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Executive Summary

The first half of the 1990s brought major changes to Hungary. The positive sides of the transformation in the Hungarian economy and society were accompanied by less welcome aspects – a sharp fall in GDP, double-digit unemployment and falling real incomes. How have children fared in these circumstances? This paper considers the changing position of children in the Hungarian income distribution, comparing it to that of the elderly – another potentially vulnerable group whose incomes, like those of households with children, are a concern for policymakers.

The data used are drawn from the Hungarian Household Panel Survey (HPS) for the years 1992-96, a survey of about 2,000 households. (These years saw a modest rise in income inequality recorded in the HPS, but a sharp fall in real incomes.) As a panel survey, this source allows the same individuals and households to be followed from one year to the next. The paper exploits this feature of the data by looking at income mobility. How much do households' incomes change from year to year? One aspect of this question is the persistence of poverty. Are the households at the bottom of the income distribution always the same ones or is poverty a transient phenomenon with much movement in and out of low incomes? Again, in looking at this issue the paper contrasts children and the elderly.

The position of children (defined as persons aged 0-16) in the income distribution relative to that of the elderly (persons over pension age) has worsened markedly. (Results refer to the per capita distribution of annual incomes.) In 1992, 54 percent of children were found in the bottom four deciles of the income distribution, but by 1996 the figure had risen to 63 percent. By contrast, the proportion of elderly in this part of the income distribution fell over the period from 37 percent to 22 percent. (Taking the bottom two deciles, the figure for children went up from 32 percent to 38 percent, while that of the elderly fell from 15 percent to 7 percent.) The relative position of children to that of the elderly has clearly worsened sharply.

The data show that there is a considerable degree of income mobility from one year to the next. (One implication of this is that the inequality of households' incomes aggregated over the five years covered by the survey is less than that in any individual year.) For example, more than half the population

in the middle three quintiles (the middle 60 percent of the distribution) change quintile between years. However, the distance moved in the distribution is typically not large – households changing quintile are mostly landing in neighbouring quintiles. Mobility has gone down over time; more persons stayed in the same income groups in 1995-96 than had done so in 1992-93.

The paper's analysis of poverty defines the poor as those in the bottom fifth of the income distribution. However, the proportion of the population experiencing poverty at some time over a number of years is higher than 1 in 5 due to income mobility – some households move out of poverty from year to year, while others move in. Overall, about one-third of individuals experience poverty in at least one year out of the five covered by the data (they live in households that are found at least once in the bottom fifth of the income distribution). The figure is notably higher for children – one-half of children experience poverty at some time – and lower for the elderly – one-quarter. And whereas less than 2 percent of the elderly are always in poverty over the five years, this is true of as many as 12 percent of children.

Analysis of the income "paths" of those observed beginning a poverty spell shows that most families escaped from poverty within a couple of years. However, there was much re-entry to poverty – a considerable proportion of persons who escaped from poverty were again living on low incomes within three years. Children were also less well off in this respect, with a high re-entry probability.

The paper shows the importance of a dynamic perspective of households' incomes in a transition economy such as Hungary – both how children move as a group within the income distribution and how the incomes of individual households with children change.

Abstract

New evidence is provided about the Hungarian income distribution, including income mobility and poverty dynamics, using data from the first five waves of the Hungarian Household Panel Survey, 1992-96. The results show growing inequality over time, coupled with declining real income, with children becoming increasingly concentrated in the bottom part of the income distribution. Considerable year-to-year income mobility takes place, although long-range mobility is rare. Poverty persistence affects a small segment of the population; however, children are more likely to become and to remain poor than are the elderly.

Keywords: Inequality, Income Distribution, Income Mobility, Poverty, Hungary
JEL classifications: D31, D63, I32 ■

1. Introduction

Hungary, like other countries in transition, has undergone a profound crisis affecting social and economic institutions. The transformation has been accompanied by emerging open unemployment; GDP has dropped massively, and most components of the labour market have suffered. Between 1990 and 1994 the number of the employed decreased by 1.4 million, and more than one-fourth of all jobs were eliminated. Half of the people who lost their jobs have become unemployed, while the other half have left the labour force. The transition has been coupled with declining real wages and incomes.

The fact that more jobs disappeared in the first half of the 1990s than had been created during the four decades of state socialism raises the question of how best to keep intact the existing social safety net or redesign social policy so as to protect the population. The problem of income inequality and poverty has thus become one of the main concerns of scholars and international institutions (Atkinson and Micklewright 1992, Barr 1994, Commander et al. 1995, Jarvis and Pudney 1995, World Bank 1996a, Newbery 1995).

The transition to the market economy has been expected to bring about greater wage and earnings dispersion for those remaining employed and thus lead to the more unequal distribution of income. Falls in the number of employees might in itself produce growing income inequality if job losers are not randomly distributed among households. The income from property has been gaining importance as a result of privatization and the development of capital markets, but it is not likely that the distribution of such income among the population will reduce income inequality. The transition may thus generate more overall income inequalities unless the government can offset these tendencies by maintaining a social safety net.

In Hungary most studies based mainly on cross-sectional analyses of income

distribution conclude that income inequality has widened during the transition, though to a lesser extent than it has in some other economies in transition. There has been debate on how the government should reform the system of income support in order to avoid the emergence of massive and persistent poverty and at the same time reduce the burden of the state budget. Although several studies have been devoted to income inequality and its welfare consequences, many questions have still not be settled (Andorka and Spéder 1994, 1996, 1997a, 1997b, Förster and Tóth 1993, 1997, Jarvis and Micklewright 1995, Jarvis and Pudney 1995, Micklewright and Nagy 1996, Tóth 1996a, 1996b, World Bank 1996b). This is at least partly due to the lack of empirical analysis.

This paper is intended to provide some of the background necessary for a well-founded policy debate. A better understanding of the nature of the problem requires information on at least three aspects of income inequality: first, the way income is distributed among households in a given year and how this changes over time; second, the way population groups move up and down the income ladder over time, and, third, the way households change places in terms of relative incomes over a given period. The paper addresses these issues through an examination of the dynamics of income distribution in Hungary between 1992 and 1996 on the basis of data from the Hungarian Household Panel Survey initiated, designed and conducted by Tárki (Informatics Centre for Social Research). It seeks to complement the findings of earlier papers using the same data set (Andorka and Spéder 1994, 1996, 1997a, 1997b, Förster and Tóth 1993, 1997, Tóth 1996a, 1996b, World Bank 1996b). The Tárki panel survey is the only data source allowing an analysis of income inequality over the period on an annual basis and among the same households. The sample size is small, however, and this permits only limited disaggregation.

We focus on cross-sectional inequality, income mobility and poverty dynamics, and we pay particular attention to the situation of children and the elderly, two potentially vulnerable groups whose income position is a principal concern for policymakers.

The paper is divided into six sections. Section 2 provides information on data and definitions. Section 3 investigates household income inequality by comparing samples for individual years with the help of standard inequality indices (percentiles, shares, decile ratios, and Gini and Theil indices). The income concentration among children and the elderly is also considered. Section 4 deals with income mobility. Composite inequality indices (percentiles and Gini, Theil and Shorrocks immobility indices) are presented, together with income mobility and transition matrices. In Section 5 we take a look at poverty dynamics by making use of poverty incidence tables, income trajectories and survivor functions and by analysing why children and the elderly escape from and fall back into poverty. We present some of the socio-

economic and demographic characteristics of those people who receive low incomes over the long term and those who are able to lift themselves from the ranks of the poor. We also examine the links between economic and demographic features and the persistence of poverty. Section 6 concludes.

