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## **Child Poverty Dynamics in Seven Nations**

by

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# Child Poverty Dynamics in Seven Nations

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## **Abstract**

This paper compares child poverty dynamics cross-nationally using panel data from seven nations: the USA, Britain, Germany, Ireland, Spain, Hungary and Russia. As well as using standard relative poverty definitions the paper examines flows into and out of the poorest fifth of the children's income distribution. We find significant (but not total) uniformity in patterns of income mobility and poverty dynamics across the seven countries. The key exception is Russia, where the economic transition has led to a much higher degree of mobility. Interestingly, the USA, which has the highest level of relative poverty among the rich nations, has a mobility rate which, if anything, is less than that of the other nations.

## **Zusammenfassung**

Der vorliegende Beitrag vergleicht die Armutsdynamik bei Kindern mithilfe von Paneldaten aus sieben Ländern: USA, Großbritannien, Deutschland, Irland, Spanien, Ungarn und Russland. Neben der Verwendung von Standard-Definitionen zur Erfassung relativer Armut, werden die Übergänge in und aus dem untersten Einkommensquintil bei Kindern untersucht. In den sieben untersuchten Ländern zeigt sich eine signifikante (aber keine völlige) Übereinstimmung in den Mustern von Einkommensmobilität und Armutsdynamik. Die Ausnahme ist Russland, wo der ökonomische Wandel zu einem wesentlich höheren Mobilitätsgrad geführt hat. Interessanterweise weisen die USA - das Land mit dem höchsten Anteil relativer Armut unter den reichen Ländern - eine Mobilitätsrate auf, die unter der der anderen Nationen liegt.

# 1. Introduction

If one in ten children is currently poor, it could mean that every tenth child is poor all the time or, at the other extreme, it could mean that every child experiences poverty from time to time. The book of which the work in this paper is part sheds light on where the reality lies between these extremes. For a range of industrialized countries it documents how much movement into and out of poverty by children there actually is. It is therefore a book about poverty among children and about the dynamic aspects of that poverty – how individual children move into and out of being poor. This paper provides cross-national evidence about these issues using comparable panel data from seven nations.

The focus on the poverty of children as opposed to any other group in the population needs little justification. Children represent a country's future, an obvious reason for societal concern with child well-being. There are the innate feelings of protection towards the young and assumptions of their blamelessness for the situation in which they find themselves. Children are unable to take full responsibility for their circumstances, and are dependent on others to look after and raise them. Their vulnerability provides a powerful moral imperative in favour of collective action in general to help them, and a welfare state in particular (see for example Goodin 1988). To implement this requires prior knowledge about the nature of child poverty and its consequences, plus knowledge of what the causes are.

But why should one wish to know about children's movements into and out of poverty in addition to their poverty at a point in time (the conventional perspective)? First, for the individual child, the adverse impact on his or her living standards of being poor this year depends on past poverty. Poor children who have already been poor a long time are likely to be worse off than those who are newly poor, as families' capacities to get by are used up over time. It is not only the length of the current poverty spell which may matter but also the pattern of poverty throughout childhood, whether, for example, a series of intermittent spells of poverty, a single long spell of moderate poverty, or a short spell of extreme poverty.

Second, the accumulation over time of each child's poverty history tells us whether poverty is concentrated among a small group of children or an experience that is widely shared. Assuming that society has at least some aversion to 'unequal shares', then the greater the concentration of poverty experience, the greater the concern.

Third, child poverty has impacts that last beyond childhood into adulthood, and the effects depend on the nature of the poverty experienced. There is evidence that the impact of childhood poverty on a variety of outcomes in future life depends on the length of time spent poor. A long period (or

repeated shorter periods) of low living standards can be expected to have a greater impact on a child's development and future life chances than an isolated short period.

Fourth, a focus on movements into and out of poverty is useful for explaining who is currently poor and why. A rising child poverty rate may come about either because the number of children entering poverty is rising or because the number of poor children who leave poverty is falling. Thus to understand the incidence of child poverty at a point in time, and its trends, one needs to know about child poverty inflow and outflow rates. At a more fundamental level, analysis of why poverty flows differ provides a more natural way to understand the causes of poverty than does analysis of why poverty rates per se differ, particularly since the factors which determine entry (or re-entry) to the ranks of the poor may well differ from the factors determining escape from poverty.

Fifth, and finally, the design of policy to reduce the number of poor children depends on the nature of movements to and from poverty.<sup>1</sup> If turnover in child poverty is low then policy can concentrate on the relatively unchanging group of poor families that experience long periods of low living standards. If turnover is high then the target group is continually changing and the challenge for policy is a different one. The whole approach to anti-poverty policy may be influenced by taking a dynamic perspective, emphasising the prevention of entry into poverty and the promotion of exits (as recent US and British experience illustrates), rather than only paying benefits to the currently poor.

One might question the utility of cross-national comparative analysis as compared with, for example, a detailed study of a particular nation. Our view is that the perspectives provided are complements rather than substitutes. Comparisons across countries provide a reference point for assessing the results for any single country, for example whether a particular statistic is large or small. Cross-national analysis also raises provocative questions about whether differences in outcomes are due to, say, differences in policy regimes or differences in population characteristics. Of course the usefulness of cross-national analysis relies on having good data, and making data comparable may require compromises in the depth of analysis which would not be required in a single country study. (The trade-off depends on the number of countries considered.) Our paper illustrates the various strengths – and weaknesses – of taking a cross-national perspective.

Although much is known about cross-national variations in poverty rates (and child poverty in particular),<sup>2</sup> there is very little information available

<sup>1</sup> The relevance of dynamic perspectives for policy design has also been stressed by Ellwood (1998), Leisering and Walker (1998), Walker with Ashworth (1994).

<sup>2</sup> E.g. Cornia and Danziger (1997), Vleminckx and Smeeding (2000), and especially Bradbury and Jäntti (BJM Chapter 3).

about the way in which countries vary in the extent of flows into and out of poverty. The key exception to this is the pioneering study by Duncan *et al.* (1993). This study examines poverty dynamics among families with children in eight nations (Canada, the Lorraine region of France, West Germany, Ireland, Luxembourg, The Netherlands, Sweden, and the US). Our analysis has the advantage of directly examining *children's* poverty dynamics, whereas Duncan and his co-authors studied *families* with children: different samples can provide different results. Duncan *et al.*'s data refer mostly to the mid-1980s; ours to the beginning of the 1990s. And we show the sensitivity of results to the choice of income measure – for most of our countries we have more than one income definition available, while Duncan *et al.*'s work was restricted to a single measure per country.

The studies are complementary because, although the range of countries covered overlaps (the USA, Germany and Ireland), we also include two transition countries from Eastern Europe and one Southern European country, rather than exclusively Northern European and North American ones.<sup>3</sup> Duncan *et al.* concluded that 'despite the very different macroeconomic conditions, demographic structures and degree of income inequality, favourable income changes among families with children were widespread and strikingly similar across the eight countries in our study' (1993: 215). (Of course, unfavourable income changes may also be common.) One of our aims is to investigate whether their conclusion about the cross-national similarity of income changes holds true for the countries and time periods covered by our analysis.

The data sets, the sub-samples we analyse, and the income variables we use are all described in Section 2. One of the fundamental problems in making cross-national comparisons of movements into and out of poverty by children (or any other group) is that the numbers of transitions observed depend in part on the amount of poverty there is in the first place (as we shall explain). And yet child poverty rates differ substantially across different countries. In other words, there is a standardisation issue: how to identify the cross-national variations in poverty dynamics separately from the cross-national variations in poverty rates. One way in which we handle this problem is by looking at movements into and out of the *poorest fifth* of all children in each country – in this case each country has the same child poverty rate (equal to 20 per cent). This solution is not entirely satisfactory because such a poverty line is not a commonly used cut-off level: poverty status is most often summarised in terms of a threshold equal to some fixed real income value or a

<sup>3</sup> The panel surveys we use are the same in the case of the US and West Germany (although our use of 1990s data means that we are able to provide results for both unified Germany and West Germany alone). The survey differs in the case of Ireland. The Irish data used by Duncan *et al.* were drawn from a follow-up survey of low-income families and could therefore be used to look at poverty exits but not entries.

fraction of average (median or mean) income. Therefore we also use some of these latter definitions (described below) when looking at movements into and out of poverty, recognising that interpretation is affected by the standardisation issues that we discuss.

Although our primary interest is in movements to and from poverty, we also provide supplementary information about movements to and from other income groups throughout the whole income range (and not only the poorest one), i.e. *income mobility* as well as *poverty dynamics*. We are interested not only in how many children fall into, or leave, poverty from one year to the next, but also where in the income distribution they have come from and where they end up. To what extent are exits from poverty dominated by children with incomes just below the chosen poverty line and entries to poverty disproportionately by those with incomes just above the poverty line? This information is all the more valuable because exactly where the poverty line should be drawn is not clear-cut.

We look at income origins and income destinations using two types of definition. The first categorises children according to whether they are in the poorest fifth of all children, or the second poorest fifth, third poorest fifth, fourth poorest fifth, or the richest fifth (i.e. by quintile groups). (A further breakdown divides children into decile groups, i.e. into tenths.) The advantage of this definition, noted above, is that it is directly comparable across countries. The second definition classifies children into four groups according to their income level relative to cut-off points equal to 40 per cent, 50 per cent, and 60 per cent of median national income. The upper and lower cut-offs straddle the income level we take as the poverty line.

In Section 3 we document cross-national differences in income mobility for children and also show how these differences relate to differences in income inequality at a point in time. Are the more unequal countries those where mobility is greatest or least? We examine how many children remain in the poorest fifth of the income distribution from one year to the next, and look at the vulnerability of children in the middle of the income distribution to falling to the bottom.

The next two sections look at children's exit rates from and entry rates to poverty using a poverty line equal to half median income. Section 4 shows how cross-national differences in movements in and out of poverty relate to the differences in poverty rates that are observed at a point in time. Section 5 looks at two aspects in greater detail. First, by focusing on the 'near poor', we examine the extent to which poverty entry and exit involves small or large income changes. Second, we provide information about how children's movements into and out of poverty differ by household type and how these profiles differ across the countries that we study. We focus on the distinction between children who live in lone-parent households and other children, a

distinction that has received a lot of attention in analyses of poverty rates at a point in time. The final section provides a summary of what has been learned.

## 2. The Data and the Patterns at a Point in Time

### ▪ 2.1 *The data sets and measures of 'income'*

The data we use are derived from household panel surveys for seven countries: Britain, Germany (both West Germany and the united Germany), Hungary, Ireland, Russia, Spain and the US. The unit of analysis throughout is the child, defined as a person aged less than 18 years in each of the years compared. We wish to compare income changes between one year, call it  $t$ , and an earlier year,  $t-s$ , and so the samples we use are the children who are present in each survey in both year  $t-s$  and year  $t$ . For all the countries we are able to compare dynamics over two years (i.e. between years  $t-1$  and  $t$ ). For four of the countries (Britain, Germany, Hungary, and the US) we are able also to examine dynamics over five years ( $t-4$  to  $t$ ) and for two countries (Germany and the US) over ten years as well ( $t-9$  to  $t$ ). The current year ( $t$ ) was chosen to be the latest year available in each survey, and is a year in the early- to mid-1990s in all cases. Each child is attributed the income of the household to which he or she belongs in the relevant year, adjusted for household needs. The equivalence scale used in the adjustment for household needs is the square root of household size (see BJM Chapter 2).

