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INTRODUCTION

This is the fourth time the United Nations Development Programme (UNDP) has commissioned a country report on human development in Hungary. The United Nations has been promoting this kind of measurement and comparison of the development level in individual countries since the early 1990s. According to the concept of human development, the primary task is to enable people to live fulfilling lives and improve their quality of life, so that their choices and capabilities can expand. The basic requirement is not just for people to have a long, healthy life, but for them to have the opportunity to acquire knowledge and gain access to the financial and other resources they need to maintain a decent standard of living. The concept underlines that economic growth is a means of attaining this, not an end in itself. The Human Development Index (HDI) is intended to combine in one indicator measures of these three basic conditions: average life expectancy at birth, level of educational attainment, and per capita gross domestic product (GDP) at purchasing-power parity.

In Hungary's case, it is especially interesting to examine whether the transition to a market economy has helped to improve human development, and if so, to what extent. Here the essential aspects are the long-term tendencies and the subject itself is extremely wide-ranging and comprehensive. Not all aspects of human development can be covered in the relatively narrow bounds of one annual report. The same practice has been followed this year as in previous years: of choosing a theme for more detailed examination. The first report, compiled in 1995, concentrated especially on the concealed economy, while the 1996 report contained a chapter on local-government financing, and the 1998 report focused on human rights (in conjunction with the 50th anniversary of the UN Declaration).

It has been mentioned in all the previous reports that there are strong regional differences in Hungary, despite the small area of the country. This is the topic covered in more detail in this report. Chapter Three discusses the regional utilization of human resources, and Chapter Four the main achievements resulting from the calculation of a regional Human Development Index.

Last year's report examined in depth the distribution and inequalities of income and how the main characteristics of poverty changed during the 1990s, up to 1997, relying mainly on the survey data of 2000 households covered by the Hungarian Household Panel. This year the report takes the subject of income inequality, using a larger data base, covering a sample of almost 20,000 households. An attempt is also made to perform a longer-term comparison over several decades, with the help of the earlier income surveys. The presentation of the characteristics of poverty is based on the latest, 1998 data of the Household Budget Survey taken by Hungary's Central Statistical Office (KSH), which covers a representative sample of 10,000 households.

Another chapter of last year's report examined the trends in employment, unemployment and economic activity, using various sources of data (mainly administrative figures and data from the Labour-Force Survey). It investigated what changes had taken place on the labour market in recent years, and whether the initial tensions caused by the transition had lessened. This year the developments on the labour market are examined from a different angle – the trend in earnings. For earnings, apart from playing a decisive part in determining the standard of living, are also good signals of labour supply and demand.

This report cannot yet reflect on the results of the social policies introduced by the new government, which took office in the summer of 1998. (This is because the latest figures available reflect primarily events of 1998, and there will be some delay before the effects of such measures are felt.) However, it is worth reviewing briefly what the government's main ideas were when it took office, what specific measures were taken accordingly, and what direction the line of policy is taking today. That will yield a picture suitable for some kind of preliminary assessment at least.

All three parties in the present coalition government already placed great emphasis in their election manifestos on the system of family assistance. This was partly because the 1995 'Bokros' package of austerity measures (named after the finance minister of the day) had significantly reduced such disbursements and the sphere of entitlement to them. (The effects of the 'Bokros' package were considered in last year's report.) The other reason was the concern felt by these parties for

the population decline in Hungary, which has continued for almost twenty years. They expect an increase in the benefits paid to families to mitigate or reverse this demographic trend. The fall in Hungary's population is attributable not only to a decline in the live birth rate, but to an unfavourable trend in mortality rates. It was pointed out in last year's report that a mortality rate of 14 per thousand is high, especially compared with the developed countries where similar birth-rate declines are found.

The importance of family policy is also reflected in the government's programme. (To some extent, the altered priorities are apparent in the way the system of government offices has been changed. In 1998, responsibility for welfare matters was transferred from the former Ministry of Health and Welfare to the Labour Ministry, now known as the Ministry of Social and Family Affairs.)

One of the government's first measures to reduce the burden on families was to make the flat-rate family allowance paid per child a universal entitlement. The same purpose lay behind the abolition of fees in higher education. In 2000 comes the reinstatement of the monthly child-care payment (GYED), which offers parents who stay at home with young children partial reimbursement of lost earnings. (Budgetary constraints mean this can only be done to a small extent, with a low payment ceiling.) Family allowances will not increase in 2000, although families with children will become entitled to somewhat larger income-tax concessions.

The draft concept for family policy was completed this year. This sets longer-term priorities, but as intended, it will also serve as a basis for the tasks in the immediate future. The draft sets out to encourage families to have more children by promoting family security. The cited areas in which this can be done are expansion of employment, regional development, alterations to the system of child-care assistance, and boosting of various other forms of assistance to families with children.

With the system of assistance for the unemployed, the government is keeping a close watch on developments in the European Union (EU), which Hungary expects to join in the next few years. Most of the EU moves are aimed at enhancing the 'employability' of the unemployed. It seems that the Hungarian government would like to place more emphasis on finding jobs for the unemployed. Among the current proposals are an extension of the programme of job-creating public works, reduction in the period of entitlement to unemployment benefit, from one year to nine months, and restriction of the means-tested 'income supplement' for the long-term unemployed. The intention of cooperating with the European Union is more directly apparent still in the longer-term plans. The government intends to devise and submit to Brussels its first National Employment Action Plan by the spring of 2000. The National Employment Development Programme, which is due to be finalized at the same time, will set the priorities for the next five or six years. The most widespread ideas for expanding employment involve 'atypical' forms such as part-time work, home work and so on. It is worth mentioning in this context that more than 100,000 new jobs are expected to be created in the year 2000, which means that employment will have begun to climb again, after its previous fall and stagnation, followed by modest rises in the last one or two years.

Chapter one

Income Inequalities and Poverty

1. Samples and surveys

This chapter aims to outline for Hungary the general characteristics of income distribution and the extent of inequality over the long term and to provide the fullest possible account of poverty based on a large data base.

Box 1.1.

Income surveys

The first income survey was taken in 1960 and repeated at five-year intervals from 1963 to 1988, using random sampling and a special questionnaire. The technique and method remained almost unchanged over that period. The surveys rested on two pillars: voluntary interviews with members of the public and compulsory provision of information by employers. So the reliability of the data on income from employment, which accounts for the highest proportion of personal income, was the same as for the data registered in the labour statistics. The accuracy of the returns for social income was very high. The incomes deriving from non-agricultural and agricultural 'entrepreneurial' activity, which formed a very low proportion of the whole, were corrected using expert estimates. This meant that the income surveys reflected very accurately the income situation in the various social groups, the trends in these over time, and the income differences by strata.

The social and economic changes in the last decade have left it impossible to rely on employer information returns as a survey pillar. It has lost some of its significance in any case, as earnings have gained a multi-channel character. The development and growth of the entrepreneurial stratum, with its weak propensity to provide data returns, coupled with the growth of the hidden economy and the declining standard of living, increased the number and proportion of non-respondents. Furthermore, there was a multiple increase in the number of survey participants who concealed or 'underestimated' certain types of income.

Under the changed circumstances, there has been enhanced interest in new techniques of enquiring into income and into the various methods of correcting income returns. The income survey of April 1996 by the Hungarian Central Statistical Office (KSH, 1998), which was coupled with a micro-census, linked integrally with these efforts. This link put it in a new position. Since citizens' responses to the micro-census were compulsory, it elicited information about the household composition, demography, schooling, economic activity and housing conditions of social strata that would not have provided it for a voluntary survey of income. This knowledge contributed to an attempt, for the first time in the history of the KSH, to elaborate an imputative, corrective procedure that would give a more realistic picture of the public's income situation than survey returns can.

That is why a somewhat earlier, more reliable source has been taken to present the distribution of income and the inequalities of income, instead of the most recent survey findings.

A stratified sample was compiled in several stages. The sampling-frame unit was the dwelling and the observation unit the household. Detailed income information from 18,177 households was available. Since the sample was a sub-sample of the micro-census, micro-census data could also be used.

The main source of the data is the income survey conducted by Hungary's Central Statistical Office (KSH) in 1996 (Income distribution, 1996, KSH, 1998). However, the latest, KSH survey of household budget survey (Household Budget Survey, 1998, KSH, 1999) has been used as an auxiliary data base for analysing poverty.

To gain a deeper insight into the income inequalities among households today, time-series have been derived from earlier income surveys to provide longer-term comparisons.

Box 1.2.
Household Budget Surveys (HBS)

The KSH has regularly conducted Household Budget Surveys (HBS), based on the keeping of household journals, for the last 50 years. Such surveys provide detailed information on the consumption standard, consumption structure, income situation, ownership of consumer durable, and housing conditions for the whole population and for the various socio-economic strata. They can provide representative data on the composition of households, the demographic characteristics of household members, economic activity, and regular and occasional earnings.

The basic sample frame is the aggregate of the Hungarian citizens living in private households in Hungary. So the data collection does not extend to institutional households.

The sampling-frame unit was the dwelling and the observation unit the household. The sample is compiled at random in several stages. The size of the sample in 1998 was more than 10,000 households. The data obtained from the sample are adjusted to apply to the whole population by factor multiplication, so that the 10,144 households surveyed come to represent the totality of 3,772,623 households. Participation in the survey is voluntary.

The main source of data is the household journal, kept by a household over a calendar month. This information is augmented with two questionnaires. The end-year questionnaire yields information on household spending of large sums and on consumer durable. The subsequent questionnaire is taken in the following year, at the time when respondents are filing their income-tax returns. This multiple and very rich process of information gathering allows the housing budget surveys to be utilised in many different ways.

With the poor, the sources were mainly the 1995 income data for the public and the 1998 household budget survey.

Objective and subjective, absolute and relative poverty thresholds have been used to provide a comprehensive analysis of poverty. The intention was to provide variety when choosing the indices of inequality and poverty as well.

Institutional households and the homeless fell outside the sphere of both surveys, although both have an important role when estimating poverty. Nothing can be deduced about poverty among the solitary elderly living in old-people's homes, among handicapped people living apart from their families, or among the homeless. However, there is representative data available about poverty among those who possess a dwelling and live in a private household.

2. LONG-TERM CHARACTERISTICS OF INCOME DISTRIBUTION AND INCOME INEQUALITIES

2.1. THE GENERAL CHARACTERISTICS OF INCOME DISTRIBUTION

Longer-term examination of the income distribution in Hungary suggests that the development of income inequalities was not associated with the change of system. Its roots go back much further. However, there has been a change in the causes behind the income differences.

The economic reform of 1968 and the general economic liberalisation meant that by 1972, the income inequalities had already reached the dispersion found in the period round the change of system. In 1972, there were roughly fivefold per capita-income differences between households in the highest and lowest income deciles, and all the inequality indices were approaching or even exceeding the values for 1987. The socio-economic mechanism of that time left at least limited scope for independence in the economy and society, among economic organisations and individuals. As the system of income regulation was liberalised and the second economy developed, both main-job earnings and auxiliary earnings contributed to the dispersion of income from work. Meanwhile, wide income dispersion arose within the inactive and pensioner strata, due to the limitations on pension rights among those living from agriculture and the huge difference between the old-age benefit they received and the full pensions received by those who had worked in non-agriculture sectors.

The general degree of income inequality began to lessen in the second half of the 1970s, as constraints were placed on liberalisation, the general economic situation worsened, and differences in income among the inactive strata decreased sharply. The system of economic management based on indirect controls and leaving some scope for individual interests was able to operate while the economy was still in a state of relative expansion. The profitability of the large, dominant, but inefficient enterprises had to be ensured without undermining the position of the prosperous firms and the dynamic areas of the economy. This system necessarily led to excessive distri-

bution and external indebtedness. The crisis in the system that began in 1978 also manifested itself in a reduction in the income differences among 'active earners' (people in employment). At the same time, the glaring income differences among the inactive had ceased by this time. The combined effect of these two developments was to make the distribution of income more even.

Per capita incomes were more even in 1982 than in 1977, not only among the whole population, but within most strata. While the inactive stratum had long shown a degree of income inequality far exceeding the dispersion found within the active strata, the dispersion of per capita incomes in both types of household was more or less equal by 1982. This was largely brought about by the same factors that had allowed the average income of the inactive to approach rapidly towards the average income of the active. These included several rises in low pensions and spouse allowances, flat-rate price-rise compensation awarded in 1979, mortality among the older pensioners still with very low pensions, and the rising proportion of women obtaining pension rights.

It is often thought that most of the low-income bracket consists of those on low pensions. The figures do not support this, according to the KSH's analysis of Hungarian income distribution in 1987. This misapprehension remains strong in the public mind, where those on low pensions are the first to be cited as 'deserving' poor.

In 1987, 78 per cent of those in the lowest income decile were active earners. Most of this decile (80 per cent) were living in households with two or more dependent children. Furthermore, the proportion of households in which the head of the household had completed less than the eight grades of primary education was more than one-and-a-half times the proportion for society as a whole. Three-fifths of the low-income households with a head in active employment were ones in which the head of the household held an unskilled manual job, whereas the proportion for society as a whole was only 31 per cent.

The main types of inequality, which still play a decisive role, emerged in the second half of the 1980s: those consisting of large families with several children, and those with a poor position on the labour market, due to lack of skills and poor educational attainment.

The political and economic transformation has also brought a strong restructuring of the income position of individuals and households. The rate of increase in income inequalities has risen. The existing forms of inequality have strengthened and been joined by new forms.

Table 1.1.

The shares in total personal income held by deciles of the population composed according to net per capita personal incomes, 1972-97, %

Year	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	decile									
1972	4.0	5.9	7.0	8.0	8.9	9.8	10.8	11.9	13.8	19.9
1977	4.5	6.3	7.3	8.1	8.9	9.8	10.8	12.0	13.7	18.6
1982	4.9	6.4	7.3	8.1	8.8	9.6	10.7	11.9	13.7	18.6
1987	4.5	6.0	6.9	7.7	8.5	9.4	10.5	11.8	13.8	20.9
1995	3.3	5.0	6.2	7.2	8.2	9.1	10.2	11.7	14.1	25.0
1997	2.9	4.7	5.9	7.0	7.9	8.9	10.0	11.6	14.4	26.7

Note: Data for 1997 was estimated simply by extrapolating from the 1995 income survey.
Source: Household Income Survey (HIS), 1995.

Table 1.2.

The trends over time in the main indices of inequality, 1972-97

Index	1972	1977	1982	1987	1995	1997
Ratio of bottom to top decile	5.0	4.1	3.8	4.6	7.5	9.2
Éltető-Frigyes index, %	196	184	182	199	236	-
Robin Hood index, %	16.4	15.1	14.9	17.1	21.0	22.7
Gini coefficient	0.2322	0.2112	0.2060	0.2358	0.2964	0.3206

Source: HIS, 1972, 1977, 1982, 1987, 1995.

The initial phase of the transformation coincided with an economic recession, so that the effects of the two were combined. The drastic fall in macro incomes was followed, after an interval, by a fall in micro, personal incomes as well.

Box 1.3.

Measures of income inequality

Four measures have been used to present income inequalities here: the ratio between the two extreme income deciles, the Éltető-Frigyes index, the Robin Hood index, and the Gini coefficient.

(i) A decile distribution of the variable x, which describes the income situation in one or part of one country (and may be gross or net income or expenditure per capita, per household or per consumption unit) shows the shares of aggregate income held by ranked tenths of the set, ranged according to the values shown for x.

To put this in concrete terms, let us take the whole population of the country, which can be called N, and their aggregate income, which can be called J. Let us call the income of the i-th inhabitant I_i (i = 1, 2, ..., N and $\Sigma I_i = J$). Place the whole population in order of the value of I_i, from the smallest Ii up to the greatest. Divide the inhabitants in the line into ten equal groups, each containing N/10 inhabitants. Calculate how much of the aggregate income J goes to each of these tenths, and call these partial incomes $J_1, J_2, ... J_{10}$ (J_i #, J_2 # ... #J_{10} and $\Sigma J_i = J$, total i = 1, 2, ..., 10). The ten ratios $J_i/J = q_i$- for i = 1, 2, ..., 10 and the ratio q_i * 100% provides, in this specific case, the decile distribution. (Obviously, S q_i = 1 and q_i # q2 # ... # q10.)

The decile distribution also shows the characteristic state of income inequality among the set. However, it is customary to represent the degree of inequality by a single number, for which purpose several inequality indices have been constructed. The simplest of these is the ratio of the extreme deciles: $1 = q_{10}/q_i$.

(ii) The Éltető-Frigyes index is a ratio that compares the mean income of those in the set who have above-average incomes with the mean income of those in the set who have below-average incomes. So $v = x_2/x_1$, where x_2 is the above-average sub-set and x_1 the below-average sub-set. In general v > 1. The greater the extent to which v exceeds 1, the greater the income inequality in the set examined. Where there is full income equality, v = 1.

(iii) Another easily computed and expressive measure is the Robin Hood index. Assume that in the decile distribution ($q_1, q_2, ..., q_{10}$), q_k is the first proportion greater than 0.1. The Robin Hood (RH) index is defined by the equation $RH = \Sigma(q_k - 0.1)$, with the values extending from k to 10. RH tells what percentage of income must be taken from the rich – the deciles receiving more than 0.1 of the aggregate income – and given to the poor – the lower (k – 1) deciles – for full equality to prevail.

(iv) Every decile distribution yields a Lorenz curve, which can be represented on a graph with axes at right angles to each other. The horizontal axis shows the cumulative deciles of the population, in which the interval between points 0 and 1 is divided into ten equal parts. Usually the values qi, $(q_1 + q_2)$, ..., $(q_1 + q_2 + ... + q_{10})$, derived from qi, have to be measured as the ordinate for these abscissa points. Joining these ten points produces the Lorenz curve. With full income equality, the line joining the ten points from (0.0) to (1.1) is a diagonal line at 45°, which is the diagonal of the unit square of the co-ordinate system. The area defined by this diagonal and the curve, divided by half the unit square gives the Gini coefficient. An approximation of this is obtained with the equation $G \approx 0.9 - 2 * \Sigma(0, i * q_{10-1})$, where the sum i = 1, 2, ..., 9.

Although the scope for centralising the redistribution of national income was being restricted, the share of social benefits in aggregate income rose sharply. Income from work accounted for 75.5 per cent of total per capita income in 1987 and social income for 23.5 per cent. By 1995, the former had fallen to 69.4 per cent and the latter had risen to 29.3 per cent.

The way the structure of income altered differed strongly between social strata and income levels. In 1987, the proportion of social income was four times as high in the lowest income decile as in the highest income decile. Eight years later the proportion was almost five times as high, and by 1997, it was seven-and-a-half times as high. The income structure of those in the top decile, on the other hand, did not change appreciably between the two surveys. The smaller the per capita income a household has, the smaller was the proportion of income from work and the higher the proportion of social income.

Table 1.3.
The proportions of market and social incomes in total income, based on income deciles representing per capita net income in the population, 1987 and 1995, %

Type of income	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	Decile									
	1987									
Market income	55.6	59.6	64.2	67.4	70.7	73.1	76.7	77.4	82.5	87.5
Social income	44.2	38.7	34.7	31.5	28.3	26.1	22.3	22.0	16.6	11.0
Other income	0.2	1.7	1.1	1.1	1.0	0.8	1.0	0.6	0.9	1.5
	1995									
Market income	41.3	54.4	60.3	59.9	57.8	59.6	62.4	67.8	74.1	86.9
Social income	56.7	44.1	38.8	39.3	41.4	40.0	36.8	31.5	24.9	10.1
Other income	2.0	1.5	0.9	0.8	0.8	0.4	0.8	0.7	1.0	3.0

Note: Market income is taken to consist of income from employment, business, intellectual creation, other self-employed activity, and agriculture. Source: HIS, 1987 and 1995.