2. Data and Definitions

The paper is based on the first five waves (1992 to 1996) of the Hungarian Household Panel Survey conducted by Tárki. Detailed information on sample design and representativity, as well as data analyses, can be found in the Tárki annual reports (Tóth 1994, Sik and Tóth 1993, 1996, 1997) and in Tóth's (1995) article dealing with the methodological aspects of the panel survey. Only some general information is presented here.

The first wave (1992) included a nationally representative sample of Hungarian households. The original sample reflected the Hungarian population as well (by age, sex and schooling). The sampling unit was the home (more exactly, the home address). Household and individual questionnaires were filled out for all households in a home and for all household members above 15 years of age. All persons living in first-wave households were followed and reinterviewed at one-year intervals, irrespective of changes in their status within the households and even if they quit the original households and found new ones.

Originally, the panel included two samples: a national one and a Budapest one. The national sample comprised 2,059 households and 5,770 individuals in 1992. These numbers first decreased (1,931 and 5,415 for 1993 and 1,814 and 5,182 for 1994) and then, in 1995, increased (1,992 households and 5,501 individuals) because the national and Budapest samples were united for the fourth and fifth waves. The number of households and individuals interviewed during the last wave (1996) was 1,744 and 4,826, respectively. The response rate among households fluctuated between 85 and 91 percent.

All the surveys were conducted in the spring and early summer, thereby taking into consideration the fact that personal income tax declarations are due at the end of March. This rendered it possible for the surveys to obtain a more accurate picture of individual and household earnings and income. The questionnaires included queries about individual and household net and after-tax earnings and income. We use total annual household per capita income (most recent 12 months, from April of the previous year to March of the actual year).[1]

In this paper we work with several samples. In Section 3 cross-sectional house-

[1] For detailed information on the income types included and how household income is computed, see Förster and Tóth (1997), Annexe 4.

hold income inequality is examined on the basis of samples of households in any of the waves. These are therefore "unbalanced" samples; for each wave, each of the households in the wave is included irrespective of its presence or absence in other waves. We make use of household per capita income and inequality indices constructed on the basis of the individual distribution of income. To handle panel attrition, we employ cross-sectional weights for 1993 to 1996.

An unweighted (and "balanced") sample of persons in all waves allows us, in Section 4, to analyse five-wave income mobility using the last 12-month household per capita income (individual distribution) converted to March 1992 prices. Then, we present income quintile transition matrices on (unbalanced) samples of individuals in pairs of consecutive waves where the quintiles also reflect the individual distribution of per capita income.

In Section 5 we examine poverty incidence on the (balanced) sample of individuals in all waves. Survivor functions are estimated for persons beginning a low-income spell, as well as for those starting a high-income ("non-low") spell during the period under consideration, where "low income" is defined as presence in the bottom quintile of annual per capita income (individual distribution). The characteristics of the households leaving poverty or remaining poor from one wave to another and the relationship of socioeconomic and demographic events with poverty persistence are investigated for the sample of individuals and households in both the 1992 and the 1993 waves.

3. Cross-sectional Income Inequality, 1992-96

Table 1 displays summary indices for the cross-sectional income distribution for each wave. These are useful for indicating whether the distribution of income becomes more or less unequal over time on an annual basis. We first present the 10th (P10) and the 90th (P90) percentiles relative to the median and then their ratio, the Gini coefficient and the Theil index (panel A). The 10th (90th) percentile shows the income of a person 10 (90) percent up from the bottom relative to a person in the middle expressed as a percentage. The Gini coefficient is a summary measure for income dispersion; the higher its value, the more dispersion is present. The Theil entropy measure has a similar interpretation, but it is more sensitive to differences at the top compared to the Gini, the latter being rather sensitive to differences in the middle.

The percentiles show an inequalizing pattern. The 10th percentile decreases from one year to the next except in 1995, and its value is much lower in the last than in the first year. The 90th percentile increases up to 1995, and its value in the last year is higher than that in 1992. Both series suggest that the

distance between those people at the top and those at the bottom of the income distribution is widening. These changes result in increasing decile ratios in consecutive years, as is clearly seen in Figure 1, where a slow decline (increase) in the value of P10 (P90) produces a more visible rise in the decile ratio over the period. The Gini and the Theil also become higher until 1995, and then a slight fall can be observed. Their values are, however, lower in 1992 than they are in 1996.

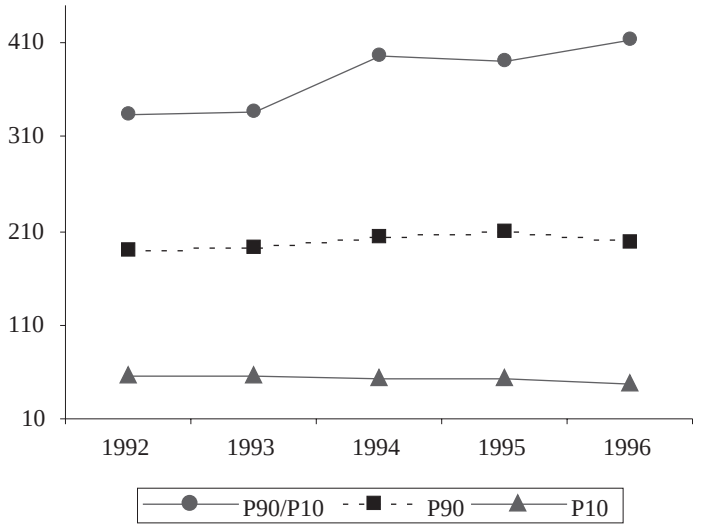
Table 1: *Income inequality, 1992-96*

	1992	1993	1994	1995	1996
A. Percentiles, decile ratios and the Gini and the Theil indices					
P10	56.6	56.4	51.2	53.7	48.0
P90	189.5	190.5	202.7	209.3	198.2
P90/P10	3.346	3.375	3.958	3.899	4.133
Gini	28.533	28.201	30.657	31.775	31.185
Theil	15.200	14.901	16.959	19.729	18.577
B. Cumulative decile shares					
S5	1.2	1.4	1.2	1.3	1.3
S20	8.9	9.1	8.1	8.4	8.0
S40	23.0	23.3	21.6	21.2	21.2
S50	31.2	31.4	29.7	29.0	29.3
S80	62.0	62.1	60.7	59.4	60.3
S95	85.3	85.1	84.6	83.6	84.2
C. Average income					
Forint	117,301	117,546	107,965	101,347	90,834
1992 = 100.0	100.0	100.2	92.0	86.4	77.4
Unweighted no.					
Households	2,059	1,931	1,814	1,992	1,744
Individuals	5,770	5,415	5,182	5,501	4,826

Note: Except for 1992, weighted data. Income: last 12-month net household per capita income converted to 1992 prices, individual distribution. Percentiles: (percentile value/median)*100. Average income is converted to 1992 prices.
Source: Hungarian Household Panel Survey.