A summary description of each data set is provided in Table 1.

The main features on which we compare them are: the type of longitudinal survey, the period to which incomes refer, the definition(s) of income available, and two statistics summarising sample size. The most obvious contrast between the surveys is in the income measures that are available. One difference concerns whether household income is recorded before the deduction of income taxes and employee social insurance contributions (gross income) or after their deduction (net income). The implications for measures of poverty dynamics of choosing different definitions are not obvious a priori. Certainly inequality of net income will be smaller than gross income inequality at any one time, but it is not obvious whether the tax system also dampens income mobility. Another difference concerns the reference period for which household incomes have been measured, whether a full year (annual income) or the period – usually the month – just prior to the annual interview (current income). These differences have clear implications for differences in poverty dynamics for the reasons discussed in detail in BJM Chapter 2.

Table 1: *The surveys*

Country	Survey	Income variables	Most recent income period	Number of households with children in 2 waves	Number of children as percentage of all people in two waves
Britain	British Household Panel Survey (BHPS)	Annual gross income (pounds per annum, 1996 prices)	1996 (Year to end August)	1529	21.8
		Current gross income (pounds per month, 1996 prices)	1996 (Autumn)	1529	21.8
		Current net income (pounds per week, January 1996 prices) <sup>a</sup>	1996 (Autumn)	1264	22.1
Germany	German Socio-Economic Panel Survey – Equivalent File (GSOEP)	Annual net income	1995 (Calendar year)	2072 (1232) <sup>c</sup>	19.9 (18.7) <sup>c</sup>
		Current net income <sup>b</sup>	1996 (Spring-Summer)	1971 (1163) <sup>c</sup>	20.7 (18.7) <sup>c</sup>
Hungary	Hungarian Household Panel Survey (HHPS)	Annual net income	1995–96 (Year to end March)	488	21.9
		Monthly net income	1996 (March)	488	21.9
Ireland	European Community Household Panel Survey – Living in Ireland Survey (ECHP)	Annual net income	1994 (calendar year)	1605	32.2
Russia	Russian Longitudinal Monitoring Survey (RLMS)	Monthly net income (December 1995 Moscow prices)	1995	1316	24.6
		Monthly expenditures (December 1995 Moscow prices)	1995	1316	24.6
Spain	Encuesta Continua de Presupuestos Familiares (ECPF)	Estimate of current net income	1985 to 1992 <sup>d</sup>	5812	25.8
		Current expenditures	1985 to 1992	5812	25.8
USA	Panel Study of Income Dynamics (PSID)	Gross total income plus the dollar value of food stamps received <sup>e</sup>	1992 (calendar year)	1618	24.1

Notes: <sup>a</sup>Only available for ‘complete respondent’ households; <sup>b</sup>Head’s estimate for whole household; <sup>c</sup>Numbers in parentheses are for West Germany only; <sup>d</sup>Data pooled over the 1985-1992 period; <sup>e</sup>Negative and zero incomes recoded to \$1.

All surveys are household panels with annual interviews, except for Spain’s, which is a quarterly rotating panel.

For all but two countries (Ireland and the US) we have a measure of current net income. For Germany, this measure refers to what the household head estimates to be the total income of all the persons in the household. For the other countries, total income is the sum of the incomes reported by each

respondent within the household. (This is also the case with the German annual income measures.) For Britain, the net income measure cannot be calculated for all households, hence reducing sample sizes somewhat. For three countries (Germany, Hungary and Ireland), an annual net income measure is available. Moreover for Spain and Russia, we have a measure of current household expenditure in addition to current household income, which makes for an interesting comparison. The availability of the expenditure data is especially useful for Russia given arguments about the greater reliability of information on expenditures relative to incomes in transition economies (for example there is said to be less under-reporting – see BJM Chapter 11). The arguments in BJM Chapter 2 concerning the smoothing over time of consumption are also relevant here – as are the caveats we expressed about the ability of expenditure data to adequately measure consumption.

It is obvious that we have no single comparable measure of ‘income’ for all seven nations. But by judicious use of the various different measures, we are able to check the sensitivity of our conclusions about cross-national differences in patterns of income change. This use of multiple measures of living standards represents a further difference between our analysis and that of Duncan and his co-authors discussed earlier.

All the surveys, with the exception of that for Spain, are household panel surveys. In these surveys, information is collected about a sample of individuals (and their households) at approximately one year apart. Persons remain in the panel until the survey is discontinued (unless they die, cannot be traced, refuse to participate, or enter an institution). For Spain the survey is a quarterly rotating panel in which households are interviewed each quarter for up to eight consecutive quarters and then are dropped from the survey (‘rotated out’) to be replaced by new households. We use the Spanish data about income and expenditure collected one year apart in the first and fifth quarters of participation for all households entering the panel over a seven-year period.

The maximum length of time for which we can follow children depends on how many rounds of interviews the panel survey has had (except for Spain where the rotating panel design sets the constraint). For all seven nations, we can examine dynamics over a one-year interval. However, our ability to follow children for longer periods is restricted; as already noted, data span a five year period for Britain, Germany (both the former West Germany and the re-united Germany), Hungary, and the US, and ten years for West Germany and the US.

The number of households in the analysis is between 1,000 and 2,000 for most countries (see Table 1). Numbers are noticeably smaller for Hungary (as the survey itself is relatively small), and noticeably larger for Spain reflecting the pooling of data for households entering the survey over a number of years. Children form between one fifth and one fourth of all persons present in the

two-year samples for every country except Ireland, where the proportion of children is almost one third. (We note the high proportion of children in the Irish population in BJM Chapter 1.)

For each data set, sample weights which account for differential non-response and sample attrition have been used.

## ▪ ***2.2 Cross-section differences in income distribution***

To place in perspective our descriptions of the changes over time in the household incomes of children, we first provide some cross-section summaries of the income distributions for the most recent wave of data for each country. We compare children's relative income levels, income inequality, and child poverty rates. These statistics are similar to those reported in BJM Chapter 3, but they are not fully comparable because there are differences in the definition of the income measure, the year referred to, the sample, and in most cases even the survey (this is true in Britain, Ireland, Spain, and the US).<sup>4</sup>

Statistics summarising the income distribution at a point in time in each country are shown in Table 2. How well off are children relative to all persons in each country, summarised in terms of differences in median income? In all seven nations, children are worse off on average than the population as a whole, but the range is large. For example, in Ireland median income for children is almost one fifth lower than the all-persons median, whereas, at the other extreme, in Hungary, the difference is only a matter of about three per cent.<sup>5</sup> For Britain and the US, the median income of children is some 10 per cent lower than for all persons. In Germany the corresponding figure is smaller, a deficit of about six or seven per cent. This is the differential in Spain and Russia as well, as long as income is the measure of material well being.

The use of expenditure provides a very different perspective however. In Russia, the median expenditure for children is some 14 per cent lower than the figure for all persons. In Spain however the shortfall with expenditure is smaller than for income; the child median is about 2 per cent less than that for all people. For other countries where multiple definitions of income are available, there is a reassuring robustness to the picture about differentials.

<sup>4</sup> For example, the UK figures in BJM Chapter 3 (the UK is defined as Britain and Northern Ireland) are based on the Family Expenditure Survey while the results for Britain in this paper are based on the British Household Panel Survey.

<sup>5</sup> By 'median income for children' we mean the median of the distribution of children, ranked by the value of equivalised income of their household.

Table 2: *Inequality and poverty*

Country	Child median ÷ population median	Overall Gini coefficient	Child Gini coefficient	Child poverty rate (half median poverty line)	Increase in child poverty waves $t-1$ to $t$ (percentage points)
<i>Current net income</i>					
Britain	0.89	0.32	0.30	16.8	0.5
Germany	0.95	0.24	0.22	7.7	-0.6
West Germany	0.94	0.25	0.22	6.8	-0.8
Hungary	0.97	0.31	0.29	9.7	3.5
Russia	0.94	0.43	0.45	24.1	5.2
Spain	0.92	0.30	0.30	11.9	-1.9
<i>Current gross income</i>					
Britain	0.90	0.36	0.35	23.6	0.7
<i>Current expenditure</i>					
Russia	0.86	0.42	0.45	22.5	4.6
Spain	0.98	0.33	0.32	11.5	0.9
<i>Annual net income</i>					
Germany	0.93	0.27	0.24	9.3	0.6
West Germany	0.94	0.27	0.23	6.9	-0.6
Hungary	0.97	0.30	0.30	8.9	3.3
Ireland	0.82	0.36	0.34	15.6	0.7
<i>Annual gross income</i>					
Britain	0.87	0.36	0.36	24.5	0.1
USA	0.89	0.41	0.40	24.7	-0.4

*Notes:* All incomes are adjusted by the ‘square root of household size’ equivalence scale. Child median, Gini coefficient and poverty rates are for children in 2 waves. The population median and Gini coefficient are for all persons (adults and children). Unless stated, all measures are for the most recent wave.

Median income levels provide no guide to how incomes vary among children. For example, a high average income may disguise very low incomes for some children. It is therefore of interest to look at the degree of income dispersion among children as a whole. This is also an important preliminary step in our investigation of movements into and out of the group that forms the poorest fifth of all children – one needs to see how far the poorest fifth is adrift from the rest. We summarise the dispersion of incomes using the Gini coefficient, an index which ranges between zero (when there is complete equality of incomes) and one (complete inequality). Higher values indicate higher inequality.

Income inequality amongst children varies substantially across these seven nations, the Gini coefficient ranging from under 0.3 in Germany to over 0.4 in Russia and the US.<sup>6</sup> To put these statistics into perspective, observe that this range – of more than 10 percentage points – is larger than the increase in

<sup>6</sup> Again, these results refer to the distribution described in the preceding footnote.

overall inequality in the US and in Britain during the 1980s, typically cited as ‘large’. The Gini coefficients for children’s incomes in Britain and Ireland lie about midway between the ends of the range, and those for Hungary and Spain are towards the lower end. This finding is robust to changing the definition of income.

These relative rankings perhaps come as no surprise once we also observe that there is a close association between income inequality amongst children and income inequality amongst the population as a whole – the Gini coefficient for the distribution across all individuals is given in the adjacent column in Table 2. Cross-national rankings according to the overall inequality typically place the US at the top, with social democratic European countries near the bottom, and Anglo-Saxon countries in between (see BJM Chapter 3). The two transition countries enter this ranking in different places. Russia heads the table with the US, the 1990s having seen a huge increase in inequality following the break-up of the Soviet Union. Hungary, where the increase has been more modest, is at around the level in Spain. That said, inequality amongst children appears slightly lower than overall inequality, except in Russia where the opposite is the case. The difference is greatest for Germany, the country with the lowest overall inequality.

