

INCOME INEQUALITY AND POVERTY IN HUNGARY IN THE MID 1990S*

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SUMMARY

The first part of the paper, on the basis of the 1996 Income Survey of the HCSO, presents the income distribution and income inequality in Hungary in the mid 1990s and makes comparisons with data referring to the before transition period. The second part of the study discusses poverty issues such as how to measure the poverty, the various possibilities of choosing the poverty line and its consequences on poverty measures and the composition of the poor. The paper ends with some concluding remarks.

KEYWORDS: Income distribution; Inequality; Concept of poverty; Poverty lines; Measure of poverty.

Since 1963 till 1988, every fifth year the Hungarian Central Statistical Office (HCSO) carried out a large scale – comprising 16-27 thousand households – income survey based on a probability sample of households (dwellings). In this period of 25 years the data of the income surveys reflected reliably the income situation of the Hungarian society, the income differences within it, the relative income position of various social strata and regions, as well as the level and underlying causes of the income inequality. Several factors contributed to the success of these surveys. Although answering the questions has always been voluntary, the response rate in this period was very high – about 95 percent –, thus nonresponse did not affect the reliability of the data to any perceptible extent. Furthermore, and perhaps this was the crucial point, in case of employed persons and members of agricultural and other co-operatives, data on their earnings and other incomes were available not only from the respondents, but also from their employers. As in this period the number of self-employed persons was still very low and earnings and incomes received from employers amounted to 63–87 percent of all incomes of active households, the reliability of earnings-data contributed to a great extent to the appropriate representativity of the surveys. Moreover, based on detailed and reliable macrostatistical data on the produce of plant cultivation and horticultural products as well as on live animals and animal products in household plots and small farms, it was

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possible to adjust incomes from agricultural activity at household level in such a way that expanded aggregates of products corresponded to the respective macrostatistics. Finally, it has to be mentioned as a further favourable factor that the general personal income tax (PIT) was introduced only in 1988, thus it did not yet have a negative effect on the data of the 1988 income survey with 1987 as reference year. The fact that the average disposable household income according to the 1988 survey was only 3.5 percent less than that shown by official national account computations characterises well the reliability of the survey results.

More detailed data and the evaluation of the results of the income surveys in this period can be found apart from the respective publications of the HCSO, in *Atkinson-Micklewright* (1992) and *Éltető* (1997), as well.

The situation in respect of an income survey in the transition period became by far less favourable. The introduction of the PIT itself made people much more suspicious to questions inquiring as to their incomes. Besides, there was a general fall in the rate of confidence towards official statistics contributing to considerably lower response rates in all kinds of household surveys. Employers are not obliged to inform the HCSO on the earnings of individual employees, thus income surveys can now rely on answers of the respondents only in respect of earnings, just as in case of any other types of incomes. Moreover, the fact that the number of employers and self-employed persons has increased outstandingly since 1990 and still keeps increasing also renders the execution of a good income survey more difficult, because it is a well-known experience in many countries that employers and self-employed persons tend to underreport their incomes substantially. (This holds by the way to their tax return, too, in Hungary.) Finally, the macrostatistical data necessary to carry out a household level adjustment of agricultural incomes are also greatly missing these years.

In 1996, however, a new, advantageous opportunity arose for the HCSO to carry out an income survey in connection with the 2 percent microcensus that year. Moreover, the data of this survey yielded a sound basis for researches dealing with poverty in Hungary in the mid 1990s.

In section 1 the characteristic features of this 1996 income survey are briefly discussed. Section 2 shows the relative income differences between various social groups and regions in the mid 1990s and compares them with those before the transition. Section 3 presents the very substantial changes in the income inequality during the eight year period in question. Sections 4, 5 and 6 deal with poverty issues. First, section 4 with the concept and measurement of poverty, then section 5 discusses the problem of choosing the poverty line and shows some of its consequences using Hungarian data. Characteristics of the poor from various aspects and the use of different poverty lines are discussed in section 6. Finally the paper ends with some concluding remarks.

1. Description of the 1996 income survey

In April 1996 the HCSO carried out a 2 percent microcensus. It was obligatory by law to answer the questions of this microcensus. Three 25 percent subsamples of the microcensus sample have been used for various accompanying voluntary surveys, one of which was the income survey.

The sample of the income survey comprised of nearly 4900 census enumeration districts (EDs) in more than 440 towns and villages. The number of the interviewed households was over 18 thousand. In case of 16.5 percent of the households the interview was unsuccessful due to total or partial refusal or other reasons. However, even for these households the data of the microcensus were available, i.e. we disposed of data like the size and composition of the household, age, sex, educational attainment and economic activity of their members, occupation, economic branch of the earners, etc. In the course of the data processing, these available personal and household data were used to impute income to nonresponding persons by selecting randomly a person with identical or very similar characteristics from among the respondents and imputing all income items of this person to the corresponding nonrespondent. Due to the rather large sample we could match each nonrespondent person with a similar respondent one, this way the biasing effect of nonresponse could be eliminated and the average per capita disposable income in the sample increased by more than 25 percent.

However, imputation itself does not solve the problem caused by not reporting or underreporting incomes on behalf of many respondents. Even after imputation the income level in the sample was considerably below that shown in macrostatistics. Naturally, micro and macro income averages can not be expected to match, not only because of sampling errors, but also due to differences in content and coverage. Still, it is indispensable to strive for an agreement as close as possible. Therefore, after imputing, necessary corrections were made on the data of the 1996 income survey in respect to those income items for which reliable external information were available. Such external information sources were:

- a large scale (of almost 100 thousand element) sample of anonymized 1995 tax returns obtained from the tax authorities;
- certain estimates of national accounts;
- social security reports on various social incomes;
- a thorough study on types and size of incomes from the underground economy;
- the household budget survey in respect of consumption from own production (a significant income source of Hungarian households, especially in villages).

Not all types of incomes were corrected either due to the lack of reliable external information or because in some cases (e.g. pensions, family allowances, etc.) the agreement with macrostatistical data was quite acceptable.

