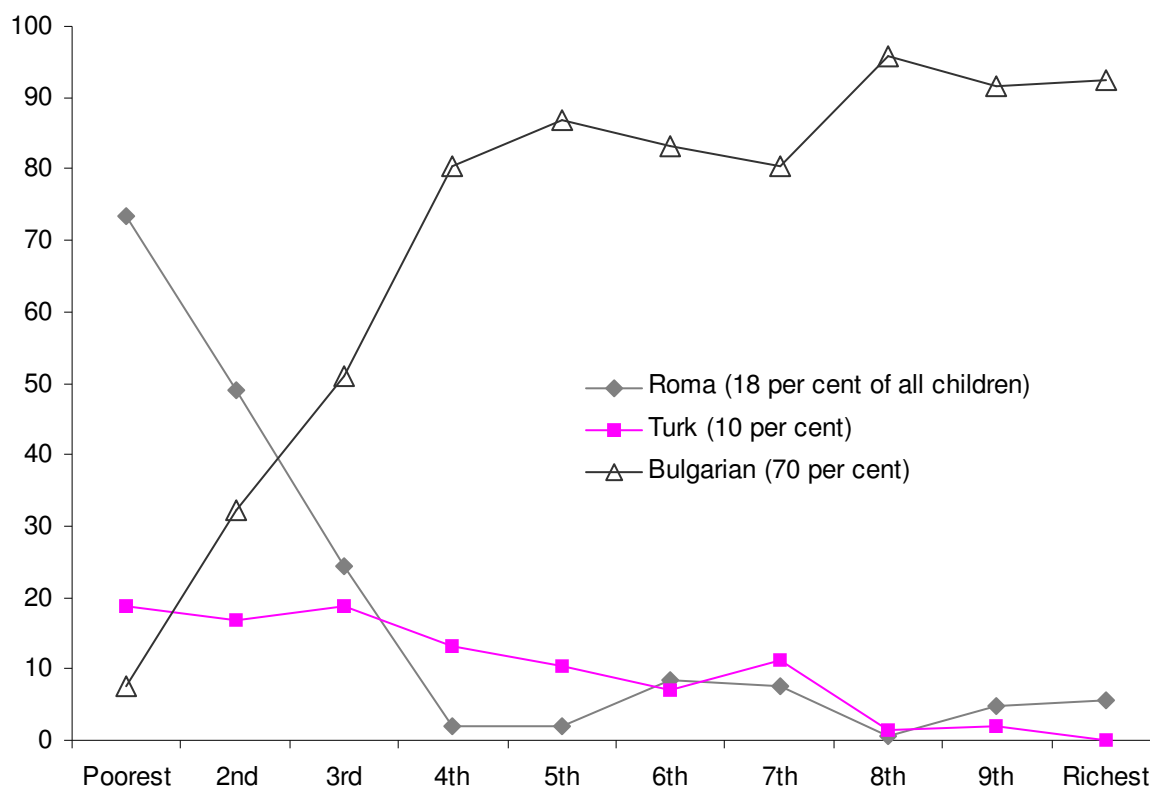
Source: authors' calculations, from Bulgarian Integrated Household Survey 2001. Notes: Consumption deciles are calculated for the entire population, using an equivalence scale of 1. The percentages in parentheses after the ethnic group names in the legend refer to the proportion of all children who belong to the different ethnic groups. These do not add up to 100 per cent because of missing data, and because very small proportions of children may belong to other ethnic groups.

Table 5 Household composition and income poverty in Russia and Tajikistan, 2003 (per cent)