We now compare cross-national differences in child poverty rates, where the poverty line used in each case is half the country’s median income in the most recent wave of data for all persons in the two-wave sample. This is a relative poverty line, in the sense that it is defined with reference to contemporary income, and so differs in real terms across the countries (see BJM Chapter 2). Differences in poverty rates according to this way of looking at poverty are thus partly dependent on cross-national differences in inequality.

The countries with the lowest child poverty rates using the half national median poverty line are Germany and Hungary, in the range 7 per cent to 10 per cent. (The all-Germany rates are slightly higher than the West German rates because poverty is higher in eastern Germany than western Germany.) The child poverty rate is slightly higher in Spain, around 12 per cent, and higher still in Ireland and Britain, around 16–17 per cent. Reassuringly, the ranking corresponds with BJM Chapter 3’s analysis based on the Luxembourg Income Study (LIS) data, which also used a half national median poverty line (see Table 3.2). In fact the poverty rate estimates themselves are quite similar despite the different equivalence scales used. (We have noted that the surveys used in BJM Chapter 3 and in this paper differ in four of the countries we look at here, which is another reason for any differences in the results.)

Switching from a measure of net income to one of gross income can have a very large effect on the poverty rate, as the results for Britain show.<sup>7</sup> According to the gross income measure, the child poverty rate is around 24 per cent rather than 17 per cent. This is particularly relevant for assessing the US poverty rate, which is some 25 per cent on the basis of gross income. If we had had data for net incomes, one might think that the US would show a rather lower poverty rate – perhaps more like the British figure rather than similar to the Russian figure of 23 to 24 per cent. However, the results in BJM Chapter 3 based on the LIS data with more comparable income variables suggest otherwise. For example, according to the appendix table in BJM Chapter 3, the child poverty rates in Russia and the USA are very similar if a half national median poverty line is used: about 25 or 26 per cent depending upon the equivalence scale (though the US data are for a slightly later year).

The last column of Table 2 shows the change in child poverty rate between the first and second year of the two-wave comparisons. Since the observation period is so short, there is, not surprisingly, little change for most countries. The notable exceptions are the two transition economies, Hungary and Russia, for which there were quite large increases in both absolute and proportionate terms.

### 3. Income Mobility and the Dynamics of Disadvantage

We now turn to the dynamics of incomes. How much do children move up and down the income distribution? We are concerned here only with the distribution of children. That is, taking children as a group (and ignoring all other persons), by how much do they change places with each other on the income ladder (assigning to each child his or her household's income, adjusted by the household's size)? We have a particular focus on movements to and from *low income*, defined as the poorest fifth of the distribution. Our discussion at the start of the chapter emphasised the practical advantage that this approach implies: there is the same fraction of children in low income in each country at any time, which aids the making of comparisons across countries. (See BJM Chapter 2 for more on why looking at children's positions relative to each other is of interest.)

#### ▪ 3.1 *Changing places on the ladder*

For each year and country sample we rank the children in ascending order of their incomes and then partition them into ten equal sized groups (so-called decile groups). For each country, each decile group contains one tenth of all

<sup>7</sup> Moving from a net (after-tax) to a gross income measure would be expected to increase the poverty rate because this will increase the income of the median family significantly (and hence raise the poverty line), whilst having little impact on the income of poor families (who do not pay much tax).

children, and we therefore have a comparable definition of income thresholds across all the countries. To examine income mobility for a country, we calculate the number of children who are in a different decile group in year  $t-s$  and in year  $t$ , and express it as a proportion of the total number of children in the relevant sample. (For example this would be the two-wave sample were we to consider mobility over a one year period). The larger this proportion, the greater the degree of income mobility. The results are given in Table 3.

There is a remarkable similarity across the majority of the seven countries in the extent of children's income mobility over one year. For Britain, Germany, Hungary and Spain, the proportion of children moving to a different tenth of the current net income distribution is between 61 and 66 per cent. Shifting to an annual income measure suggests that Britain, Germany, Ireland, and the US have similar mobility, but that mobility is rather higher in Hungary. The annual income measure yields slightly lower mobility than the current income in the cases of Germany and Britain, as one would expect, but not for Hungary. Spain's position in the mobility ranking is dependent on whether income or expenditure distributions are used. Surprisingly, mobility is much higher in the latter case – the reverse of what one would anticipate from the argument that there is less longitudinal variability in consumption than in income (see BJM Chapter 2).

The results for income and expenditure for Russia, however, have the expected relationship: income mobility is higher, although not by much. But the most notable finding for Russia, true with either measure, is that this country is a marked outlier in terms of mobility, with a substantially higher fraction of children changing decile group compared to the other countries: over 80 per cent. Arguably there is greater measurement error in the Russian data than in the other surveys and this is reflected in the mobility measure (more children move decile groups simply because it is more likely here than in other countries that the error with which their household income or expenditure is measured changes over the 12 months). However, the Russian survey appears to be a high quality source. A more likely explanation for the result is simply that greater mobility is associated with the turbulence of change in this transition economy (see BJM Chapter 11 for further details).

The longer the interval between the years in which we classify children into income groups, the greater the degree of mobility which we would expect to see. For example in the US the proportion of children who are in a different decile in year 1 and year 5 (i.e.  $t-4$  and  $t$ ) is about two-thirds, compared with 57 per cent in a different decile group in year 1 and year 2 (i.e.  $t-1$  and  $t$ ).<sup>8</sup> Although similarities in mobility across countries remain the main

<sup>8</sup> This assessment of mobility takes no account of what happens in the intervening years. For example, the one third of American children who are in the same decile group in years  $t-4$  and  $t$  are not necessarily in the same group in each intervening year. An analogous comment applies to the intervening months for the two-wave results for 'current income'.

impression, some differences seem to be appearing as the observation window is extended.<sup>9</sup>

Table 3: *The income mobility of children*

Country	Percentage of children in a different decile group of the income distribution of children in waves		
	$t-1$ and $t$	$t-4$ and $t$	$t-9$ and $t$
<i>Current net income</i>			
Russia	83.3		
Spain	65.9		
Hungary	65.2	79.0	
Britain	62.8	76.1	
Germany	60.8	73.5	
West Germany	59.4	73.7	76.9
<i>Current gross income</i>			
Britain	60.2	73.4	
<i>Current expenditure</i>			
Russia	81.1		
Spain	76.4		
<i>Annual net income</i>			
Hungary	69.2	77.4	
Ireland	59.6		
Germany	59.5	69.3	
West Germany	57.1	69.6	72.1
<i>Annual gross income</i>			
Britain	58.9	69.7	
USA	57.3	67.5	77.8

*Note:* Countries are sorted within each income definition in descending order of the 2-year mobility rate.

More specifically Hungary is confirmed as having greater child income mobility after four years than Britain, Germany or the US (though the difference with Britain is not statistically significant). Among these latter three countries, mobility over five years in terms of annual income seems remarkably similar; there is no sign of the higher mobility in the US that is often supposed to occur. After nine years, some differences appear between German and American mobility, as long as one uses the annual income measures: 72 per cent change decile group in Germany compared to 78 per cent in the US. The large difference between the German current and annual net income statistics, 72 per cent versus 77 per cent, reminds us that choice of

<sup>9</sup> The samples of children that we use are aged less than 18 in each year. Hence comparisons of income position in years  $t-9$  and  $t$  are restricted to children aged 0–8 in year  $t-9$ , and comparisons for  $t-1$  and  $t$  refer to children aged 0–16 in the first year. Differences in results as the observation window extends may therefore in part reflect a changing age composition of the samples.

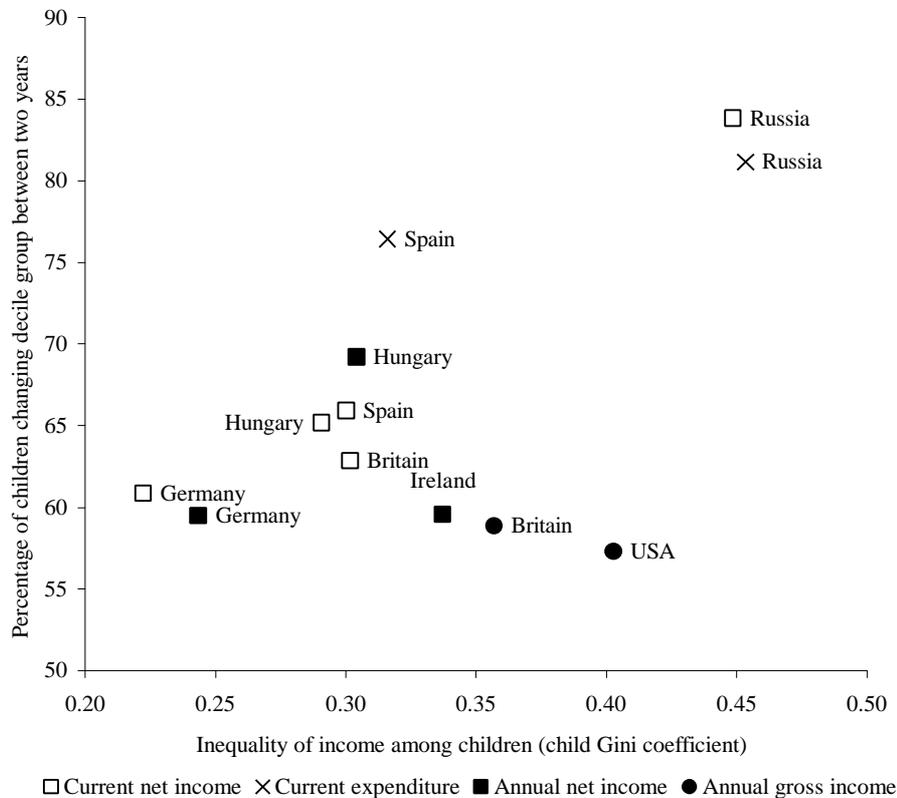
definitions can influence the results substantially. For both the German and US data, it is clear that although the proportion of children moving decile group rises as the interval is extended, the figure levels out relatively quickly.<sup>10</sup>

Given the way we chose to define the income groups for children (in terms of their rank in the income distribution), the estimates of our mobility measure are not affected by differences in income levels or the degree of inequality per se. Nonetheless, in practice there may well be a systematic relationship between mobility and inequality. A given change in household income is less likely to move a child across the boundaries of a decile group in a country where income is more unequally distributed – where the rungs on the income ladder are further apart – than it is in a country with less inequality where the deciles are closer together. In this situation an inverse relationship between income mobility and income inequality will be observed, provided the frequency and size of changes in incomes are similar in each country.<sup>11</sup> If, on the other hand, we observe a similar degree of mobility in countries that have notably different degrees of inequality, then this must imply that the changes that occur to income are larger or more frequent in the country where incomes are more dispersed.

Figure 1 shows how inequality among children and their mobility in the income distribution (over one year) are related in practice for our seven countries. There is no obvious relationship between them. The diagram puts into perspective the comment above about mobility in the US relative to that in other countries. The US has a much more unequal income distribution for children than has Germany, but the probability of children changing places in the ranking from one year to the next is similar in the two countries. On the argument above, this means that incomes in the US do change more often, or by larger amounts. But because incomes are more spread out in their country than incomes elsewhere, American children are nevertheless no more likely to change places with each other than are children in other countries.