The correction procedures generally involved allocating a certain amount of income to randomly selected persons with given characteristics or increasing some of their incomes by a given amount or percentage and then determining the disposable income (net of income taxes and social security contributions) of the person applying the rules of the PIT act valid for 1995.

After carrying out the corrections the average disposable income in the sample increased by nearly 20 percent, thus providing a much better estimate of the respective macrostatistics.

We firmly believe that after the imputation and the correction, the data of the 1996 income survey represent the income situation of the Hungarian households, the existing

income differences in 1995 appropriately thus making the comparison between the data of the 1988 and 1996 income surveys feasible.

2. Changes in relative income differences between population groups and regions in the period 1987–1995

Considerable structural changes took place in the Hungarian society in the period investigated. While in 1987 three-quarters of the population lived in households where the head was an active earner and only one quarter in households with an inactive earner or a dependant head, in 1995 the latter proportion increased to 43 percent and among them almost 8 percent lived in households with an unemployed head. Unemployment – at least officially – did not practically exist before the transition in Hungary, like in other former socialist countries. In the mid 1990s, on the other hand, more than 10 percent of potential earners were unemployed. Unemployment in Hungary has the peculiar feature of being higher among men than among women. As a consequence, the proportion of unemployed heads among all household heads – disregarding the pensioners – is greater than the unemployment rate it is almost 12 percent because household heads are in the great majority men.

Another significant change regarding the structure of the society is that the proportion of households with manual workers as heads has sunk from 45 percent to less than 30 percent, while there was only 1 percentage point decrease in the proportion of households of non-manual workers.

The changes in the structure of the society are also reflected in the composition of incomes according to major sources. The share of social benefits in cash increased from 23.5 percent to more than 29 percent, and among them that of pensions from 16 to 19.5 percent. Incomes from entrepreneurial and self-employed activity more than doubled in this eight-year period amounting to nearly 13 percent of the total gross income in 1995, while the share of incomes from agriculture decreased from 17 to 8 percent. It is to be noted that the percentages in 1987 refer to shares in net incomes, because no PIT existed yet in that year, while those in 1995 to shares in gross income.

According to a general agreement in the first half of the 1990s, income differences in Hungary should have been increased considerably as compared to what was typical of the before transition period, but owing to the lack of reliable statistical data, opinions as to the extent of the increase varied significantly. The first reliable source of information in this respect was the 1996 income survey of the HCSO. Income differences can be investigated from two aspects: what relative income differences exist between the income averages of various social or demographic groups of households or between different regions of the country and what the level of the inequality of the income distribution within the total population is. In this section the first aspect is discussed, while the second aspect will be investigated in the next section.

Restricting our investigations to groupings with more or less identical contents in the two respective income surveys, it is obvious from Table 1 that group averages except one case dispersed to a considerably greater extent in 1995 than they did in 1987.

Not only the coefficients of variation of group averages increased considerably, but also the differences between group extremes. The per capita disposable income of

households of leaders and directors exceeded that of unskilled workers by 75 percent in 1987, while in 1995 by 114 percent, and the proportions are similar – though a little bit less stressed – in equalized³ income as well. The per capita and equalized, respectively income of active households without any dependant child amounted to 209 and 160, percent of that of households with three or more dependant children in 1987 and these differences increased to 222 and 175 percent, respectively for 1995. In 1987 the equalized disposable income of heads of households with university or college qualification exceeded those with at most elementary educational attainment by 51 percent whereas in 1995 by 87 percent. The average income in the poorest county was 86 percent as compared to the richest county in 1987, while only 78 percent in 1995.

Table 1

Coefficients of variation of group averages of incomes in percent in 1987 and 1995

Basis of grouping	Per capita		Equalized	
	disposable income			
	1987	1995	1987	1995
Type of activity of the head of household	12.7	20.6	12.1	19.9
Educational attainment of the head of household	12.4	24.5	12.4	23.0
Age of the head of household within active and inactive households	15.7	18.9	7.1	13.0
Number of dependant children under 20 in active households	22.2	24.9	11.9	7.9
Size of active households	18.4	25.5	3.4	5.1
Counties	8.7	13.5	6.6	10.8
Regions	6.2	11.0	4.4	9.1
Per capita income deciles	45.0	58.3	34.9	52.2

Data source here and in subsequent tables: Publications of the HCSO on the results of the 1988 and 1996 income surveys.

These data corroborate the assertion that relative income differences between population groups considerably increased from 1987 to 1995. As an illustration, Table 2 shows the relative income differences and some household characteristics for households of different size within active households in the two years, investigated.

As it can be seen from the data, not only the relative income differences increased, but also the composition of households changed considerably in the sense that there was a 12 percent decline in the number of active earners and a more than 50 percent increase in the number of inactive earners living in households headed by active earners. The relatively high unemployment rate – an entirely new phenomenon of the transition period – contributed significantly to both changes. As a consequence, while in 1987, 100 active earners had to provide for 63 dependants in their households, this number increased to 68 in 1995.

The worsening of the earner–dependant ratio can be observed in all household sizes except of course in single person households as well as in household groups of other types of classification.

³ Equalized disposable income of a household is defined as the household income divided by the amount of units attached to the household by the equivalence scale used.

Table 2

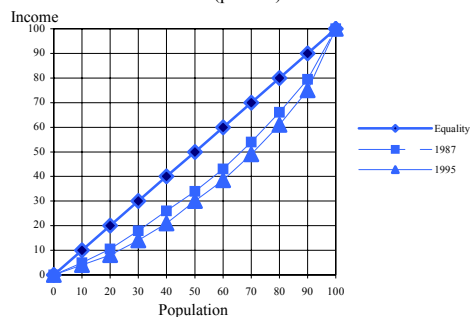
*Disposable income and some household characteristics
by size of households of active earners in 1987 and 1995*