Per capita income depends not only on the total income received, but on the number of household members and the proportion of earners to dependants among them. The number of households in Hungary has continued to increase since 1987, due to break-up of larger households, loss of function for the multi-generation family, and the ageing and changing demographic characteristics of society. In 1995, there were an extra 80,000 household, making 3.87 million, while the average number of household members had fallen from 2.8 to 2.6. One factor behind this tendency was a decreasing number of children. In 1987, there were 58 dependants under the age of 15 for every 100 households, but by 1995, there were only 47. Although the average number of children fell, the costs associated with child-raising increased, due to cuts in social benefits, withdrawals of state subsidies, as well as longer periods of education and job-finding difficulties for school-leavers, which prolonged the period of dependency.

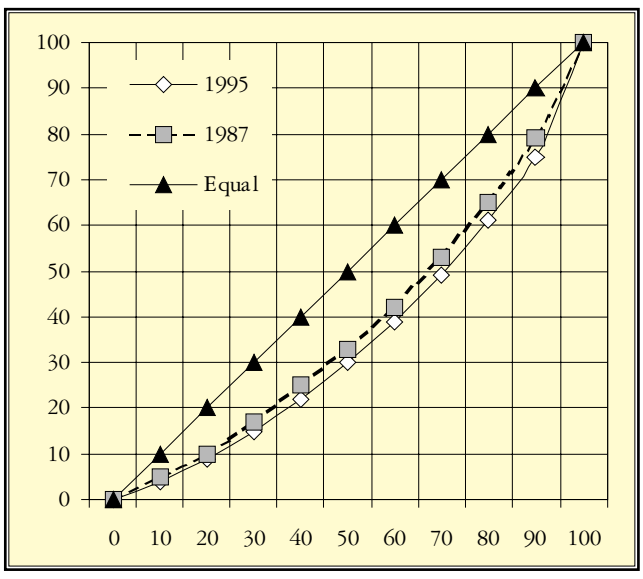
With forms of social income, the number of claimants increased or remained the same, while the real value of the total disbursement decreased. For instance, the aggregate disbursement on pensions (the decisive determinant of the size of social income) declined by 5 per cent in real value, while the number of pensioners increased by 28 per cent, so that the mean monthly pension sum in 1995 was only 74 per cent of what it had been eight years earlier.

Neither earnings nor social benefits maintained their real values. The combined effect was a drastic fall in the real value of mean incomes.

While the size of real individual incomes was falling, the dispersion or inequality of them was increasing considerably. The strongest tendency was an increase in the share of aggregate income taken by those with high incomes, but there was also a mounting impoverishment of the poor. In 1987, the mean income in the top decile was 4.6 times higher than in the bottom decile. By 1995, it was 7.5 times higher. In the same year, the bottom income decile received only 3.3 per cent of the aggregate income, while the top decile received 25 per cent.

The dispersion of total personal income and the change in this is shown graphically by the Lorenz curves for 1987 and 1995.

Figure 1.1.
The Lorenz curve for personal income, 1987 and 1995



The Gini coefficient, the Robin Hood index and the Éltető-Frigyes index, in line with other measures of inequality, show a slight increase in inequality between 1982 and 1987, followed by steep increases between 1987 and 1995, and 1995 and 1997. This rapid polarisation of incomes was confirmed whichever measure of the inequality of mean personal income was chosen.

Since income data for 1997 were extrapolated from the 1995 income-survey findings (using the 1997/1995 price indices calculated for each source of income), it is worth considering further the changes in inequality between these two years.

The mean annual per capita income rose by 43 per cent in nominal terms between 1995 and 1997, but by only 3 per cent in real terms. While the size of real incomes hardly rose, the spread (inequality) of incomes increased further. In 1995, the bottom decile received 3.3 per cent of the aggregate income, but in 1997 only 2.9 per cent. The 7.5-fold difference between the incomes of the top and the bottom deciles in 1995 became 9.2-fold in 1997. So the income difference between the extreme deciles doubled over a ten-year period.

The rate of increase in income inequalities in recent years has been faster than in any period in the last half-century. The change of economic structure and the radical transformation of the labour market have had their effect, after a delay, on the income relations of the population. The macroeconomic processes caused the level of personal incomes to reach a low point in the mid-1990s, which coincided with the increase in the dispersion of incomes. However, many people have not been able to regain their income position before the recession and the transformation, although the general economic situation has been improving again. The personal income relations of the population have begun to increase slowly, but certain strata in society have fallen irrevocably behind, as the sharp increase in income inequalities goes to show.

Another aspect to consider, alongside the inequalities in society as a whole, is that inequalities are found within the various social, economic and demographic groups. That is the subject of the next section.

2.2. Internal inequalities within the national distribution of income

The hierarchy of settlement types in Hungary is associated with strong differences in mean incomes and in the dispersion of incomes.

Budapest, the capital, contains 20 per cent of the country's population of just over 10 million. The gap between Budapest and the rest of the country has widened in the last decade. Because of the change in economic structure and the expansion of Budapest's role as a national and international business and financial centre, the incomes obtained by Budapest households have become higher, and show a substantially greater dispersion than those of provincial households.

In 1987, there was a 4.9-fold difference between the top and bottom deciles for per capita net income in Budapest, as opposed to a 4.5-fold difference in rural communities (settlements classified for local-government purposes as villages). In 1995, these differences had risen to tenfold in Budapest and six-fold in rural communities.

Even in 1987, the widest dispersion of incomes was among households with active earners, especially where the head of the household was self-employed or in a managerial position. This tendency also strengthened in the second half of the 1990s.

Looking at certain factors in the longer term, it is apparent that the role of the number of children in general income inequality has decreased, but remains important. The role of the head of household's educational attainment and type of position began to increase strongly in the second half of the 1980s and has gained exceptional importance. The role of demographic factors tended to lessen at the end of the 1980s. The main role in the displacement of income relations and the dispersion of incomes was taken over by the labour-market position of the household head and other household members.

Table 1.4.
The Gini coefficient and the ratio between the top and bottom income deciles based on per capita net income of the groups examined, 1987, 1995 and 1997, %

Attributes of households	1987	1995	1997	1987	1995	1997
	Gini coefficient			Bottom decile/top decile		
Budapest residence	0.2516	0.3362	0.3564	4.9	10.0	11.7
Provincial urban	0.2340	0.2910	0.3142	4.5	7.2	8.9
Rural	0.2250	0.2570	0.2828	4.5	5.9	7.5
Active earner as head	0.2440	0.3154	0.3402	4.8	7.8	9.4
Inactive earner or dependent as head	0.2128	0.2571	0.2750	4.0	6.3	7.8
Of which: unemployed	-	0.2924	0.3286	-	6.6	8.4
Manager as head	0.2334	0.3296	0.3412	4.3	8.2	8.9
Entrepreneur or self-employed as head	0.2858	0.3634	0.3880	7.4	11.2	13.3
No dependent children	0.2308	0.2664	0.2869	4.5	6.0	6.9
3 or more dependent children	0.2212	0.2864	0.2960	4.4	6.1	8.4
National	0.2358	0.2958	0.3206	4.6	7.5	9.2

Source: HIS, 1987 and 1995.

The most important change in recent years has been a reduction in the role of age in income dispersion and a parallel increase in the role of job position and educational attainment. There has been a slight fall in the significance of dependent children, primarily due to the steady fall in the number of children and the average number of children. Here most of the change can be dated to the 1980s. However, the role of the number of children remains important.

The chapter returns later, in the detailed presentation of poverty in Hungary, to the general characteristics of the distribution of income and the degree of inequality.

3. THE CONCEPT AND MEASUREMENT OF POVERTY

People make frequent and various use of the concept of poverty. In the early stage of poverty surveys, some absolute income threshold was usually set, behind which lay recognition of certain general human needs, biological, physiological and social. Many people have described poverty in terms of degrees or types of inequality. These days, sociologists especially emphasise social and political exclusion and an absence of scope for social identity and integration, rather than economic need. The latest approaches place the emphasis on the multi-dimensional nature of poverty and seek methods that allow comprehensive definition and measurement of it.

Although the concept of poverty has changed much since the end of the 19th century, the way of measuring it – through an income threshold – has remained largely unchanged. To set the poverty threshold, both objective (absolute and relative) and subjective information can be used.

Box 1.4.

Poverty thresholds

A poverty threshold (poverty line, subsistence level) is a level of income below which people are to be considered poor and above which they are to be considered non-poor. This line or threshold allows the poor to be identified and calculations to be made within and between various groups of the population.

Work on determining an absolute poverty threshold is associated with Rowntree, who set the line simply by the minimum needs of physical subsistence, using a shopping basket of basic needs. Physical subsistence was joined after a time by recognition of the need for 'social subsistence'. The things objectively necessary or socially required largely depend on the nature of the society in which individuals live, so that this also determines the meaning of poverty. The absolute type of concept of poverty has been criticised by many scholars even in its modernised form. It is not easy to calculate basic needs, and at a higher level of economic development, the demand for subsistence is necessarily accompanied by a broader scale of socially recognised needs. The question of what social needs or what proportion of them are accepted as the necessary minimum for subsistence is influenced by the level of economic development, the standard of living, the political system and the level of fellow-feeling prevalent in the society concerned. There are long traditions in Hungary of employing such methods of calculating poverty. Trade unions and social researchers were making calculations based on a subsistence basket in the 1910s. Such findings were published once a month between 1923 and 1939 in the trade union journal. This tradition is the main reason why there is still a demand for an absolute type of method of calculating poverty, based on a consumer basket. The purpose is served by the subsistence calculation revived by the KSH in 1968 and published every year since 1987 as a separate publication. The subsistence level appears as a sum of money able to cover the very modest needs conventionally classed as basic, required for living. The method of calculating it results from a broad professional consensus, but it is no accident that the Hungarian subsistence level receives wide lay and professional criticism, from social policy-makers and those affected by social decision-making, according to their world views and their values. There were serious problems in the 1990s because the general decline of living standards was only followed after some delay and to some extent by a downward revision of the subsistence calculation. That left an increasing, unmanageable proportion of the population from the social-policy point of view fell to close to the poverty threshold.

The absolute approaches still have to be considered as relative from several points of view. The determination of the poverty line, which has long traditions in Hungarian practice, depends on the general development level of the country, the set of needs chosen, the specific goods placed in the consumer basket, and of course arbitrary elements.

Approaches concerned with absolute poverty began to yield, after the Second World War, to those applying a relative poverty threshold, especially in Western European countries with a rising standard of living. These proceed from the income distribution of the population in the country concerned, treating poverty as a question of inequality.

The Nobel Prize-winning economist Amartya Sen made a very important observation. Although relative approaches dominate and their adherents agree there can be no 'objective and absolute' definition of poverty, absolute and relative approaches only appear to be distant from each other. A relative approach conceals an absolute approach to poverty as well. In Hungary, it was ideologically taboo, for several decades, to refer to poverty at all. The paternalist state tolerated the admission that inequalities existed, but dismissed the idea that there was poverty. Only in 1963 did officially supported income surveys begin to provide detailed information on the nature of income inequalities, making it possible to refer to poverty in inequality terms.

The many advantages of relative poverty thresholds are accompanied by the drawback that they derive the extent of poverty from current income relations and income distribution. So it is not possible to detect an increase in poverty caused by a general deterioration in living standards. While a relative poverty threshold records an unchanged proportion of poverty, the number and proportion of the poor will have risen relative to an absolute poverty threshold.

Box 1.5.

Objective measures of poverty

The Council of Europe favours using the relative poverty threshold, since it facilitates comparisons between countries. The threshold is set as a specified proportion of the median income or the mean income. The commonest threshold for international comparisons is half the median income. Hungarian analyses take the bottom decile or quintile of the population. One unusual form of objective approach, devised by P. Townsend, is to base the measurement of poverty on objective and relative deprivation. The trend starts from the sphere of goods and services considered socially requisite. The degree to which such goods and services are wanting is measured by the so-called deprivation index.

The basis of a subjective poverty threshold is self-assessment of income situation by the individual or household being studied. The Hungarian KSH also publishes such a subjective poverty threshold, although it does not use that term for it.

Box 1.6.
Subjectively perceived poverty

The question in the survey concerned with a subjective poverty threshold is as follows: 'Please state what net sum of money would be required by a household with a similar composition to yours, in order to live 'very poorly', 'poorly', 'acceptably' (on average), 'well', or 'very well', substantially better than average. The mean sum named by the respondents as the requirement for a very poor livelihood is taken as the subjective poverty threshold. Apart from that, households are asked directly to place themselves on a scale ranging from poor to prosperous.

Mention has to be made of the importance of official poverty thresholds, set by the government on the basis of a determined, recognised minimum standard. There is no such official poverty threshold in Hungary, although the minimum rate of pension is one in some respects, because it acts as the basis for setting other social benefits.

The poor, according to different types of definition (objective and subjective, absolute and relative, official and scientific), fail to coincide. Individuals and households who are objectively poor (based on income position) may not subjectively consider themselves poor. This is one of the well-defined basic cases of poverty. It is frequent for individuals and households who are not poor to consider themselves as such, especially in periods when the general standard of living is declining, or the individuals and households reach a time of life when their living conditions are less favourable than they were. When poverty calculations are being made, these comparisons from several points of view provide a wealth of incidental information, apart from defining the poor more accurately. Not least, they help to question the assumption that a single, correct method of calculation exists at all.

The databases taken as sources – the two extensive surveys taken by the KSH – are not ideal as a representative description of poverty. The extremely poor and socially excluded strata of the homeless are omitted from the surveys. So are the inhabitants of institutional households. This chapter covers the poor who were covered by the surveys, even if they were unrepresented in some cases.

The other important limitation on the analysis is that it was only possible to include (at least directly) poverty indices, poverty and poverty attributes for which statistics were available. For instance, the absence of data on ethnic affiliation means that the Gypsy community, the section of society most threatened by poverty, can only appear indirectly, as prominent contributors to the groups of households with no job skills, with a low educational attainment, and with an outlying rural place of residence. Want of data prevents them from appearing directly, as a socially distinguishable, quantifiable and analysable section of the poor.

3.1. THE CHOSEN MEASURE OF POVERTY

Despite the many possible ways of approaching poverty, income is the measure of poverty actually used, directly or indirectly, disregarding a few attempts. Although everyone realises that the measuring device or index has to fit the concept to be measured, this is very hard to achieve in practice.

Income is a sensitive area all over the world. People are reluctant to talk about it and often have no good reason to state their income position honestly. Even if researchers gauge income correctly, using it as a yardstick may lead them to exaggerate or underestimate poverty. Income is useful insofar as consumer goods can be bought for it on the market. However, what people actually buy does not depend only on their income. Other factors also affect and influence the way income is spent. Different qualities of life and 'levels of prosperity' result from the same level of income at different stages in life, in conjunction with different cultural backgrounds, and under different market or wider environmental conditions. Furthermore, the calculation of income contains several uncertainties even if the declarations by the public are as accurate as possible. This is because of the many forms of indirect income that are difficult or impossible to estimate or calculate. They include non-monetary social benefits, income savings in the form of tax concessions, 'free services' provided to employees, and allowances and services greatly exceeding the previous, which are granted by the work place as untaxed income to those in certain positions.

Another essential factor besides current income is wealth. Differences in general wealth situation may give people or households with the same income radically different chances in life. Factors that tie in with income level include labour-market position, working

conditions and social integration. Apart from influencing the amount of income obtainable, they may result in totally different qualities of life at the same income level.

Personal incomes can be analysed in several different ways. The starting point can be individual income, total family or household income, or family income per capita or per unit of consumption. Individual incomes in themselves are not decisive to perceptions of prosperity or living conditions. An individual's prosperity and actual income position depend also on the income relations of other family or household members with whom that individual forms a common unit of income and consumption.

Some of the expenses of a household do not increase lineally with its size. To allow for this when considering the costs of living, it is worth using income per unit of consumption rather than income per capita. This chapter includes some calculations using an equivalence scale, but the logic of the analysis is based on per capita income. With Hungarian data, the two types of calculation produced only differences of scale. The results led to similar conclusions because of the strength of the trends and the less restrictive nature of the scale applied. Instead of automatically adopting the scales used internationally, Hungarian analysts should try to devise an equivalence scale valid for conditions in this country.

3.2. The scale and intensity of poverty set against the various poverty thresholds

It is self-evident that the lower the poverty line is drawn, the fewer poor are encountered. The order that applies under Hungarian conditions today – bottom twentieth part of the ranked income scale (bottom 'vigintile'), bottom decile, the official poverty level [minimum-pension level], the subjective poverty threshold and the subsistence level – does not form an inevitable hierarchy independent of space and time. At a higher level of welfare, the official level might coincide with or even exceed the absolute poverty level. Conditions in Hungary present a different picture, however.

The commonest definition used for defining the poor in international comparisons is half the median income. With the 1995 income survey, this value happened to coincide with the bottom income decile, in other words the relative poverty threshold. The situation was similar with the 1998 household budget survey, when the bottom income decile reached 56 per cent of median income.

The highest poverty threshold is the subsistence level, whose value was 53 per cent of per capita mean income in 1987. The money figure in 1998 was HUF 20,709 per capita per month, which was 80 per cent of the per capita mean income figure derived from the 1998 household budget survey and almost 90 per cent of the median income.

There is no officially recognised poverty threshold in Hungary. The function of such a threshold is played by the minimum old-age pension, which is the upper limit of entitlement for social benefits. The minimum pension falls between the subsistence level and the relative poverty thresholds.

Table 1.5.
The poverty thresholds examined, as a proportion of household per capita net income, 1995 and 1997

Year	Bottom income 'vigintile'	Bottom income decile (half the median)	Below official threshold (minimum pension)	Below subjective threshold	Below absolute threshold (subsistence level)
1995	34.8	43.2	46.7	64.8	71.8
1997	30.1	39.1	44.6	64.6	72.0

Source: HIS, 1987 and 1995.

The scale and intensity of poverty increased between 1995 and 1997, whichever type of threshold is chosen. The inequality indices calculated from each poverty threshold also showed an increase in the inequality of the poor.

Box 1.7.

Determining the subsistence level

The subsistence level is determined in two stages. First the norms of food consumption are established. Then these are used to arrive at a normative value for total personal spending, in other words, to calculate the subsistence level.

The norms of food consumption are established using a basket that meets the nutritional and physiological requirements of an adult active earner, devised by the National Institute of Dietetics and Nutritional Science (OÉTI). The contents of the basket correspond to the total food, vitamin and mineral requirements for a medium degree of physical activity. For an adult, the normative daily food quantities include 98 g of fat, 371 g of carbohydrate, 91 g of protein (including 40 g of animal origin), 783 mg of calcium, 2465 mg of potassium, 12 mg of iron, and 111 mg of vitamin C. The nutritional value of the basket is very similar to the national average consumption in the 1960s.

The normative food needs of household members of various ages and degrees of economic activity are calculated using standard scores (effectively, equivalence scales). The value of the subsistence level is the general consumer spending of the households in the household survey being used. In this case, the actual consumption of food largely corresponded with the calculated norm.

The scores for types of consumer used in calculating the KSH subsistence level are these:

Active households

1. First adult member (1.00)
2. Additional adult members (0.75)
3. First child under 15 (0.65)
4. Second child (0.50)
5. Third and subsequent children (0.40)

Pensioner households

1. First adult member (0.90)
2. Other members (0.65)

The subsistence-level values for the various households and consumption units are published annually by the KSH. Compared with the food norm, the subsistence-level values were 2.3 times in 1996 and 2.4 times in 1997 and 1998.

Table 1.6.