<sup>10</sup> We have also calculated results similar to Table 3, but defining movers as people who move more than one decile group away from their original group. Measured in this way, mobility is much lower, implying that many moves in Table 3 are by children moving only a short distance in the distribution. But the differences across countries are very similar to those found in Table 3.

<sup>11</sup> This argument can be formalised using a stylised theoretical model of how the income distribution evolves over time. In a simple Galtonian autoregressive model of log income, the long-run steady-state degree of income mobility is summarised by the ratio of the inequality in income shocks to the total income inequality. If the variance of the income shock is held fixed, an inverse relationship between income mobility and income inequality results.

Figure 1: *Income inequality and income mobility among children*

Continuing in this vein, one thing that the diagram does underline is the degree of mobility in Russia. Despite children's incomes in this country being more unequal than in the other six countries, the probability of moving within the distribution is, as noted earlier, substantially higher. Although the gaps between the rungs on the ladder are larger than elsewhere, there is a greater probability of moving up or down a rung.

### ▪ 3.2 *Low income persistence*

Does the picture change if we focus on mobility at the bottom of the income distribution rather than the overall degree of mobility in the whole distribution? To answer this question, we look at the poorest fifth of children in each year – the bottom quintile group. We calculate the proportion of children who are found in this group *every* year over a specified number of years, and the proportion who are *ever* in the group over the same interval.<sup>12</sup> The results are given in Table 4, with a selection of them illustrated in Figure 2.

<sup>12</sup> In the case of the five and ten wave results, we are therefore now considering the intervening years (see footnote 6), in contrast to the calculations of mobility given in Table 3.

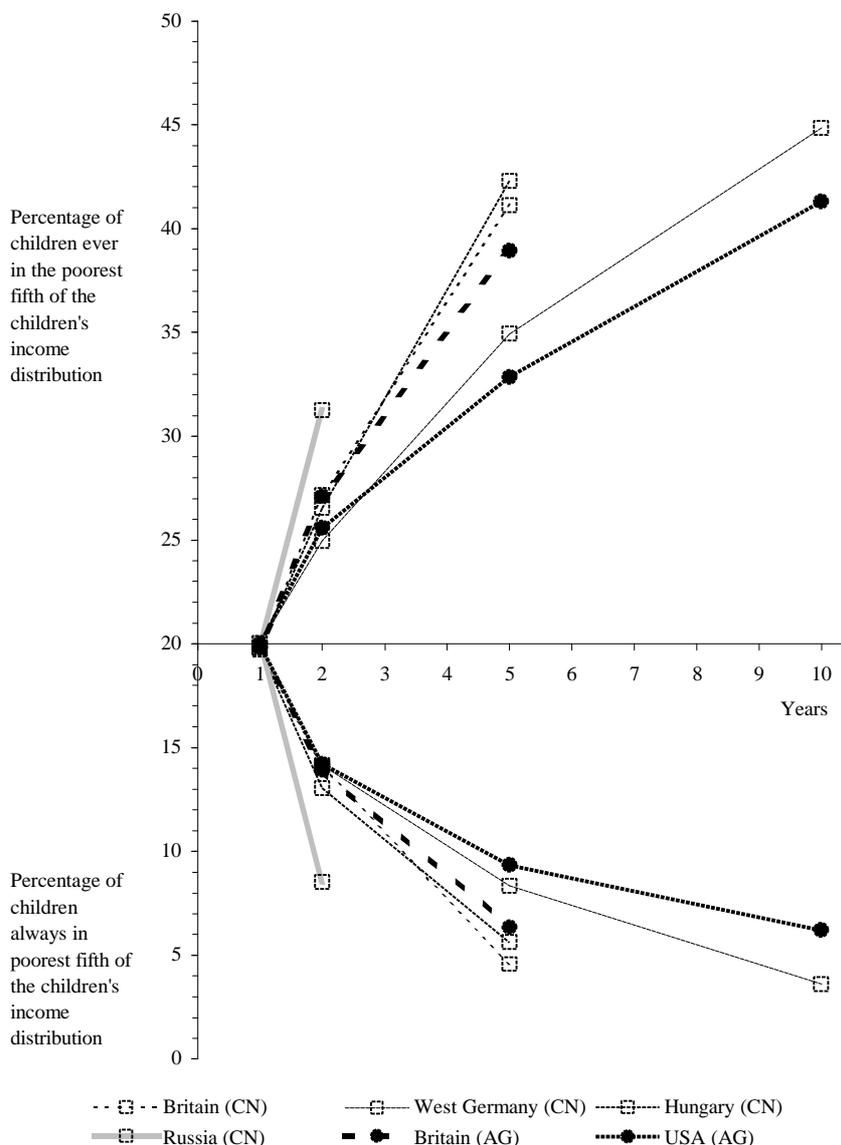
Table 4: *Low income persistence of children*

Country	Percentage of children always in the bottom fifth				Percentage of children ever in the bottom fifth			
	In 1 wave <sup>a</sup>	2 out of 2 waves <sup>a</sup>	5 out of 5 waves	10 out of 10 waves	In 1 wave <sup>a</sup>	In 2 waves	In 5 waves	In 10 waves
					<i>Current net income</i>			
Britain	19.7	14.1	4.6		19.7	27.2	41.1	
Germany	20.1	13.4	7.0		20.1	26.5	36.4	
West Germany	20.0	14.1	8.4	3.6	20.0	25.0	34.9	44.8
Hungary	19.8	13.1	5.6		19.8	26.5	42.3	
Russia	20.0	8.5			20.0	31.3		
Spain	20.0	13.3			20.0	26.8		
					<i>Current expenditure</i>			
Russia	20.0	8.7			20.0	30.8		
Spain	20.0	11.4			20.0	28.6		
					<i>Annual net income</i>			
Germany	19.9	12.9	6.9		19.9	27.0	38.3	
West Germany	20.0	13.5	6.4	4.8	20.0	26.4	37.5	43.7
Hungary	20.0	12.5	6.8		20.0	27.4	42.7	
Ireland	19.5	12.7			19.5	25.3		
					<i>Annual gross income</i>			
Britain	19.8	13.9	6.4		19.8	27.1	39.0	
USA	20.0	14.2	9.3	6.2	20.0	25.6	32.9	41.3

*Note:* <sup>a</sup>Percentages differ from 20 per cent because of the application of longitudinal weights to a cross-section from a longitudinal sample.

The top panel of Figure 2 shows, for different observation intervals, the percentage of children who were ever in the poorest fifth of the income distribution (defined over children) during each period. There is a separate line for each country, with the length of each line corresponding to the number of years of data available (for example only two years for Russia, but up to ten years for the US). The bottom panel is constructed similarly, except that now the summary is of the percentage of children who are in the poorest fifth of the income distribution in every year. All the lines start at 20 per cent in year 1 (with only one year to consider, the same fifth of children are ‘always poor’ and ‘ever poor’).

The figures showing persistence over two years contain the same information as the exit rates from low income in the first year: the percentage of children in the poorest fifth of the distribution in the first year who leave by the second year is equal to 100 minus five times the figure for persistence in low income shown in Table 4. For example, if 10 per cent of all children are in the bottom fifth for two consecutive years this means that the exit rate from low income is 50 per cent.

Figure 2: *Low income persistence among children*

*Note:* The letters in parentheses after the country name indicate the income concept: CN = current net income; AG = annual gross income. Source: Table 4.4.

How does persistence of children in low income differ cross-nationally? When only two years are considered, the main impression given by Table 4 is one of similarities rather than differences across the seven nations. In this sense the results are similar to those for overall income mobility described in the sub-section above. For Britain, Germany, Hungary, Ireland and the US, between 12 per cent and 14 per cent of children are in the poorest fifth of the distribution for two consecutive years, and slightly less in Spain. (This implies that between 20 and 30 per cent of those in low income in the first year manage to escape.) Russia is again the outlier, with much less persistence in low income than the other countries. (More than half of children in the poorest fifth escape over 12 months.)

As the length of the observation window is extended for the relevant subset of countries, the degree of low income persistence falls, as expected. But a significant number of children are found in the poorest fifth of the distribution for year after year, and differences across countries become more obvious. Taking a five year window, the proportion varies from five per cent of all children on the basis of current net income in Britain to nine per cent on the basis of annual gross income in the US: about 1 in 20 and 1 in 10 respectively. Persistence in low income is therefore higher in the US than elsewhere. It is half as high again as in Britain, for example, when the same income concept is used.<sup>13</sup>

The comparison with Hungary and Germany is hampered by the differences in income definitions. On the basis of current net income the proportion of children with low income five years out of five in these two countries is six and seven per cent respectively, just ahead of Britain. Over a ten year interval, six per cent of American children are found with low annual income in every year and five per cent of West German children (gross and net income respectively). Hence 1 in 20 children in both countries spend ten consecutive years in low income.<sup>14</sup>

The proportion of children ever touched by low income – the right hand side of Table 4 and the top panel of Figure 2 – rises as the observation window lengthens. Over two years the numbers are similar across countries, between 25 and 27 per cent on the basis of income, except in Russia where the greater mobility pushes the figure up to 31 per cent. Over five years one sees again that differences emerge. Hungary heads the rankings with 43 per cent of children found in the bottom fifth of the distribution in at least one year during the period on the basis of annual net income. This is ten percentage points more than in the US, where the lowest proportion of children ever to be touched by low income in five years is found (one third). Britain comes below Hungary and ahead of Germany in the range. Over ten years, more than two fifths of children are found in low income at least once in both the US and West Germany, with the higher of the two figures being for the German children – 44 per cent (on an annual basis) compared to 41 per cent.

### ▪ ***3.3 Middle class entry to low income – falling down the ladder***

The incidence of low income persistence among children is clearly of interest because of the repeated hardship this entails (with potential adverse consequences following childhood too). But one might also argue that the

<sup>13</sup> The difference is statistically significant at the 1 per cent level.

<sup>14</sup> As with the analysis of overall mobility, it should be borne in mind that the ten-year results refer only to those children aged 0–8 in the first year.

extent to which this influences the formation of policy depends on the perceived vulnerability of the ‘middle classes’ to becoming poor. An increase in their vulnerability may strengthen political support for income transfer programmes (or other policy measures) to reduce poverty. These considerations lead us to ask: how likely are middle class children to experience poverty?

Our answer to this question is based on calculations of the percentage of children in the middle fifth of the children’s income distribution in one year who are found in the poorest fifth of the distribution in a later year. This is shown in Table 5. When we look at distributions one year apart, we find similarities across countries. The low income entry rate for those in the middle class is about 5–6 per cent, with two exceptions: Ireland and Russia. The Irish rate appears somewhat higher than this (10 per cent), and the Russian one definitely does – between 12 and 17 per cent depending on whether an income or expenditure measure is used. The higher Russian figure is in line with everything we have seen earlier concerning the greater mobility in this country. The Irish figure is a puzzle however.