In Table 1, panel B, cumulative decile shares are reported that indicate the proportion of income going to the bottom 10, 20, 30 percent, and so on of the sample. Decile shares show a less unambiguous pattern, with the various

Figure 1: *Decile ratio, P10, P90, 1992-96*



Note: Percentiles: (percentile value/median)*100. Decile ratio: (P90/P10)*100.
Source: Hungarian Household Panel Survey.

deciles losing or gaining, as seen on a year-to-year basis. It is obvious, however, that only the top 5 percent gain during most of the years (actually their share declines only from 1995 to 1996), and that they have gained over the whole period. Their share is greater in 1996 than it is in 1992, whereas the bottom 95 percent have lost.

The relatively small changes in income shares, however, are coupled with considerable falls in average annual income (converted to 1992 prices), as can be seen in Table 1, panel C, implying that deciles having the same share in consecutive years are less well off in terms of purchasing power.

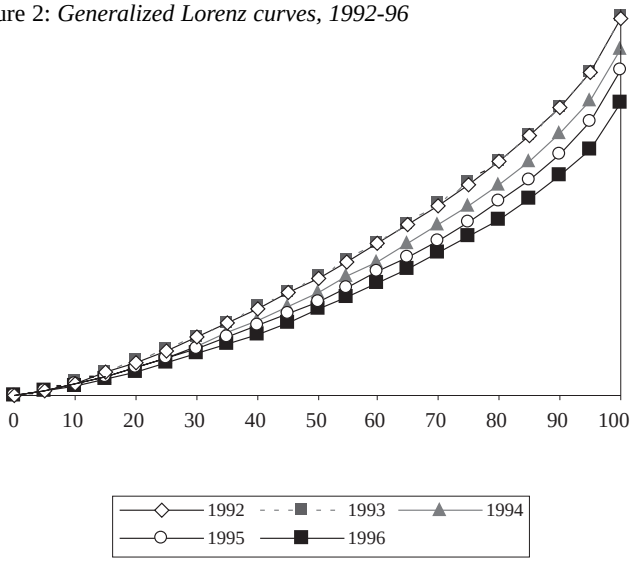
This can be visualized with the help of the so-called "generalized Lorenz curve", which can indicate not only the proportion of income going to different income groups, but also the value of the income.[2] It is constructed by multiplying the cumulative income shares by the average income. According to the generalized Lorenz curve criterion, one income distribution is more equalizing than another if its generalized Lorenz curve lies inside that of the other distribution. The reason for this is that, even if the cumulative income shares show a less equal income distribution, one can say that a higher mean is enough to

[2] The Lorenz curve is the graphical counterpart of the cumulative income (decile) shares.

compensate for the differences in income. In our case here, we can expect the opposite, since relatively small changes in income distribution are occurring hand in hand with quite large falls in the mean in subsequent years. Figure 2 confirms this expectation, since each curve lies outside that of the previous year (except for the curves of the first two years), signifying that, as time goes on, we have income distributions which are less and less favourable.

Most social policy measures concern the youngest and the oldest cohorts in the population. A good policy debate therefore requires information on changes in the situation of children and the elderly. As a proxy indicator of these changes, we can use the relative income position of these two groups, that is, we can examine where these two groups are concentrated along the income ladder and how their relative position is changing.

Figure 2: *Generalized Lorenz curves, 1992-96*



Note: Annual household per capita income, individual distribution. "Average"= converted to 1992 prices.
Source: Hungarian Household Panel Survey.

Here, the cumulative decile concentration of children and the elderly is analysed in order to gauge the impact that changes in distribution might have on the position of these two important groups, which are potentially more defenceless in the face of adverse events. The results are reported in Table 2 and show that children, compared to the elderly, are heavily concentrated in the bottom deciles over the whole period and that the difference becomes big-

ger over time. In 1992 the proportion of children in the bottom four income deciles amounts to almost 54 percent, whereas by 1996 this share is up to 63 percent. The opposite holds for the elderly, with 37 and 22 percent in the same years, respectively.

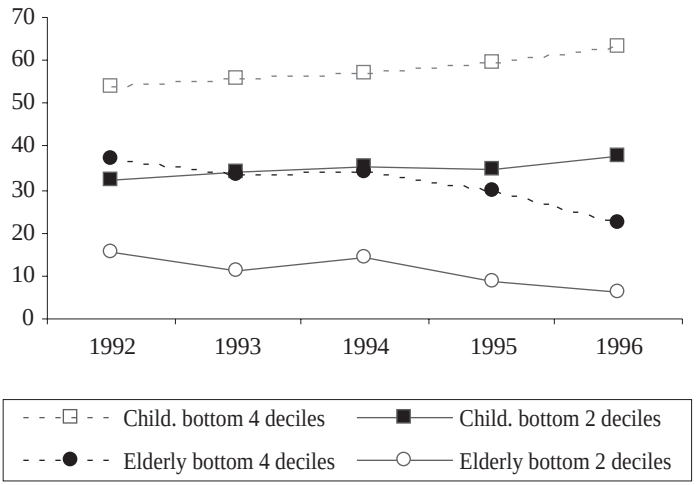
These findings become more apparent if we graph the proportion of the two groups in the bottom two deciles and the bottom four deciles, as seen in Figure 3. It is clear that the proportion of children both in the bottom two deciles and in the bottom four deciles is rising over the period, while that of the elderly is declining. It is also clear that this might not be entirely attributable to changes in the proportion of these groups in the population. (See last rows of Table 2, panels A and B.)

Table 2: *Cumulative decile concentration of children and the elderly, 1992-96*

Deciles	1992	1993	1994	1995	1996
A. Children					
1st	20.4	19.5	19.2	19.3	21.9
2nd	32.3	34.2	35.1	34.7	37.6
3rd	44.9	45.3	46.3	48.7	51.2
4th	53.7	55.6	56.9	59.4	63.3
5th	62.8	65.5	66.6	69.2	71.2
6th	72.6	74.3	75.0	76.7	77.4
7th	81.2	81.9	82.1	82.6	83.3
8th	89.1	88.3	89.0	89.2	90.6
9th	94.7	94.6	95.2	95.4	95.8
Proportion of children (%)	22.5	22.2	22.2	22.3	20.7
B. The elderly					
1st	6.6	3.4	7.7	4.1	2.5
2nd	15.3	11.1	14.0	8.9	6.5
3rd	25.4	20.0	23.5	17.6	12.4
4th	37.3	33.4	34.2	29.8	22.2
5th	50.4	47.4	46.3	43.0	38.5
6th	61.5	61.3	58.3	58.7	55.4
7th	73.7	72.0	70.3	72.9	70.7
8th	83.0	83.5	79.7	84.3	80.2
9th	92.0	92.1	90.3	91.7	92.9
Proportion of the elderly (%)	24.5	24.5	25.3	23.7	22.9

Note: Except for 1992, weighted data. Ranking criterion: last 12-month household per capita income, individual distribution. Children: 0-to-16-year-olds. The elderly: adults above pension age (women: 55 and over, men: 60 and over).
Source: Hungarian Household Panel Survey.

Figure 3: *Cumulative decile concentrations of children and the elderly, 1992-96*



Source: Hungarian Household Panel Survey.

4. Income Mobility

Another important aspect of the analysis of the changes in income distributions is income mobility. The inquiry based on cross-sectional samples of data provides a somewhat one-sided account of income inequality, since it permits an examination only of annual stocks of samples, and the movement of groups and individuals along the income ladder over time cannot be investigated. However, if there is income mobility, then we might have quite another picture of inequality, given that some individuals and households might be located at different positions in the income distributions in different years. This has policy implications, too, because the persistence of relative income positions can be included in the analysis. It is also clear that the problems related to, say, individuals with low incomes would appear less severe at given annual income distributions if we observe a great amount of income mobility from one year to the next.