The proportion of households and persons living below the poverty thresholds examined and the relative poverty gap

Year	Households in bottom income 'vigintile'	Households bottom income decile	Households below official threshold	Households below subjective threshold	Households below absolute threshold
	Persons included as a percentage of the total population				
1995	5.0	10.0	12.1	27.7	34.6
1997	5.0	10.0	13.5	30.0	37.2
	Households included as a percentage of all households				
1995	3.4	7.1	8.7	20.9	26.9
1997	3.5	7.2	9.9	23.1	29.9
	Relative poverty gap (intensity of poverty)				
1995	22.0	23.3	24.6	27.5	28.6
1997	25.6	26.9	28.1	30.7	31.5

Source: HIS, 1987 and 1995.

3.3. THE MAIN ATTRIBUTES OF THE POOR LIVING IN THE PROXIMITY OF VARIOUS POVERTY THRESHOLDS

This section examines how the choice of poverty threshold affects the demographic and social structure of poverty – the composition of the poor.

In view of the importance of comparability, a comparison is made here of the households living in the proximity of three selected thresholds. In other words, the discussion concerns those around these thresholds, not below them.

a) Household size and membership structure. The lower the poverty threshold chosen, the greater the average membership of households living around it becomes. Households close to the bottom income-decile threshold or half the median income have an average of four members. Those near the subsistence level have an average of almost three members. The national mean is 2.7 members.

The proportion of active earners and pensioners decreases and the proportion of dependants increases as lower poverty thresholds are considered. The proportion of dependants aged 19 or younger is almost 40 per cent at the threshold of the bottom income decile, 27 per cent at subsistence level, and only 23 per cent on a national average. The proportion of unemployed, receiving or not receiving unemployment benefit, among those at the bottom income-decile threshold is double the national average. This proportion among households around the subsistence level is hardly lower than the national average.

So the proportion of active earners and pensioners among those around the lowest income-decile threshold is very low, while the proportion of unemployed of active age and of dependent children is high. Around the subsistence level, however, there is a preponderance of households with active members, but the earnings of these members fall appreciably below the national mean. Their income situation is made more difficult because they are at a stage in life when they still have dependants to support. The households living around the minimum-pension threshold are mainly younger households with several younger children, where the mother may still be receiving some form of child-care benefit.

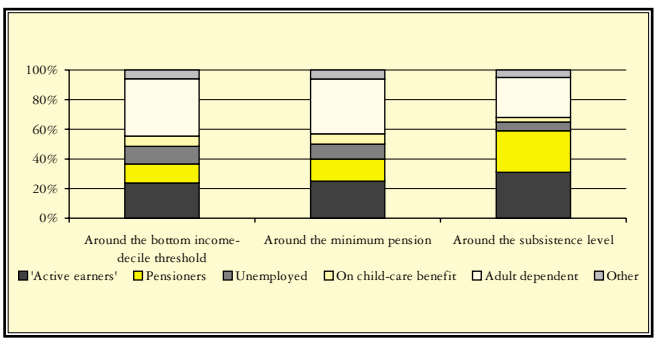
To sum up, the three income thresholds are associated with three different types of household. Members of households in the proximity of the bottom income-decile threshold (half the national median income) show an essentially different structure of economic activity from the national one. Beneath this threshold lie most of the unemployed and the unskilled, with an unfavourable position on the labour market and most of the children living in large families. One-fifth of all the children under the age of 15 fall within the bottom income decile.

b) Income and income structure. Households living on the bottom income-decile threshold had a total household income of HUF 47,000 in 1998. At the minimum-pension level the figure was HUF 50,000 and at subsistence level almost HUF 60,000. The sum of social-insurance and social income received was almost exactly the same at all the thresholds examined: HUF 26,000 among those with the lowest incomes (the bottom 'vigintile'), and HUF 250 less at subsistence level. Since total income rises along with the income threshold, while the total of social-insurance and social income remains constant, the proportion of household income consisting of non-market income increases as the income threshold falls. This leads to the illusion that poorer households are receiving relatively greater social income. In fact, the social income does not compensate for the lower level of income from work.

There is a 1.5-fold difference in income between the extreme thresholds (the bottom 'vigintile' and the subsistence level). The difference rises to twofold if per capita income is considered.

c) Spending structure. Expenditures are determined by income. Households on the threshold of the bottom 'vigintile' of the income scale can spend only half the national monthly average, from which they have to provide for many more than the average number of members.

Figure 1.2.
Membership structure of households around various income thresholds, by the economic activity of members, 1998, %



Source: HBS, 1998.

So the poorer the household, the greater the proportion of its income it spends on food and housing, i.e. on basic needs. At the threshold of the bottom 'vigintile', households are spending 56 per cent of their income on food and another 25 per cent on housing, while remaining poorly nourished and in extremely poor housing conditions. Those at the minimum-pension level are in a somewhat better position, spending 68 per cent of their income on food and housing. The spending of those at subsistence level does not differ appreciably from the national proportions, but as their income is lower, they are consuming less in similar proportions.

The poorer a household, the less 'freely expendable' money remains after its fixed expenditure. Those living at half the subsistence level spend less than half the national average on health-care products and personal hygiene. The proportion is a third for cultural pursuits and entertainment and only a fifth on holidays, although these households contain many more young people than the national average.

At none of the income thresholds examined do households have sufficient income to make larger investments.

d) Food-consumption characteristics. Members of low-income households consume more bread and potatoes than average and less meat products, vegetables and fruit. Those on the threshold of the bottom income 'vigintile' eat an average of 3 kg a year of fresh and preserved vegetables and 2 kg of fresh and preserved fruit. These figures are about half the national averages. The proportions of the national average increase as the threshold rises, but they are still only 60 per cent at the minimum-pension level. So the households in which the least fruit, vegetables and proteins are consumed are ones with larger than average numbers of small children. The consumption of milk among the poor is also less than necessary, and the consumption of cheese is insignificant. The people without access to a healthy diet – the right quantity and quality of nutrition – include many of those with the greatest need of it. Two-thirds of Hungarian children live in households whose income is at or lower than the subsistence level. The most exposed are children with at least two siblings sharing the parent's income. There are three or more children in a fifth of the households living at half the subsistence level, around the threshold of the bottom income 'vigintile'.

3.4. The relation between objective and subjective poverty

The data from the 1998 household budget survey also allowed a comparison to be made between the households' subjective opinion of their standard of living and their objective income situation.

People's opinion of their income situation exemplifies how the complex concept of poverty cannot be confined to income poverty. It includes, for instance, the range of financial and non-financial factors that provide lasting security. So a subjective sense of poverty does not necessarily depend on someone's actual income.

It was mentioned earlier a household's perception of its present situation depends strongly on its past income situation. The economic recession and the transformation of Hungary's system of economic and political institutions in the last decade brought a sharp deterioration in the standard of living. The trough for household incomes came in 1995, but the level of incomes has still not recovered to its level before the change of system. These antecedents are reflected in public opinion.

Table 1.7.
Household income groups (per capita net income) and household declared perceptions of income position, %

Quintiles	Bottom	2nd	3rd and 4th	Top	All
Distribution of perceptions of income situation among households in the same income quintile, %					
Very poor	22.3	11.3	7.1	2.3	8.8
Fairly poor	39.5	41.5	35.2	18.5	32.7
Middle-income	36.8	45.8	55.6	69.3	54.7
Prosperous	1.3	1.4	2.0	9.9	3.8
All	100.0	100.0	100.0	100.0	100.0
Distribution of actual income situation among households with the same perception, %					
Very poor	36.3	21.7	35.3	6.6	100.0
Fairly poor	17.3	21.6	46.8	14.3	100.0
Middle-income	9.6	14.1	44.3	32.0	100.0
Prosperous	4.8	6.4	23.0	65.8	100.0
All	14.3	16.9	43.5	25.2	100.0

Source: HBS, 1998.

Table 1.7. shows that the number who declare themselves subjectively to be poor far exceeds the number who are objectively so in terms of their per capita net income. On the other hand, about a third of the low-income households do not perceive themselves as poor.

Table 1.8.
The main characteristics of households in the bottom income quintile, in terms of their subjective perception of their income situation, compared with the national average, %

Characteristics of household types	Perceiving themselves in bottom income quintile				National average
	Very poor	Poor	Non-poor	All	
Type of household, of which	100.0	100.0	100.0	100.0	100.0
Head with low educational attainment	62.4	47.0	24.2	41.8	36.5
Head with high educational attainment	0.8	2.1	7.1	3.7	11.8
Finances worse in last three years	92.1	84.3	52.0	74.0	62.2
Finances unchanged in last three years	7.5	12.6	38.9	21.6	31.5
Households with chronically sick member	28.2	17.6	9.6	16.9	17.6
Poor housing	51.0	19.0	7.4	22.4	11.1
Good housing	14.5	30.7	51.0	34.8	49.6
Resident in Budapest	17.5	15.9	18.7	17.3	20.4
Resident in a village	39.5	47.0	41.5	43.2	35.8

Source: HBS, 1998.

The sense of poverty is strengthened by a deteriorating tendency in living conditions. A more important role still is played by poor housing conditions.

The financial position of the 'contented poor' has deteriorated less in recent years than the position of their contemporaries as a whole. They are the 'traditionally poor', who have lived under poor financial conditions for a long time. So they take their situation to be natural and generally choose their immediate environment as a basis for comparison. According to Sen, habitual inequalities

often persist because they find a passive ally among those who suffer them. Indeed one of the characteristics of classic poverty is that those who live in poverty for a long time do not regard themselves as poor.

Poverty, as mentioned before, cannot be equated simply with income poverty. Where low income coincides with poor housing conditions, more people declare themselves poor. Households with poor housing characteristics, living in dilapidated buildings, are two-and-a-half times as likely to declare themselves very poor than others in the same income group.

Another factor influencing different perceptions of similar income situations is educational attainment. A low level of education brings a higher likelihood of a low income and is associated with a less settled, more volatile presence on the labour market.

3.5. THE RELATION BETWEEN INCOME-BASED POVERTY AND OTHER TYPES OF POVERTY – CUMULATIVE POVERTY

It has already been seen that poverty generally goes together with a higher than average number of children, a low educational attainment in the head of the household, unemployment for the head or other member of the household, and bad, in most cases, extremely bad housing conditions. The household statistics also allow the relations between certain poverty dimensions to be studied more closely.

Five poverty dimensions and the relations between them are examined here: (i) income poverty, (ii) subjective poverty, (iii) housing poverty, (iv) poverty apparent in the absence of consumer durables, and (v) consumption poverty.

Table 1.9.
Income, subjective, housing, consumer-durable and consumption poverty and the relations between them

Households by poverty dimension and relations between them	Bottom income decile	Bottom income quintile	National average
Just income poverty (i)	24.7	25.8	3.7
Just subjective poverty (ii)	0.0	0.0	16.3
Just housing poverty (iii)	0.0	0.0	0.9
Just consumer-durables poverty (iv)	0.0	0.0	5.9
Just consumption poverty (v)	0.0	0.0	7.2
Only one poverty dimension present	24.7	25.8	34.1
Two poverty dimensions present	27.7	32.7	23.8
Three poverty dimensions present	26.6	26.4	9.4
Four poverty dimensions present	9.2	7.1	2.7
Five poverty dimensions present	11.8	8.1	1.2
No poverty dimension present	0.0	0.0	28.3
All	100.0	100.0	100.0

Source: HBS, 1998.

The bottom income decile (with less than half the median income) covers slightly more than 1 million persons, i.e. 262,000 households, that is 7 per cent of all Hungarian households. These have an average membership of almost four persons. Every second family in the decile suffers from at least three dimensions of poverty at once, while four or all five dimensions are present in every fifth household. Taking a slightly higher income threshold, the first income quintile, 42 per cent of the 542,000 households (14.4 per cent of all Hungarian households) suffer at least three dimensions of poverty. Four or five dimensions occur in 15 per cent. More than 70 per cent of all households can be considered poor in at least one dimension. The most prevalent dimension is subjective poverty.

With households suffering cumulative poverty (in four or five dimensions), the number of active earners falls far short of the national average. There is an average of 81 dependants per 100 active earners in Hungary. Among households living in cumulative poverty (and in the bottom income quintile), the figure is five times greater. While the number of active earners is very low, the number and proportion of unemployed is very high, especially long-term unemployed who no longer qualify for unemployment benefit. The situation is similar with the number and proportion of children and adult dependants.

Box 1.8.

Dimensions of poverty

The threshold chosen for income poverty is the bottom quintile for per capita net income. This income level corresponds to almost 70 per cent of the median income in the 1998 household budget survey.

With subjective poverty, households are treated as poor if they declared themselves so.

The criteria for housing poverty are the social environment of the dwelling, the nature of the housing area, the state of the building, and the degree of conveniences in the dwelling. If the dwelling counts as bad in two of these four respects, the household's housing situation is considered poor.

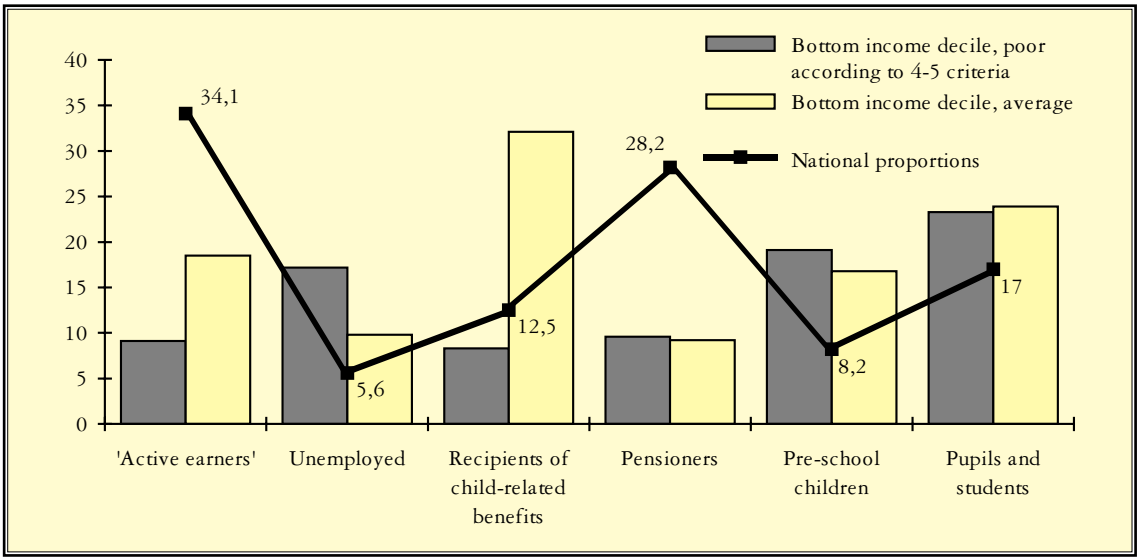
Households are taken to be suffering from consumer-durable poverty if they own a maximum of only two out of four consumer durables commonly found in Hungarian homes – a colour television set, an automatic washing machine, a vacuum cleaner, and a refrigerator – and they own neither another valuable consumer durable nor a holiday home.

With consumption poverty, the poor are identified by the proportion of their total expenditure spent on food. Those who spend 45 per cent or more of their total expenditure on food are considered poor in this respect.

The income structure of households suffering cumulative poverty reflects the economic activity of their members. The proportion of income from work in their total income is less than one third; most of it is of a social type. Of the types of social income, the 'family allowance' paid per child accounts for a proportion of total income five times greater than the national average proportion: 18.3 per cent. Another sizeable constituent of their social income is the 'income supplement' paid to the long-term unemployed. At 8 per cent of total income, this is about ten times the national proportion. On the other hand, the higher 'unemployment benefit' paid to the recently unemployed accounts for only 1.4 per cent of their total income.

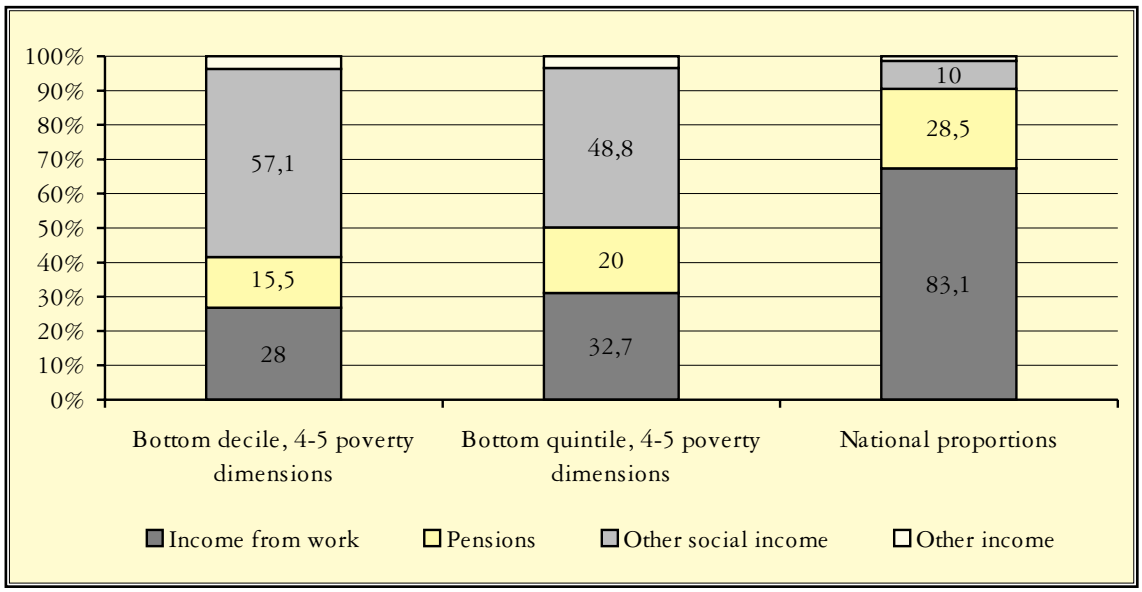
Figure 1.3.

The proportions of various types of household member, among households in the bottom income decile suffering cumulative poverty (4-5 dimensions), and nationally, 1998, %



Source: HBS, 1998.

Figure 1.4.
The proportions of various types of income in per capita net income, %



Source: HBS, 1998.

It was mentioned earlier that a high proportion of social income does not necessarily imply a high volume of these types of income. The per capita income of households in the lowest income quintile, suffering poverty in four or five dimensions, is 45 per cent of the national average, so that a given volume of income will account for a much higher proportion of total income than for other households. For instance, the family allowance paid per child, which accounts for less than 4 per cent of per capita income on a national average, accounts for 18.3 per cent in this group of poor households, as mentioned before, although the sum received in family allowance is only double the national average.

Cumulative poverty mainly affects those living in villages, where the employment prospects are fewer. The risk of cumulative poverty is only half the national average in Budapest, but one-and-a-half times in villages.

Table 1.10.
Per capita sum received from the main sources of social income, HUF, 1998

Selected types of social income	Households in bottom decile, poor in 4-5 dimensions	Households in bottom quintile, poor in 4-5 dimensions	National average
Pension	19,085	27,831	87,229
Family allowance	27,646	25,389	12,102
Orphan's allowance	491	714	1,507
Child-protection assistance	9,621	8,285	2,018
Unemployment benefit	1,833	1,943	2,428
Unemployed income supplement	11,566	11,370	2,576
Regular assistance	3,996	4,430	937
Occasional assistance	241	188	190
Housing assistance	348	366	259
Nursing allowance	616	960	290

Source: HBS, 1998.

Those in the hardest position are families with several children, as present-day average earnings do not have a high purchasing power and younger employees receive less than average wages. Many mothers of young (under 3 year-old) children go onto child-care allowance, so that they cease to be active earners. In the bottom income decile, the risk of cumulative poverty for households containing only young members (under the age of 30) is two-and-a-half times the risk for the decile as a whole. Even in the bottom income quintile it is one-and-a-half times.