Table 5: *Middle class entry to low income: falling down the ladder*

Country	Percentage of children in the middle fifth falling to the poorest fifth	
	Between years $t-1$ and $t$	Between years $t-4$ and $t$
	<i>Current net income</i>	
Britain	4.7	13.3
Germany	4.7	9.5
West Germany	8.2	6.9
Hungary	4.9	9.4
Russia	12.8	
Spain	6.3	
	<i>Current expenditure</i>	
Russia	17.1	
Spain	8.4	
	<i>Annual net income</i>	
Germany	5.6	15.3
West Germany	6.1	9.5
Hungary	5.6	14.5
Ireland	10.0	
	<i>Annual gross income</i>	
Britain	5.6	16.5
USA	4.4	9.2

What would we judge to be a high – or a low – figure? In most countries, about 1 in 20 middle class children fall down the ladder into low income the following year. Is this figure high enough for the middle class as a whole to

feel a threat of a significant fall in income? This question is difficult to answer. It is not the actual figure itself that is critical; it is the perception that the fall could occur which will affect decisions, and the consequences of falling.

When the distributions being compared are five years apart, the entry rate to low income by middle class children increases, and cross-national differences become more apparent. The higher levels are to be expected – over a longer period of time there is a greater probability that children from the middle classes will see their incomes change. Rates, for example, appear higher for Britain than for the US (13 to 17 per cent depending on income definition compared to 9 per cent). Whether the vulnerability of Hungarian and (West) German children is nearer the endpoints of this range depends strongly on the choice of income measure: the rates based on current net income are markedly lower than the measures based on annual net income.

## 4. Poverty Transitions

What fraction of children live in households that have incomes that are well below the average, how likely are they to enter this state, what are their chances of leaving, and how long do they stay there? In the previous section we defined disadvantage as being in the poorest fifth of the income distribution. In this section we return to a conventional measure of relative poverty, as used in BJM Chapter 3 and in much of the rest of the book. That is, children are classified as poor in a particular year if the income of their household (adjusted for household size) is below half the median household income of all people in their country in that year.

We noted at the start of this chapter that, in general, we expect rates of entry to and exit from poverty (and hence the lengths of poverty spells) to be related to the poverty rate itself, providing a motivation for a focus on the poorest fifth of children in each case so as to standardise across country. Throughout this section we use a definition of disadvantage that results in a poverty rate which does vary markedly across our seven countries. We therefore need to justify our earlier statement. Having done this, we go on to describe how the pattern of poverty flows varies across the different countries.

### ▪ 4.1 *Poverty rates and flows*

The relationship between entries and exits and the poverty rate is easiest to see in the situation where the poverty rate does not change over time and where there is no statistical association at all between incomes this year and next year (in the sense that being poor this year conveys no information about whether one is more or less likely to be poor next year). In this case, the entry rate to poverty is equal to the poverty rate, and the exit rate is equal to one

minus the poverty rate. In other words, higher poverty rates mean higher chances of entry to poverty and lower chances of exit from poverty.

These relationships become more complicated when incomes in one year are associated with incomes in the next year, but the general point still holds. In countries with higher poverty rates we should expect to see the rate at which children enter poverty to be higher and the rate at which they leave poverty to be lower than in countries with lower poverty rates. Indeed, in one sense this is very obvious. To turn the argument the other way around, if the rate at which children enter poverty is higher than elsewhere and the rate at which they leave poverty is lower, then the overall proportion found to be poor at any one time is bound to be higher.

To go further with our investigation of the issue and then to inspect our data, it is useful to distinguish four measures of poverty flows.

- (a) *The exit rate*: the number of children leaving poverty expressed as a proportion of the number of children who were poor.
- (b) *The outflow fraction*: the number of children leaving poverty expressed as a proportion of the total number of children in the population (whether they were poor or not).
- (c) *The entry rate*: the number of children entering poverty expressed as a proportion of the number of children who were not poor.
- (d) *The inflow fraction*: the number of children entering poverty expressed as a proportion of the total number of children in the population (whether they were poor or not).

The rates and fractions represent alternative ways of normalising the number of movements into and out of poverty when looking at the change in the number of poor children between one year and the next. (The exit rate and the outflow fraction have the same numerator but different denominators, and so too do the entry rate and the inflow fraction.) If one assumes that the total number of children in the population remains constant, then one can say that the number of children poor this year is equal to the number of children poor last year, plus the number entering poverty between last year and this year, minus the number leaving poverty between last year and this year. If one normalises these raw numbers by the total number of children in the population, then one can say that this year's poverty rate is equal to last year's poverty rate plus the inflow fraction minus the outflow fraction. Alternatively, and restating the identity in terms of rates rather than fractions, this year's poverty rate equals last year's poverty rate multiplied by one minus the poverty exit rate, plus the poverty entry rate multiplied by one minus last

year's poverty rate.<sup>15</sup> If the inflow and outflow fractions are equal, then the child poverty rate stays constant.

These relationships highlight why one should be interested in rates for studying the evolution of poverty. But one cannot simply compare entry and exit rates across countries as the identities might suggest. The problem is that the elements on the right hand side of each identity are related to each other: one cannot just take the poverty rate as fixed and compare rates. The normalisations used to construct the flow rates and fractions convert the raw numbers to a comparable numerical scale. But they do not standardise for the link between the poverty rate and the exit rate and entry rate (or outflow and inflow fraction) – relationships that may vary across countries.

Inflow and outflow fractions will typically be higher in countries with higher poverty rates. This is because a high poverty rate usually means that the poverty line will be placed in a section of the income distribution containing more children, and so for a given amount of income movement more children will move across the line (in both directions).<sup>16</sup>

The exit rate is the average probability that a poor child will leave poverty. It depends on both the number of exits from poverty and the size of the poor population from which those exits must come. For a given number of exits, a higher poverty rate will mean a lower exit rate since the size of the poor population is larger. The association between the exit rate and the poverty rate is thus governed by two opposing relationships. First, more poverty means a higher outflow fraction. Second, more poverty means that this outflow is occurring from a larger number of poor children. The second effect can be expected to dominate – with *higher* poverty rates being associated with *lower* exit rates. Now consider the entry rate. First, more poverty means a higher inflow fraction and, second, more poverty means that this inflow comes from a smaller number of non-poor children. So in this case the effects work in the same direction, and a higher poverty rate will be associated with a higher entry rate.

#### ▪ **4.2 Cross-national differences**

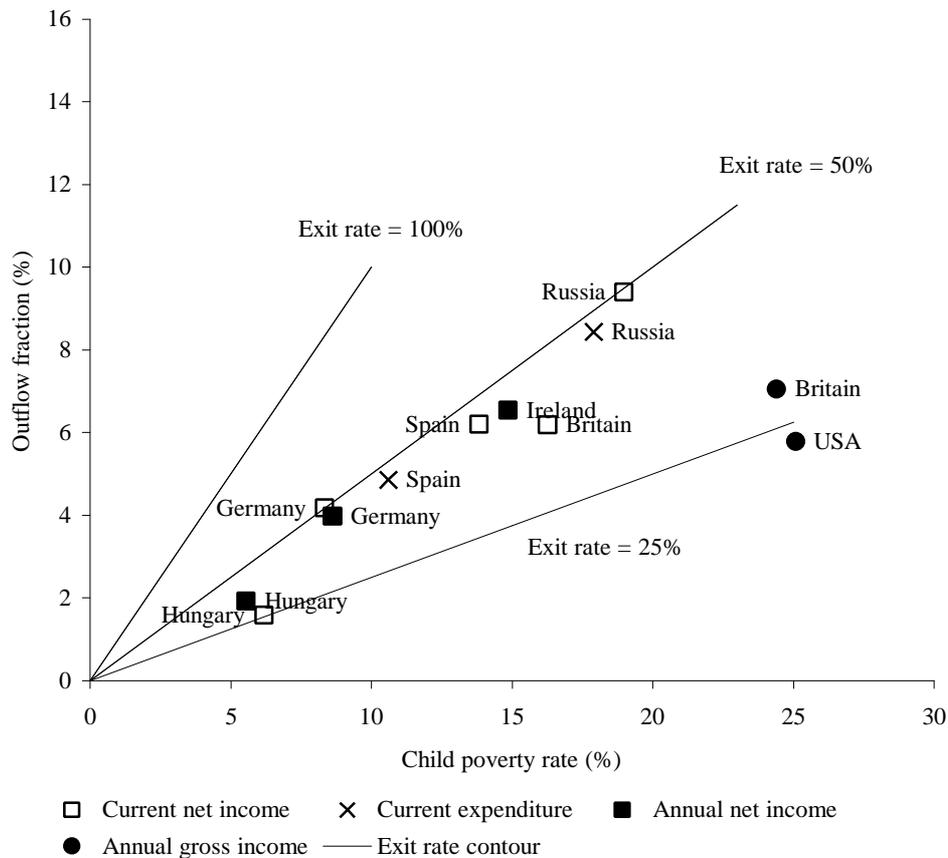
The discussion indicates that it is useful to examine cross-national differences in entry and exit rates within the context of differences in aggregate flows (summarised by inflow and outflow fractions) and poverty rates. Figures 3

<sup>15</sup> This restatement uses the fact that the inflow fraction equals the entry rate multiplied by one minus last year's poverty rate, and the outflow fraction equals the exit rate multiplied by last year's poverty rate. These relationships are used to construct Figures 3 and 4.

<sup>16</sup> This assumes that the concentration of children at points along the income range is increasing as income rises, which is usually the case at levels of income around the poverty line. It also depends on how we define a 'given amount of income movement'. In the simple Galtonian model of mobility described in footnote 11 this result will apply if we define mobility in terms of the correlation between incomes in one period and the next.