A study of income mobility requires that the same groups or the same households or individuals are followed over the period of observation. In our case, in order to understand longer period tendencies, the sample of individuals present in all waves is used.

Before we present income mobility matrices, it might be helpful to have a

look at inequality indices computed for each wave and also longer period indicators that reflect the impact income mobility might have on distributions. Year-to-year changes in inequality might result from short-term income fluctuations, that is, more or less transitory changes in income ranks, and the greater the number of periods analysed together as one distinct distribution, the more likely income differences will show trends for a distribution of permanent income. Since the same persons are followed over the whole period, it is technically possible to add up the incomes they receive in any single wave so as to get a better picture of the changes in income distribution over time.

Table 3 reports single-wave and longer period inequality indices constructed on the basis of single-wave incomes converted to March 1992 prices. Extended-period income rankings have also been produced by adding up the incomes for consecutive waves. We can perceive a year-to-year decrease in real-value average income and ups and downs in consecutive subperiod indices. Both the Gini and the Theil reach their highest values in 1994 and then go down, although the 1996 indices are still higher than those for 1992. The annualized mean of the totalled income also falls as more periods are combined, but the falls are slower than are those of the average annual incomes. This implies that income mobility may have reduced the adverse effect of falls in average subperiod incomes. Longer period Gini and Theil indices are also lower than are any of the single-period indicators; moreover, the five-wave indices show the lowest values relative to other longer period indices. Both phenomena suggest the same conclusion: the inequalizing impact that transitory increases in income differences have on subperiod income distributions may be at least partly offset by income mobility.

Note, however, that this is not a general result. First, if subperiod inequality declines over time, then longer period inequality will be lower even if no income mobility takes place. Second, the more rapidly subperiod inequality rises over time, the more income mobility is necessary to offset this effect; it is then possible that longer period inequality indices will become higher as more and more subsequent subperiod incomes are added up.

Shorrocks immobility indices are also displayed for the totalled income data. The maximum value of this index is unity, implying that there is no mobility, as the first column of the table shows, since no mobility can have occurred for the first period of observation. The lower the values, the more mobility there is over the period. We can see that, as the length of the period grows, the values of the indices become lower, indicating that the longer the period over which income distributions are examined, the more income mobility there is because of the reduction in the effect of increasing subperiod inequality.

Table 3: *Income mobility indices for single-wave and totalled income data, 1992-96*

One-period indices

	1992	1993	1994	1995	1996
Mean	126,736	126,389	119,160	107,362	94,924
Gini	29.325	29.351	32.990	31.146	30.242
Theil	16.155	15.779	20.675	19.471	17.804

Longer period indices

	W1	W12	W123	W1234	W12345
Mean	126,736	253,154	372,386	479,943	571,757
Annualized mean	–	126,577	124,129	119,986	114,351
Gini	29.325	27.550	27.729	27.703	27.122
Theil	16.155	13.806	13.934	14.153	13.567

Shorrocks indices

Gini	1	0.939	0.909	0.904	0.883
Theil	1	0.865	0.798	0.790	0.754

Note: Unweighted data. Sample size: 3,147 (individuals in all waves). Income data for longer period indices are added up for consecutive waves. W1: 1992 income, W12: 1992 and 1993 incomes together, W123: 1992, 1993 and 1994 incomes together, and so on. Ranking criteria: household per capita income converted to 1992 prices, individual distribution.
Source: Hungarian Household Panel Survey.

Another tool for the analysis of income mobility is the income transition matrix. This can capture the intensity of the movement among income groups from one year to the next. Table 4 displays income quintile mobility data for 1992-93, 1994-95 and 1995-96. Each of the panels is based on samples of persons in both waves, and the figures are total percentages. The cells in the main diagonal of each panel show the proportion of "stayers" (those remaining in the same quintile in both years), while the cells above (or below) this diagonal indicate upward (or downward) mobility.

Some interquintile mobility occurs from one year to another; thus, many people change their relative income position. By taking a look at the stayers, we can see that, except for the top and bottom quintiles, more than half of the population in a given quintile moves out. The bottom and top quintiles are close in terms of numbers, with more stayers in the top quintile, but poverty (richness) is partly transitory, if poverty (richness) is defined as presence in

the bottom (top) quintile. Long-range mobility is, however, relatively rare; movers are mostly landing in neighbouring quintiles.

Table 4: *Income quintile mobility, 1992-96*

A. 1992-93

Sample size: 4,250			1993			
1992	1st	2nd	3rd	4th	5th	Total
1st	**11.4**	4.5	2.3	1.2	0.7	20
2nd	5.1	**7.9**	5.2	1.4	0.4	20
3rd	1.5	5.4	**7.3**	4.2	1.5	20
4th	1.4	1.7	4.1	**8.3**	4.4	20
5th	0.6	0.5	1.0	4.9	**13.0**	20
Total	20	20	20	20	20	100

B. 1994-95

Sample size: 4,153			1995			
1994	1st	2nd	3rd	4th	5th	Total
1st	**11.9**	4.2	2.3	1.0	0.6	20
2nd	5.6	**7.8**	4.3	1.6	0.7	20
3rd	1.6	5.5	**8.5**	3.5	0.9	20
4th	0.7	1.9	3.9	**8.9**	4.5	20
5th	0.2	0.6	1.0	5.0	**13.2**	20
Total	20	20	20	20	20	100

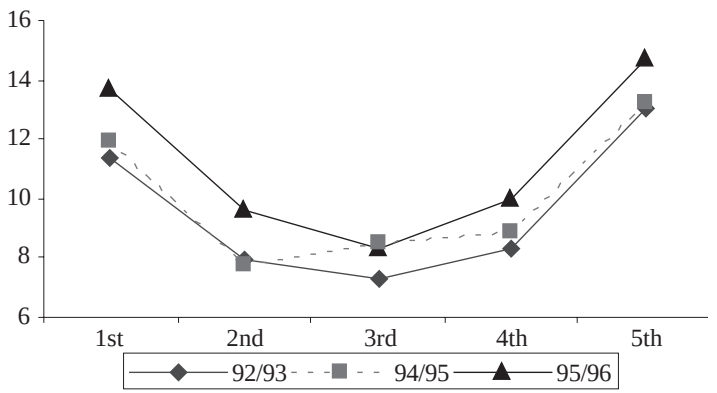
C. 1995-96

Sample size: 4,209			1996			
1992	1st	2nd	3rd	4th	5th	Total
1st	**13.7**	4.1	1.2	0.7	0.3	20
2nd	3.8	**9.6**	5.1	1.3	0.2	20
3rd	1.5	4.5	**8.3**	4.8	0.9	20
4th	0.5	1.4	4.3	**10.0**	3.8	20
5th	0.5	0.4	1.2	3.2	**14.7**	20
Total	20	20	20	20	20	100

Note: Unweighted data. Total percentages. Samples: persons in both waves. Ranking criterion: last 12-month household per capita income, individual distribution.
Source: Hungarian Household Panel Survey.

Changes in mobility over time can be examined through a comparison of the mobility matrices. Figure 4 displays the proportion of stayers. It is unambiguous that less mobility takes place in 1995-96 than in 1992-93; each cell of the main diagonal includes relatively more individuals in 1995-96 than it does in 1992-93, that is, a higher proportion of individuals stays in the same quintile from one year to the next in the last wave-pair than in the first wave-pair. The situation in 1994-95 is closer to that in 1992-93.