	Russia			Tajikistan		
	Proportion of all persons in each household type	Proportion of all children in each household type	Proportion of all persons in poverty ($2.15 PPP)	Proportion of all persons in each household type	Proportion of all children in each household type	Proportion of all persons in poverty ($2.15 PPP)
3 + adults, no children	18.3	0.0	8.1	2.7	0	52.0
2 adults, no children	20.6	0.0	6.9	1.1	0	28.9
1 adult, no children	8.8	0.0	3.8	0.6	0	28.4
3 + adults, 1 child	13.9	16.2	12.3	6.3	2.6	52.9
2 adults, 1 child	14.9	24.9	9.2	1.7	1.2	41.8
1 adult, 1 child	2.9	7.4	9.8	0.3	0.4	27.7
3 + adults, 2 children	4.6	8.7	20.9	11.2	7.5	65.9
2 adults, 2 children	10.9	27.3	16.4	4.0	4.3	48.6
1 adult, 2 children	1.2	4.1	18.8	0.6	0.8	50.0
3 + adults, 3 + children	1.1	2.7	43.3	49.3	50.9	75.7
2 adults, 3 + children	2.6	7.9	34.1	21.2	30.7	69.6
1 adult, 3 + children	0.2	0.9	40.7	1.0	1.6	65.5

Source: Authors' calculations, based on Russia NOBUS Survey 2003 and Tajikistan Living Standards Survey 2003.

Table 6 Child poverty by household type (per cent)

	Albania 2002	Bulgaria 2001	Moldova 2003	Russia 2003	Tajikistan 2003
			distribution of children by household type		
Nuclear family households					
- 0 or 1 parent	2.2	5.2	16.3	14.5	4.3
- 2 parents	62.8	52.1	53.7	60.3	51.4
Non nuclear family households					
- 0 parents	0.8	2.4	7.3	3.2	1.0
- 1 parent	1.5	7.2	8.5	9.8	4.6
- 2 parents	32.7	33.1	14.2	12.3	38.8
			Children in poverty		
Nuclear family households					
- 0 or 1 parent	35.4	(5.3)	47.0	16.8	60.5
- 2 parents	24.8	10.7	53.3	15.6	67.9
Non nuclear family households					
- 0 parents	-	-	52.4	17.7	55.6
- 1 parent	(36.5)	19.4	62.8	20.1	76.1
- 2 parents	29.7	15.2	71.6	19.1	75.1
Overall child poverty	26.8	12.8	55.6	16.7	70.6

Source: Authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey 2001, Moldovan Household Budget Survey 2003, Russian NOBUS Survey 2003, and Tajikistan Living Standards Survey 2003. Note: Poverty threshold is US$2.15 PPP. No percentages are provided where the sample size on the cell is less than 60. Percentages in parentheses denote sample sizes of between 60 and 100. A nuclear family household consists only of parents and their dependent children aged under 18. All other households are classified as non-nuclear family.

Table 7 Child population and child poverty by cause of single parenthood in Moldova and Russia, 2003

| | children distribution | | poverty rates | |
	nuclear families	non nuclear families	nuclear families	non nuclear families
Russia:				
Complete family (dual-parent)	60.3	12.2	15.6	19.1
Incomplete family (single parent)				
- parent is single	1.3	2.2	21.7	28.8
- parent is widow (-er)	4.1	1.1	17.8	26.8
- parent is separated or divorced	8.3	5.3	16.5	15.3
- one parent is absent for other reason	0.7	1.2	..	19.3
- both parents are absent (reasons not specified)	0.1	3.2	..	17.7
Moldova:				
Complete family (dual-parent)	53.7	14.2	53.3	71.6
Incomplete family (single parent)				
- parent is single	0.7	1.1	..	..
- parent is widow (-er)	3.3	0.8	57.0	..
- parent is separated or divorced	4.6	3.8	54.2	65.6
- at least on parent is migrant	7.4	4.4	38.2	54.2
- one parent is absent for other reason	0.1	0.1	..	..
- both parents are absent (reasons not specified)	0.1	5.6	..	51.2

Source: Authors' calculations from Russia NOBUS Survey 2003 and Moldova Household Budget Survey 2003.

Note: Poverty is defined as a child living in a household with a per capita income of less than $2.15PPP.