Size of households (persons)	Distribution of		Per capita	Equalized	Number of			
	households	persons			disposable income as per- cent of the average	active	inactive	dependants
			per 100 households					
	1987							
1	7.3	2.2	155.5	120.7	100	0	0	
2	19.8	11.8	132.1	116.6	156	23	21	
3	25.3	22.7	110.3	106.3	191	25	84	
4	32.8	39.2	93.9	97.3	206	25	169	
5	10.5	15.7	83.9	89.3	222	53	225	
6 or more	4.3	8.4	71.1	78.0	248	94	304	
All active households	100.0	100.0	100.0	100.0	188	28	119	
	1995							
1	12.8	4.0	186.0	147.0	100	0	0	
2	17.8	11.0	136.7	124.3	145	28	27	
3	24.9	23.3	108.1	105.1	169	41	90	
4	31.0	38.7	90.4	93.2	187	42	171	
5	9.6	14.9	80.9	86.4	185	91	224	
6 or more	3.9	8.1	65.2	71.8	211	151	294	
All active households	100.0	100.0	100.0	100.0	165	43	113	

3. The inequality of income distributions in 1987 and 1995

An increase in the relative differences of group averages already indicates a greater dispersion of incomes, but total income inequality may increase to a larger or smaller extent depending on the behaviour of inequality within the groups. Several studies tried to estimate the income disparities in Hungary in the transition period based on the data of either the regular Household Budget Survey of the HCSO or the Hungarian Household Panel Survey (see e.g. *Katuman and Redmond, 1997*).

*Figure 1. Lorenz curves for distributions
of per capita disposable income, in 1987 and 1995
(percent)*



However, these surveys did not intend to estimate the cross-sectional income distribution and for various reasons their income data are not reliable enough for that purpose. As explained earlier in Section 1., only the 1996 income survey could be considered to yield reliable data on the income distributions in 1995 and thus make it possible to compare the income inequality before and after the transition.

As expected, a significant increase in income differentials took place in the period investigated. This can clearly be seen in Figure 1 depicting the respective Lorenz curves of the per capita disposable income distributions of persons in 1987 and 1995. It is to be noted that the distribution of equalized incomes or that referring to larger population groups changed in a similar degree. This is evident from the figures of Table 3 showing the shares of quintiles (deciles) of persons in total disposable income and from Table 4 containing the values of various inequality measures.

Table 3

Shares of quintiles and extreme deciles of persons ranked by the size of per capita and equalized, disposable income in 1987 and 1995

Type of household year	1 st decile	1 st	2 nd	3 rd	4 th	5 th	10 th decile
		quintile					
Per capita disposable income							
Active households							
1987	4.4	10.3	14.4	17.7	22.2	35.3	21.3
1995	3.4	8.3	12.7	16.4	21.5	41.1	26.5
Inactive households							
1987	4.8	11.1	15.2	18.4	22.5	32.9	19.3
1995	3.3	8.6	14.5	18.9	23.1	34.9	20.9
All households							
1987	4.5	10.5	14.6	17.9	22.2	34.8	20.9
1985	3.3	8.3	13.4	17.3	21.9	39.1	25.0
Equalized disposable income							
Active households							
1987	4.5	10.6	14.6	17.9	22.2	34.8	21.0
1995	3.4	8.4	12.7	16.5	21.5	40.9	26.3
Inactive households							
1987	4.9	11.2	15.2	18.5	22.5	32.7	19.2
1995	3.4	8.7	14.6	19.0	24.0	34.7	20.7
All households							
1987	4.6	10.7	14.7	17.9	22.2	34.4	20.7
1995	3.4	8.5	13.5	17.3	21.8	38.9	24.8

As it can clearly be seen from the figures above, the shares of the top deciles and quintiles, resp., increased from 1987 to 1995 and that of the bottom deciles and quintiles, declined. It is worth mentioning that both types of income are significantly more evenly distributed among households of inactive earners than among active or all households in both years. It is interesting to note, furthermore, that quintile distributions and the share of extreme deciles indicate only a slightly smaller inequality of equalized incomes than that of per capita incomes among all household groups and in both years.

To characterize the inequality of an income distribution, the value of six inequality measures were calculated though, unfortunately, in some cases the necessary data were not available. These inequality indicators are the following:

G – Gini coefficient

T – Theil measure of inequality

HIM – Hungarian Inequality Measure which is the ratio of the average income of those above the mean income to that of those below the mean (see Éltető–Frigyes, 1968)

E – maximum equalization percentage or called alternitavely as Robin-Hood index, i.e. the sum of percentages above 10 percent of deciles with shares exceeding 10 percent

D10/D1 – ratio of the mean income in the top decile to that in the bottom decile

Q5/Q1 – ratio of the mean income in the 5th quintile to that in the first quintile

Table 4

Inequality measures in 1987 and 1995

Type of household year	<i>G</i>	<i>T</i>	<i>HIM</i>	<i>E</i>	<i>D10/D1</i>	<i>Q5/Q1</i>
	Per capita disposable income					
Active households						
1987	0.244	0.1042	2.01	17.4	4.80	3.37
1995	0.315	0.1870	2.38	22.6	7.79	4.95
Inactive households						
1987	0.213	0.0934	1.85	15.2	3.86	2.89
1995	0.257	0.1676	18.9	6.33	4.06
All households						
1987	0.236	0.1029	1.99	17.0	4.68	3.32
1985	0.296	0.1768	2.36	21.0	7.54	4.69
	Equalized income					
Active households						
1987	0.235	.	1.98	17.0	4.67	3.28
1995	0.312	.	.	22.5	7.67	4.87
Inactive households						
1987	0.210	.	1.84	15.2	3.92	2.92
1995	0.253	.	.	17.7	6.03	3.56
All households						
1987	0.231	0.0870	1.95	16.6	4.50	3.21
1995	0.292	0.1701	2.31	20.5	7.34	4.59

The data of Table 4 support what was said relating to Table 3. Moreover, the various inequality indicators differ in the degree of increase in inequality. It seems that the Gini coefficient, *HIM* and *E* are not very sensitive, they indicate only a 20-30 percent increase between 1987 and 1995. According to the Theil measure, on the other hand, the distribution of per capita disposable incomes in 1995 was more unequal than in 1987 by 70-80 percent. Finally, the ratios of incomes in extreme deciles and quintiles, resp., show a 40-60 percent increase in income inequality. To sum it up, we do not seem to be far from the truth by saying that the income inequality in 1995 was about 50 percent higher than in

1987 which is a very remarkable increase even if taking into account that before the transition incomes dispersed rather moderately in Hungary (though less moderately than in the 1970s or in the early 1980s).