Figure 4: *Income quintile mobility: the proportion of stayers, 1992-96*



Source: Hungarian Household Panel Survey.

Another issue of considerable importance is the way mobility affects the real income of persons exhibiting different mobility patterns. A person might be well off in terms of income mobility and, at the same time, not so well off in terms of real income, or vice-versa.

Table 5 shows changes in the median income from one year to the next among individuals belonging to different mobility groups. It is clear that a loss in income does not necessarily result in downward mobility. Each of the cells for the stayers contains people who suffer income losses which are small enough to keep them in the same income quintile. In other words, if no interquintile movement takes place despite income losses, then the purchasing power of persons is deteriorating. Also, relatively small income gains produce short-range upward mobility, while downward mobility is linked to quite considerable income losses. Long-range downward income mobility implies that the median income of a group is halved from one year to the next.

Table 5: *Changes in median income ratios according to interquintile mobility patterns, 1992-96*

	1993/1992	1994/1993	1995/1994	1996/1995
Stayers	0.98	0.93	0.88	0.91
Upward mobility				
Short-range	1.18	1.15	1.12	1.13
Long-range	1.80	1.63	1.74	1.57
Downward mobility				
Short-range	0.82	0.74	0.72	0.76
Long-range	0.53	0.46	0.52	0.47

Note: Unweighted data. Samples: individuals in both waves. Ranking criterion: last 12-month household per capita income, individual distribution. Short-range mobility: movement to neighbouring quintiles; long-range mobility: any other case.
Source: Hungarian Household Panel Survey.

5. Poverty Dynamics

The next problem to be analysed is poverty dynamics and persistence. Here, poverty is defined as presence in the bottom quintile. Thus, we examine relative poverty by using only one poverty-line definition.

As we have seen with the mobility matrices in the previous section, poverty is partly transitory, that is, some persons escape from poverty from one year to the next, while others fall into poverty. Two relevant questions are: How many persons exit from poverty, and how long does it take to exit? Persistent poverty is defined as presence in the bottom quintile in all five waves.

Three aspects of the problem are considered.

1. Poverty incidence, that is, what proportion of the sample becomes poor, and how many times does this occur over the period?
2. What are the chances of escaping from and reentering poverty, that is, how long does it take for a person who has fallen into poverty to exit, and how long does it take for a non-poor individual to fall into poverty?
3. What distinguishes households in terms of the poverty stayers and the poverty leavers?

For poverty incidence, how many individuals experienced poverty over the five-year period, and how many times did individuals exit from and then fall back into poverty? Here, we use the sample of individuals in all waves to focus

on differences in the situation of children and the elderly. Table 6 shows that more than 60 percent of all individuals in all of the waves were never in the bottom quintile; fewer than one-third fell into the bottom quintile one to four times, and 6.5 percent of all individuals could be considered persistently poor.

Table 6: *Wave-by-wave poverty incidence*

In bottom quintile:	Never	1x-4x	Always	Total
Children	49.2	38.6	12.2	100
Elderly	73.9	24.6	1.5	100
All	62.4	31.1	6.5	100

Note: Unweighted data. Sample size: 3,147 (individuals in all waves). Ranking criterion: annual household per capita income, individual distribution. Children: 0-to-16-year-olds in 1992. The elderly: persons above pension age in 1992 (55 or over for women, 60 or over for men).
Source: Hungarian Household Panel Survey.

Not surprisingly, the way one chooses to look at poverty affects the results. For example, in analysing cross-sectional data, we will, by definition, find that 20 percent of the sample is poor at any point of time. Income mobility matrices show that a portion of that 20 percent of the sample leaves or enters poverty from one year to the next, and an examination of the entire income history of individuals shows that only a relatively small proportion remains persistently poor, although more than one-third of the sample experience poverty between one and four times.

The distribution of children and the elderly among the poor differs radically. Almost three out of four older individuals never experienced poverty, and only 1.5 percent were always poor, whereas more than half of children fell into poverty at least once, and more than one in ten children lives in persistent poverty. Similar results are arrived at in Section 3, where we see that children are heavily concentrated in bottom deciles, while persons above pension age are not.

An examination of poverty incidence provides useful information about persistent poverty, but an assessment of the severity of the problem requires indicators measuring the income losses and gains associated with poverty incidence patterns. Median income changes among poverty-incidence groups are reported in Table 7. The results show that each of the groups has lost income in real terms and that almost all groups experience continuous income decline over the period. Although people who have never experienced poverty have also suffered quite considerable losses by 1996, the most rapid drop in income by the end of the period can be seen among individuals who have fallen into poverty more than twice.

Table 7: *Changes in median income ratios according to poverty incidence, 1992-96 (1992 = 1.00)*

	1993	1994	1995	1996
Never poor	1.00	0.94	0.85	0.75
Once	1.05	0.91	0.89	0.81
Twice	1.02	1.00	0.87	0.92
Three times	0.96	0.87	0.65	0.56
Four times	0.82	0.75	0.64	0.57
Always poor	0.94	0.87	0.82	0.64

Note: Unweighted data. Sample size: 3,147 (persons in all waves). Ranking criterion: annual household per capita income, individual distribution.
Source: Hungarian Household Panel Survey.

We may also look at poverty by analysing income sequences and distinguishing poor and non-poor persons. This allows us to examine an entire income history and to assess whether income sequences influence the risks of becoming or remaining poor and the chances of escaping from poverty.

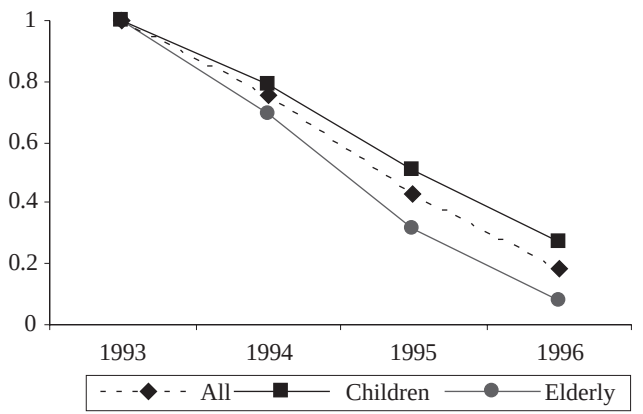
Our sample of individuals in all waves offers five observations per person that indicate whether the person is poor or non-poor in successive periods. Since some individuals have started a poverty spell before our observation begins and some do not end a poverty spell when the observation period ends, then we have both left- and right-censored spells. This raises some methodological issues concerning how best to avoid estimation biases due to censoring (see Jarvis and Jenkins 1996).

We handle the problem by estimating the survival probabilities for persons beginning a low-income spell during the period of observation, as well as the reentry probabilities for persons finishing a low-income spell during the five interviews. In other words, the first exercise is intended to capture the chances that individuals will escape from poverty after a low-income spell has started, while the second one is an attempt to understand the chances that individuals will become poor again after a low-income spell has ended. We use the Kaplan-Meier estimator, which is also appropriate for investigating repeated spells. (Some persons fall back into poverty after an exit, and there are also multiple exits.) We have estimated survival probabilities for the whole sample, as well as for children and the elderly. Note that children are treated as censored as they go over 16 years of age.