Table 8 Income poverty among children by place of residence (urban/rural), 2003 (per cent)

| | Child poverty rates | | | Poverty rates among children in households with 3+ children | | |
	capital city	other urban areas	rural areas	capital city	other urban areas	rural areas
Albania (2002)	18.3	21.9	30.3	40.2	41.7	40.1
Bulgaria (2001)	1.0	9.2	24.0	-	31.3	45.9
Moldova (2003)	29.3	56.9	61.3	34.3	66.7	73.7
Russia (2003)	4.0	12.7	26.6	-	29.0	44.2
Tajikistan (2003)	59.6	71.6	71.7	65.6	77.2	73.9

Source: Authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey, 2001, Moldova Household Budget Survey 2003, Russia NOBUS Survey 2003, Tajikistan Living Standards Survey, 2003.

Note: Poverty threshold is US$2.15 PPP.

Table 9 Dispersion and correlation measures for in child population shares and child poverty rates, 2001-2003

	Regional child population shares		Regional child poverty rates		Correlation coefficient - child population shares and child poverty (Rsq)
	Average	Standard deviation (mean=0)	Average	Standard deviation (mean=0)	
Albania (12)	39.6	3.6	29.4	7.7	0.73
Bulgaria (9)	19.6	2.0	12.2	8.4	0.24
Moldova (10)	26.4	3.7	59.8	13.5	0.13
Russia (47)	21.7	4.5	17.4	8.6	0.53
Ukraine (26)	18.9	2.1	33.0	7.5	0.25
Kazakhstan (16)	13.9	4.0	27.1	14.2	0.54
Kyrgyzstan (8)	38.9	6.9	64.9	15.3	0.62
Tajikistan (5)	45.0	4.2	71.0	15.5	0.06

Sources: Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey, 2001, Moldova Household Budget Survey 2003, Russia NOBUS Survey 2003, Tajikistan Living Standards Survey, 2003. World Bank (2003), UNICEF Kazakhstan (2002), MONEE Project Country Analytical Report for Ukraine, 2004, MONEE Project Database.

Notes: The numbers in parentheses after the country names denote the number of subnational regions from which statistics are calculated. The Standard deviation is a measure of dispersion – the larger the statistic, the larger the dispersion. In the standard deviations presented in the table, means are standardized to 0 to allow easier comparison of the statistic across countries. The correlation coefficient is a measure of the strength of a relationship between two distributions. A strong positive relationship between the two distributions (where a high score in one distribution is associated with a high score in the other) will give a Correlation Coefficient approaching 1.0. A strong negative correlation between the two distributions (where a high score in one is associated with a low score in the other) will give a Correlation coefficient approaching -1.0. Where there is no relationship between the two distributions, the score will be close to 0. Data for Albania and Ukraine show the relationship between child population and overall poverty rates. Data for Kazakhstan show the relationship between crude birth rates and overall poverty rates. For these three countries, poverty rates are calculated according to national poverty standards. For the other five countries, poverty rates are based on the US$2.15 threshold.