In many studies on income inequality, the distribution of household income is investigated. We do not consider the household income an appropriate indicator of either the welfare level of a household or of its poverty level. Nevertheless, there are a few data available also on the distribution of household income in both periods, especially among households of economically active heads. In their cases the Robin Hood index increased from 18,5 in 1987 to 22,9 in 1995 and the ratio of the mean income in the top decile to that in the bottom decile increased by more than 50 percent. The inequality of household income of inactive households, on the other hand, decreased somewhat as it was rather high already before the transition. This can be attributed mostly to the fact that in the late 80s, 95 percent of inactive households consisted of single persons or two persons and the income of a single pensioner – they get a pension mostly on a widow's right – was only a small portion of that of a household where both husband and wife were pensioners on their own right.

Naturally, the question which arises is what is behind the increase in inequality. Although this issue needs further researches, a few of the underlying causes are rather evident. First of all it is important to point out that at least till 1995, the increase in income inequality was not brought about by greater earning differentials. As it is shown by Élteső (1996/a and 1996/b), the inequality of net earnings of employees hardly increased in the first half of the 1990s. This may perhaps sound surprising, but may be explained primarily by the fact that the majority of those who became unemployed in this period were low earning unskilled workers and this may have levelled off the impact of a significant increase in earnings of top managers and high ranked officials mainly in the sphere of financial services.

The rather high unemployment rate – 11 percent in 1995 – must have contributed markedly to higher income inequality, because mostly not well off families were affected by it and thus many poor families became even poorer. The increase in social benefits in cash did not follow the rate of inflation and this again afflicted mostly pensioners and households with several children the majority of whom had already been in the lower deciles. The spectacular growth of the private sector and the number of entrepreneurs and self-employed persons affected, on the other hand, mostly the upper tail of the income distribution giving rise to a considerable increase in the number of really well off households.

To be able to draw more exact and well-founded conclusions about the causes of the higher inequality of incomes in 1995 than before the transition requires further and more detailed investigation.

4. The concept and measurement of poverty⁴

There are two important questions emerging at this point, namely who are the poor and how to measure poverty.

⁴ In this chapter we used the internal working papers prepared on this topic at the Household, Income and Consumption Statistical Division of the HCSO.

What is poverty?

Various authors use the concept of poverty in many ways. However, not always in an explicit way, ideologies, political and ethical standpoints and commitments are reflected in various definitions. The concept of poverty is strongly influenced by the given age and the given social and economic situation. There is no never-changing and absolutely true definition. Many kinds of correct definitions exist, and which one is used is always influenced, in addition to ideology, by the given situation and the goal of cognition.

In the initial stage of poverty examinations some kind absolute income threshold was generally defined, with an underlying recognition of certain general human – biological, physiological and social – needs.

Many people describe poverty as a certain degree of and as different types of inequality. That is the poor have unfairly less of something that is available to the majority. The representatives of the deprivation theories belong also to this school, including the multi-dimension objective-relative deprivation theory of Peter Townsend.

The structural school of Titmuss also grasps poverty in the framework of social inequality, but in a wider sense, in its complexity. The main thought of the school is that the reason of poverty should not be sought for in the individual but in the society. In their book ‘The future of inequality’ Miller and Roby wrote the following: ‘Poverty is not economic scarcity, but social and political exclusion as well. We believe that in any society where inequalities are significant, the minimum program of the government should not only include an increase of the minimum level of income, assets and fundamental services, but this has to be set as an objective also in the area of self-esteem, chances of education and social mobility as well as the participation in the various forms of decision-making.’

The concept of exclusion lays emphasis on the social approach of poverty, and it explains poverty with the absence of social identity and the possibility for social integration. Robert Castel writes the following: ‘There is of course family integration. There is also school, professional, social, political, cultural and many other kinds of integration... But work is a catalyst that imbues all these spheres, work is a principle, paradigm, something that can be found in all integrations mentioned and concerned, and which thus enables the integration of the various integrations without eliminating differences or conflicts.’(Castel, 1996) After these various possible approaches of scientific value, let us look at the definition of poverty adopted by the Europe Council.

By virtue of the decision of the Europe Council dated 19 November 1984 ‘a person, family or group of people must be considered poor in case the (financial, cultural and social) resources available to them are restricted for the extent that they exclude them from the minimally required way of life in the country where they live’.

This definition includes several important thoughts. One of them is that someone can be poor not only on an individual or family basis, but also on the basis of belonging to a group. Thus someone can be poor not only as the result of a given lifecycle, but also as being a member of an excluded group of the society. The other essential element of the definition is that poverty is not simply and necessarily of financial nature. The criterion of poverty whereby it does not make a ‘minimally required way of life’ possible in a given society should also be emphasized. That is, poverty is relative. Someone who is poor in a given country is not necessarily one in another country. The definition also includes the concept of exclusion.

The separation of poverty on the basis of exclusion from the minimally required way of life makes it also necessary to define the financial and non-financial factors which are clear, unambiguous and measurable. When we select the different non-financial indicators in the measurement of poverty, we need to choose from an endless sea of assets and services. In general, the indicators of housing and the equipment of the household, as well as the access to education and health care are taken into account, but the lists of international organisations vary in this respect and are immature in many cases.

The measurement of poverty means also that the poor must be identified in a given society so that they can be distinguished from other groups. Furthermore, an indicator must be constructed which can be used to do this.

The difficulty starts when surveys concerning the entire population often do not include the people and groups of people who are certainly poor. Even obligatory censuses and micro-censuses struggle with such problems. This is particularly true for surveys based on voluntary participation, which are occasionally time-consuming and require regularity, and an ability and willingness to co-operate. Of these, from the aspect of poverty analyses, household budget surveys are the most important, which contain detailed expenditure and consumption data in addition to the income data, and at the same time they also have data concerning the housing condition and equipment of households. We also used some supplementary information from the 1997 household budget survey in order to grasp the idea of poverty more precisely. The main source of this study, however, was the 1996 income survey that supplemented the micro-census, thus not only our income data could be more precise, but we also had the possibility to use the background information of the microcensus.