Figure 5 shows the survival probability for those people beginning a low-income spell, that is, the probability that they will remain poor in a given year. A survival probability of “1” indicates a 100 percent probability (a certainty)

that one will remain poor. All the survival curves have negative slopes, meaning that the probability of remaining poor declines (and the probability of exiting from poverty increases) over the period. The average person beginning a low-income spell in 1993 has a 75 percent probability of exiting from poverty in 1994 and a 43 percent probability of doing so in 1995. By 1996, of 100 individuals becoming poor in 1993, 82 have left the bottom quintile. The elderly are much better off than the average individual in that they have higher exit probabilities in each of the years. At the end of the period, only 8 percent of the elderly remain poor. Children are less well off; their survival curve is always above the other two, and 27 out of 100 children are still poor in 1996.

Figure 5: *Survival estimates for persons beginning a low-income spell, 1993-96*



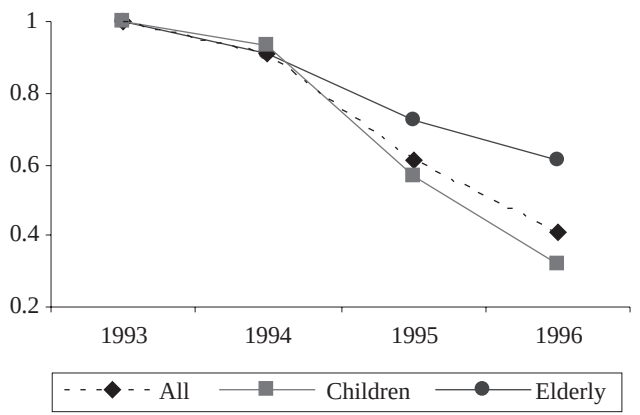
Source: Hungarian Household Panel Survey.

The results suggest that most people entering poverty will exit within a relatively short interval. So, poverty persistence appears to be less serious than it seems from an examination only of simple year-to-year transition matrices. This is not the whole story, however, since persons can reenter poverty just as they can escape from it.

Figure 6 displays the results of survival estimates for individuals starting a spell out of low income during the period of observation. Here, the curves indicate the probability of remaining non-poor in a given year. A survival probability of "1" indicates a 100 percent probability (a certainty) that one will remain non-poor. The curves also have negative slopes. This means that the people finishing a low-income spell have an increasing chance of becoming poor again over time. The typical individual beginning a high-income

(non-low) spell in 1993 has a 91 percent chance of not falling into poverty again in 1994. Then, the probability of avoiding a low-income spell becomes 62 and 41 percent in 1995 and 1996, respectively. Put differently, 59 percent of all individuals will experience a new low-income spell within three years. Children and the elderly do not differ much in this respect in 1994, but the curves for them show the same pattern for 1995 and 1996 as those observed in Figure 5. Children are unambiguously less well off than the elderly: 73 and 61 percent of the elderly are able to avoid beginning a new low-income spell in 1995 and 1996, respectively, while the values for children are only 57 and 32 percent. Thus, fewer than 40 percent of the elderly again fall below the poverty line within three years, whereas this holds true for more than two-thirds of all children.

Figure 6: *Survival estimates for persons beginning a high-income spell, 1993-96*



Source: Hungarian Household Panel Survey.

Low-income exit and reentry probabilities taken together provide information on some important characteristics of income paths. Although most (about four-fifths) of the persons beginning a low-income spell exit after three years, the chances are considerable (about 59 percent) that they will start another low-income spell within three more years. This suggests that long-term poverty and repeated low-income spells are both relevant. The situation of children is relatively bad in this respect. More than one-fourth of children remain poor after a three-year-long low-income spell, and more than two-thirds start a new low-income spell after a three-year-long interval out of poverty.

So far we have analysed poverty persistence without any reference to the family and personal characteristics of those affected by poverty. In order to get an idea of who the poor are, it is worthwhile to try to identify the most vulnerable groups. In other words, it would help if we could learn which individuals and families are able to escape from poverty and which are the stayers.

For this purpose, we use the sample of persons in both the 1992 and the 1993 waves. "Poor" is still defined as presence in the bottom quintile. We consider the outflow from poverty. The problem is considered with the aid of some typologies of individuals and families. Then, we examine whether any social, economic or demographic family events occurring between two consecutive observations may affect the chances that families will exit from the bottom quintile.

In order to show the extent to which the poor differ from the non-poor, Tables 8 and 9 display the distribution of the entire 1992 sample, as well as that of the individuals among the poor in 1992. Furthermore, they distinguish between the stayers and the leavers among the poor in 1992, that is, the persons who were poor in 1992 and remained so in 1993, and the persons who were poor in 1992, but escaped from poverty by 1993. Table 8 contains typologies for individuals, while Table 9 covers household types. The first

Table 8: *Personal characteristics of the poor and low-income leavers and stayers (1992 and 1993 waves, column percentages)*

	Poor, 1992	Stayers, 1993	Leavers, 1993	All, 1992
By age in 1992				
Dependent child	34.4	38.4	29.2	24.4
Adult under 30	17.4	19.0	15.3	15.0
30-39	16.2	14.8	18.0	15.3
40-54	13.4	14.0	12.6	18.5
55+	18.6	13.8	24.9	26.8
By age group and gender, 1992				
Dependent child	34.4	38.4	29.2	24.4
Male adult	29.6	28.7	30.8	34.6
Female adult	33.0	39.9	40.0	41.0

Note: Sample size: 4,250. Unweighted data. Sample: persons in both waves. Ranking criterion: household per capita income, individual distribution. Poor: persons in the bottom quintile. Dependent children: 0-to-16-year-olds, plus full-time students aged 17-18. Adult: persons older than 18 irrespective of labour market status and persons aged 17-18 who are not studying full time.
Source: Hungarian Household Panel Survey.

typology in Table 8 is distribution by age. The first row indicates that more than one-third of the poor in 1992 are dependent children. This can be considered quite high since the proportion of children in the whole sample in 1992 is 24.4 percent. Thus, one-third of the poor in 1992 are children, whereas only one in four individuals is a child in the 1992 sample. Likewise, the fact that 38.4 percent of the persons who are poor in 1992 and who remain so in 1993 (the "stayers") are children suggests that children have less chance of escaping from poverty compared to other age groups. This is so particularly because the proportion of children among the stayers (leavers) is higher (lower) than is the proportion of children among the poor in 1992.

The results are similar for young adults (aged under 30). We find more young adults among the bottom quintile in 1992 (17.4 percent) than in the whole sample in that year (15 percent). The proportion of young adults among those remaining poor in 1993 is higher (19 percent) than their share among the poor in 1992 and lower (15.3 percent) than their share among those escaping from poverty in 1993.

The opposite holds for the elderly (adults above 55 years of age) in both respects: we find fewer older individuals in the bottom quintile in 1992 than in the whole sample, and the elderly are over- (under-)represented among the escapers (stayers).

Although adults aged 30-39 are over-represented in the bottom quintile, they are able to exit more easily. The last category of adults, those between 40 and 54 years of age, is under-represented among the poor, but these people have a slightly higher probability of staying poor than they do of leaving poverty. Male and female adults both have a relatively higher chance of avoiding poverty, and, if they drop into the bottom quintile, they are more easily able to escape than are dependent children.