Figure 5 Changes in the relationship between children's share in the population and child poverty in the oblasts of Kyrgyzstan, 1998-2002
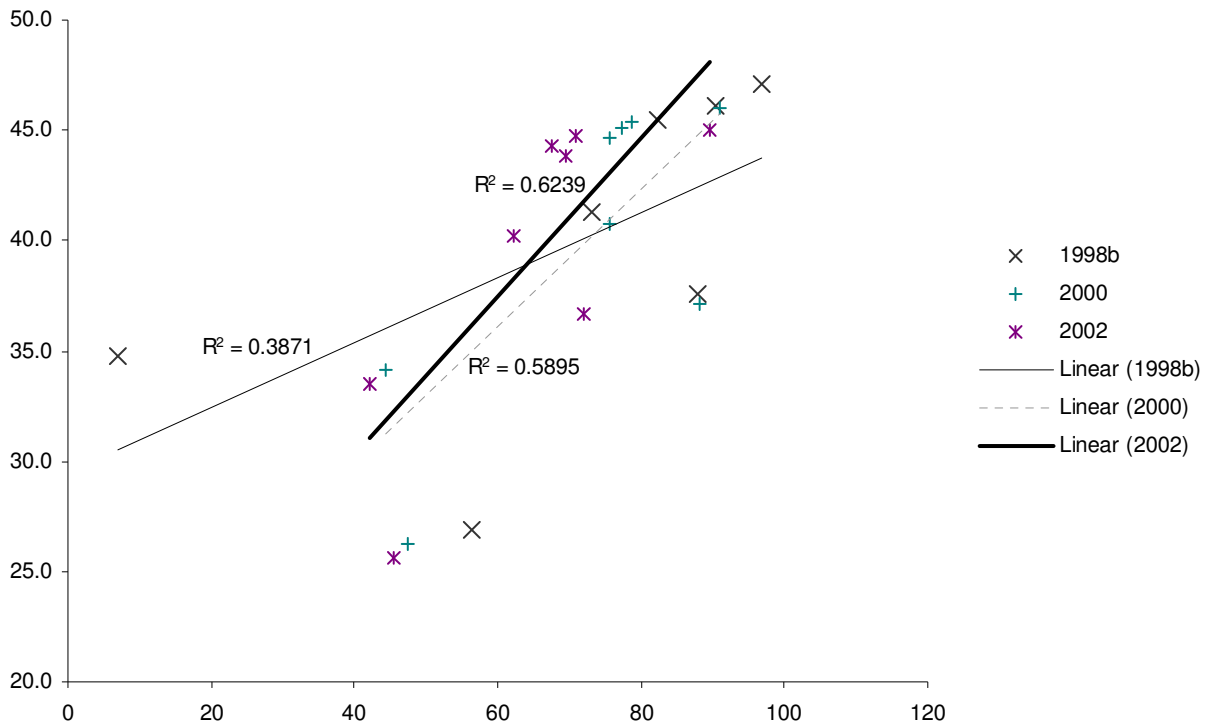
Source: Falkingham and Ibramigova, 2004, and MONEE Project database.
Notes: The Y axis shows children's share in the population of different oblasts in Kyrgyzstan, while the X Axis shows the child poverty rate in the oblasts, based on the national subsistence minimum. Child population data for 1998 and 2000 are interpolated.

Annex I Sensitivity testing the $2.15 consumption poverty line

Table A1.1 Impact of varying the poverty line (per cent in poverty)

	Poverty threshold ($US, PPPs)				
	1.94 (2.15–10%)	2.15	2.37 (2.15+10%)	4.30	Average poverty gap (per cent $2.15 threshold)
Bulgaria 2001					
All	5.8	7.2	9.1	28.6	28
Children	11.0	12.8	15.9	34.7	31
Albania 2002					
All	14.8	20.8	26.4	71.6	21
Children	20.0	26.8	33.0	78.7	22
Moldova 2003					
All	38.5	45.4	52.7	85.2	31
Children	48.2	55.6	62.4	89.4	33
Russia 2003					
All	8.9	11.4	14.4	47.5	29
Children	13.6	16.8	20.5	56.4	29
Tajikistan 2003					
All	61.7	68.3	74.4	94.6	38
Children	64.1	70.6	76.6	95.6	39

Source: Authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey 2001, Moldovan Household Budget Survey 2003, Russian NOBUS Survey 2003, and Tajikistan Living Standards Survey 2003.

Note: poverty gap is calculated as the average distance of each poor child from the poverty threshold, expressed as a percentage of the threshold.

Table A1.2 Impact of varying the equivalence scale (per cent in poverty)

	θ=1	θ=0.75	θ=0.5	θ=0.25	Bradbury and Jantti
Bulgaria 2001 (overall poverty rate is 9.4 per cent)					
Children	12.8	11.8	8.7	6.1	11.3
Elderly	3.8	6.1	11.1	16.8	6.4
Albania 2002 (overall poverty rate is 20.8 per cent)					
Children	26.8	26.1	24.7	22.5	24.3
Elderly	14.9	15.3	18.5	23.0	17.1
Moldova 2003 (overall poverty rate is 55.6 per cent)					
Children	55.6	50.2	43.7	37.9	47.8
Elderly	42.9	53.2	63.2	70.4	54.2
Russia 2003 (overall poverty rate is 11.4 per cent)					
Children	16.8	14.8	12.1	9.1	13.6
Elderly	8.4	12.0	17.4	23.4	12.2
Tajikistan 2003 (overall poverty rate is 68.3 per cent)					
Children	70.6	70.1	69.6	69.1	69.0
Elderly	67.0	68.3	70.9	70.4	70.5
Example scales					
1 adult, 2 children	3.0	2.25	1.73	1.32	2.10
2 adults, 2 children	4.0	3.0	2.0	1.41	2.83

Sources: Authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey 2001, Moldovan Household Budget Survey 2003, Russian NOBUS Survey 2003, and Tajikistan Living Standards Survey 2003.