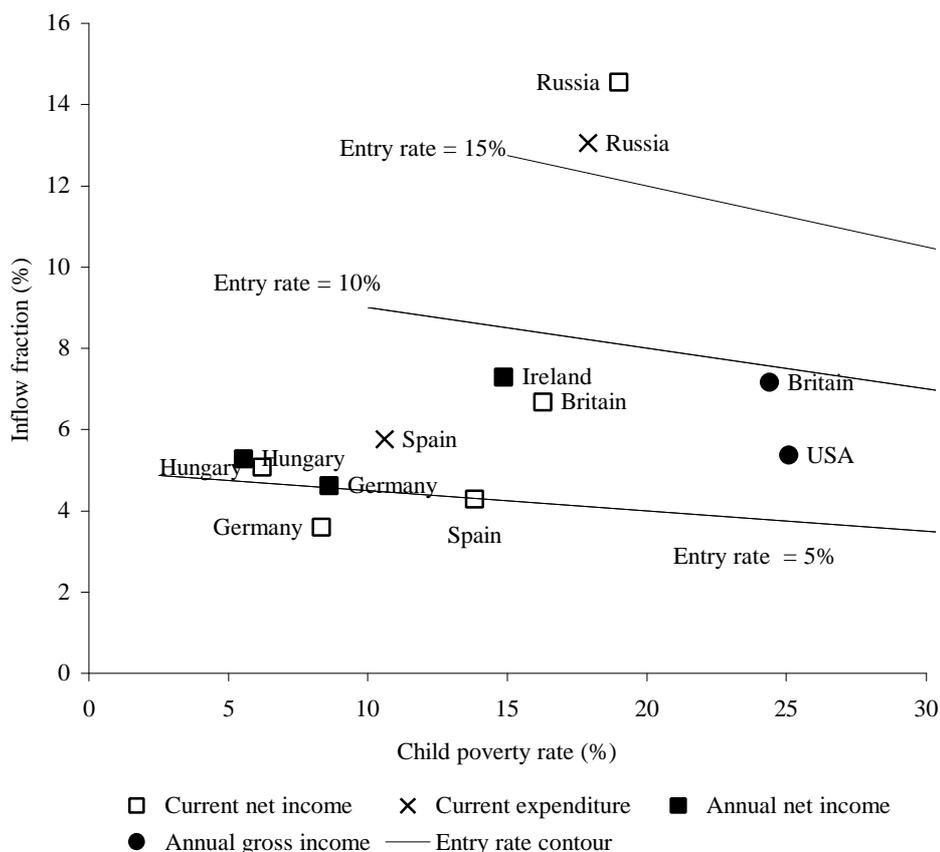
and 4 summarise the variations across our seven nations. The horizontal axis in each diagram shows the child poverty rate. (These are the rates in year  $t-1$  rather than year  $t$  as in Table 2.) The vertical axis in each diagram shows the (normalised) number of movements by children into and out of poverty between two years. In Figure 3 this is the outflow fraction and in Figure 4 it is the inflow fraction. In most countries poverty rates changed little over the two years concerned and so the inflow and outflow fractions for each country are very similar (Russia and Hungary are the key exceptions).

The straight lines drawn within these two diagrams show contours of the entry and exit rates respectively – that is, lines along which the values of these rates are the same. The lines in Figure 3 coming out from the origin (the point where the two axes meet) represent three different exit rates – 25, 50, and 100 per cent. Each of these contours shows the combinations of the poverty rate (horizontal axis) and the outflow fraction (vertical axis) that correspond to the exit rate concerned. Similarly, the lines in Figure 4 drawn from the 100 per cent point on the horizontal (poverty rate) axis – well off to the right of the edge of the diagram – show three different entry rates – 5, 10, and 15 per cent. Each of these lines shows the combinations of the poverty rate (horizontal axis) and the inflow fraction (vertical axis) that correspond to the entry rate concerned.

Figure 3: *Movements out of child poverty and the child poverty rate*

*Note:* The child poverty rate = number of poor children at  $t-1$  divided by the total number of children at  $t-1$ . The outflow fraction = number of children leaving poverty between  $t-1$  and  $t$  divided by the total number of children at  $t-1$  = the exit rate multiplied by the child poverty rate at  $t-1$ .

In both Russia and Hungary, child poverty increased significantly during the survey period and this is reflected by the inflow fractions being larger than the outflow fraction. In other words, these countries come much higher up on the vertical axis in Figure 4 than they do on the same axis in Figure 3. Between 1994 and 1995, the Russian child poverty rate increased by 5 percentage points (see Table 2). Figures 3 and 4 show that this increase arose from an inflow fraction from 13 to 15 per cent (depending upon the income definition) and an outflow fraction of 8 to 10 per cent. The previous section showed that Russia also stood out as having a particularly high level of mobility – Russia comes highest on the vertical axis of Figure 1 as well as in Figures 3 and 4. Hungarian child poverty increased by almost as much as in Russia, but from a much lower base.

Figure 4: *Movements into child poverty and the child poverty rate*

*Note:* The child poverty rate = number of poor children at  $t-1$  divided by the total number of children at  $t-1$ . The inflow fraction = number of children entering poverty between  $t-1$  and  $t$  divided by the total number of children at  $t-1$  = the entry rate multiplied by one minus the child poverty rate at  $t-1$ .

Across the other countries and income definitions, the exit rates are roughly constant in some cases – the symbols for four countries in Figure 3 are just below the 50 per cent line coming out from the origin, implying that nearly half of poor children leave poverty each year. In other cases the symbols are lower as the poverty rate increases, with the annual gross figures for Britain and the USA being the most obvious examples (their symbols are well out to the right, near the 25 per cent exit rate line).

As discussed earlier, the switch from gross to net income measures does make quite a difference to the poverty rate in Britain. However, in terms of the number of children entering or leaving poverty as a per cent of all children (the values on the vertical axes) the definitional change again makes little difference. But since this mobility is coming from a smaller number of poor children when we measure poverty using net income, the exit rate in this case is higher. We see that the symbol for current net income for Britain lies closer to the 50 per cent exit rate line while that for annual gross income lies closer to the 25 per cent line. Although Britain and the US have a similar child

poverty rate according to annual gross income, Britain has a slightly higher exit rate (though this difference is not quite statistically significant).

For the two countries where we have both annual and current net income (Germany and Hungary) both poverty levels and flows do not seem to vary much with changes in the period over which incomes are measured. The current gross income results for Britain are not shown in Figure 3 but are very similar to the annual gross results.

The income definition that is available for the greatest number of countries is current net income. Using this measure, the proportion of all children who leave poverty between the two years varies from under 2 per cent for Hungary to over 9 per cent for Russia. The spread of entry into poverty is even greater, ranging from over 14 per cent of all children for Russia to fewer than 4 per cent for Germany. Almost one in five (18 per cent) of those Russian children who were not poor in 1995 were below the poverty line in 1996.

Leaving the transition economies of Russia and Hungary to one side, the differences between the countries found in the movements into and out of poverty are less, but still considerable. In Germany, about 4 per cent of all children entered and 4 per cent left poverty between the two years, while in Britain 6 per cent left and 7 per cent entered. The child poverty rate in Britain was around double that of Germany so in terms of the probability that a poor child will leave poverty over the subsequent year (the exit rate), the ranking is reversed – it is Britain that has the lower exit rate (which can be seen in Figure 3 by comparing where the symbols lie with respect to the lines coming out of the origin). In 1995, about 8 per cent of German children were below the half median poverty line. One year later, half of these children had incomes above the poverty line. In Britain, on the other hand, even though more children left poverty as a percentage of all children, only 38 per cent of the children poor in 1995 were above the poverty line 12 months later.

For the most part, both poverty levels and poverty flows in Spain lie between that of Germany and Britain, while the situation in Ireland is similar to that of Britain (the net income symbols for the two countries are close to each other in both Figures 3 and 4). In Spain, the pattern of poverty entries and exits does vary somewhat according to the income measure used. While poverty measured according to expenditure increased slightly, when measured using current income it fell by 2 percentage points between 1991 and 1992 (see Table 2). This can be seen in the higher number of Spanish children leaving poverty according to this definition (Figure 3) and the lower number entering (Figure 4).

### ▪ 4.3 *Child poverty entry and exit rates*

The discussion above left open the question of whether it is more useful to summarise flows in terms of fractions or in terms of rates. Analysts focus on exit and entry rates because these have the closest links with the behavioural relationships that they like to model. The entry rate can be interpreted as an average probability that a non-poor child will enter poverty, and a natural development from this is to use multivariate methods to model individual probabilities of entry allowing for heterogeneity about the average, for which the estimation sample comprises those who are not poor (rather than the population as a whole). Similarly the exit rate is the average probability that a poor child will leave poverty and a natural development from this is a multivariate model of each child's probability of exit from poverty, based on the children who are currently poor. Let us therefore focus explicitly on the estimates of child poverty entry and exit rates for our seven nations (notwithstanding the standardisation issues). See Table 6.

Table 6: *Child poverty entry rates and exit rates*

Country	Entry rate (%)	Exit rate (%)
<i>Current net income</i>		
Russia	17.9	49.5
Britain	8.0	38.0
Spain	5.0	44.8
Hungary	5.3	25.1
Germany	3.9	51.8
West Germany	2.7	43.2
<i>Current expenditure</i>		
Russia	15.9	47.1
Spain	6.4	45.9
<i>Annual net income</i>		
Ireland	7.6	42.9
Germany	5.1	46.0
Hungary	5.6	34.6
West Germany	3.1	46.2
<i>Annual gross income</i>		
USA	7.2	23.1
Britain	9.4	28.8

*Note:* The entry and exit rates refer to movements into and out of poverty between year  $t-1$  and year  $t$ . Countries are sorted within each income definition in descending order of the child poverty rate.

There is clearly substantial cross-national heterogeneity in entry rates, regardless of which income definition is used. Obviously Russia has much the highest entry rate. Using a current net income definition, the rate, some 18 per cent, is roughly twice as large as the next highest rate, that for Britain (8 per cent). The range below this is quite large, with the smallest rate being for West Germany, about 3 per cent. The rates for the united Germany are a couple of percentage points higher, and those for Spain and Hungary slightly higher still. There is only a single exit rate estimate for the US, that using an annual gross income definition. The rate is just over 7 per cent, a couple of percentage points smaller than the corresponding British estimate.

When we look at the estimates of child poverty exit rates, Russia is no longer an outlier. About one half of all poor Russian children leave poverty between one year and the next, a rate which is of the same order as that in Germany (using a current income definition) and Spain (using a current expenditure definition). Now it is Hungary which stands out, in this case for having a relatively low exit rate: 25 per cent according to the current income definition and 35 per cent according to the annual net income one. Arguably the US also has a relatively low exit rate. At 23 per cent (using annual gross income), it is markedly lower than the corresponding rate for Britain (29 per cent), and with the other income definitions Britain's exit rate lies between the extremes of the range.

#### ▪ **4.4 *Poverty persistence***

When discussing earlier the persistence in low income (being in the poorest fifth of the distribution) over two years, we noted that the exit rate from low income in the first year and the proportion of all children who are in low income in both years contain the same information. An analogous situation is true of persistence in poverty.<sup>17</sup> And, as with Table 4, we can extend this concept of persistence over a longer interval by looking at the percentage of children who are poor five years out of five, or ten years out of ten. The patterns for persistence in poverty need not of course mimic the earlier ones for low income. Indeed, the cross-country picture will reflect in part the differences in poverty rates and hence, on the argument above, exit rates.

This is confirmed by the results shown in Table 7. For example poverty persistence appears to be relatively high in Britain and the USA, but these are the countries with the highest cross-sectional poverty rates (the 'in 1 wave'

<sup>17</sup> The proportion of all children who spend two out of two years poor is given by one minus the exit rate multiplied by the reciprocal of the poverty rate in the first wave. This proportion can also be read off Figure 3 since the number of children who are poor two out of two years is equal to the number poor in year  $t-1$  minus the number who leave poverty the next year. Hence, lines drawn parallel to the 100 per cent line in Figure 3 represent contours (lines where the value is unchanged) of the two-out-of-two rate, with values read off from the intersection of these lines with the horizontal axis.

figures are the cross-sectional poverty rate in the latest wave of data). And Germany has relatively low persistence but also has a low cross-sectional poverty rate.