For the distribution according to family types (Table 9), we arrive at the same keyword: children. There are two types of families that are over-represented among the poor: families consisting of couples and dependent children and single-headed families with dependent children. The presence of children, then, is a fair indicator of poverty. Among the entire sample, 54.5 percent of persons live in families with children ("Couple with child" and "Single adult with child"), whereas 70.9 percent of the poor and 79.8 percent of the stayers belong to this category. In addition, after having fallen into poverty, one type of family has only a relatively small probability of escaping: couples with dependent children.

As for family economic status, it is unsurprising that families in which all adults are employed are in a relatively good situation; the proportion of people living in such families in the whole sample is more than twice the proportion of

Table 9: *Household characteristics of the poor and low-income leavers and stayers (1992 and 1993 waves, column percentages)*

	Poor, 1992	Stayers, 1993	Leavers, 1993	All, 1992
	Families by type, 1992			
Single pensioner	6.7	4.7	9.2	7.9
Couple, pensioners	5.4	3.9	7.4	9.5
Couple with child	60.6	69.1	50.1	48.6
Couple without child	12.7	10.6	15.4	20.8
Single adult with child	10.3	10.7	9.9	5.9
Single adult without child	4.3	1.0	8.0	7.3
	Families by economic status in 1992			
Adult status				
All employed	13.5	10.8	16.8	30.1
All self-employed	1.7		3.9	1.2
Not all employed/self-employed	40.8	39.4	42.5	39.4
All out of the labour force	31.5	32.5	30.3	24.9
Out of the labour force, at least one unemployed	12.5	17.3	6.5	4.4
	Head/spouse status			
Couple				
Both employed/self-employed	12.0	10.4	14.2	30.8
Both out of the labour force	20.3	21.4	18.7	15.6
One employed/self-employed, one out of the labour force	31.3	30.4	32.5	22.3
One or two unemployed	15.6	21.7	7.3	8.6
Single				
Employed/self-employed	8.5	4.3	14.4	11.3
Unemployed	2.0	3.5		1.0
Out of the labour force	10.3	8.3	12.9	10.4

Note: Sample size: 4,250. Unweighted data. Sample: persons in both waves. Ranking criterion: household per capita income, individual distribution. Poor: persons in bottom quintile. Family type includes three dimensions: 1. the family is either single-headed, or not (single: household with no spouse present), 2. the head and spouse are either pensioners, or not, and 3. the household either includes dependent children, or not. Single pensioner: a spouse is present, and the head is a pensioner. Couple, pensioners: families in which both the head and spouse are pensioners. Couple and single adult with or without child: the household has a non-pensioner head or spouse with or without dependent children. Family economic status consists of two combinations of three distinct labour market states (employed/self employed, unemployed, or not participating in the labour force); first, all adults in the family are classified, and then the head or spouse is classified.
Source: Hungarian Household Panel Survey.

these people among the poor. Moreover, if they become poor, these people have a higher-than-average probability of exiting poverty within a year. Families in which all adults are self-employed are different. The proportion of such families is slightly higher among the poor than it is among the whole population, but their prospects for escaping poverty are quite good. This difference may be due to the way these two kinds of economic status are related to poverty. Employment helps one stay out of poverty, whereas self-employment may be a way out of poverty. As regards families with some but not all adults employed or self-employed, their chances of escaping poverty are slightly better than are their chances of staying poor. Families in which all the adults are out of the labour force are at greater risk. They comprise one-fourth of the whole sample and more than 30 percent of the poor; they are also over-represented among stayers relative to their proportion in the bottom quintile. Families with unemployed adults are clearly in the worst situation in terms of becoming poor and remaining poor.

Almost the same conclusions can be drawn if we take a look at the economic status of the head-of-household and spouse. The presence of an unemployed head or spouse is quite a fair indicator that a family may become poor and remain so. The presence of an employed or self-employed head in a single-headed family or of an employed or self-employed couple is an indicator of rather the opposite situation. If both members of a couple are out of the labour force, then the family members have a higher-than-average probability of falling into poverty and a lower-than-average probability of exiting poverty the next year. This is not the case for single-headed families with the head out of the labour force. The members of such a household face an average risk of becoming poor, and they can expect to escape poverty within a year with a higher-than-average probability. Finally, families in which the couple consists of one person who is employed or self-employed and one person who is out of the labour force are over-represented among the poor; if they become poor, they have similar chances of either staying poor, or escaping poverty within a year.

The association between the probability of escaping from or remaining in poverty and the characteristics of individuals or the household can also be analysed by taking a look at changes in these characteristics. This approach permits shifts in income position to be related to changes in family composition. Table 10 reports the results of such an exercise. The changes in family type, economic status and the number of earners, of adults and of children between 1992 to 1993 are presented for the whole sample of households in both the 1992 and the 1993 waves and for two groups of families in the bottom quintile in 1992: those which remain poor in 1993 (the “stayers”) and those which escape from poverty by 1993 (the “leavers”).

Table 10: *Economic and demographic changes and low-income dynamics (1992 and 1993 waves, column percentages)*

	Poor in 1992		
	Stayers, 1993	Leavers, 1993	All in 1992
Family type, economic status			
No change	59.8	64.2	69.6
Family type changed	2.3	8.2	2.3
Adult economic status changed	6.3	6.9	5.1
Head/couple economic status changed	5.2	3.1	3.0
Family type + adult status	0.6		0.6
Family type + head/couple status	0.6	3.8	2.8
Adult status + head/couple status	20.7	10.7	11.1
All changed	4.6	3.1	5.5
Number of earners			
Same	72.2	71.2	74.4
Decreased	8.5	5.1	9.9
Increased	19.3	23.7	15.7
Number of adults			
Same	89.9	90.6	91.6
Decreased		1.4	0.7
Increased	10.1	8.0	7.7
Number of dependent children			
Same	83.0	87.0	89.7
Decreased	11.8	9.8	6.5
Increased	5.2	3.3	3.8

Note: Unweighted data. Sample: households in both the 1992 and 1993 waves. Sample size: 1,804. Ranking criterion: household per capita income.
Source: Hungarian Household Panel Survey.

Changes in family composition may produce positive or negative effects in the sense that they can help households escape from poverty, but they may cause a deterioration in a family's position as well. In some cases, they may produce both negative and positive consequences. The two most frequent shifts in family type in our sample are the change from a family consisting of a couple with a child to one consisting of a couple with no child and the change in the opposite direction. The small size of our sample sets a limit to the number of alterations in family type that can be examined.

Changes in family type or in economic status from 1992 to 1993 can be observed for about 30 percent of the sample, and leavers (stayers) are more (less) over-represented among those experiencing changes. This suggests that

some shifts are beneficial in terms of escaping from poverty, that others are not and that in general the adverse effects predominate since the stayers are more affected by the changes. The exception in this last case is the families experiencing changes in family type alone. The proportion of families experiencing changes in family type amounts to 8 percent of leavers, whereas only 2.3 percent of stayers have a similar experience.

One of the most frequent transformations in adult economic status occurs when some family members lose their jobs, and the family in which all the adults are employed or self-employed becomes a family in which this is not so. Another empirically important case is the change in the other direction (that is, previously unemployed or inactive adults become active). It is not surprising, then, that the proportion of households experiencing shifts only in adult economic status is higher among both stayers and leavers than it is in the whole sample.