Note: Poverty threshold is US$2.15 PPP. θ refers to the exponential by which household size is multiplied in order to arrive at equivalised household income. Thus θ =1 (the equivalence scale used throughout this analysis) weights all individuals equally, while θ =0 weights all households equally, regardless of how many persons they contain. The equivalence scale proposed by Bradbury and Jantti (1999) has the form (*adults + children* x *c)^a*, where c=0.7, and a=0.85. Overall poverty rates are held constant at the rate where the poverty threshold is $2.15, and the equivalence scale is θ=1.

Table A1.3 Household access to water by quintiles of children's consumption

	Poorest quintile	2nd	3rd	4th	Richest quintile	All children
ALBANIA						
River, lake, pond or similar	4	3	2	0	0	2
Spring or well	25	30	24	25	19	25
Public tap	18	13	12	10	5	11
Running water outside the dwelling	24	22	17	14	9	17
Running water inside the dwelling	29	33	45	50	67	45
RUSSIA						
River,spring etc	3	1	1	1	0	1
Water truck or other	0	0	0	0	0	0
Well in collective use	6	4	2	2	2	3
Water pump in collective use	16	11	7	6	3	9
Well, water pump in courtyard	18	11	9	8	5	10
Running water in apartment/house	57	73	80	83	89	77
BULGARIA						
Piped public - inside dwelling	44	80	92	92	93	80
Piped public - inside building	6	8	2	5	4	5
Piped public - outside building	40	11	5	2	2	12
Other	11	1	1	0	1	3
MOLDOVA						
Aqueduct	16	19	18	33	52	28
Water reservoir	3	2	4	2	0	2
Well	76	70	72	62	47	65
Other	5	8	7	2	0	4
TAJIKISTAN						
Piped water inside the dwelling	21	18	22	24	27	22
Piped water outside the dwelling	14	15	16	20	22	18
Water truck	3	2	3	4	3	3
Public tap	9	10	14	11	10	11
Spring or well	11	11	11	13	13	12
River, lake, pond etc.	40	41	33	28	22	33
Other	2	2	1	1	2	1

Source: Authors' calculations based on Albanian Living Standards Measurement Survey, 2002, Bulgarian Integrated Household Survey 2001, Moldovan Household Budget Survey 2003, Russian NOBUS Survey 2003, and Tajikistan Living Standards Survey 2003.

Note: The World Bank (2005) notes that access to water is often restricted to a few hours a day in some countries. In some countries, moreover, piped water is sometimes unfit for drinking.

Table A1.4 School enrolment among boys and girls by poverty status

	Moldova 2002	Bulgaria 2003	Russia 2002	Georgia 2002	Kyrgyzstan 2002	Tajikistan 2003
Age 7-14 enrollment						
male non poor	99	98	97	98	96	92
male poor	96	70	96	96	97	92
female non poor	98	98	98	97	95	90
female poor	95	84	97	97	97	88
Age 15-17 enrollment						
male non poor	85	92	91	95	88	81
male poor	72	43	81	91	89	73
female non poor	78	85	93	97	92	61
female poor	80	30	87	94	90	56

Source: data from the World Bank

Notes: Poverty is defined as living in a household with current consumption of less than US$2.15 per person per day for all countries except Bulgaria, where the threshold is $4.30 per person per day.