Box 1.9.
Index of risk

The index of the risk (Q) of falling below the poverty threshold is employed to examine how the socio-economic structure of the poor differs from the average. Assume that the purpose is to examine among the poor the role of category A, defined by some criterion. Let q_p be those belonging to category A who fall below a poverty threshold t, and q be the whole population of those belonging to category A. In that case the risk of falling below the designated poverty threshold is customarily expressed as the ratio $Q(A) = q_p/q$. Q cannot be interpreted if q = 0 (if there are no members of category A under the poverty threshold). If $q_p=0$, in that case Q also equals 0. The higher the value of Q, the more people beneath the poverty threshold t belong to category A and the smaller the weight of category A in the population.

The risk of cumulative poverty is higher still if the head of the household is not competitive on the labour market, with at least a secondary education. The risk if the head of the household has only the eight years of basic education is double the national average.

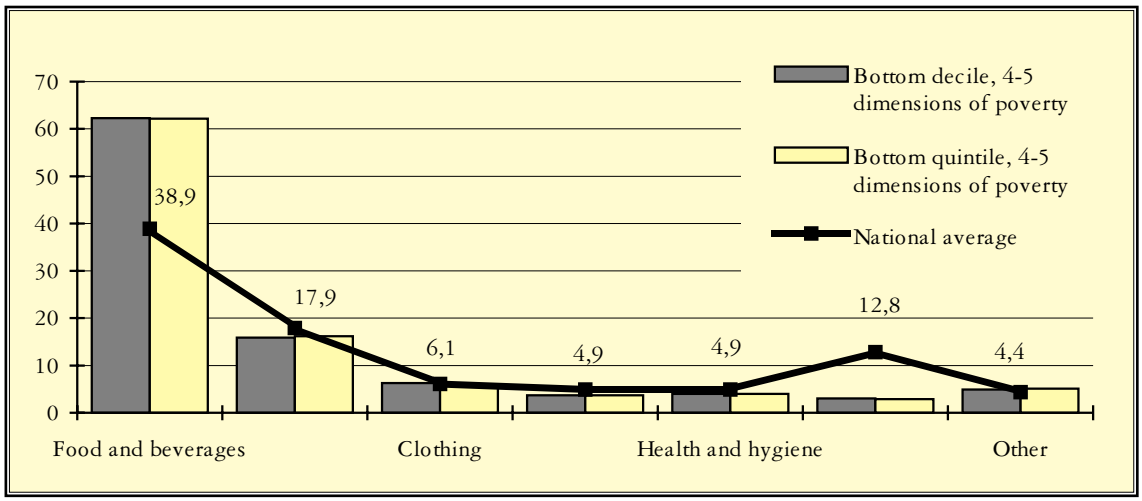
Table 1.11.
The risk of cumulative poverty for households in the bottom income decile and quintile

Selected household characteristics	Households in bottom decile, poor in 4-5 dimensions	Households in bottom quintile, poor in 4-5 dimensions
Place of residence		
Budapest	0.3	0.4
Provincial towns	0.8	0.9
Villages	1.6	1.5
Age structure of membership		
Only young people (under 30)	2.4	1.7
Only middle-aged (30-59)	0.7	0.9
Only elderly (60 and over)	0.1	0.2
Young and middle-aged	1.5	1.4
Young and elderly	1.3	1.6
Middle-aged and elderly	0.5	0.7
Young, middle-aged and elderly	1.5	1.7
Head of household's education		
Eight grades only	2.1	2.0
Vocational education	0.8	0.8
Secondary education	0.1	0.1

Source: HBS, 1998.

One of the most important indices of poverty is the proportion of food expenditure to total spending. According to Engel's law (named after one of the great 19th-century statisticians), the poorer a family becomes, the greater the proportion of its income it needs to spend on food. The total spending of households living in cumulative poverty is about 40 per cent of the national average. They are obliged to spend more than 60 per cent of this on food.

Figure 1.5.
The proportions of the main expenditure groups in the total per capita spending of households living in cumulative poverty, compared with the national average, %



Source: HBS, 1998.

Although the cumulatively poor spend a decisive proportion of their income on food, they consume much less meat, vegetables, fruit and dairy products, and of lower quality. They lead only in the consumption of bread, of which they eat 15-17 kg more per capita than the national average.

Table 1.12.
Per capita annual spending by households living in cumulative poverty, compared with the national average, HUF and %, 1998

Category of expenditure	Households in bottom decile, poor in 4-5 dimensions (1)	Households in bottom quintile, poor in 4-5 dimensions (2)	National average (3)	(1.)/(3.) %	(2.)/(3.) %
Total personal spending	118,898	131,146	306,586	38.8	42.8
Of which:					
Food and beverages	74,077	81,574	119,221	62.1	68.4
Housing	18,848	21,226	54,963	34.3	38.6
Clothing	7,536	7,889	18,709	40.3	42.2
Household equipment	4,355	4,833	15,074	28.9	32.1
Health and hygiene	4,755	5,212	15,100	31.5	34.5
Transport and telecom	3,556	3,758	39,396	9.0	9.5

Source: HBS, 1998.

Mention has already been made of the bad housing of poor households. Many of them live in dwellings in bad condition, with few or no modern conveniences, in social unfavourable housing areas. A quarter of the cumulatively poor households in the bottom income decile lacks an inside toilet and/or bathroom.

Table 1.13.
Per capita consumption of foodstuffs by households living in cumulative poverty, compared with the national average, 1998

Foodstuffs	Households in bottom decile, poor in 4-5 dimensions	Households in bottom quintile, poor in 4-5 dimensions (2)	National average (3)	(1)/(3) %
Bread (kg)	85	87	68	17
Bakery products (kg)	5	5	10	-5
Pork and beef (kg)	9	11	17	-9
All meat (kg)	38	43	57	-19
Eggs (no.)	125	143	196	-71
Milk (l)	47	52	71	-24
Cheese (kg)	0	0	2	-2
Fresh and cooked vegetables (kg)	31	38	55	-24
Fresh domestic fruits (kg)	13	17	36	-23
Imported fruits (kg)	2	2	8	-6

Source: HBS, 1998.

Another revealing aspect of poverty besides the quality and condition of housing is the equipment in the home. About 30 per cent of those living in cumulative poverty do not even own a radio set. More than half these households have a black-and-white television. Few of them have an automatic washing machine, although the majority uses a traditional washing machine. Their main means of transport is the bicycle, which is found in almost every poor household. They possess hardly any pieces of modern household equipment.

Table 1.14.
Ownership of selected consumer durable per 100 households living in cumulative poverty, compared with the national average

Consumer durable	Households in bottom decile, poor in 4-5 dimensions (1)	Households in bottom quintile, poor in 4-5 dimensions (2)	National average (3)	(1)/(3)%
Radio set	71	71	102	69.6
Colour TV	41	39	95	43.2
Black-and-white TV	54	54	21	257.1
Vacuum cleaner	31	36	89	34.8
Refrigerator	77	75	85	90.6
Freezer	13	14	60	21.7
Automatic washing machine	3	4	49	6.1
Traditional washing machine	83	83	50	166.0
Bicycle	99	105	117	84.6
Microwave oven	0	0	37	0.0
Car	2	3	37	5.4

Source: HBS, 1998.

3.6. POVERTY AND TARGETED WELFARE PROVISIONS

The three forms of provision most pertinent to the incomes of the poor are social assistance (regular – monthly – and occasional – claimed after a death or other exceptional event), the regular child-raising assistance paid to low-income families, and the income supplement paid to the long-term unemployed. The 1995 income survey showed that hardly more than a third of the households in the bottom income decile received one of these forms of assistance, although all of them were living below the requisite income threshold.

The 1998 household budget survey also showed that the annual amount of assistance awarded to targeted households differed little according to per capita income. The national average amount of regular social assistance received per targeted household in 1998 was HUF 87,500, while the average amount received per individual was HUF 76,900. There was little differentiation between households in other forms of assistance involving a specific entitlement either.

To sum up, social assistance is decisively important to poor households. Forms of social assistance account for more than half of the per capita annual income of households suffering cumulative poverty. On the other hand, hardly more than a third of the households receiving assistance to which there is not a universal entitlement belong to the bottom income decile. So a high proportion of the needy do not gain access to the benefits to which they are entitled. Another problem is that the amounts of social assistance given to recipient households do not reflect the vast differences in their needs.

4. SOME CONCLUSIONS

The income level of the population followed the improvement in the macroeconomic indices after some delay, showing some increase after the low point in 1995. However, this slight increase in average household income was accompanied by a record degree of inequality.

The old forms of poverty in Hungary were joined by new ones after the change of system. New social problems arose in a market economy undergoing an economic recession, where full employment was replaced by unemployment. Unskilled employees without expertise were permanently excluded from the work force if they proved unable to meet the new market demands. The welfare system is not capable of handling this situation effectively. Long-term unemployment has led to impoverishment, for unemployment of the head of household is the most important risk factor for poverty. These days, unemployment primarily affects the provinces, especially smaller communities and villages. Even if rural people can find work, they have less scope for finding better paid jobs. The rural population is over-represented one-and-a-half times over among households suffering cumulative poverty. The role played in poverty by the number of children is not a new phenomenon. Even in Hungary before the change of system, the generally low level of pay had much to do (alongside ideological considerations) with the fact that almost all women went out to work. However, family allowance, as the state's contribution to raising children, has always fallen far short of the cost of doing so. A higher than average number of children makes probable a low per capita income and cumulative poverty.

The poverty thresholds drawn at different income levels define different types of household and different types of poverty. It becomes possible to treat the poverty of households around the subsistence level that represents the absolute poverty threshold in Hungarian practice, as the country's economic situation and standard of living improve, the purchasing power of earnings increases, and the value of social benefits is ensured. The social composition of this stratum does not differ essentially from the national average.

Households at the relative poverty threshold defined by the upper limit of the bottom income decile constitute a group of poor that require a targeted, comprehensive welfare programme. This threshold almost coincided with half the median income in the surveys employed for this study. While there is no broad, comprehensive data base available, this relative threshold seems to be the most suitable for defining the poor. Membership of the bottom income decile usually (in 75 per cent of cases) means that income poverty is combined with other types of poverty.

For a more accurate determination of the poor and poverty, the upper limit of the bottom income quintile (70 per cent of median income) seems to be the most suitable starting point. Accepting this as the criterion of income poverty, it becomes possible to examine cumulative poverty, poverty in its several aspects.

Based on the data available, the poverty threshold has been defined in five important fields. The simultaneous presence of at least three types of poverty was

found in 42 per cent of the households living in income poverty.

Cumulative, deep poverty is found in 3 per cent of Hungarian households, which include 4-5 per cent of the population. In their case, income poverty is combined with housing poverty, consumption poverty, poverty apparent in the absence of consumer durable and subjective poverty.

The low-income level of those in deep poverty brings a range of economic and social disadvantages which the automatic effects of an improving economic situation will not be able to solve within the present-day frames of social policy. There are the people squeezed out of the labour market and into long-term unemployment, or condemned by lack of skills to very low wages. There are the large families in the child-rearing phase, falling behind or suffering social exclusion. Social problems such as these require targeted catch-up programmes. These are people, to borrow a phrase, whose daily lives 'hang by a thread, day after day' (Castel, 1996). If income falls behind, the result is a social exclusion that seals the fate and blights the opportunities of the next generation as well.

References

Atkinson, A. B., and John Micklewright (1992), Economic Transformation in Eastern Europe and the Distribution of Income, Cambridge: Cambridge University Press.

Bellido, N.P., M.D. Jano, F.J. López Ortega, M.P. Martin-Guzmán and M.I. Toledo (1998), 'The Measurement and Analysis of Poverty and Inequality', International Statistical Review, Vol. 66, No. 1.

Bokor, Á. (1987), Szegénység a mai Magyarországon (Poverty in Today's Hungary), Budapest: Magvető.

Castel, R. (1996), 'Az új szociális kérdés' (The New Social Question), Esély (Chance), No. 2.

Éltető, Ö. (1997), 'Disparities in the Economic Well-being of Hungarian Society from the Late 1970s to the 1980s', in: P. Gottschalk, B. Gustaffsson and E. Palmer (eds), Changing Patterns in the Distribution of Economic Welfare, Cambridge: Cambridge University Press.

Éltető, Ö., and E. Frigyes (1968), 'New Income Inequality Measures as Efficient Tools for Causal Analysis and Planning', Econometrica, Vol. 36, No. 2, pp. 383-96.

Ferge, Zs. (1994), Szociálpolitika és társadalom (Social Policy and Society), Budapest: ELTE Szociológiai Intézete (Loránd Eötvös University, Institute of Sociology).

Ferge, Zs. et alia (1980), 'A szegénységgel és többoldalúan hátrányos helyzettel kapcsolatos mai nyugati nézetek' (Present Western Views on Poverty and Cumulative Disadvantage), Valóság (Truth), No. 2.

Kattuman, P., and G. Redmond (1997), Inequality in Hungary 1987 to 1993, DAE Working Paper No. 9726, Cambridge.

KSH (1984), Jövedelemeloszlás Magyarországon, 1982 (Income Distribution in Hungary, 1982), Budapest: KSH (Central Statistical Office).

KSH (1989), Jövedelemeloszlás Magyarországon, 1987 (Income Distribution in Hungary, 1987), Budapest: KSH.

KSH (1998), Jövedelemeloszlás Magyarországon, 1995 (Income Distribution in Hungary, 1995), Budapest: KSH.

KSH (1999a), A szegények jellemzői a mai Magyarországon (The Characteristics of the Poor in Hungary Today), Budapest: KSH.

KSH (1999b), Létminimum 1998 (Subsistence Level, 1998), Budapest: KSH.

Ringen, S. (1988), 'A szegénységmérés harmadik stádiuma felé' (Towards the Third Stage of Poverty Measurement), Szociológiai Figyelő (Sociological Observer), No. 1.

Sen, Amaritya (1983), 'Poor, Relatively Speaking', Oxford Economic Papers, No. 35.

World Bank (1996), Hungary: Poverty and Social Transfers, World Bank Country Study, Washington DC: World Bank.

CHAPTER TWO

THE LABOUR MARKET, LABOUR COSTS, WAGES AND SALARIES

(THE PRICE QUESTION ON THE LABOUR MARKET)

1. SUPPLY AND DEMAND ON THE HUNGARIAN LABOUR MARKET

The 1990s have been a period of rapid changes on the labour market. The loss of Hungary's traditional Eastern European markets, coupled with the transition to a market economy, produced a shortage of demand for labour that led to global unemployment. Having appeared at the beginning of the decade, unemployment increased rapidly to a peak in 1993, followed by a declining trend. Another attribute of the recession that accompanied the economic transition was that the number of employed began to decline. Jobs were shed chiefly in mining, manufacturing and agriculture, where the loss of markets had been most severe. However, the number of employed declined in every sector during the period. The aggregate demand for labour decreased from 4,880,000 in 1990 to 3,700,000 in 1998, as measured by the number of employed.

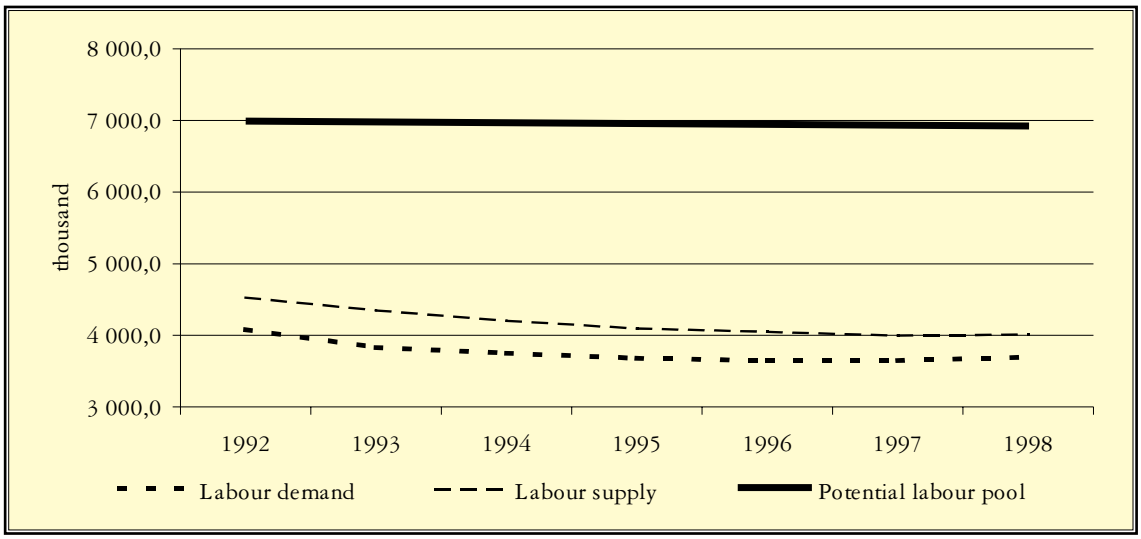
Table 2.1.
The size of the Hungarian labour market and its global balance of supply and demand

Year	Labour demand (no. of employed, in thousands)	Labour supply (no. of economically active, in thousands)	Potential labour pool (population aged 15-64, in thousands)	Supply as a proportion of the pool (%)
1992	4 082.7	4 462.9	6 928.7	64.7
1993	3 827.3	4 294.0	6 937.9	62.3
1994	3 751.5	4 157.1	6 939.4	60.4
1995	3 678.8	4 060.5	6 932.6	58.9
1996	3 648.1	4 020.5	6 921.8	58.5
1997	3 646.3	3 973.0	6 909.4	57.8
1998	3 697.7	3 965.5	6 890.2	58.0

Source: Central Statistical Office, (CSO).

The social tensions were heightened by a global shortage of demand, so that the balance of supply and demand was struck at a relatively low level. The presence of global unemployment suggests there has been no significant change in the educational-attainment structure of the unemployed in recent years. Furthermore, unskilled and semi-skilled employees can expect a shorter working life than their counterparts in developed countries, while there is no significant difference for those with a secondary or higher education. There are proportion-ately fewer unskilled workers than in the developed market economies, even though Hungary's technical and technological level is substantially lower. This surplus of relatively qualified workers allows employers to hire them for many jobs that unskilled workers could do.

Figure 2.1.
Labour supply and demand



The labour market assumes a structural match of supply and demand, but this can never be perfect. In a market economy, the numbers of employed and unemployed in the economically active population fluctuate with the business cycle. The pool of unemployed helps businesses to react swiftly to cyclical changes. Even at the peak of the cycle, structural unemployment remains – the demand for labour and the structure of qualifications and skills among the unemployed differ strongly. So there can only be an equilibrium of supply and demand in certain segments of the labour market. Furthermore, the unemployed need time to adapt to employers' qualitative demands for labour. The same applies to school-leavers and those who re-enter the labour market: there is a delay while the school system adjusts to the skill structure of labour demand. The emergence of structural unemployment is apparent in shortages of certain skills and a rising number of vacancies unfilled after six months, although the increase was a still marginal 6000-7000 in 1998. A sharp rise in average manual wages in engineering and an increase in the proportion of low-skill employees in high-tech industries point to labour-market bottlenecks in manufacturing. The reason for the latter is probably that foreign-owned firms in these industries require to a great extent labour that can perform routine tasks after a few days' training. This undemanding work, often carried out in shifts, lacks career prospects and is relatively poorly paid, so that the labour tends to be recruited from younger, less-skilled, inexperienced people. The labour market has begun to offer better opportunities in recent years to those with a medium level of skills, so that there is less tendency for more qualified labour to squeeze out the unskilled.

A demand for labour means a demand at a specific time for a specific amount of labour, in specific occupations calling for specific skills, available to the employer at a specific cost. If employees have attributes (occupational skills, educational attainments or special attainments) for which there is a big demand, they are in a good wage-bargaining position and can choose the most favourable offers. If there is surplus supply of the occupation, employees often have to sell their labour very cheaply, or make do with a job that requires lower qualifications than they possess.

So the trend in equilibrium prices provides essential information about the labour market. The price of labour at macro level plays a decisive part in the direction and volume of labour flows and the trend in the standard of living. So in Hungary, information about the price of labour has been increasing in value as the market economy develops and competition increases.