The information base providing the maximum of possibilities, such as the two large household surveys of the HCSO are far from the optimum from the aspect of the representative description of poverty. Those who are extremely poor and excluded and have no housing – the homeless – are absolutely excluded from the scope of household surveys. As no targeted, representative research concerning the homeless has been carried out so far, we do not have any exact or statistically manageable information. We have only extreme estimates differing in order of magnitude.

Thus the study relates only to the poor who could be included in the household surveys, although occasionally under-represented.

The other major restriction of the analysis is that we could only consider, at least in a 'direct' manner, poverty indicators and specifics characterising poverty if we had statistical data. For instance, the gypsies who represent the group most endangered by poverty, appear as poor only indirectly in the statistical surveys, but in the absence of data, they cannot be quantified and analysed directly as a socially segregated poverty group.

After acknowledging all these restrictions, we need to make a decision on the measure of poverty, we need to set the demarcation line between the poor and non-poor, and we need to decide on the unit of analysis and our relation to the equivalence scales.

Choosing the measure of poverty

We have already referred to the fact that choosing the measure is not an easy task, as poverty is a multi-dimensional, social phenomenon which, in addition to the absence of fi-

nancial means, also includes the exclusion from non-financial assets. Although the concept of poverty has changed much since Rowntree till today, its measurement method has remained essentially the same. ‘On the theoretical side, the deprivation concept of poverty has been elaborated as a supplement and alternative to the traditional concept of minimum subsistence level, the poverty line based on income has remained the most important tool for the relative measurement of poverty, irrespective of the concept used. The only difference between the various measurement methods is simply the level where the poverty line is set.’

Despite the fact that the notion of poverty is approached in many different ways, with the exception of a few attempts, income is still used, directly or indirectly, as its measure.

Although everyone is aware of the fact that the measure, the measuring indicator must be constructed for the concept intended to be measured, it is extremely difficult to put it in practice. Income is a sensitive area all over the world. People do not like to speak about their incomes, they do not often intend to state their income-position honestly. Even if the income is correct, with its use we can underestimate or even overestimate poverty. ‘Income is useful inasmuch as consumer goods can be purchased for it on the market. However, what we purchase does not depend exclusively on our income, but also on other factors that affect our use of income.’ In different periods of life with different cultural backgrounds, under different market conditions and wider circumstances, different qualities of life or ‘welfare level’ can be achieved with a given income level. In addition to a current income, wealth condition is also a very essential element that can result in completely different chances of life even in the case of the same income, just as in the case of health status, the position on the labor market, working conditions and social integration which are all factors related to the income level.

Many consider the indicator of consumption, that is expenditure as an efficient measure for avoiding some of these problems. Without wanting to enumerate a series of counter-arguments against this measure, we only want to note that consumption resolves only seemingly the difficulties mentioned in the use of income, moreover it adds new ones to them. Such are cultural difficulties and those resulting from lifecycle or local purchase possibilities, appearing in consumption habits.

We can analyse people’s incomes in several ways. We can start from the personal incomes of individuals, the total income of families and households or also from the per capita income or the income per consumption unit of families.

The use of per capita income is still generally accepted in Hungarian practice but we have made calculations using equivalence scales as well.

5. Poverty lines used for measuring poverty in Hungary

We have used objective and subjective as well as official poverty lines for the assessment of the size of poverty and the characteristics of the poor. We have also considered it important to present their relationships.

Minimum subsistence level is the domestic equivalent of absolute poverty line. ‘Minimum subsistence level is a forint amount that ensures the fulfillment of very modest – conventionally qualified fundamental – needs related to a continuous conduct of life.’⁵

⁵ Létminimum, 1997. Központi Statisztikai Hivatal, Budapest. 1998.

It is determined in two steps. After determining the norms of food consumption, they are used for calculating the normative value of total personal expenditure, that is the minimum subsistence level.

For the norms of food consumption we have used a food basket compiled on the basis of the nutriment recommendations of the National Institute of Nutrition and Dietetics, which covers the physiological nutrition needs of an adult in active age. The normative food requirements of household members of different age and economic activity are calculated using defined 'keys' (in fact equivalence scales). The value of minimum subsistence level is the average consumption expenditure of those households of the survey use, in case of which the actual food consumption corresponds mostly or completely to the calculated norm. As a consequence of its nature, the minimum subsistence level can be interpreted primarily for consumption units, but it can also be calculated for one person. Its monthly value for a consumption unit was HUF16 435 in 1995, HUF19 425 in 1996 and HUF23 709 in 1997. The national average per person was HUF12 906 in 1995, HUF15 172 in 1996 and HUF18 574 in 1997. Naturally, as a result of the logic of the minimum subsistence level, it can be interpreted also for different types of households and consumption units, and the HCSO publishes these values in its annual publications *Létminimum* (Minimum Subsistence Level). Compared to the food norm the minimum subsistence value was 2.3 to 2.4-fold in the second half of the nineties.

The measuring of minimum subsistence level in Hungary is very similar to the calculation method used in the United States which can be considered a 'relative absolute' poverty line based on its calculation method. Considered either for a consumption unit or for one person, the value of minimum subsistence level represents an increasing proportion of average income compared to 1987.

From the *relative poverty lines* we used two indicators, one being the upper limit of the per capita income of those belonging to the 5 percent income quantile and the other to the bottom income decile. We get these values by separating the bottom 5 or 10 percent of the total population after having ranked them on the basis of their per capita net income, and we determine the poverty line by the maximum income of those belonging there.

The 5 percent of the population with the lowest income is particularly interesting, because as the income limit is extremely low, it does not achieve half of the minimum subsistence level. The income of those belonging to the lowest income decile is closer to the minimum subsistence level, but its value still falls short of it.

For the definition of the poor many, particularly in international comparisons, use *half of the median income*. In the 1996 income survey this value coincided with the maximum of the bottom income decile, so this was the value we considered the relative poverty line. So the relative poverty line was not only the upper limit of the bottom income decile, but at the same time also the half of the median income.