Figure A1.1 Infant mortality and child poverty in Russia's oblasts, 2003
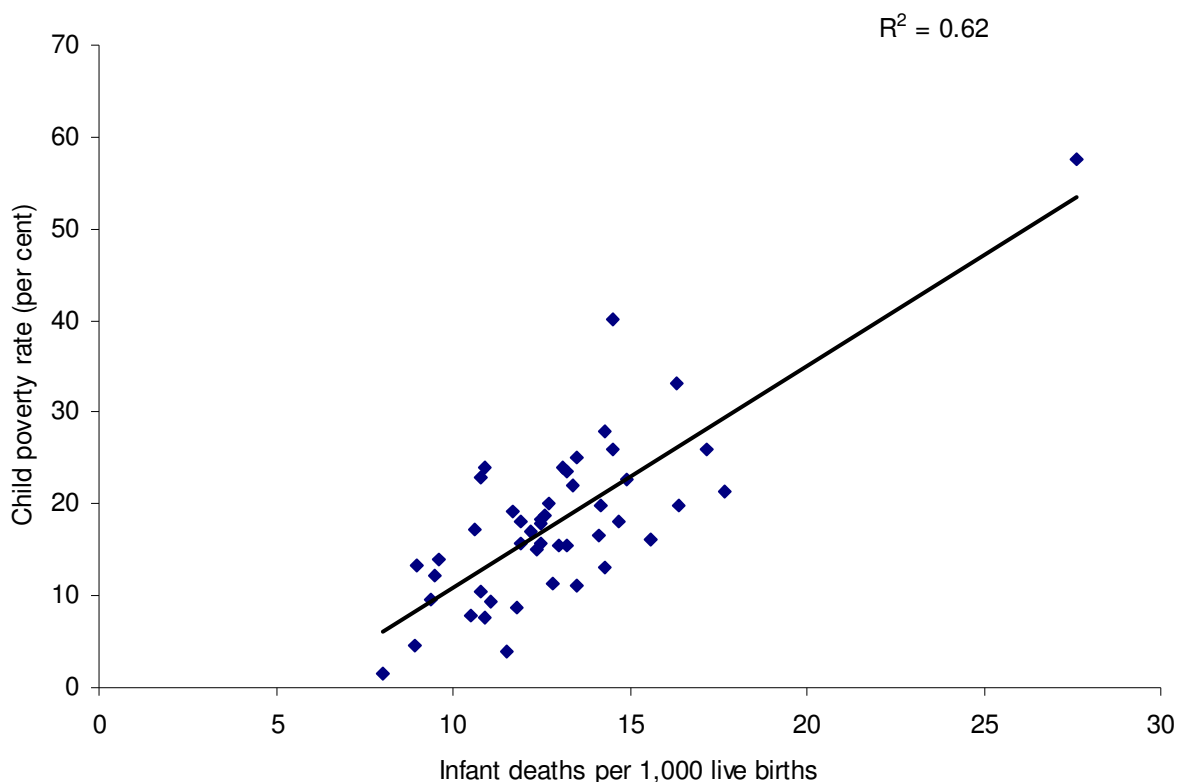
Source: Russia NOBUS Survey 2003 (authors' calculations), and MONEE Project Database.

Note: Data are for 47 out of 89 oblasts in Russia (covering about two thirds of the population of Russia) where the NOBUS survey is representative at the oblast level. Child poverty rate refers to the percent of children living in households with incomes below the $2.15PPP threshold.

Annex II Other detailed tables on child poverty

Table A2.1 Child poverty rate and share of chlildren in total population by Federal Districts and Type of City, Russia, 2003 (per cent)