2. THE TREND IN THE PRICE (AND COST) OF LABOUR COMPARED INTERNATIONALLY

The cost of labour includes all employer's costs and obligations associated with employing and using labour. Knowledge of the level, structure, and spatial and temporal changes in labour-associated costs is essential to any economic activity. Labour and human resources are seen as an essential area in modern management.

Box 2.1.

Harmonised labour-cost surveys

Free flows of capital, economic cooperation and opening internal markets in the European Union (EU) created a need to standardise and augment the short-term indices of economic indicators, and ensure statistical harmonisation of the information basis for preparing structural analyses. Coordination of the labour-cost surveys in the EU has been occurring for some time. Top-level 'council regulations' have standardised since 1992 the coverage of surveys in every four years, the classifications used, the list of variables and its definitions, and the reliability of samples. Even with harmonised surveys, comparisons of labour costs in different countries need to take account for the peculiarities of their demographic conditions, their economic and legal systems, and the traditions of their social-insurance systems.

The volume cost of labour has to be compared with the amount of work performed before it can be expressed as a market price. Monitoring the cost of labour is justified by the historical process that has already occurred in the developed market economies. The liberalisation of social insurance, the spread of cover to new groups in society, and the progressive addition of new entitlements in those countries have turned labour-market decisions into an important motivating factor. This means that such benefits and entitlements have become an essential part of employees' income, fundamentally influencing their movements on the labour market. It also means that it plays an important part in the human-relations policy and similar decisions of management.

There are strong differences between the labour costs of the EU countries. The highest labour costs are found in Germany, Belgium, the Netherlands, France and Denmark, and much lower costs in Greece and Portugal. The cost difference between some EU countries is greater in hourly terms than in monthly or annual terms. EU countries with lower labour costs tend to have longer working hours, so that the range of costs becomes wider on a monthly or annual basis, although the differences are not great enough to affect the order between them.

Hungary's labour-market costs are further behind the EU average in monthly terms than in hourly terms. Its labour costs in the business sector, computed in ECUs at the annual average commercial rate of exchange, are substantially lower than in most EU member-countries.

The monthly labour costs in industries C to K were 8.5 times higher in Austria and seven times higher in Belgium and France than in Hungary. Those for Irish and Spanish employers are five times as high, while for Greece they are three times and for Portugal twice as high. Some Central and Eastern European (CEE) countries, such as the Czech Republic and Slovakia, have lower labour costs – 87 and 77 per cent of the Hungarian costs, respectively – while Polish labour costs are similar to those in Hungary.

From the point of view of wage-earners or consumers, it is worth making labour-cost comparisons at purchasing-power parity standards (PPS), to eliminate price-level differences. In Hungary's case, this produces smaller labour-cost differences from other countries than comparisons at commercial rates of exchange. Austrian monthly labour costs, for instance, become 3.4 times as high as Hungarian ones at PPS, as opposed to 8.5 times, because the Hungarian price level is much lower. Greek monthly labour costs are almost double Hungarian ones at PPS, and Portugal's only 40 per cent higher. Comparisons of labour costs at PPS are significant mainly on the supply side of the labour market. The EU labour market has attractions for the Hungarian employed, but several other conditions would have to apply before large numbers of Hungarians actually appeared on it.

The gap between Hungary's industrial[1] labour costs and those of Belgium and France is wider than those of the business sector (C to K industries together).

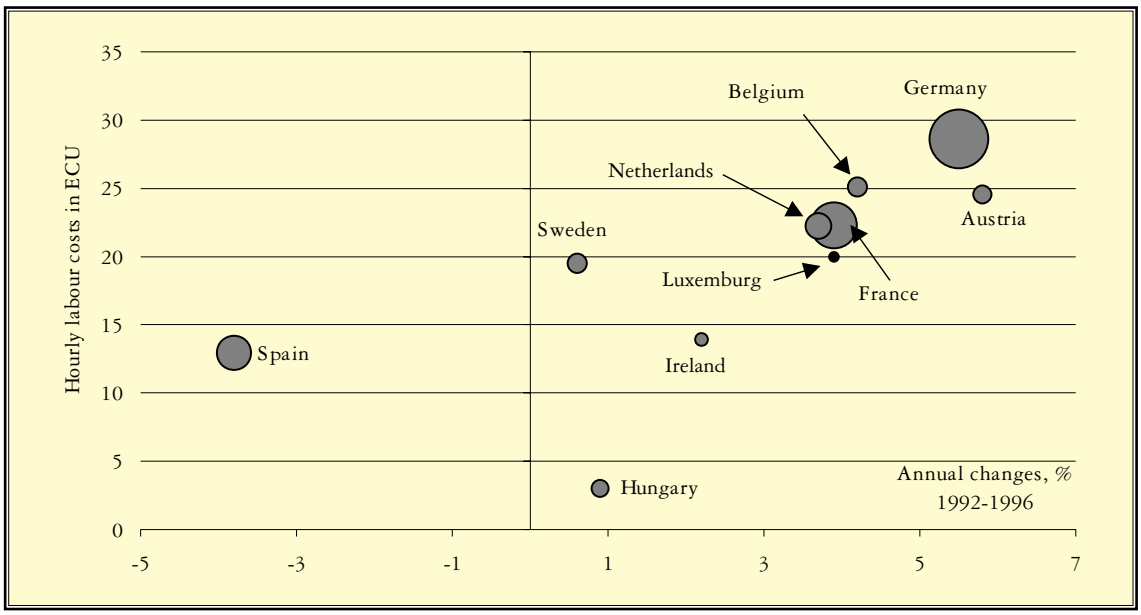
[1] *Industry means here: mining (C), manufacturing (D), electricity (E).*

Table 2.2.
Hourly and monthly labour costs in the C to K industry categories in selected European countries, 1996

Countries	ECU/hour	ECU/month	PPS/hour	PPS/month
Belgium	25.00	3244	24.50	3180
Denmark	24.08	2645	19.49	2141
Spain	14.43	2066	17.19	2462
France	22.33	3103	19.90	2767
Ireland	13.91	2210	12.55	1995
Luxembourg	21.39	3019	21.21	2994
Netherlands	20.39	2812	19.93	2747
Finland	19.38	2715	16.64	2332
Sweden	23.83	3413	19.46	2781
Austria	25.85	3650	23.89	3373
Greece	9.45	1475	12.01	1874
Portugal	6.82	1009	9.32	1378
Hungary	3.6	440	8.0	978

Sources: Eurostat New Cronos data base and CSO.

Figure 2.2.
Hourly labour costs in manufacturing, 1996



Source: Eurostat, Labour Costs Updating 1992-1995 and preliminary data for 1996.

Another important labour-market indicator is the change in the price of labour. Based on the updated labour costs, Figure 2.2 shows that labour costs measured in ECU generally rose. The areas of the circles in the figure are proportionate to the number of employed in each country. Labour costs in Spain fell between 1992 and 1996, while they grew only moderately in Ireland, even less in Hungary, and less still in Sweden. Hungary retains its promise as a good place for Western European investment, at least in terms of the costs of human resources.

3. WAGE INFLATION BETWEEN 1992 AND 1998

The trend in labour costs are decisive to the competitiveness of a country or an industry. This also expresses the average income from work received by the employed in various sectors in the economy. Expressed in

Hungarian currency, the average monthly labour cost in the business sphere more than doubled between 1992 and 1996, and tripled between 1992 and 1998. In 1998, the monthly average price for employing labour was HUF 122,500 (EUR 508).[2] The inflation was observable not only on the labour market, but in consumer and intellectual goods and in the market of goods for producers.

The rise of producer and consumer prices is an important contributor to wage inflation. Since labour is one of the factors of production, the trends in labour costs can be adjusted by the producer price index, which expresses the combined price changes of all the factors of production.

The labour costs in Hungarian manufacturing rose by 2.9 per cent a year in real terms between 1992 and 1998, which meant they rose faster than the prices of the other production factors. Another way of putting it is to say that the price push exerted by labour costs on producer prices was only partly expressed in the rise in producer prices. The price of labour grew by 4.6 per cent a year (one-and-a-half times as fast) in the high-tech branches of manufacturing.

Table 2.3.
The change in real labour costs in Hungary between 1992 and 1998

Industries		Index of real labour costs, 1992=100		Average growth rate of labour costs, %		
		Adjusted by producer prices	Adjusted by consumer prices	Current prices	Adjusted by producer prices	Adjusted by consumer prices
C.	Mining	114.7	95.4	19.9	2.3	-0.8
D.	Manufacturing	119.3	99.3	20.7	3.0	-0.1
E.	Electricity, gas, steam and water	131.2	109.2	22.7	4.6	1.5
C-E.	Industry	119.9	99.8	20.8	3.1	0.0
F.	Construction	.	86.6	18.0	.	-2.4
G	Wholesale, retail trade, repairs	.	90.1	18.8	.	-1.7
H.	Hotels and restaurants	.	90.6	18.9	.	-1.6
I.	Transport, storage and communication	.	103.5	21.6	.	0.6
J.	Financial intermediation	.	104.2	21.7	.	0.7
K.	Real estate, renting	.	91.0	19.0	.	-1.6
C-K	All industries observed	.	99.4	20.7	.	-0.1

Source: CSO

However, labour is a special kind of production factor because an important element of it, the wage received as compensation for the work, only appears as a cost from the employer's point of view. From the point of view of the employed, it is income. They measure their pay not against the trend in producer prices, but against consumer prices, for they are primarily consumers. In other words, they would like, as far as possible, to see the increase in consumer prices reflected in their income. So at least part of the labour cost is attempting to 'track' the increase in consumer prices, and indeed succeeding in the many Western European countries where there is indexation of wages.

If the effect of the change in consumer prices is discounted, the trend in labour costs shows a modest decline in industries C to K (business sector) an average of 0.1 per cent a year over the six-year period. There appears a similarly modest increase in transport, storage and communication and in financial intermediation. In manufacturing, similarly to the business sphere, the price of labour more or less stagnated. An increase of 1.5-2.0 per cent is found in certain fields, such as high-tech industries. This is not surprising, as high-tech industries contain a higher than average proportion of highly qualified employees, whose bargaining power is enhanced by an excess of demand over supply.

Levels and still more, changes in labour costs form an important market factor. Its price-setting function makes it, along with productivity, a determi-

[2] *Economic units employing at least 20 persons.*

nant of competitiveness, at corporate, industry, economy, or even international level. Labour costs per unit of output, with the trend in these, are commonly used internationally to compare competitiveness. In Hungary statistics of hours worked have been collected only for manual employees in indusry and for a long time. In practice, this means there have been no data available on the hours worked by non-manual workers until recently. As hours worked generally form the basis of international comparisons, this has to be omitted here. The trend in the real effective exchange-rate index based on unit labour costs (the labour required to produce a unit of production) is influenced by foreign and domestic labour costs and productivity rates, and by the change in the nominal effective exchange rate. So this is a complex index from which the trend in competitiveness can be gauged. According to calculations by the National Bank of Hungary, competitiveness based on the specific unit labour costs in manufacturing improved steadily from 1993 to 1996. From early 1997 to mid-1998 there was a relatively stable, trend-like devaluation. In principle, the firms able to spend more on labour are those that are more productive, and therefore profitable, than average. In practice, however, there is no strong relation between the trends in performance and in labour costs at industry level, of the kind to be expected of individual firms at the micro level. (An extensive survey of 15 OECD countries by Appelbaum and Schettkat, 1995, found no relation between the rise in productivity and the rise in earnings.)

In 1998, performance (GDP in real terms[3] per employed person) rose by 3.5 per cent and real labour costs adjusted by consumer prices by 2.9 per cent, so that the unit labour cost adjusted by consumer prices was down 0.6 per cent on the previous year.

The relation between productivity and real labour costs adjusted by consumer prices suggests that incomes are not changing or undergoing restructuring. If the growth of productivity steadily exceeds the rise in real labour costs adjusted by consumer prices, the proportion of profit in the value added increases at the compensation of employees. (This is the case in several industries.) At industry level, this means the branch concerned has become more profitable, and if the economic environment is favourable (a requisite size of market, good credit supply, and so on), the conditions are present for it to grow. For the employed, on the other hand, it signifies that their relative positions have deteriorated. The real value of their earnings is growing more slowly than corporate profits and the profits taken by their owners.

International comparisons show that Hungary's labour costs could still make it an attractive target for foreign. There is no justification for contraposing competitiveness with employee wage claims. In principle, a greater share of value added might reach employees' wages and salaries if compulsory social contributions based on wages were reduced, unless profitability of the firm change. Much of the price of Hungarian labour consists of so-called social contributions, of which a decisive proportion consists of compulsory payments to the great redistributive systems of social insurance. In the business sphere, the traditional[4] gross wages and salaries of employees amount to only HUF 57 out of every HUF 100 of labour costs and wages and salaries to only HUF 62. These are extremely low compared with the proportions in EU countries.

The social contributions of employers also form part of employees' compensation, while social benefits and other social income form part of the population's total income. The value of these reaches individuals through the great social distribution systems, as healthcare and education and the services of cultural institutions. Their value to individuals cannot be assessed directly. So this chapter concentrates, on a micro level, on analysing wages and salaries from work and the net and real value of these.

[3] *Preliminary data.*
[4] *For the definition see section 4. and Table 2.5.*

Table 2.4.
The composition of labour costs in the C to K industries in selected European countries, 1996

Countries	Wages and salaries	Employer's social contri-butions	Compensation of employees	Vocational training costs	Other expendi-ture	Taxes	Subsidies
Belgium	68.26	29.90	98.16	0.53	1.95	-	0.14
Greece	75.73	23.3	99.03	0.22	0.64	0.46	0.35
Denmark	90.39	6.42	96.82	2.47	0.53	1.25	1.06
France	67.12	28.64	95.76	1.75	1.16	1.46	0.13
Netherlands	75.58	22.06	97.64	0.78	1.84	-	0.25
Austria	70.52	25.09	95.61	0.6	1.62	2.17	-
Finland	75.45	22.24	97.69	1.18	1.20	-	0.07
Spain	73.98	24.40	98.38	1.19	0.79	-	0.37
Portugal	76.24	20.40	96.64	1.29	2.11	-	0.05
Hungary	62.10	34.80	96.90	1.40	1.70	-	-

Source: Eurostat New Cronos Labour-Cost Survey.

4. WAGES AND SALARIES

Employees in non-public firms and public institutions receive various fringe benefits besides their pay. These are so widespread today that it is worth considering them as a part of wages and salaries. The commonest include daily allowances for business travel abroad, accommodation allowances, meal contributions, travel expenses to and from work (such as a contribution to a season ticket), expenses to do with private use of a company vehicle, and long-service and other bonuses. Since 1999 these have been connected directly with the performance of work and declared once a month by firms and institutions, as 'other income from work' in monthly labour surveys. The international concepts of wages and salaries are wider, than the traditional Hungarian 'wages and salaries' one. So it has become possible to report another category of wages and salaries that includes these payments. The indicator of wages and salaries denotes in this chapter a wider sphere than the traditional concept of pay. It corresponds to wages and salaries as defined in the System of National Accounts (SNA) and ILO recommendations. The portion of additional fringe benefits 'other income from work' to pay worked out at an average of 5 per cent for an employee in the first half of 1999.

The highest proportions of fringe benefits are found in mining, transport, electricity, gas, steam, water and public administration. The average monthly income from work in the first half of 1999 was HUF 76,510, which was equivalent at EUR 307 at the June exchange rate.

Table 2.5.
Wages and salaries according to SNA and traditional definitions

Industries	Wages and salaries in 1999 Q1-Q2 according to SNA definitions, EUR/month	Of which, income supplementary to the international definitions, %	Wages and salaries according to traditional definitions EUR/month
Agriculture	210	4.4	200
Mining	390	10.3	349
Manufacturing	303	5.0	288
Electricity, gas, steam and water	415	6.8	387
Construction	221	4.6	211
Wholesale, retail trade, repairs	264	3.2	256
Hotels and restaurants	198	3.6	190
Transport, storage and communication	357	7.2	332
Financial intermediation	671	5.0	637
Real estate, renting	352	4.1	338
Public administration	370	6.5	346
Education	288	2.7	280
Health	235	2.7	229
Other social services	277	4.0	266
Economy	307	4.9	292

Source: CSO. EUR exchange rate: HUF 249.39.

5. TRENDS IN WAGES AND SALARIES

5.1. GROSS WAGES AND SALARIES

A decisive proportion of people's income from work is earned as gross pay in the traditional sense. This is also decisive in people's income as a whole. Eighty-five per cent of Hungary's 3.7 million employed were employees in 1998. The proportion had been similar in 1994 as well. The traditional source of figures on earnings in Hungary is the institutional statistics, which give information about some 84 per cent of the 3,144,000 employees. So earnings are the most prominent component of income from work and the basic determinant of household income. The grounds for examining the trends in gross nominal income through crosssectional studies of industries and workforce groups is that only gross earnings have a survey basis under the current system of statistical reporting. The advantage of this kind of analysis is that it presents a fairly long time-series, unaffected by year-to-year changes in the personal income-tax system. The disadvantage is that employees actually receive net pay, and that is what determines the quantity of goods wage-earners can consume.

Employers in the business sector try to negotiate an average pay increase proportionate to their business results, while providing some compensation for inflation. The natural expectation on the employees' side is that their earnings should increase at least in line with inflation. In practice, wage negotiators tend to agree on an increase in the rate of gross pay that corresponds with the previous year's inflation, not the inflation forecast for the coming year. The wage policy for majority state-owned companies in the business sphere is set by the state as owner. The mass privatisation of the 1990s has left about 186,000, or 10 per cent of the employed working in state-owned companies. Generally, the rise in their gross earnings falls short of the increase in the business sphere as a whole. (In 1996, there were still 305,000 people working in companies of this kind.)

Although the rate of unemployment is still 7.8 per cent, competition to hire and retain high-quality labour is increasing. The statutory minimum wage, also subject to negotiation, has risen more slowly in the 1990s than actual average gross earnings. It was equivalent to 35.7 per cent of average gross earnings in 1990, but only 33 per cent in 1998. The minimum wage has a

strong influence on the industries with the lowest pay[5] levels and on the extent of employment. It also has knock-on effects, as it features in several social-insurance regulations as a threshold and has significance for the accounting practices of the small-business sector. It is important to employees for the minimum wage to retain its relative value, but entrepreneurs often have a vested interest in the opposite.

Table 2.6.
The minimum wage

Year	Statutory minimum wage at the beginning of the year	
	HUF/month	Average monthly wage = 100
1989	3 700	35.7
1990	4 800	35.7
1991	7 000	39.0
1992	8 000	35.9
1993	9 000	33.1
1994	10 500	30.9
1995	12 200	31.4
1996	14 500	31.0
1997	17 000	29.7
1998	22 500	33.2

Source: CSO

According to the National Labour Methodological Centre (NLMC) individual wage survey, 2.6 per cent of employees received the minimum wage or less. Half of those on the minimum wage are less than 24 years old. The greater concentrations of minimum wage-earners among the young and among women point to a degree of marginalisation of certain disadvantaged groups. Those earning the minimum wage generally have low skills. There is a relatively high proportion of minimum-wage earners among those who have completed a vocational training school (4 per cent). A significant proportion of employees paid a minimum wage are in occupations that belong to major group 5 of ISCO 88 (service workers). However, there are significant proportions of technicians and associate professionals as well among them. This is because the owners of small businesses in certain fields tend to pay themselves a minimum wage as pay, to reduce their income-tax and social-insurance payments.

Looking at pay rates, and to some extent rates of pay increase in various industries, various winners and losers can be discerned in recent years. The wage increase tended to be stronger in sectors and industries with high average wages (such as electricity, gas, steam and water supply, financial intermediation, real estate, business activities). Meanwhile, rates of pay increase have fallen short of the average in manufacturing industries such as manufacture of wood, paper and printing products, publishing activity, manufacture of textiles, wearing apparel, leather and fur products, construction, hotels and restaurants, and in budget-financed fields such as public administration and health care.