In addition to relative poverty lines, the 'official' poverty line is also decisive and has practical importance, as this is the income level that political decision-makers accept as the minimal necessary income. This provides the threshold for the eligibility of social allowances. Today in Hungary this threshold although not qualified, but at least as regards its function considered more or less official, is the amount of *minimum own right old-age pension*. The eligibility limit for social allowances is somewhere between the minimum subsistence level and the relative poverty line.

From the household budget surveys we have also information on the amount that, in the opinion of the population, households must have in order to maintain a continuous conduct of life on a very poor level. Both in 1995 and 1997 the subjective poverty level was around 65 percent of the overall average of per capita net income.

Table 5

*The poverty lines examined expressed in HUF
and as a percentage of the per capita disposable income in 1995 and 1997*

Year	Households below			
	the upper limit of the bottom income		the minimum old-age pension	the subjective poverty line
	5 percent quantile	decile		
	HUF/year			
in 1995	75 164	93 147	100 800	139 883
in 1995 at 1997 prices	109 890	136 181	147 370	204 509
in 1997	93 045	120 904	138 000	199 776
	Percent of per capita disposable income			
in 1995	34.8	43.2	46.7	64.8
in 1997	30.1	39.1	44.6	64.6

Finding out whether people consider themselves or their family poor is also a very essential aspect of *subjective poverty examinations*. We will discuss in detail this later, here we would only note that in 1997, 12.5 percent of the households considered themselves 'very poor' and a further 34 percent 'poor'.⁶

The size and intensity of poverty in Hungary using different poverty lines

The lower we set the poverty line, logically the fewer poor people we find. The order, valid for the circumstances in Hungary today – the lower 5 percent, decile, quintile, minimum old-age pension, subjective poverty line and minimum subsistence – is not a necessary hierarchy of the poverty lines regardless of place and time. On a higher level of welfare, the official level may coincide with or even exceed the absolute poverty level (calculated minimum subsistence). However, Hungarian realities show something different.

The subjective poverty level is a function of several factors; apart from the actual income, it is strongly influenced by the picture formed by people about income inequalities, the past situation and the future prospects of individuals and families.

Besides the several advantages of relative poverty lines, their huge disadvantage lies in the fact that the sphere of the poor is determined by their actual income conditions and income distribution. Thus, the increase in poverty as a consequence of the general deterioration of the living standard cannot be followed. While the relative poverty line has been calculated with a constant poverty rate on the basis of the absolute poverty line – the minimum subsistence – the number and proportion of the poor have increased.

⁶ The data originate from the 1997 household budget survey. In: Családi költségvetés, 1997. KSH. Budapest. 1998.

The relative poverty gap measures the intensity of poverty, its value is between 0 and 1 (or expressed as a percentage between 0 and 100). The further the value of the indicator from 0 is, the deeper the poverty within the examined group is. Consequently, the higher we set the poverty line, the greater the average distance of the poor in the group from the line is, which is also the poverty gap. Even in case of a poverty level set at the lowest level, the relative distance of the income of the poor from the line exceeded 20 percent.

Table 6

The proportion of households and persons living below the poverty lines examined, the size of the poverty gap and the relative poverty gap in 1995

Denomination	Households below			
	the upper limit of the bottom income		the minimum old age pension	the subjective poverty line
	5 percent quantile	decile		
Proportion of people (percent)	5.0	10.0	12.1	27.7
Proportion of households (percent)	3.4	7.1	8.7	20.9
Poverty gap (HUF)	16 561	21 681	24 799	38 493
Relative poverty gap (percent)	22.0	23.3	24.6	27.5

6. Characteristics of the poor in case of the different poverty lines

In order to get closer to the problem of poverty, we need to get a picture of who the group of the poor consists of. Another important question to be answered is how the group of the poor changes, how its composition modifies when different poverty lines are used.

The income structure of the poor

The lower we set the poverty line, the smaller the share of income from work in the income of the households is and the greater the role of social allowances is. While in 1995 the share of cash social allowances was in average 29.3 percent in the per capita gross income, in case of the households belonging to the lowest income 5 percent, this proportion was 63 percent. The income data estimated for 1997 show the same trend.

From within the cash social allowances, primarily the shares of changes in the family allowance, unemployment benefit and the income supplementing allowance of the unemployed, the child care fee, child care allowance and child care benefit as well as pensions, reveal a lot about the living conditions of the households.

While in the bottom 5 percent income, the family allowance is a quarter of the total income, at the poverty level, set at the subjective poverty line, its share is only 12 percent and in the latter case the main source of income – within the sphere of social incomes – is pension. In 1995, in the bottom 5 percent unemployment benefits represented 13, while choosing the subjective poverty line, ‘only’ 7 percent. The share of maternity benefits reduced from 10 to 6 percent.

The examination of the income of the poor by sources allows us to conclude that the majority of those living in deep poverty are families with children where many of the

adults do not have any earnings as they are unemployed, or mothers with small children getting their child care allowances, or older single pensioners.

Composition of households below the different poverty lines

More than one third of the household members are active earners in Hungary today. As regards to those living below the different poverty lines, the lower we put the line, the less the proportion of active earners is. The proportion of active earners in the households belonging to the bottom decile is approximately half of the national average. In 55 percent of the households in the bottom income 5 percent there was no earner at all. This ratio was 48 percent in the bottom income decile and 41 percent in case of the households living below the subjective poverty line. Compared to 1995, there has been no positive shift in the past two years.

With the economic stabilization, those living in poor households could get back to the labour market to a lesser extent than those living in average households. The proportion of the unemployed was twice their own weight in the bottom income decile in 1995 and two and a half times that in 1997.

The fact that the proportion of non learning dependant children over the age of 15 in the bottom income decile was four times the national average in 1995, just as in 1997 according to our estimates clearly shows that we inherited a bad labour market position.

Among the poor there are many unemployed and people of working age with no earnings; and at the same time, the proportion of children who do not finish primary school in due time is also greater among them, the proportion of primary school pupils over the age of 15 is four times that of the national average. This also calls our attention to the risk of inheriting an unfavourable situation.