Size of city	Federal Districts							
	Central	North-west	South-ern	Volga	Urals	Siber-ian	Far East	Total
1,000,000+								
poverty	9.5	1.6	0.0	11.8	9.9	10.8	0.0	9.2
share	13.3	11.2	0.0	18.1	20.8	18.3	0.0	15.3
500,000-1,000,000								
poverty	11.1	0.0	9.0	9.7	0.0	5.3	7.8	8.7
share	18.8	0.0	20.5	17.6	0.0	18.7	19.4	18.8
250-500,000								
poverty	8.1	2.0	8.6	14.2	8.9	5.6	22.6	8.4
share	17.3	20.3	18.7	18.8	21.1	21.7	18.8	19.2
100-250,000								
poverty	9.9	6.6	17.6	8.9	9.5	18.0	9.3	11.8
share	17.2	19.7	19.2	20.3	21.7	22.7	21.6	19.9
50-100,000								
poverty	11.2	11.9	21.6	11.9	11.6	19.7	18.1	14.6
share	15.5	21.6	17.9	22.8	19.3	20.9	22.3	19.6
20-50,000								
poverty	14.3	8.6	14.8	15.3	15.7	8.5	25.0	13.8
share	18.0	20.4	19.9	20.8	20.6	23.6	23.2	20.4
≤20,000								
poverty	12.4	11.9	18.2	15.3	24.6	17.7	23.2	16.5
share	16.1	20.6	21.2	21.8	24.5	23.0	22.6	20.4
villages								
poverty	18.5	12.1	25.6	30.0	28.0	28.5	36.8	26.0
share	17.5	23.6	23.5	24.4	25.6	27.5	27.0	23.4
Total								
poverty	12.4	7.7	19.4	18.2	16.5	17.9	22.3	16.3
share	16.3	18.0	21.2	21.1	22.1	22.9	22.7	20.0

Source: Russia NOBUS Survey, Authors' calculations

Figure A2.1 Poverty by number of children in the household (per cent)
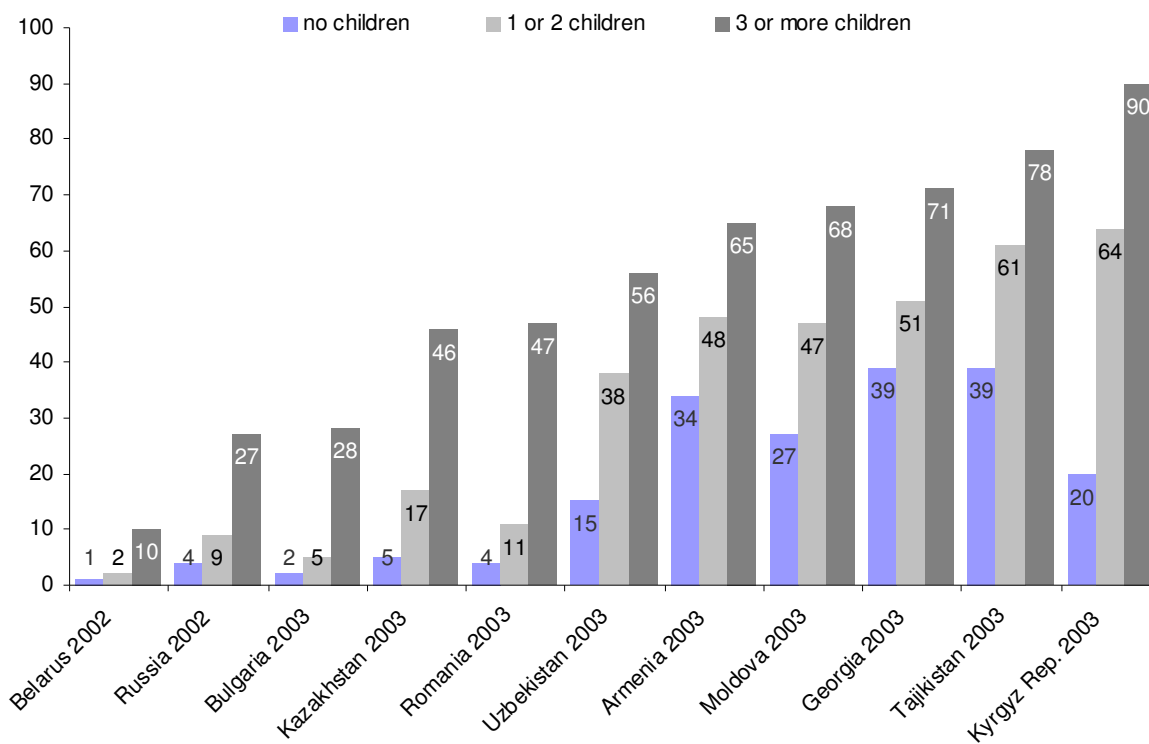
Source: World Bank, 2005, Appendix Table.

Notes: Poverty threshold is US$2.15 PPP with a per capita equivalence scale.