Table 7: *Poverty persistence among children*

Country	Percentage of children with household income always below half median income				Percentage of children with household income ever below half median income			
	In 1 wave	2 out of 2 waves	5 out of 5 waves	10 out of 10 waves	In 1 wave	In 2 waves	In 5 waves	In 10 waves
<i>Current net income</i>								
Britain	16.8	10.1	3.3		16.8	22.9	39.3	
Germany	7.7	4.1	1.5		7.7	11.9	15.6	
West Germany	6.8	4.3	1.7	2.2	6.8	10.0	14.5	21.3
Hungary	9.7	4.6	2.1		9.7	11.2	19.5	
Russia	24.1	9.6			24.1	33.5		
Spain	11.9	7.6			11.9	18.1		
<i>Current expenditure</i>								
Russia	22.5	9.5			22.5	31.0		
Spain	11.5	5.7			11.5	16.4		
<i>Annual net income</i>								
Germany	9.3	4.7	0.7		9.3	13.2	17.9	
West Germany	6.9	4.1	2.0	0.4	6.9	10.4	16.3	21.5
Hungary	8.9	3.6	2.2		8.9	10.8	17.5	
Ireland	15.6	8.3			15.6	21.3		
<i>Annual gross income</i>								
Britain	24.5	17.4	9.3		24.5	31.5	43.0	
USA	24.7	19.3	13.0	6.8	24.7	30.4	37.6	44.7

In one sense the table may be interpreted optimistically for it shows that as the window of observation is extended, the number of children who are persistently poor falls quite sharply. The proportion poor in every one of five years is about one half (or smaller) of the proportion poor two years out of two for those countries where we have data.

On the other hand, the sheer numbers of children in persistent poverty over the longer periods are alarming in some countries: roughly speaking 1 in 10 children are found poor for five consecutive years on the basis of annual gross income in both Britain and the US. These countries had virtually identical one-year poverty rates on this income measure (25 per cent), which means that the problem of comparing flows when poverty rates differ substantially does not arise. Persistence of poverty over five years was actually somewhat

higher in the US: 13 per cent of all American children were poor in every year compared to 9 per cent of British children.<sup>18</sup>

A much more positive picture is found in those countries with lower cross-section poverty rates. In both West Germany and Hungary only around 2 per cent of children were poor for the full five years.

The right hand side of Table 7 reinforces the pessimistic view of the situation: the proportion of all children who are ‘touched’ by poverty at some time increases sharply as one considers a longer interval of time. For example, the proportion of children in West Germany experiencing poverty at least once over five years is more than twice the proportion of children poor at a point in time. The percentage touched by poverty at least once over ten years is three times larger than the cross-section rate. In those countries with five years of data, the number experiencing poverty is never less than 1 in 7 on any definition of income and is as much as 40 per cent or more in Britain. Over 10 years, even in Germany the figure rises to 1 in 5 and it is double this in the US.

The comparison of the annual gross income figures over five years for Britain and the US show Britain to be the country where more children are in poverty for at least one year. This is the corollary of the larger fraction of US children who are poor in all years over a five-year period shown in the left-hand side of the table. While it is not logically necessary that the two patterns be linked, if mobility is generally less in the US we would expect to find fewer children experiencing poverty. Given some fixed level of poverty in each year, the concentration of poverty among a smaller group does mean that the remaining children will be less likely to experience poverty.

For all countries, the figures in the right hand side of Table 7 are a reminder of the much larger numbers of children that are likely to have been helped by benefits targeted at families with low income if one takes a longer time frame than one year.

## 5 A Closer Look at Dynamics

In this section we examine two aspects of child poverty dynamics in greater detail for our seven countries. First, we focus on the ‘near’ poor – those children just above the poverty line – and examine the extent to which movements into and out of poverty involve this group. Second, we provide information about how entry and exit rates differ between children in lone-parent households and those households where both parents are present.

<sup>18</sup> The difference is significantly different at the 1 per cent level. Indeed, the average poverty rate across the five years was slightly lower for the US (24 versus 25 per cent) reinforcing the conclusion that the difference is due to the different mobility patterns in the two countries.

### ▪ 5.1 *‘Near poverty’ and movements around the line*

We are interested in the extent to which movements into or out of poverty involve small or large changes in income. If the majority of income changes over the poverty line are small, then the exits and entries that we have been counting are less likely to involve the discrete changes in living standards which the zero/one measure of poverty (‘out’ or ‘in’) suggests. Viewed another way, if a large number of entries and exits involve those just above the line then many children may be thought of as ‘hovering’ near poverty. An exit from poverty, for example, may well not represent a genuine escape from low living standards.

Table 8 shows the share of entries and exits to and from poverty over a one year period that involve those children that come just above the poverty line – the ‘near poor’. We use the same poverty line of half national median income used earlier in this section, and define ‘near poverty’ to be having an income between 50 and 60 per cent of the median. The near-poverty estimates may be contrasted with the child poverty entry and exit rates that were given in Table 6. The countries are sorted in Table 8 within each income definition in descending order of the child poverty rate, an ordering that corresponds quite well to that given by the entry rate, as our reasoning at the beginning of the last section would lead one to expect.<sup>19</sup>

There is no particular reason to expect the share of entries that come from children in near-poverty to correspond to the share of all exits to the same income range. It may be that small increases in income, for example those that come from annual wage increments, are more common than small reductions, with falls in income when they happen, being more likely to be large. (On the other hand it is easy to think of many examples when rises in income could be large too, for example when a parent gets a job or a lone parent re-partners.) In this case, the profile of income changes over time may be a series of small rises punctuated by occasional sharp falls. If this were the general pattern of income change we would typically observe a larger share of exits from poverty going to near-poverty – as families moved from just below to just over the poverty threshold – than the share of entries coming from the same income range, reflecting the larger income falls that those entering poverty were experiencing.

<sup>19</sup> The child poverty rates are those for all children in the data in both sampled years and are the same as those displayed on the horizontal axes in Figures 3 and 4.

Table 8: *Entry from and exit to 'near poverty'*

Country	Children entering poverty		Children exiting poverty	
	Share of entries coming from 'near poverty' (%)	Share of entries coming from 'near poverty' and going to 'just below the line' (%)	Share of exits going to 'near poverty' (%)	Share of exits going to 'near poverty' and coming from 'just below the line' (%)
<i>Current net income</i>				
Russia	10.4	3.5	19.9	6.7
Britain	57.2	40.3	43.9	20.7
Spain	38.1	22.4	36.9	17.1
Hungary	56.6	48.4	33.8	23.0
Germany	53.7	36.2	37.3	30.7
West Germany	39.1	26.1	29.5	27.2
<i>Current expenditure</i>				
Russia	17.5	6.6	21.8	11.3
Spain	29.7	19.6	30.8	19.2
<i>Annual net income</i>				
Ireland	33.2	25.9	47.3	44.8
Germany	41.7	13.1	29.5	12.6
Hungary	44.1	35.9	47.3	21.9
West Germany	21.3	7.5	37.0	8.9
<i>Annual gross income</i>				
USA	38.9	16.9	28.9	18.9
Britain	29.1	15.6	33.2	14.8

*Note:* 'Near poverty' is defined as income in the range 50-60 per cent of the median; 'just below the line' is defined as income in the range 40-50 per cent of the median. Countries are sorted within each definition in descending order of the child poverty rate.

Looking first at the results for current net income, we see that, if anything, with this income definition the opposite pattern is found. In all but one case, Russia, the share of entries from near-poverty is higher than the share of exits that go to near-poverty. In three cases, Britain, Hungary and Germany, the entry share is a lot higher. In Hungary it is over 20 percentage points higher. Child poverty rose sharply between the two years in question in this country (see the final column of Table 2) and it may be that this is the explanation: the rise in poverty being driven by a fall in income among households with children that were hovering near the poverty line. But the figures for Russia, where poverty among children rose even more over the 12 months concerned, show that no such general rule applies.

According to the current net income measure, about a third (or rather more) of all exits are to near-poverty in most cases, but with a notably larger share than this found in Britain (44 per cent) and a lower share (20 per cent)

in Russia, where we have emphasised that recorded income mobility is greater than elsewhere. A notable minority of children who leave poverty are therefore not seeing their family incomes improve by a great deal. But viewed another way, the majority of exits in all countries do involve increases in income that take previously poor children a significant distance (in percentage terms) away from the poverty line.

Staying with the current net income measure, the same sort of statement that has just been made does not apply to entries to poverty. In the case of the three countries mentioned above, Britain, Hungary and Germany, a minority of entries are coming from above 60 per cent of median income. In these countries the majority of entries come from the near-poor children. (It is notable however that the figures for Germany as a whole and West Germany are rather different.) Russia, with its greater mobility, is the real exception – here only 1 in 10 entries are from among the near-poor children.

Turning to other income measures, the pattern of results changes somewhat, emphasising the danger in telling a general story based on a particular measure. In the case of current expenditure, the shares of entries from and exits to near-poverty in Spain are lower than for current net income, reflecting the (surprisingly) greater mobility of children on the basis of expenditure that we noted earlier in Section 3. The annual net income figures show only one country, Germany, to have a higher share of entries from near-poverty than exits to this state, so the general pattern seen with the current net income figures is not repeated. The larger share in the case of exits is particularly notable for Ireland – only a third of entries are from near-poor children but nearly a half of exits by children are to near-poverty. In the case of Hungary, the switch from current to annual net income leads to the share of entries from near-poverty falling, from 57 per cent to 44 per cent and, in contrast to the situation with net income, in no country does the majority of entries with annual net income come from among the near-poor children.

The figures for annual gross income for Britain show notably lower shares for the entries from and exits to near-poverty than for current net income, especially for entries. The share of entries by British children from near-poverty on the basis of annual gross income is only half that found for current income – 29 per cent compared to 57 per cent. The figure for the US for exits is similar to that for Britain, with both showing somewhat more (Britain) or less (US) than 30 per cent of exits going to near-poverty. These two countries' annual income figures clearly show that the majority of both entries and exits do not involve near-poor children.

Finally, we look at the share of all entries that involve movement not only from near-poverty but that also go to an income range just below the poverty line, namely 40–50 per cent of median income. Similarly, in the case of exits we measure the share of children that both go to near-poverty and also start from the 40–50 per cent of the median range. The percentage shares in each

case are given in the second column under each of the ‘Children entering poverty’ and ‘Children exiting poverty’ headings. These are the movements over the poverty line that involve smaller income changes than others, although it should be noted that they include moves that are both very small, for example from 51 to 49 per cent of the median and those that are considerably larger, for example from 60 to 40 per cent. While the former implies a very small change in living standards (and might be due to merely a change in the error with which income is measured from one wave of a panel survey to the next) the latter will be associated with a more appreciable fall.

These figures show great diversity, but the patterns naturally reflect those for all entries from and exits to near poverty. Whereas only 4 per cent of all entries to poverty in Russia on the basis of current net income involved a movement from 50–60 per cent of the median to 40–50 per cent, the figure was as high as 48 per cent in Hungary. And for exits, only 9 per cent of the total in West Germany on the basis of annual net income involved movement from ‘just below’ the line to near poverty above the line, whereas this was the case in 45 per cent of all exits in Ireland. A general result coming out of the table is that the great majority of entries and exits by children on most income definitions do not involve movement between ‘near poverty’ and being ‘just below’ the poverty line.