The number and proportion of pensioners among the poor is far from what would be justified by their weight. In spite of this, as we will see later, those who still fall below the poverty limit are very poor.

The size of poor households is higher than the national average. This does not result from the greater number of families including several generations, but obviously from the higher number of children. According to the national average, 4.4 percent of households have at least three dependant children below the age of 20, at the same time their proportion was 26 percent in the bottom income 5 percent, 23 percent in the bottom income decile, 22 percent among those living below the minimum old age pension in 1995, and according to our estimates these figures became even higher in 1997.

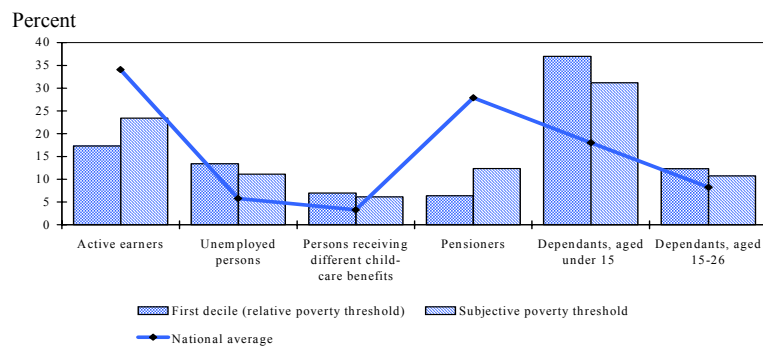
In 1997, on the basis of the estimated income data, the risk⁷ for households with 3 and more children of falling below the lowest poverty line was nearly five times, but even the probability of falling below the bottom income decile was nearly four times the national average.

The poverty risk factor is even greater in the case where the head of the household is unemployed. If there is an unemployed in the household, but it is not the head, then – choosing any poverty line – the probability of falling below the poverty line is one and a half times the national average. If the head of the household is unemployed, the risk of

⁷ For the concept and measurement of risk see *Teekens* (1996) and *Hajdu* (1997).

poverty was fourfold for the bottom income 5 percent, 3.4 fold for the bottom income decile, 3.2 fold for the level of minimum old age pension, and 2.4 fold for the subjective poverty line in 1995, and according to our estimates these values were even higher in 1997.

Figure 2. The proportions of household members of different economic activity in the groups of households belonging to the bottom income decile and falling below the subjective poverty line in 1995



The role of low qualification and type of activity of the head of the household in respect to the poverty of the household

As we have already referred to it earlier, the qualifications of the household members and particularly that of the head of household play a role in becoming and remaining poor. The impact made by low qualification on the income situation and poverty affects primarily the households of heads in economically active age, but even if we consider all households, the low qualification of the head of the household increases the risk of getting into the poorest income 5 percent one and a half times.

While at the national level in nearly half of the households the highest qualification of the head of the household is 8 grades or less, among active households their proportion is 21 percent. For households with active heads having low qualifications the probability of getting into the bottom income 5 percent or the bottom income decile is one and a half times the average of all active households.

In active households, the role of the type of activity of the head of the household – as regards the risk of the household getting below the poverty line – is similar to that of the qualification level. The lower the position of the head of the household is, the greater the probability for the household of getting below the poverty limit is. In case of unskilled worker household heads, the probability for the household of getting into the bottom income 5 percent or the bottom income decile is two and a half times of what would result from their weight becoming and remaining poor.

The role of the type of settlement, the place of residence in case of the different poverty lines

While the type of settlement has a significant role in bringing about income inequalities, its role played in poverty is far from being that considerable.

In the capital and in other larger towns in general the risk of poverty is smaller than in small settlements, but the difference is not poignant. On the basis of the estimated data it seems that the probabilities of poverty risk did not change from 1995 to 1997.

Table 7

The risk of getting below the poverty level, according to the character of the place of residence, in case of different poverty lines in 1995

Residence	Households below			
	the upper limit of the bottom income		the minimum old-age pension	the subjective poverty line
	5 percent quantile	decile		
Budapest	0.9	0.9	0.9	0.7
Large towns (over 50 thousand inhabitants)	0.8	0.8	0.8	0.9
Settlements with 1000-50000 inhabitants	1.2	1.2	1.1	1.1
Small villages with less than 1000 inhabitants	0.9	1.0	1.0	1.1

The poverty risk of single-parent families and old people living alone

In contrary to expectations, the poverty risk of old people, whether living alone or not, is not too high, if we choose any of the poverty lines, it stays below the national average. At the same time, those old people who live alone, are generally very poor.

Among 75-year-old or older singles, the relative shortfall of the income of the poor from the poverty level is 40 percent or higher in the bottom 5 percent, the bottom decile just as below the official poverty line. This reveals the great poverty of old people living alone. When we speak about the relatively favourable income position of old people, we must not leave out of consideration those who live in poverty, because the intensity of their poverty is extremely high. When we used the equalized income instead of the per capita income in the analysis, the income position of pensioner households consisting of one person proved to be more unfavourable.

The other endangered group is the 'single parent with child(ren)' household. In accordance with the expectation, the poverty risk of this type of household is nearly one and a half times the national average. However, the intensity of poverty is not outstanding, that is many of them live near the different poverty lines, their poverty is shallow. They easily get below the poverty line, but they also get over it relatively easily.

The housing characteristics of the poor in case of the different poverty lines

70 percent of those living in 'very bad' housing conditions live below the subjective poverty line. The poverty risk of those living in very bad housing conditions is nearly 7 fold in case of the bottom 5 percent, 5.5 fold for the bottom decile and 5 fold for the 'official' subsidy threshold, that is, the poverty line set at the minimum old-age pension.