While changes in family type tend to be linked to the escape from poverty rather than persistence in poverty, changes in the economic status of the head-of-household or couple work in the opposite direction, that is, they are associated with a lower-than-average probability of escaping from poverty within a year. The latter is not the case for families experiencing changes in both adult and head or couple economic status. The difference in the proportions of this type of change between stayers and leavers is considerable. More than 20 percent of stayers fall into this category, whereas only slightly more than 10 percent of leavers do so.

Both stayers and leavers exhibit less-than-average stability in the numbers of earners, adults and dependent children. We witness a lower- (higher-) than-average incidence of decreases (increases) in the number of earners in both these groups of families (the stayers and the leavers) that are in the bottom quintile in 1992. This can therefore be interpreted as an indicator of the effort to escape from poverty, and this strategy proves partly successful since relatively more families showing increases in the number of earners are found among the leavers. The message is clear: more earners implies a higher probability of exiting from poverty.

Families with fewer children at wave 2 (1993) are over-represented among both stayers and leavers, with a higher share among the stayers; thus, a decrease in the number of children may be related to poverty. Such an event may have a double effect: it may help poor families exit from poverty through the labour market entry of their “formerly” dependent children, and it may also have an adverse effect since, when dependent children become adults, the family is no longer entitled to child-related benefits.

The impact of increases in the number of children is more obvious. This

event occurs among stayers to a greater extent; thus, it may be that the arrival of a new child results in a net drop in per capita income if the children-related benefits to which a family with a new child is entitled are not sufficient to offset the per capita income loss associated with the arrival of the child.

Both leavers and stayers exhibit an above-average incidence of increases in the number of adults, with a higher proportion among stayers. This may also be a double-edged event, and the argument used above for the case of a decrease in the number of children might be repeated here, since it is essentially the same event, at least if the increase in the number of adults takes place because of the ageing of dependent children.

6. Conclusions

This paper aims at providing information concerning income inequality in Hungary between 1992 and 1996 in order to contribute to the debate on social policy by shedding light on several neglected or less well known aspects of the problem. We have used data from the Hungarian Household Panel Survey. Cross-sectional income inequality, income mobility and poverty dynamics have been analysed with special attention to the situation of children and the elderly.

Except for the last-wave data, the cross-sectional analysis of household per capita income tells a story of growing inequality from one year to the next. The 10th percentile is declining, while the 90th percentile is rising over time, except for 1995, and, taken together, this results in an increasing decile ratio for the period under consideration. In addition, the Theil and Gini indices, as well as the decile ratio, are higher at the end of the period than they are at the beginning. The cumulative decile shares for annual per capita income indicate that only the top 5 percent of the population have gained over the whole period. Changes in income shares, however, are relatively small, but since real income is declining, the deciles having the same share in consecutive years are less well off in terms of purchasing power.

Since most social policy measures concern the youngest and the oldest cohorts in the population, we have attempted to learn how changes in income distribution might affect the position of these two potentially defenceless groups in the case of adverse circumstances. For this reason, we have examined the cumulative decile concentration of children and the elderly. We have seen that children, compared to the elderly, are heavily concentrated in bottom deciles over the whole period and that the difference becomes bigger over time. In 1992 more than half of the children are in the bottom four deciles; in 1996 almost two-thirds of them are found at the bottom of the income ladder.

The opposite holds for the elderly, with 37 and 22 percent in the same years, respectively. This raises serious problems for social policy and the targeting of income support.

We have seen that much income mobility occurs from one year to the next, so there is a way out of the low-income position for a number of families. In order to understand the impact income mobility might have on the distribution of income, we have computed subperiod and longer period indices. The outcome of the comparison between mean subperiod and longer period incomes is quite unambiguous: we witness a continuous decline in mean subperiod income and also in mean longer period income, though the drop in the latter is slower. Moreover, longer period summary indices have proven to be lower than any single-period index, and this supports the assumption that the rise in inequality appears slower if a longer period is considered. Shorrocks immobility indices have also been computed, and these indicate that the longer the period over which inequality is assessed, the higher the number of households changing places; as a result, the inequality observed in one period might be greater than that measured over a longer period.

In order to see how many individuals experience changes, we have computed income quintile transition matrices. These show that many people shift their relative income position from one year to the next and that the top and bottom quintiles are more "closed" than are those in the middle. Long-range mobility is, however, rare; most leavers move to neighbouring quintiles. Another result is that mobility is diminishing over the period; the proportion of stayers is higher for each quintile in the last pair of waves than it is in the first pair, indicating that the problem of remaining in the low-income position is more serious at the end of the period than it is at the beginning.

The incidence of poverty over the whole period is about one-third, that is, in all waves more than 30 percent of individuals experience poverty at least once. The persistently poor (those who are always in the bottom quintile) amount to 6.5 percent of the population. Children are more adversely affected by poverty; this is especially clear if their situation is compared to that of the elderly. More than half of all children fall into poverty at least once, and more than one in ten children are persistently poor. The same indicator values for the elderly are one-fourth and 1.5 percent, respectively. This again raises issues in social policy and the targeting of income support.

Similar results are produced when we estimate the survival probabilities for poverty persistence and reentry by using the income sequences for persons in all waves and by distinguishing between the poor and the non-poor. For persistent poverty, we have found that most persons beginning a low-income

spell escape from poverty within a relatively short interval. More than four-fifths of low-income-spell beginners have left poverty by 1996. Children are less well off than are the elderly. More than one-fourth of the children are still poor at the end of the period, whereas this is true of less than 10 percent of the elderly. Reentry probabilities suggest that persons who have escaped from poverty run a not insignificant risk of becoming poor again. More than half of the individuals in our sample become poor again after three years out of low income. Children are in a relatively bad situation in this respect, too. Two-thirds of children start a new poverty spell after three years. This holds true for less than 40 percent of the elderly.

Although most people beginning a low-income spell exit after a short interval, the probability is considerable that they will start another low-income spell after spending a maximum of three years out of low income. This suggests that long-term poverty and repeated low-income spells are both equally important.

These same conclusions are at least partly supported by an examination of the characteristics of the poor and the leavers from and stayers in poverty using the sample of individuals in the first two waves (1992 and 1993). The proportion of dependent children is higher in poor families than it is in the whole population, and dependent children are also over-represented among the stayers. Families comprising non-pensioner couples and dependent children or lone non-pensioner parents and dependent children have a relatively high probability of falling into poverty and a low probability of escaping from poverty the following year. A new aspect of the problem can be analysed if the economic status of the adults and the head and spouse is considered. Thus, we learn that families in which all the adults are out of the labour force or unemployed are at the greatest risk of poverty. Families in which the adults do not participate in the labour force account for one-fourth of the entire sample and more than 30 percent of the poor, and they are also over-represented among the stayers relative to their proportion in the bottom quintile. Families with unemployed adults are in the worst situation in terms both of becoming poor and of remaining so.

We have also looked at family events that might be associated with escaping from or remaining in poverty. However, most of these events, such as changes in family type or changes in the economic status of the head or spouse, may have beneficial or detrimental effects. Changes in family type are mostly beneficial in that a relatively high share of escapers has experienced such changes. The most unfavourable event occurs when both head or spouse economic status and adult status change. More than 20 percent of stayers fall

into this category, whereas only slightly more than 10 percent of leavers do so. It is not surprising that increases (decreases) in the number of earners are associated with a higher (lower) probability of exit from poverty. Somewhat more surprisingly, both a higher and a lower number of dependent children in a family results in lower exit probabilities.

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