The wage and salary distribution among industries is also influenced by the average size of the economic units employing labour. (For instance, family businesses are characteristic in hotels and restaurants and agriculture.) Extreme rates of pay are characteristic in small organisations, according to the Wages and salaries' brackets survey, conducted by CSO in every 2-3 years. The greatest range is found in the smallest size category: mean gross earnings in businesses (economic units) employing less than 11 people show a standard deviation of 151 per cent, as opposed to 87 per cent in the economy as a whole. Employment at the minimum wage is commonly found in small businesses, where incomes from employment and from ownership are mingled. Even in the case who are only employees, only a partial legalisation of their earnings is commonly found, due to tax and social contribution-evading reasons. Almost a quarter of minimum-wage earners[6] worked in wholesale and retail trading and repairs, where 10 per cent of employees received the minimum wage. The same was the case in hotels and restaurants.

[5] *Agriculture, manufacture of textiles, wearing apparel, leather and fur products, education, social welfare.*
[6] *Source: Individual wage survey (NLMC).*

Table 2.7.
Highest and lowest gross monthly wages and salaries, 1998

Wages and-salaries ranking	Industries	Number of manual workers (thousands)	Gross monthly wages for manual workers (EUR)	Industries	Number of non-manual workers (thousands)	Gross monthly salaries for non-manual workers (EUR)
	Highest gross wages and salaries:					
1	Electricity, gas, steam, water	56.9	302	Finance, business services	26.7	613
2	Chemical industries	55.1	299	Chemical industries	96.9	597
3	Machinery	156.0	249	Electricity, gas, steam, water	25.7	533
	Lowest gross wages and salaries:					
1	Social welfare	25.1	138	Social welfare	33.1	199
2	Education	39.2	141	Health care	152.8	259

Source: CSO (EUR exchange rate: HUF 240.98).

The ratio of manual to white-collar jobs is not immaterial to nominal wages and salaries in various industries either, due to the growing differential in favour of the white-collar workers. The mean gross salaries for white-collar workers in 1998 was 88 per cent higher than for manual workers, which translated into a 66 per cent difference in net pays, as opposed to only 48 per cent in 1990.

The pay rankings among the industries of the economy have altered little in the last few years. The decisive factors are profitability, and in the case of manual workers, the skills required to do the work. The largely budget-financed public services such as education and health care lag constantly behind, even though the manual and especially the white-collar work involved require high qualifications. These pay differences produce adverse selection and losses of high-quality labour to better-paid occupations, especially in the case of white-collar staff. They also influence career choices among young people. The wages and salaries differences between levels of educational attainment are high in the business sphere and in budget-financed institutions. In the latter, the lag behind the business sphere increases with educational attainment, as high qualifications (especially a university degree) and extra attainments such as language knowledge, a PhD, DLA are better rewarded than in the public sphere, with its rigid system pay rates.

Table 2.8.
The structure of average gross wages and salaries according to educational attainment, 1998

Educational attainment	Average gross wages as a percentage of national mean in:		
	Business sphere	Budget-financed sphere	Whole economy
Eight grades or less of primary school	68.7	53.1	64.1
Apprentice school	80.9	63.9	78.7
Vocational school	107.6	79.8	98.7
Grammar school	107.6	81.2	97.0
Vocational secondary school	134.3	102.0	129.6
College	209.5	103.7	135.1
University	304.9	156.5	219.2
All levels	104.9	90.0	100.0

Source: NLMC individual wage survey.

To refine the investigation further, salaries in the budget-financed sector lag behind still further (by almost 35 per cent) if account is taken of the same job requirements for educational attainment, complexity and responsibility in both sphere. Behind the mean wages and salaries figures lie significant differences. These inequalities have become greater in some respects in the last few years, as the lowest and highest earnings have grown further apart.

Table 2.9.
The shares in total wage sum of the top and bottom deciles

	1992	1993	1994	1997	1998*
Bottom decile	3.8	3.5	3.7	3.1	3.3
Top decile	25.4	26.8	26.6	28.9	28.5

Source: CSO Wages and salaries distribution.
**NLMC individual wage survey.*

The difference between the extreme salaries deciles has increased in the last six years. The share of the decile that earned least was 3.8 per cent of the wage sum in 1992, but only 3.3 per cent in 1998, while the share of the best-paid decile increased from 25.4 per cent to 28.5 per cent. So the highest and lowest earnings have moved apart.

The growing wage differentials have brought a high degree of differentiation by international standards as well. The ratio of the top to the bottom decile was 4.2 to one in 1998. Similar differentiation rates hardly occur in developed European countries. (The ratio is over three to one in Britain, Austria and France.) Only in Portugal in 1993 was it similar. Among the transition countries, the ratios in the Czech Republic and Poland are less than three to one.

Table 2.10.
Ratio of the top to the bottom decile of earnings in selected OECD countries

Country	1980	1985	1989	1992	1993	1994	1995	1996	1997	1998
Czech Republic	..	2.52	2.45	2.74	(3.19)	(3.14)	(3.73)	2.82	2.80	..
Hungary	2.39	2.64	3.14	3.64	3.59	4.16	..	..	4.19	4.2
Poland	2.88	2.70	2.43	2.69	2.61	2.86	2.64	2.69	..	..
East Germany	..	..	2.08	2.29	..					
Germany	2.67	..	2.45	2.44	2.32					
Austria	2.61	..	3.55	3.54	3.58	3.66				
Belgium	2.01	..	2.36	2.29	2.25	2.08				
Denmark	2.14	2.17	2.18	2.17						
France	3.08	3.12	3.28	3.23	3.26	3.28				
Italy	2.64	2.50	2.16	..	2.77					
Netherlands	..	2.89	3.05	3.08		3.04				
Portugal	..	3.62	3.49	3.96	4.05					
Sweden	2.04	2.07	2.12	2.10	2.13					
Switzerland	..	..	2.72	2.67	2.71	2.65	2.72	2.75		
Britain	2.79	3.06	3.28	3.31	3.33	3.31	3.38			
United States	..	..	..	..	4.16	4.35	4.39			
Japan	3.01	3.11	3.16	3.03	3.04	3.02				

Sources: Atkinson and Micklewright (1992), OECD Economic Outlook, Economic Survey in Europe, national sources.

There is also some differentiation between the sexes. The wages and salaries differences among men have increased in the last six years, but among women, they have hardly changed. In 1992, the index of differentiation for men (3.59) was only 0.28 higher than for women. In 1998, the difference between the two indices was 0.79. Members of the top pay decile of women earn 3.31 times as much as the bottom decile of women. Comparison of the wages and salaries characteristics of men and women makes a special study. Although there has long been declared equality between men and women in Hungary, there are data to support the supposition that negative discrimination continues. The figures show that the relative pay positions of women and men have not changed appreciably in the last six years. The gross pay for women was 20 per cent lower than for men, which is in line with international tendencies. Mean net pay for women was 16-19 per cent lower than for men. The net earnings of women paint a more favourable position than the gross figures mainly because the Hungarian personal income-tax system is progressive.

Women's 'lifetime' earnings range within much narrow bounds than men's. The average salaries of women are highest in the 55-59 age bracket. Highly qualified or managerial staff were the ones working beyond the retiring age (55 for women at that time), so that it was not surprising to find the pay differential between men and women disappearing in that age group. The fact that women's wages and salaries are less differentiated is partly explained by educational attainment structure. Among the elderly and middle-aged, there is a higher proportion of men with a higher education, while in the 15-29 age bracket there is no appreciable difference between the sexes in educational attainment. The other factor that explains the lower differentiation of individual salaries among women is that a high proportion of them (46 per cent) work in the public sphere, where the benefit and salary systems leave less chance of discrimination.

If jobs calling for the same degree of responsibility and qualifications are compared, the earnings advantage of men lessens. All in all, it is not possible to diagnose strong discrimina-tion against women, least of all if it is taken into account that equal social conditions can only be approximately measured statistically.

5.2. NET WAGES AND SALARIES

So far, changes in wages and salaries distribution according to the several criteria have been examined in relation to gross wages and salaries, although it is net wages that employees receive and spend. The relation between net and gross wages is not linear, since it varies from year to year with the personal income-tax regulations. Net wages and salaries are personal, because they depend not only on the gross wages and salaries, but on various personal circumstances. Employers are not directly concerned with what sum of net pay remains under the income-tax regulations for the year, so gross wages and salaries are the subject of wage bargaining.

Box 2.2.
Calculating net wages and salaries

In Hungary net earnings are not surveyed. The values are derived and therefore fictitious to some extent. The CSO derives average net wages and salaries from average gross wages and salaries of surveyed economic unit by deducting the personal income tax and employees' pension, health and other contributions. The personal income-tax payment is calculated according to the table of legal tax rates for the year, with adjustments for the individual and occupational tax allowances available. This is where the limitations of the calculation lie. Since the precise family status of the employees is not known, their family tax allowance cannot be deducted accurately. Nor it is possible to take out the other sources of income or payment obligations that influence each person's eventual income-tax bill.

Nonetheless, the complex analysis has to concentrate on net earnings, because they convey better the actual income situation and income differences.

Levels of wages and salaries are influenced not only by personal attributes and abilities (which are extremely difficult to measure), but by age, educational attainment, occupation, geographical place of residence and location of work place, and sector of the economy. These are considered in the following account of how wages and salaries have developed in the latter half of the 1990s.

Of course, wages and salaries show a tendency to increase as a function of age. This is because the employed, as they grow older, obtain skills and a mass experience and expertise in their field, which have an increasing effect on their earnings as their career proceeds.

Examining the wages and salaries distribution in relation to age actually measures the differences in edu-

cational attainment between age groups as well. There is still a low proportion of college and university graduates (13 per cent) among the 20-29 age group, which un-derstandably moderates the mean net wages and salaries of the age group. The proportion with a higher education is greater in the 30-39 age group. However, replacement of older people with younger tends to change the distribution of the population by educational attainment. In other words, the average level of educational attainment in the population increases.

The specific relationship between educational attainment and age becomes apparent if the cross-sectional data are interpreted as lifetime earnings. So let us examine how the earnings of employees with a certain level of educational attainment would develop if the present earnings ratios were to remain throughout their lifetime. This with primary school and apprentice school approach the mean earnings for their level of educational attainment by the age of 25-29 – their earnings thereafter increase only modestly. This occurs to those with a secondary-school education only when they are in the 30-39 age group, and to university graduates even later.

Educational attainment (normally measured by the level of schooling completed) plays an important part in employment, since the requisite quality of work can only be expected from labour with the requisite qualifications. It is pertinent for young employees and for fu-ture school-leavers to know how the labour market evaluates the theoretical knowledge and vocational qualifications acquired by young people through school education. As a rule, the higher an employee's qualifications, the better his or her earnings position is on the labour market. Of course there may be major differences in distribution and scale between and within age groups. The type of degree or qualification is also important, since it decides the field of the economy and society in which it can be used.

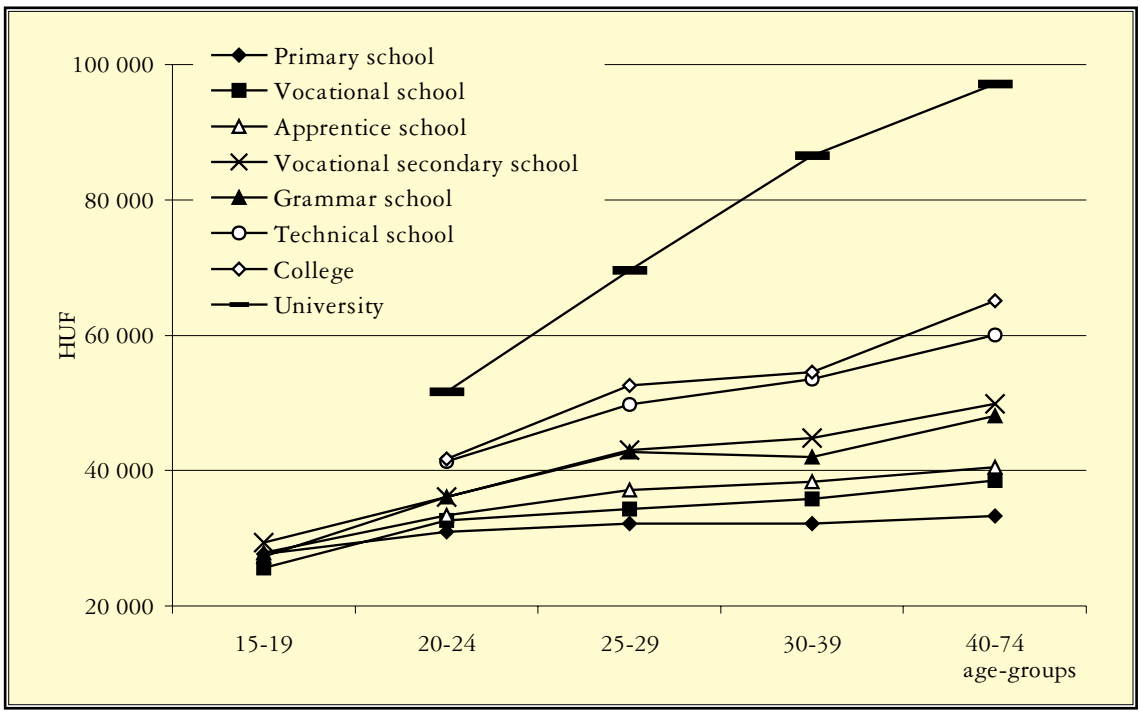
Table 2.11.
Average net wages and salaries by age group and level of educational attainment in the budget-financed and business sectors together, 1998

Educational attainment	Average net monthly wages and salaries, HUF					
	15-19	20-24	25-29	30-39	40-74	All
Eight grades or less of primary school	27 627	30 982	32 147	32 191	33 252	32 649
Apprentice school	25 589	32 589	34 326	35 823	38 497	36 515
Vocational school	27 858	33 343	37 100	38 339	40 471	38 260
Vocational secondary school	29 325	36 136	43 042	44 821	49 868	45 642
Grammar school	27 291	36 133	42 783	41 953	48 062	45 028
Technical school	.	41 373	49 726	53 527	60 051	56 916
College	.	41 700	52 580	54 546	65 090	59 397
University	.	51 583	69 625	86 564	97 057	90 954
All levels	27 780	34 676	42 321	45 007	49 769	46 084

Source: NLMC Individual wage survey,1998, compiled by CSO.

Looking at wages and salaries for a cross-section of educational-attainment levels and age groups in 1995-98, it is clear that the salaries of university graduates, who earn most, rose faster than average. This also means they managed to increase their salaries advantage over the three years, irrespective of their age. The salaries advantage of university graduates over college graduates appears to be permanent (relatively the same), especially among those over 30.

Figure 2.3.
Net wages and salaries by the level of educational attainment and age group in 1998



Average net wages and salaries rose by an average of 19 per cent a year between 1995 and 1998, although the net wages and salaries of different occupations and age groups rose at different rates. Among the major groups of occupation the first group – managers – the 30-39 age group and those over 40 increased their salaries by more than average, so that their pay rose in real terms by 8-9 per cent instead of the average increase of 1 per cent. The only groups of manual workers who managed to increase their real earnings were craft and related workers (major group 7) aged 25-29 and operators and assemblers (major group 8) aged 20-24.

Table 2.12.
Average net wages and salaries by age group and major groups of occupation, in the budget-financed and business sectors together, 1998

Major groups	Average net monthly wages and salaries, HUF					
	15-19	20-24	25-29	30-39	40-74	All
1. Legislators, managers	.	48736	77102	90342	95893	93343
2. Professionals	.	41492	52274	53332	60638	56605
3. Technicians	28536	36523	45570	45124	49917	46692
4. Clerks	28394	36683	42056	39328	42402	40947
5. Service workers	25577	30126	33249	33978	35056	33626
6. Agricultural workers	29659	31412	31585	32429	32261	32076
7. Craft and related workers	27655	33844	38900	40154	41767	39754
8. Operators and assemblers	30672	37166	40364	42467	42605	41479
9. Elementary occupations	24252	28658	28825	28046	28584	28453
All levels	27780	34676	42321	45007	49769	46084

Source: NLMC Individual wage survey,1998, compiled by CSO.

The net wages of those in unskilled occupations rose by only 14-16 per cent, which was well below the average. This means that the real value of their wages declined.

5.3. REAL WAGES AND SALARIES IN THE 1990S

The economic and social transformation bore heavily on several sections of the Hungarian population. The appearance of mass unemployment jeopardised the livelihood of many wage and salary-earners. Job losses during the accompanying economic recession reduced the income of all families in which an earner became unemployed or was squeezed out of the labour market due to individual attributes and may have proved ineligible for social benefits.

The loss of income was not confined to families in which the number of earners fell. There was a steady, sizeable fall in the real value of the income of wage and salary-earners, due to mounting inflation. This fall in the real value of wages and salaries averaged 9 per cent between 1992 and 1997 for the full-time employees of larger businesses (with over 50 em-ployees) and of budget-financed institutions. Within this global figure, the living standards of various groups deteriorated to different extents. There was an appreciable increase in the differentiation of wages and salaries. The situation of the low paid (wage earners in the bottom decile) deteriorated by more than average. The higher paid (earners in the top quartile) suffered a decline in the real value of their earnings initially, followed by a steady improvement. Over the whole period, their wages and salaries fell by 6.6 per cent in real terms. Those in the top salary decile in 1994, for instance, exceeded their 1992 earnings by 21 per cent. The package of restrictive measures in 1995 reduced real wages and salaries, although this was partially offset by a reduction in income-tax rates in 1997. The resultant of these two measures for wage and salary earners in the top decile was a 2.8 per cent increase in real earnings since 1992. By comparison, the bottom earnings decile lost about 12.6 per cent of its purchasing power. Even the bottom earnings quartile of the employed were being paid in 1997 only 90.3 per cent of their real earnings in 1992. This fall in the value of earnings affected various groups of employed to different extents, but overall, higher earners suffered a smaller decrease in their standard of living.

Table 2.13
Trends in the real earnings among earnings groups of full-time employees*, 1992-1997

Year	Bottom decile	Bottom quartile	Top quartile	Top decile
1992	100.0	100.0	100.0	100.0
1993	98.3	99.9	99.9	101.5
1994	92.3	106.0	105.1	121.0
1997	87.4	90.3	93.4	102.8

**Employees in budget-financed institutions and economic units employing more than 50.*
Source: CSO Wage and salary brackets survey, 1997.

The general trend in the Central and Eastern European (CEE) transition countries in this period was for the low paid to be main losers by the transition (Rutkowski, 1996). The lower people were on the earnings ladder, the more the real value of their earnings declined. For instance, the loss for the low paid (bottom decile) was 45 per cent between 1987 and 1993 in Romania and 10 per cent in Poland, although those earning more than the mean also suffered a real-earnings loss in both countries. Croatia (in 1993) and Hungary (in 1994) were the only CEE countries where there were winners by the transition among the employed, and in both cases these were the best paid (top decile).