These last results in Table 8 can be seen as strengthening our confidence in much of what we are measuring. Most movements across the poverty line are the result of income changes that are not insignificant. But the other results in the table tell us that a significant minority of movements into and out of poverty in most countries do involve incomes that are not a great deal higher than the poverty line. This is a reminder that children experiencing poverty at some time in their childhood may often be close to being poor at other times.

## ▪ *5.2 Children in lone parent households*

We now turn to explore the movements in and out of poverty by children in lone parent households. It is well known from cross-section studies (see BJM Chapter 3) that children in lone parent households suffer higher poverty rates than other children. What does this higher poverty risk imply about these children’s entry and exit rates?

In Table 9, we show a number of indicators comparing the poverty status of children in lone parent households with that of all children, taking, as before, a poverty line of half the national median income (adjusted for household size). For pragmatic reasons our definition of ‘lone parent’ households is a restricted one. Children are defined as being in a ‘lone parent’ household if their household contains one, and only one, adult, and this is true in both the most recent survey wave and in the previous year. This definition means that households comprising children plus a parent and other adult relatives will not be included among our definition of lone parent households.

Nor does our definition require the single adult to be a parent. The restriction to children in lone parent households in both surveyed years means that we cannot describe the movements into and out of poverty associated with demographic changes such as divorce or separation and remarriage, factors that we noted in BJM Chapter 2 as important causes of entry and exit (especially the former). Our definition means that we can only look at the movements that children in lone-parent households make into and out of poverty once they are already in such households.

Table 9: *Poverty and exits from poverty for children in lone parent households*

Country	Children in lone parent households as a share of:		Poverty rates		Outflow fractions		
	All children (%)	Poor children (%)	All poverty exits (%)	Lone parent households (%)	All children (%)	Lone parent children (%)	All children (%)
<i>Current net income</i>							
Britain	15.0	41.2	33.5	44.7	16.3	13.8	6.2
Russia	6.4	11.7	7.8	35.0	19.0	11.5	9.4
Germany	7.7	31.2	19.5	33.6	8.3	10.6	4.2
Spain	2.2	5.6	5.0	35.7	13.8	14.2	6.2
Hungary	7.0	6.5	17.1	5.8	6.2	3.9	1.6
<i>Current expenditure</i>							
Russia	6.4	10.7	9.3	30.0	17.9	12.3	8.4
Spain	2.2	4.9	6.2	23.8	10.6	13.7	4.9
<i>Annual net income</i>							
Ireland	2.9	12.6	3.1	65.2	14.9	7.0	6.5
Germany	7.7	31.5	19.7	35.1	8.6	10.1	4.0
Hungary	7.0	11.6	16.2	9.3	5.6	4.5	1.9
<i>Annual gross income</i>							
Britain	12.7	37.6	23.8	72.2	24.4	13.2	7.0
USA	22.3	56.9	35.9	63.9	25.1	9.3	5.8

As we have already seen in BJM Chapter 3, the prevalence of lone parenthood varies widely across industrialized countries, including the seven that are the focus in this chapter. The figures in the first column of Table 9 differ somewhat from those for the same countries in Table 3.3 (there are differences in the data sources and in the particular samples drawn from them), but the basic picture is the same. In Spain and Ireland only 2 to 3 per cent of children are in lone parent households, while over one-fifth are in such households in the US. Britain also has a high lone parenthood rate, while the remaining countries have between 6 and 8 per cent of children in lone parent households.

In all countries, except for Hungary (where there are only 36 lone parent households in our sample), the poverty rate for children in lone parent

families is higher than for other children, so that their share of poverty (given in the second column in the table) is greater than their population share. In Spain, about a quarter to a third of lone parent children are poor, in Russia and Germany about a third, and in Ireland, Britain and the US the figure is around a half to two thirds. These comprise over half of all poor children in the US, around 40 per cent in the UK, and a third in Germany. In Russia, Spain and Hungary, lone parent children make up a small proportion of poor children.

From our discussion in Section 4, we expect that higher poverty rates for children in lone parent households will mean a greater number of such children moving into and out of poverty than of children as a whole. This is indeed the case here. Excluding Hungary and Ireland where sample sizes are small, the table shows that the outflow fraction is about 8 to 14 per cent for lone parent children. Similar fractions of lone parent children enter poverty (not shown in the table). These are higher than the inflow and outflow fractions rate for all children, which are generally between 4 and 9 per cent (see Figures 3 and 4).

However, these flows out from poverty need to be assessed in the context of the larger proportion of lone parent children who are poor. For any given poor child, the probability of leaving poverty over the following year is almost always lower if he or she lives in a lone parent household, that is the exit rate is lower for lone parent children. This can be seen from the fact that the proportion of all exits from poverty which are made by lone parent children (the third column in Table 9), is, except in Hungary and in Spain (on the basis of expenditure), lower than the share of all poor children who are in lone parent households (given in the second column).

The differences in exit rates between children in lone parent households and other children are shown directly in Table 10. In most cases the exit rate for lone parent children is well below that of other children. The table also shows the differences in entry rates to poverty. Again, one can see that lone parent children have a much higher risk of becoming poor. Indeed, the difference in entry rates is even more notable than that for exit rates in some cases. Lone parent children have an entry rate that is six or eight times the rate for other children in Germany (depending on the definition of income that is taken) and, on the basis of current income, twice as high in Spain and five times higher in Britain. In the US, lone parent children have an exit rate that is less than half that of other children but their entry rate is nearly six times as high. However, comparison of the different British results based on current net and annual gross incomes shows that the results can be sensitive to the income measure taken. In contrast to the results with current net income, the annual gross figures show lone parent children in Britain to suffer the same disadvantage on both entry and exit rates – they are twice as likely as other children to enter and half as likely to exit.

Discussion of lone parent poverty is often framed in terms of the policy required to move lone parents out of poverty. In other words, the focus is on increasing the exit rate. Our results in Table 10 show that addressing the problem is as much, or more, a case of preventing lone parent children from becoming poor in the first place – a case of taking action to reduce the entry rate.

Table 10: *Poverty exit and entry rates: children in lone parent households and other children*

Country	Exit rate Lone parent children (%)	Other children (%)	Ratio <sup>a</sup>	Entry rate Lone parent children (%)	Other children (%)	Ratio <sup>b</sup>
<i>Current net income</i>						
Britain	30.9	42.9	0.7	24.2	4.5	5.4
Russia	32.8	51.7	0.6	22.7	17.5	1.3
Germany	31.5	58.7	0.5	16.0	2.8	5.7
Spain	39.7	45.1	0.9	10.8	4.8	2.2
Hungary	67.3	22.7	3.0	4.0	5.5	0.7
<i>Current expenditure</i>						
Russia	41.0	47.9	0.9	23.3	15.3	1.5
Spain	57.8	45.2	1.3	10.1	6.4	1.6
<i>Annual net income</i>						
Ireland	10.7	48.8	0.2	16.9	8.3	2.0
Germany	28.8	54.0	0.5	26.1	3.1	8.4
Hungary	48.2	32.8	1.5	11.4	5.1	2.2
<i>Annual gross income</i>						
Britain	18.3	35.2	0.5	15.6	8.2	1.9
USA	14.5	34.3	0.4	17.2	3.0	5.8

Note: <sup>a</sup>Ratio of exit rate for lone parent children to exit rate for other children. <sup>b</sup>Ratio of entry rate for lone parent children to entry rate for other children.

## 6. Summary and Conclusions

This paper has presented many new results on the movements made by children into and out of poverty in a range of industrialized countries. In doing so we have extended in several important respects what was known from the findings of the pioneering cross-national study of low income dynamics of families with children by Duncan et al. (1993). We have looked at a different set of countries to Duncan and his colleagues (although with some overlap); we addressed the issue of standardising for differences in the number of poor children across countries; we have shown the sensitivity of results to different income measures; and we have focused firmly on the child as the unit of analysis rather than the family.

Our results underline that the longitudinal perspective of child poverty adds a great deal to one's view of childhood deprivation. Some of our key findings are as follows:

- Around 60 per cent of children who were found in low income (the poorest fifth of all children) in most countries in one year were still there the next year.
- 9 per cent of US children were in the poorest fifth in every year of a five year window and around 6–8 per cent of children were in the same situation in Britain, Germany, and Hungary.
- Over a 10 year window at least 40 per cent of German and US children were found in the poorest fifth at least once.
- 1 in 10 children in Britain and the US are found in poverty (defined using a half median line) in 5 consecutive years.
- Between 15 and 20 per cent of children in Germany and Hungary, and about 40 to 45 per cent of children in Britain and the US were found in poverty (below half of median income) at least once over five years.
- There are notably higher rates of entry to poverty as well as lower rates of exit from poverty by children in lone parent households.

One feature of our results that contrasts with those in BJM chapter 3 (cross-sectional analysis of child poverty using Luxembourg Income Study data) is the similarity in some of the patterns of income and poverty mobility among children in the seven countries we have studied. Whereas BJM Chapter 3 shows clear differences across countries in the cross-sectional incidence of child poverty, in this paper we have seen correspondence in some aspects (although certainly not all) of the dynamic picture of deprivation. We find, for example, that longer-term indicators of poverty follow much the same pattern of variation across countries as do short-term indicators. Admittedly, this may be due to the fact that for several countries we have only been able to examine living standards over two consecutive years. Future research that exploits a larger number of longer panels may find more clear differences between countries.

Perhaps the most interesting example of cross-country similarity, however, does not suffer from a limitation on the length of the observation window. As was emphasised in the previous chapter, the US stands out as a country with both a high average standard of living and a high child poverty rate. In this chapter we have been able to see if the high US poverty rate among children is 'compensated for' by a greater degree of turnover – by a more equally shared experience of being poor. Exploiting the longer panels at our disposal, we have been able to compare the dynamics of poverty in the US over a period of five years with those in three other countries and over ten years with one other. We do not find any evidence that the less regulated US economy is associated with greater mobility by children across the income distribution or

by more movements in and out of poverty. Indeed, in some respects mobility in the US appears to be less than in countries such as Britain and Germany.

The most obvious exception to any broad conclusion of uniformity in dynamic patterns of deprivation is that of Russia. The turmoil of economic transition has led to great income mobility and large movements into and out of poverty. Russian children in the mid 1990s were much more likely to move into or out of the group forming the poorest fifth than were children in the other countries that we have studied. When the Russian economy stabilises it is likely that the high rates of flow into and out of poverty that we observe will begin to decline to the levels seen in the other countries in our study.

The conventional cross-sectional poverty rate will be a misleading indicator of trends in social welfare under these circumstances. If the poverty rate were to remain constant while mobility dropped, this would mean that the proportion of all children experiencing long spells of poverty had continued to increase. In other words, changes in dynamic patterns can have as important an impact upon child well-being as changes in the cross-sectional poverty rate. We might derive a quite misleading picture of trends in living standards if we focus on one but not the other. Not only for Russia but also for other countries where changes are not so dramatic, information on the dynamics of low household income are essential for obtaining an adequate picture of economic disadvantage among children.

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