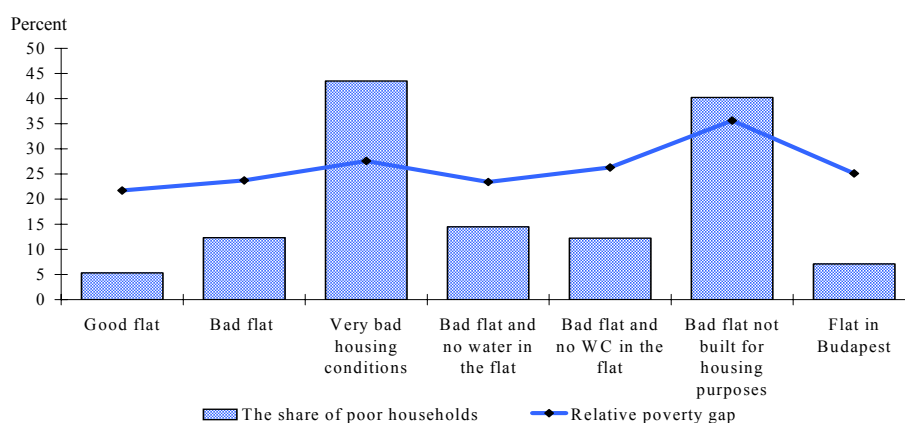
'Bad housing conditions' are also in close relationship with poverty, but the real difference is represented by 'very bad housing conditions'.

Table 8

The risk of getting below the poverty level in case of the different poverty lines in 1995

Housing conditions	Households below			
	the upper limit of the bottom income		the minimum old-age pension	the subjective poverty line
	5 percent quantile	decile		
Very good	0.5	0.4	0.5	0.5
Good	0.6	0.6	0.7	0.8
Average	1.1	1.1	1.1	1.0
Bad	1.7	1.7	1.7	1.5
Very bad	6.6	5.6	4.8	2.9
Very bad housing conditions and no WC in the flat	2.6	2.2	2.1	1.6
no water in the flat	2.5	2.7	2.4	1.9
unfavourable environment	3.1	2.6	2.3	1.7
flat not built for housing purposes	8.9	5.8	4.8	3.0

Figure 3. The incidence of poverty and the gap of the poor according to some major characteristics of the household among those living in the lowest income decile



Households that have 'bad housing conditions' and their flat 'not built for housing purposes' are with great probability below the poverty line. In 1995, nearly 90 percent of such households lived below the minimum subsistence level and their proportion was also 40 percent in the bottom income decile.

The relationship of objective and subjective poverty

Subjective poverty line is calculated on the basis of the income expectations of the population. Its size is the amount of income considered necessary for a very poor level of subsistence in the opinion of the population.

The sense of reality of the population is reflected by the fact that each year the subjective poverty line is between the income limit considered 'official' for eligibility for

regular social subsidies, that is the amount of minimum old age pension and the absolute poverty line, namely the minimum subsistence level.

Beside the costs of subsistence, the subjective poverty line depends on a number of other factors as well. The higher the income level of a household is, the higher the amount necessary in their opinion for a very poor subsistence is.⁸

The size of this amount is also influenced by the previous financial position of the households, as everyone adjusts their expectations to their usual living standard. If the household used to live permanently at a higher living standard, then its structure of consumption corresponds to it, and this is what determines their needs. The picture formed by people about society also influences their expectations. In case of large income inequalities and permanent poverty, people tend to consider their own situation natural and adjust their expectations accordingly. ‘Deep-rooted inequalities often flourish’, says Amartya Sen, ‘because they find passive allies in subordinated people’. (*Sen, A., 1990*) One of the criteria of classical poverty is that those living in poverty for a long time do not consider themselves poor.

On the basis of the data of the 1997 household budget survey, we also had the opportunity to compare the opinions of households about their own level of subsistence with their actual financial position.

42 percent of the households belonging to the bottom income decile considered themselves very poor and a further 36 percent poor. Among those living under the minimum subsistence level these proportions were 33 and 37 percent. In the national average 13 and 34 percent of the households admitted themselves as very poor and poor, respectively.

Table 9

Opinion of households belonging to the bottom income decile and living below the minimum subsistence level in 1997 on the development of their financial position in the previous three years

(percent)

The financial position	In the bottom income decile	Below the minimum subsistence level	On national level
Deteriorated substantially	61.2	53.0	31.2
Deteriorated a bit	22.8	28.8	39.6
Did not deteriorate	14.0	15.9	24.0
Improved a bit	2.0	1.9	4.5
Improved substantially	0.0	0.4	0.7
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

As we referred to it earlier, in the judgement of their own situation and present position, people also assess their past situation and future prospects. In a period when – as a result of the economic recession – the subsistence conditions and living standards of families deteriorated significantly by the middle of the nineties, the start of the economic uplift affected the individuals, families and households of different labour market positions in very different ways.

⁸ The household statistical publications mentioned earlier and appear quarterly, include very valuable data and calculations on this topic. See the most detailed data for 1997 in volume 8.

7. Conclusions

The first reliable income survey after the transition carried out by the HCSO in 1996 supplied ample evidences supporting everyday empirical experiences that incomes in the mid 1990s dispersed to a much greater extent than before the transition in Hungary. Both the marked increase in unemployment and the restructuring of the economy by branches and ownership contributed considerably to the significant increase in income inequality. There are still some other factors for further research which may have been part of the process. It seems that primarily households of unemployed persons, pensioners living on widow's or very low pension and families with several children are the losers of the restructuring of the income distribution. It is hoped that a continuing economic growth of the country may stabilize the level of income differences or these may even decrease to some extent if the new government turns greater attention to the well-being of families with children and some social groups and regions being now in a disadvantageous situation. This may, however, decrease the number and the proportion of people in poverty.

Nevertheless, the rather moderate level of income inequality of the decades before the transition can not be expected to return.

The elimination of the poverty of those living around the income level of the poverty line calculated on the basis of the minimum subsistence level can be managed along with the improvement of the economic situation of the country, the increase of the supporting power of earnings and the stability of social benefits.

The low income level of the groups of households below the threshold of eligibility for regular social subsidies and below relative poverty lines, living in deep poverty, is coupled by a series of economic and social disadvantages that the automatism resulting from the improving economic situation is unable to solve within the framework of the present social policy.⁹

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⁹ This problem is elaborated further and placed in a theoretical framework in many works by Zsuzsa Ferge. See a concise summary in the selected studies 'Social Policy and Society' by Zs. Ferge.

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