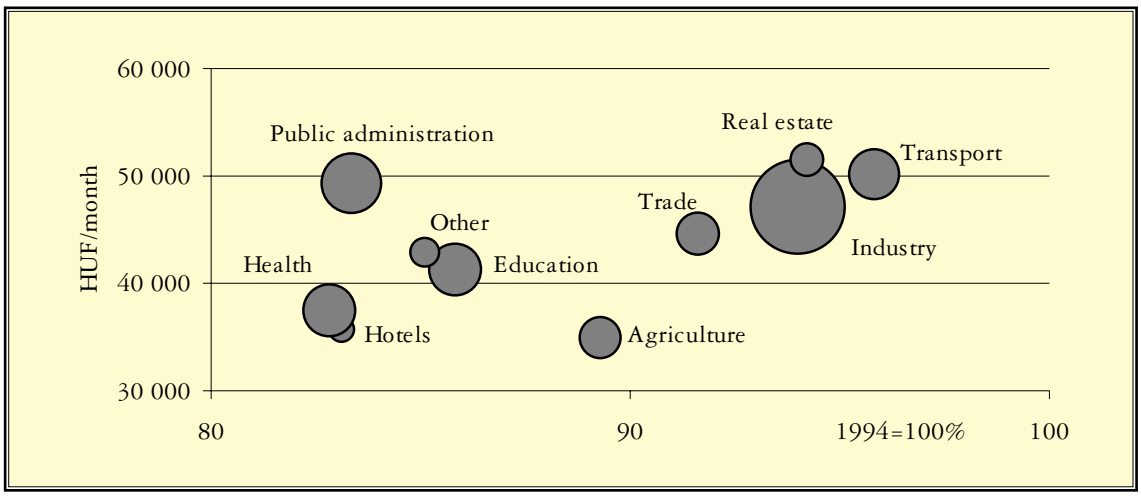
The rise in real wages and salaries in Hungary continued in 1998. As a result, the overall loss of real wages and salaries over the six-year period of 1992-98 was an annual average of 1.1 per cent. The real value of net nominal wages and salaries fell by 9 per cent between 1994 and 1998. These decreases in the real value of earnings affected men and women equally, but there were substantial differences between sectors and industries of the economy.

Table 2.14.
The monthly gross and net average wages and salaries, the consumer price index and the index of real wages and salaries, 1990-1998

Year	Index of average gross wages and salaries	Index of average net wages and salaries	Consumer price Index	Index of real wages and salaries
	Previous year = 100			
1990	128,6	121,6	128,9	94,3
1991	130,0	125,5	135,0	93,0
1992	125,1	121,3	123,0	98,6
1993	121,9	117,7	122,5	96,1
1994	124,9	127,3	118,8	107,2
1995	116,8	112,6	128,2	87,8
1996	120,4	117,4	123,6	95,0
1997	122,3	124,1	118,3	104,9
1998	118,3	118,4	114,3	103,6

Source: CSO

Figure 2.4.
Net earnings and changes in real earnings by industries, 1998



CONCLUSIONS

- Hourly labour costs, measured in EUR, are 3-6 times as high in the business sector of most EU member-states as they are in Hungary. The costs of labour are generally increasing, and the higher the hourly labour cost is the faster this is happening. In real terms, Hungarian labour costs in C to K industries stagnated between 1992 and 1998 (showing a slight fall of 0.1 per cent a year). The relation between productivity and real labour costs adjusted by consumer prices suggests that competitiveness did not change. International comparisons show that Hungarian labour costs could still make the country an attractive target for investment.
- Gross earnings correlate strongly with the economic activity of a company and with its size. These are the two factors that contribute most to the development of wages and salaries. The minimum wage plays an important role in earnings distribution and should be accepted as an effective means for regulating labour input, at least in certain industries. Wage inequalities have widened in recent years, as the lowest and highest earnings grow further apart. These increasing differentials have brought a high degree of differentiation by international standards.
- Age, sex and educational attainment have important effects on wages and salaries, but their importance has not change much in the last two or three years.
- Real wages decreased significantly in the transition period, although there was an increase in the last three years (1997, 1998 and 1999).

References

Appelbaum, E, and R. Schettkat (1995), 'Employment and Productivity in Industrialized Economies', International Labour Review, No. 4-5.

Atkinson, A.B., and John Micklewright (1992), Economic Transformation in Eastern Europe and the Distribution of Income, Cambridge: Cambridge University Press.

Employment and Earnings 1997-1998, Central Statistical Office (CSO).

Fajth, Gáspár-Judit Lakatos, 'The Transformation of Employee Benefits in Hungary', Economics of Transition, Volume 1995/3.

Labour Costs Hungary 1996, (CSO).

Labour Force Survey, Time series (1992-1998), 1999, (CSO).

Rutkowski, Jan J. (1996), Changes in the Wage Structure during Economic Transition in Central and Eastern Europe, World Bank Technical Paper No. 340 (Social Challenges of Transition series), Washington DC: World Bank.

CHAPTER THREE

REGIONAL UTILIZATION OF HUMAN RESOURCES

It was mentioned in the introduction to the report that one of the main purposes of this survey is to reveal significant regional differences within the country. The emphasis given to the territorial side gains immediacy because official approval was given in 1998 to the territorial development concept of dividing the country into regions, which was influenced by the requirements of the European Union.

A detailed account was given in last year's report of the utilization of human resources and the trends in employment and unemployment on a national level. However, it was not yet possible to assess, in terms of the concept now adopted, the regional differences, which appear very sharply in this context. The analyses and additional information that have appeared in the meantime allow this aspect to be examined more closely. From this point of view, this chapter offers a subtler picture of how human resources are being utilized.

1. THE HUNGARIAN SYSTEM OF REGIONS FOR PLANNING AND STATISTICAL PURPOSES

The importance of devising a system of 'planning and statistical regions', on which to base long-term development concepts, was realized quite early in Hungary. The main impetus behind this came from traditionally important socio-economic differences between regions, despite the small area of the country. The relatively small size of the counties, as units of public administration, and the many economic and infrastructural ties transcending their borders prevented them from performing the functions expected of regions. Expert opinion was generally agreed that the 20 existing administrative units (19 counties and the capital city) should be amalgamated into larger regions, even if the original system of public administration was to be retained.

There were several conflicting ideas about the ideal number, size and composition of the regions. Most drafts envisaged a central region consisting of the capital and its environs, with three or four counties making up each of the other regions. None of the proposals could avoid giving preponderance to the central region. An important criterion for the others was that they should consist, as far as possible, of counties of a similar type and of course be geographically coherent. Several debates arose on this because some counties were themselves heterogeneous in character. It was argued in some proposals that the county boundaries need not be sacrosanct: certain counties could be split between two regions. However, such recommendations were not pursued further, as they would have posed several practical problems, impeding the assessment work and investigations based on substantive information.

Argument continued about how many regions there should be. Most of the proposals in the 1980s and the early years after the change of system favoured having six regions, but it became increasingly clear that this kind of framework would make it hard to coordinate and meet the main requirements.

The more recent proposals for a system of regions agreed in respecting the existing county borders. The development of a system of regions had become an EU accession requirement as well, so that efforts had to be made to tailor it to the EU's information-service demands as well. That included adopting the EU's five-level system of territorial nomenclature (NUTS). Division into regions amounts in practice to introducing the second NUTS level. The top level is the country itself and the existing county system – also discussed in this chapter – more or less complies with the third level. The fourth level consists of 'small districts', which largely correspond with the earlier district level of Hungarian local government. Finally, the fifth level, the smallest units, consists of single communities (Kovács, 1999). Detailed information on the fourth and fifth NUTS levels will be provided by the census planned for the year 2001.

The concept of a planning and statistical region was defined in separate legislation in 1996, bearing the EU requirements in mind: 'A planning and statistical region extends over the territory of several counties (or the capital), to form a contiguous planning or statistical

unit of territory bounded by the borders of the counties concerned'. The basic principles laid down in the legislation were specified in the 1998 parliamentary resolution on the National Territorial Development Concept, which divided the country's territory into seven planning and statistical regions (Source: National Territorial Development Concept, Budapest, 1998, p. 188).

The regions shown in the map are Central Hungary (Budapest and Pest County), Central Transdanubia (Fejér, Komárom-Esztergom and Veszprém counties), Western Transdanubia (Győr-Moson-Sopron, Vas and Zala counties), Southern Transdanubia (Baranya, Somogy and Tolna counties), Northern Hungary (Borsod-Abaúj-Zemplén, Heves and Nógrád counties), Northern Great Plain (Hajdú-Bihar, Jász-Nagykun-Szolnok and Szabolcs-Szatmár-Bereg counties) and Southern Great Plain (Bács-Kiskun, Békés and Csongrád counties).

The system based on the National Territorial Development Concept – which is considered here as the 'valid division into planning and statistical regions' – is more advantageous in its conclusions than earlier notions were.

The division into seven, rather than six regions makes more than a quantitative difference. It allows the characteristics of the territorial units created to assert themselves more clearly and uniformly. For instance, it has allowed a clear distinction to be drawn between the Western Transdanubian and Central Transdanubian regions.

It is worth mentioning the practical usefulness of the system. The valid division into planning and statistical regions expressly favours cross-border regional cooperation in the case of EU accession. For instance, combining the three Western border counties into one region clears the way for the region most 'open' to the West to take advantage of its special position.

The system as a whole provides a good basis for gaining an overall picture of how human resources are utilized and examining the situation in each region from several points of view. This may lead to some substantive conclusions about which regions are at an advantage and which are at a disadvantage, and about the main factors behind those relative advantages and disadvantages.

The examination is based mainly on the data from the 1996 micro-census, projected onto the population as a whole The micro-census sample (2 per cent) provided the most extensive representative survey since 1990 that gave sufficiently accurate information broken down by counties and types of settlement. The survey moment (April 1, 1996) allowed the most important socio-economic effects of the change of system to be felt.

Where possible, the micro-census findings have been supplemented by information that is more recent.

2. THE DEMOGRAPHIC FEATURES OF THE REGIONAL SYSTEM

In terms of population, the Central Hungary region that includes Budapest occupies a special position, which it is always worth considering when the findings are being assessed. Its population in 1996 was almost 2.9 million, while the other regions had populations in a range between 1 and 1.5 million.

The steady decline in Hungary's population since the early 1980s is reflected to some extent in the population figures for all the regions. Understandably, the decrease has been less pronounced in the more favourably placed Western regions, which have tended to receive more foreign investment, and more pronounced in the disadvantaged Eastern and Northern regions. The latter effect is only offset in part by a slower natural population decrease.

So the regional structure of the population has altered little in the last decade and a half. Within the Central Region, it is worth noting that Budapest's population decrease has been relatively fast. This is explained by an especially high natural decrease and by migration to-wards outer areas of the conurbation, which increased again recently. Most of the migration was within the conurbation and did not affect the proportion of the population resident in the Central Region as a whole.

Table 3.1 shows the trend in the regional population structure between 1980 and 1996.

Table 3.1.
The regional population structure in Hungary, 1980-96

Region	1980	1990	1996	1996
	Population in thousands			Percentage of total
Central Hungary	3033	2967	2888	28.4
Central Transdanubia	1126	1115	1115	10.9
Western Transdanubia	1035	1010	997	9.8
Southern Transdanubia	1059	1016	994	9.7
Northern Hungary	1400	1323	1295	12.7
Northern Great Plain	1592	1547	1541	15.1
Southern Great Plain	1464	1397	1368	13.4
Total for Hungary	10709	10375	10198	100.0
of which: Budapest	2059	2017	1901	18.6

There has been no major change in the directions of internal migration or the natural population trends in the last couple of years. The territorial structure of the population remains essentially the same as it was at the time of the 1996 micro-census.

The regions continue to show differences in their demographic conditions (see KSH, 1999a):

* The rate of live births is lowest in Central Hungary (where Budapest plays the decisive role) and in Western Transdanubia. Northern Great Plain has a relatively high birth rate.

* The mortality rate was highest in Southern Great Plain and lowest in Central Transdanu-bia.

* The natural decrease in population was least in Northern Great Plain and most serious in Southern Great Plain.

* Migration decreased the population of other cities besides Budapest. The exceptions were a few rapidly developing cities, such as Győr and Székesfehérvár.

3. ECONOMIC ACTIVITY, BY REGIONS, SETTLEMENT TYPES AND COUNTIES

The underlying regional trends in economic activity were similar to those among the national population. The national reduction in economic activity applied to every region, although the rate and scale showed regional differences, of course. When assessing the processes that occurred between 1990 and 1996, it should not be forgotten that they had begun in the 1980s, so that it is necessary to look at the full 15-year period to identify the main trends.

The number of 'active earners' (i.e. employed people, excluding those persons who are also in employment while receiving maternity leave or pension[7]), according to the 1990 census, showed a reduction of half a million since the 1980 census. There was a further fall of over a million between 1990 and 1996, making a total decrease of 1.6 million.

Table 3.2.
The structure of the population according to economic activity, 1980-96, %

Year	Total	Active earners	Unemployed	Inactive earners	Dependants	Non-active per 100 active
			Total population:			
1980	100,0	47,3	..	20,6	32,1	111
1990	100,0	43,6	1,2	25,6	29,5	129
1996	100,0	34,2	4,7	32,5	28,5	193
			Of which, women:			
1980	100,0	39,9	..	24,1	36,0	151
1990	100,0	37,4	0,8	30,9	31,0	168
1996	100,0	29,1	3,3	39,4	28,2	244

The territorial distribution of active earners was also influenced earlier by the socio-economic differences between regions. There have been shifts in the last decade and a half that have brought an increase in the differences between the western and central regions on the one hand and the eastern regions on the other. In 1980, three-fifths (60 per cent) of active earners lived in the Transdanubian and Central regions. By 1996, the proportion had risen by three percentage points (63 per cent) at the expense of the northern and Great Plain regions. This trend applied to both sexes, but to men more strongly than to women.

The processes outlined appear more clearly if the trend in the economic activity rate is examined for each region.

Table 3.3.
The regional distribution of active earners, 1980-96, %

Region	Total			Men			Women		
	1980	1990	1996	1980	1990	1996	1980	1990	1996
Central Hungary	29.6	29.7	30.6	28.4	28.7	29.8	31.2	31.0	31.7
Central Transdanubia	10.7	11.1	11.5	10.9	11.3	11.8	10.4	10.9	11.1
Western Transdanubia	9.6	10.0	11.4	9.7	10.1	11.5	9.5	9.8	11.2
Southern Transdanubia	9.8	9.7	9.3	10.0	9.7	9.4	9.6	9.6	9.3
Northern Hungary	12.7	12.3	10.9	13.0	12.4	10.9	12.3	12.2	10.9
Northern Great Plain	14.0	13.9	12.9	14.3	14.3	13.3	13.6	13.4	12.4
Southern Great Plain	13.5	13.3	13.4	13.6	13.5	13.4	13.4	13.1	13.4
Total for Hungary	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In 1980, the ratio of active earners to the population was highest in Central Hungary (almost 50 per cent). This can obviously be explained by the effect of Budapest, where exactly half the inhabitants were active earners. The value of the indicator was close to the national average in the Transdanubian regions (47-8 per cent), while in Northern Hungary and the Great Plain regions it was below average. Only 45 per cent of the population were active earners in Northern Great Plain, and only 43 per cent in its constituent county of Szabolcs-Szatmár-Bereg.

[7] *Out of the total number of employed persons 98% are 'active earners', so the share of those, who are earning while receiving maternity leave or pension, is very low. (See table 3.5.)*

The moderate decrease in economic activity characteristic of the 1980s affected every region to a greater or lesser extent. This was followed after 1990 by a drastic fall that increased the territorial differentiation. The figures for 1996 show that a clear realignment has occurred. A decline of traditional industry and coal-mining, sharp work-force cuts and liquidation of many factories brought a rapid drop in economic activity, especially in Northern Hungary (and within that region, in Borsod-Abaúj-Zemplén County). The ratio of active earners in Northern Hungary was only 28 per cent, which was less than two-thirds of the proportion in 1980. By 1996, the advantage this region had enjoyed over Northern Great Plain in 1980, and even in 1990, practically disappeared.

It is worth noting that the advantageous position of Central Hungary also changed, so that by 1996, its economic activity was lower than that of Western Transdanubia. This strong process of decline did not spare Budapest either. Meanwhile the gap between the relatively advantaged Western Transdanubia and the less favoured Southern Transdanubia widened.

The conclusions can be summed up as follows:

* All regions, to differing extents, underwent a decline in the level of economic activity over the decade and a half, especially in the years after 1990.

* The difference between the highest and the lowest regional rates of economic activity did not change essentially between 1980 and 1990. After 1990, the difference more than doubled, from 5 percentage points to more than 10. (This strong increase shows that the disadvantaged regions have been falling back to an alarming extent.)

Table 3.4.
The proportion of active earners among the population of each region, 1980-96, %

Region	1980	1990	1996
Central Hungary	49.5	45.4	36.9
Central Transdanubia	48.1	45.1	35.9
Western Transdanubia	47.1	44.7	39.7
Southern Transdanubia	47.1	43.1	32.7
Northern Hungary	45.9	42.1	29.3
Northern Great Plain	44.7	40.7	29.2
Southern Great Plain	46.9	43.1	34.1
Total for Hungary	47.3	43.6	34.2

Table 3.5.
The structure of the economically active and non-active population by types of settlement, 1996, %

Economic activity	All	Budapest	County seats	Towns (over 20,000)	Towns (under 20,000)	Villages
'Active earners'	34.2	37.3	37.5	36.4	33.9	30.4
Earning while on maternity Benefit or pension	0.8	1.3	0.9	0.8	0.7	0.5
Total employed	35.0	38.6	38.3	37.1	34.6	30.9
Unemployed	4.7	3.4	4.0	4.7	5.0	5.7
Total economically active	39.7	42.0	42.4	41.9	39.6	36.6
'Inactive earners' (pensioners and maternity leave recipients who are not in employment)	31.7	31.6	28.2	29.4	30.6	34.7
Dependant	28.5	26.4	29.4	28.7	29.7	28.7
Total economically non-active	60.3	58.0	57.6	58.1	60.4	63.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

The structure of economically active and non-active inhabitants shows differences according to settlement types and sizes. The proportion of economically active, including that of active earners and employed, exceeds the national average in Budapest and the county seats. These indicators are also relatively high for larger towns (with 20,000 or more inhabitants). Economic activity in smaller towns more or less matches the national average, while in the villages it is lower than average.

Turning to economic activity and employment in districts within the regions, the most pronounced features appear in the capital. Budapest's situation is favourable in terms of economic activity, level of employment and a relatively low rate of unemployment. This is explained by its role as a centre, its consequent transport situation and its relatively developed infrastructure. It is also understandable that Budapest should also be favoured for direct investment.

Pest County, which makes up the remainder of Central Hungary, is less favourably placed than the capital, but it presents a more favourable picture than the national average. It should be remembered that much of the county belongs to the Budapest conurbation, where there has been appreciable development connected with increasing migration from Budapest by members of the wealthier strata in recent years and with investment activity.

Of the three counties in Western Transdanubia, Győr-Moson-Sopron and Vas enjoy exceptionally favourable employment conditions. The employment situation in Zala County is also better than the national average.

Turning to Central Transdanubia, the indices for Veszprém and Fejér counties point to more favourable situations than average, although they fall short of the western border counties in this respect. The conditions in Komárom-Esztergom County are mixed. The geographical situation is obviously favourable, but the employment situation has been worsened by the rundown of mining and heavy industry in the county.

The three counties of Southern Transdanubia fall short of the national average according to several indicators. Baranya County has been badly affected by the problems in heavy industry and mining, although it can be placed among the more developed regions of the country in some other respects.

Northern Hungary is a disadvantaged region in employment terms. Borsod-Abaúj-Zemplén and Nógrád counties have among the worst employment situations. Heves County is in a rather better situation, although it does not reach the national average in this respect.

Southern Great Plain contains one county, Csongrád, where the employment conditions are appreciably better than the national average. Significant contributions are made by the job opportunities in the city of Szeged and in the rapidly developing town of Hódmezővásárhely. The situation in Bács-Kiskun County is close to the national average, while Békés is among the disadvantaged counties.

The three counties of Northern Great Plain clearly show the features of disadvantage. However, some differences between them can be discerned. Jász-Kiskun-Szolnok is the least disadvantaged of the three, followed by Hajdú-Bihar County. Szabolcs-Szatmár-Bereg, according to the 1996 micro-census, was the most backward county in Hungary from the employment point of view.

Table 3.6.
The economically active and non-active populations by region and county, 1996, %

Region or county	All	Economically active				Non-active	Unemployment rate
		All	Employed		Unemployed		
			All	Active earners			
Budapest	100.0	42.0	38.6	37.3	3.4	58.0	8.0
Pest County	100.0	40.8	36.8	36.2	4.0	59.2	9.9
Central Hungary	100.0	41.6	38.0	36.9	3.6	58.4	8.6
Fejér County	100.0	42.3	37.5	36.6	4.8	57.7	11.4
Komárom-Esztergom County	100.0	40.0	35.1	34.5	5.0	60.0	12.4
Veszprém County	100.0	41.3	36.8	36.3	4.4	58.7	10.8
Central Transdanubia	100.0	41.3	36.6	35.9	4.7	58.7	11.5
Győr-Moson-Sopron County	100.0	43.9	40.7	40.0	3.2	56.1	7.4
Vas County	100.0	44.5	41.5	40.7	3.1	55.5	6.9
Zala County	100.0	43.7	39.0	38.5	4.7	56.3	10.8
Western Transdanubia	100.0	44.0	40.4	39.7	3.7	56.0	8.3
Baranya County	100.0	37.8	33.2	32.3	4.6	62.2	12.3
Somogy County	100.0	36.9	32.6	32.3	4.3	63.1	11.7
Tolna County	100.0	40.4	34.7	34.1	5.7	59.6	14.1
Southern Transdanubia	100.0	38.1	33.4	32.7	4.8	61.9	12.6
Borsod-Abaúj-Zemplén County	100.0	35.4	28.5	28.0	6.8	64.6	19.3
Heves County	100.0	39.3	33.5	32.3	5.7	60.7	14.6
Nógrád County	100.0	37.2	29.8	29.4	7.5	62.8	20.0
Northern Hungary	100.0	36.7	30.0	29.3	6.7	63.3	18.2
Hajdú-Bihar County	100.0	36.4	30.5	30.2	5.9	63.6	16.3
Jász-Nagykun-Szolnok County	100.0	38.3	32.0	31.4	6.3	61.7	16.3
Szabolcs-Szatmár-Bereg County	100.0	33.2	26.5	26.5	6.7	65.9	20.1
Northern Great Plain	100.0	35.7	29.4	29.2	6.3	64.0	17.6
Bács-Kiskun County	100.0	39.4	35.3	34.9	4.1	60.6	10.4
Békés County	100.0	38.4	32.9	31.3	5.5	61.6	14.4
Csongrád County	100.0	40.4	36.7	35.9	3.7	59.6	9.3
Southern Great Plain	100.0	39.4	35.0	34.1	4.4	60.6	11.2
Hungary	100.0	39.7	35.0	34.2	4.7	60.3	12.0

4. TERRITORIAL DIFFERENCES IN UNEMPLOYMENT

After decades of officially flaunted 'full employment', open unemployment appeared in Hungary at the end of the 1980s and increased rapidly in the early 1990s. This is confirmed by the census figures, which show that the number of rate of unemployment quadrupled between 1990 and 1996.

According to the 1990 census, 126,000 persons qualified as unemployed, which was equivalent to an unemployment rate of 2.7 per cent. The rates in most of the developed European market economies were between 5 and 10 per cent at that time. The difference was understandable, as Hungary had only taken the initial steps towards a market economy at that time.

So the differences within the country already reflected the characteristics that were to become decisive in later years. The unemployment rate in some eastern and north-eastern counties already succeeded the national average substantially. The 5-per-cent rate in Szabolcs-Szatmár-Bereg County, for instance, was almost twice the national average. The rates in Borsod-Abaúj-Zemplén County (3.5 per cent) and Hajdú-Bihar County (3.3 per cent) were also relatively high. The relatively favourable economic conditions in the Western Transdanubian counties (Győr-Moson-Sopron, Vas and Zala) were reflected in relatively low rates of unemployment (under 2 per cent).

The 1990 data presage another aspect of the later trend in unemployment. Two-thirds of the unemployed were men and only one third women.

The 1996 micro-census, like the 1990 census, counted as job-seekers those who were not working and seeking work. However, the criterion of 'seeking work' was revised to emphasize that the search should be active. (The questionnaire qualified people as job-seekers if they had been seeking work in the four weeks before the moment of the micro-census. The four specified forms of job-seeking were enquiring after a job at the labour centre or a private employment agency, approaching a prospective employer directly, placing or answering an advertisement, or making enquiries through relations and friends.) Job-seekers who also meet the criterion of 'availability', in other words, who could start work within two weeks, were classified as unemployed.

The micro-census data on unemployment, economic activity and employment, and the indicators calculated from these, cannot be equated with similar data and indicators from the labour-force survey made under the Uniform Population Data Survey System (Hungarian ini-tials ELAR, see KSH, 1999c). The labour-force survey does not follow census and micro-census practice in referring to a specific census moment; it follows a process and appears every quarter. Furthermore, the subject-matter of the micro-census questionnaire is not confined to employment and unemployment. So, although it observes the same underlying methodological principles, it cannot cover every detail of these areas. However, the findings of the two surveys, taken under different requirements and conditions, point to similar conclusions in several respects. This confirms that the representative national surveys have revealed the scale and the main features of employment and unemployment in the period concerned. Other relevant factors are that the micro-census, unlike ELAR, included members of institutional households, and that it took a substantially larger sample (2 per cent of the population) than the regular ELAR surveys. This allows several details of the main indicators to be assessed with relative certainty, including territorial (county) data, for instance.

The majority (64 per cent) of the 484,000 unemployed according to the micro-census definition were men, as opposed to only 36 per cent women. The over-representation of men is confirmed by the unemployment rates. With an overall rate of 12 per cent, the unemployment rate for men was almost 14 per cent and for women 10 per cent.

A regional breakdown of the data leaves no doubt that different parts of the country are in widely different labour-market situations. The indicator best suited to conveying these differences is the unemployment rate. This was about 18 per cent in the disadvantaged regions (such as Northern Hungary, where heavy industry has been run down, and Northern Great Plain, which for the most part is relatively less developed), as opposed to 8-9 per cent in Western Transdanubia and Central Hungary. It can be said that the disadvantaged regions have about twice the unemployment rate of the regions whose geographical situation and traditions give them a relative advantage. These rates are detailed in Table 3.6.

The differences are stronger if the counties are considered. Looking at those in Northern Hungary and Northern Great Plain, the unemployed made up a fifth or almost a fifth of the economically active inhabitants in Nógrád (20 per cent), Szabolcs-Szatmár-Bereg (20 per cent) and Borsod-Abaúj-Zemplén (19 per cent) counties. The high unemployment in these counties coincided with very low rates of employment (under 30 per cent). By contrast, the unemployment rate in Budapest was 8 per cent, and in Western Hungary, only 7.4 per cent in Győr-Moson-Sopron County and 6.9 per cent in Vas County. These counties provide participants in the labour market with substantially better employment chances than the national average. On a county level, the unemployment rate in the counties most affected was about three times as high as in those least affected.

It is also worth examining unemployment in relation to settlement type. A correlation can be observed indirectly between unemployment and the hierarchical system of settlement types and size ranges. Unemployment becomes greater as the size of the settlement decreases (from the capital, through larger and smaller towns, to the villages). This applies especially to men, whose rate of unemployment in the villages is double the rate in Budapest (and more than double in smaller villages). With women, the rates of unemployment are lower in all types of settlement and the differences between them are less. The underlying reason for these differences is that the choice of jobs is wider in the capital and other larger centres than in smaller communities. This applies especially to some villages, where agriculture provides the only work and much of it is seasonal.

Many larger villages have recently been incorporated as towns, although they have retained to some extent their agricultural character. This explains why the unemployment rates in towns with fewer than 20,000 inhabitants are roughly the same as the rate in larger villages. However, the rate in villages with fewer than 5000

inhabitants is substantially greater – in the smallest villages and the medium-sized ones (2000-4999 inhabitants).

The unemployment rates in larger, centrally situated cities and county seats were generally lower than in the surrounding region. The main reason was obviously the administrative functions of these cities, their more developed infrastructures, and their central roles in commerce, education and health care. The unemployment rates in some county seats in disadvantaged regions hardly differed from the rates in the centres of developed areas. However, the inhabitants of smaller towns were always more exposed to the labour-market situation in the region.

The inhabitants of villages were in the most disadvantaged labour-market situation in every region. Almost a fifth of the economically active population in villages in Northern Great Plain were unemployed. It was among villagers that the greatest regional differences in unemployment rates appeared, ranging between 10 and 24 per cent.

An appreciable proportion of the working population in smaller, agricultural-type settlements (especially the female population) withdrew from the labour market and became confined to the household or auxiliary farming activity instead. This has tended to moderate the apparent differences between types of settlement, although they remain significant (as Table 3.7 shows).

Table 3.7.
Unemployment rates by sex and by type of settlement, 1996, %

Type of settlement	Population	Men	Women
Budapest	8.0	8.4	7.6
County seats	9.5	10.8	8.1
All other towns	12.0	13.9	9.6
Towns with 20,000 or more inhabitants	11.3	12.9	9.3
Towns with less than 20,000 inhabitants	12.7	14.8	9.9
All villages	15.5	17.2	13.0
Villages with 5000 or more inhabitants	12.8	14.8	9.9
Villages with 2000-5000 inhabitants	16.2	17.6	14.1
Villages with less than 2000 inhabitants	16.1	17.8	13.4
Hungary	12.0	13.5	9.9

5. THE STRUCTURAL CHARACTERISTICS OF REGIONAL EMPLOYMENT (BRANCH STRUCTURE, OCCUPATION)

The branch structure of the active earners in Hungary underwent a radical change between 1980 and 1996. The direction of this transformation points to a rapid modernization process. On the other hand, the fact that it coincided with a sizeable reduction in the national work force (by 1.6 million over the decade and a half) cannot be disregarded.

The processes that took place moved essentially in the same direction in every region. However, the regions differed strongly in their starting points and in the pace and character of the processes.

Table 3.8.
Active earners by branch of the economy and by region, 1980-96, %

Region	Proportion of the region's active earners working in:								
	Agriculture & forestry			Industry & construction			Services		
	1980	1990	1996	1980	1990	1996	1980	1990	1996
Central Hungary	8.5	6.8	2.4	42.5	35.7	26.4	49.1	57.5	71.1
Central Transdanubia	17.9	14.7	8.7	47.8	44.6	39.6	34.3	40.6	51.7
Western Transdanubia	20.6	16.5	7.4	41.5	39.0	39.6	37.9	44.5	53.0
Southern Transdanubia	24.0	19.8	12.5	37.9	35.9	31.3	38.1	44.3	56.2
Northern Hungary	15.9	13.6	6.0	48.6	45.0	38.0	35.5	41.4	56.0
Northern Great Plain	28.0	21.8	11.5	35.0	35.4	33.5	37.0	42.8	55.0
Southern Great Plain	31.1	26.5	15.8	34.7	33.5	30.9	34.2	39.9	53.3
Hungary	18.9	15.5	8.0	41.2	37.9	32.7	39.9	46.7	59.3

The proportions show that agriculture and forestry still played a decisive role on the Great Plain in 1980, providing employment for 31 per cent of active earners in Southern Great Plain and 28 per cent in Northern Great Plain. The share of agricultural employment in the other regions, apart from Central Hungary, was in the 16-24 per cent range. The situation in Central Hungary was obviously decided by the presence of Budapest, which explains why agriculture and forestry were employing less than a tenth of the work force even in 1980. The proportions in 1990 show that the fall in employment had begun in all regions, although the decisive change at regional level came between 1990 and 1996. By the end of the period, the proportion of active earners working in agriculture and forestry was down to a tenth or less in most regions. (It was still a sixth in Southern Great Plain and an eighth in Southern Transdanubia.) In Central Hungary, where agriculture and forestry had never been important, their share was down to a minimal 2.4 per cent. This meant that the numbers engaged in the branch had become insignificant not only in Budapest but in the surrounding conurbation. The sharpest falls were in the western and north-eastern regions. In the western counties, the process may well have been connected with the advance of modernization, but in the north-east, the decline in agricultural employment brought serious problems. Behind the proportional decreases there lay a drastic fall in the number employed in agriculture and forestry, from over 100,000 in 1980 to less than 23,000. Under such circumstances, agriculture was unable to offer any appreciable employment to the redundant workers from heavy industry. Indeed many of the agricultural workers became unemployed or economically inactive as well.

Disregarding Central Hungary for a moment, the sharpest fall in employment in industry and construction (almost 11 percentage points) occurred in Northern Hungary. What had been the most strongly industrialized region of the country in 1980 and 1990 largely shed its industrial character by 1996, by losing its heavy industrial base. In Central Hungary, including Budapest, a severe loss of jobs in industry and construction was offset, to a greater extent than in the rest of the country, by the tertiary sector. Industry and construction employed a quarter (26 per cent) of the active earners in Central Hungary in 1996, which fell short of the national average of almost a third (33 per cent).

The regional proportions of active earners employed in the services ranged between 34 and 38 per cent in 1980, except for Central Hungary, where it was already almost half (49 per cent). By 1996, the services already provided a livelihood for the majority of active earners in all regions: 71 per cent in Central Hungary and between 52 and 56 per cent in the other regions.

The structure of active earners by composite branch of the economy also shows a characteristic, longer-term pattern in relation to settlement type.

The highest proportion of agricultural employment is found among the active earners in villages, of course: 16 per cent, or more than twice the national average. More than two-thirds of those engaged in agriculture live in villages, while only a tiny proportion (2 per cent) live in Budapest, and 31 per cent in other towns. Of the active earners living in villages, 35 per cent work in industry and construction, but the proportion engaged in the services is lower than average. Characteristically, the higher the place of residence stands in the administrative hierarchy, the higher the proportion of active

earners who work in the services. (This applies mainly to those working in public administration, education and health care, whose territorial centres tend to be in larger towns.) Service-type branches employ more than three-quarters of the active earners in Budapest, three-fifths of those in the county seats, 56 per cent of those in other towns, and only 48 per cent of those in the villages.

The trend in the branch structure and the direction of the concomitant changes show that in several respects, the features of the Hungarian economy moved strongly towards the pattern that can be considered typical of the developed market economies. However, this process of development was not even or free of tensions. The presence of problems and tensions is apparent, for instance, in the widening distances between regions. Some major backward areas are in danger of being left behind irrevocably.

These conclusions are largely confirmed by examining the employment structure. The decisive factor here has been a rise in the proportion of non-manual employees, from 30 per cent of active earners in 1980, to a third in 1990 and 38 per cent in 1996. So the proportion of non-manual employees continued to rise between 1990 and 1996. The trend was due not only to a general rise in educational attainment, but to a fall in the overall number of active earners, which especially affected manual workers, who tended to be the ones who became unemployed. This last circumstance also means there was a positive shift in the country's economic structure, in the sense that the labour market became restructured towards economic branches and activities in which there is a greater emphasis on more qualified labour.

A clearer picture of the employment structure emerges by going on from the manual/non-manual division to classify occupations according to the current system of main groups (known by its Hungarian initials as FEOR-93, see: KSH, 1995.).

Table 3.9.
Active earners by combined occupation groups, 1980-96, %

Main occupation group (FEOR-93 code number and description)	1980	1990	1996
1 Legislators, senior administrative staff, union leaders, business executives	6.8	7.6	6.2
2 Self-employed professionals requiring a university or higher education	7.6	8.5	11.6
3 Other occupations requiring a higher or further education	9.4	10.9	14.0
4 Occupations of a clerical and administrative (customer-service) type	6.8	6.1	6.2
5 Service-type occupations	7.7	8.6	15.1
6 Agricultural and forestry occupations	5.4	4.0	3.5
7 Industrial and construction occupations	28.1	27.1	22.5
8 Machine operators, assembly workers, vehicle drivers	13.3	13.0	10.9
9 Unskilled occupations requiring no occupational training	14.9	11.5	8.4
0 Full-time members of armed forces and uniformed services	-	2.5	1.6
Total, of which:	100.0	100.0	100.0
Groups 1-4	30.6	33.2	38.0
Groups 5-9	69.4	64.3	60.3

The chief conclusions to draw from the structure of main occupation groups is that the demand for qualified (especially highly qualified) non-manual labour and for manual labour in the services has noticeably increased. Meanwhile the labour-market position of manual labour in agriculture and other unskilled manual occupations has weakened. These basic trends were generally visible in the main lines of change in the regional structure.

The regional differences in occupation structure in 1980 did not essentially alter in the period up to 1996, although there were some departures from the mean degree of change. One example was in Northern Hungary (Borsod-Abaúj-Zemplén, Heves and Nógrád counties), where 46 per cent of the active earners were in industrial, construction and machine-operating occupations (main groups 7 and 8) in 1980, but the proportion was only 36 per cent in 1996. This indicator changed only a little in the economically more developed Western Transdanubia (Győr-Moson-Sopron, Zala and Vas counties), from 42 to 39 per cent. The proportion of agricultural employment fell in every region, but the differences

characteristic in 1980 remained. The highest proportion of agricultural employment was found in Southern Great Plain (11 per cent). This fell to 9 per cent by 1996, but the region's relative situation did not change.

Table 3.10.
Active earners by combined occupation groups and region, 1980-96, %

Region, year	Members of main occupation groups as a proportion of all active earners							
	1	2	3+4	5	6	7+8	9	0
1980								
Central Hungary	7.9	11.4	22.0	7.4	1.3	38.6	11.4	-
Central Transdanubia	6.6	5.8	14.5	7.7	4.1	46.7	14.5	-
Western Transdanubia	6.5	6.4	14.5	8.2	5.8	42.4	16.2	-
Southern Transdanubia	6.6	6.1	14.1	8.3	7.3	41.3	16.3	-
Northern Hungary	6.3	5.9	14.2	8.0	4.6	45.7	15.3	-
Northern Great Plain	5.9	6.0	13.0	7.6	9.0	40.4	18.3	-
Southern Great Plain	6.2	5.7	13.1	7.5	10.6	40.0	16.9	-
Hungary	6.8	7.6	16.2	7.7	5.4	41.4	14.9	-
1990								
Central Hungary	8.9	11.7	21.1	8.7	1.2	35.5	9.3	3.5
Central Transdanubia	7.3	6.7	15.6	8.4	3.1	44.8	11.3	2.9
Western Transdanubia	7.2	7.4	15.8	9.2	4.2	42.2	11.6	2.4
Southern Transdanubia	7.2	7.3	15.5	9.2	5.5	39.8	13.3	2.1
Northern Hungary	7.1	7.1	15.7	8.3	2.9	45.0	12.0	1.8
Northern Great Plain	6.7	7.4	14.9	8.2	6.0	41.8	13.2	1.7
Southern Great Plain	6.9	7.0	14.9	8.4	8.8	39.3	12.8	2.1
Hungary	7.6	8.5	17.0	8.6	4.0	40.1	11.5	2.5
1996								
Central Hungary	7.1	15.6	25.7	15.2	0.9	26.6	7.3	1.7
Central Transdanubia	5.7	9.0	18.0	14.5	3.2	39.8	7.9	1.9
Western Transdanubia	6.3	8.8	17.5	15.4	3.3	38.8	8.4	1.5
Southern Transdanubia	6.5	10.9	17.8	16.0	4.5	33.7	9.3	1.4
Northern Hungary	6.6	9.8	18.7	14.9	2.3	36.3	9.5	1.8
Northern Great Plain	5.1	10.8	18.0	14.3	5.0	36.2	9.3	1.4
Southern Great Plain	5.0	9.5	17.4	15.4	8.8	33.2	9.0	1.6
Hungary	6.2	11.6	20.2	15.1	3.5	33.4	8.4	1.6

The national trends presented more or less appeared in every type of settlement. The presence in the county towns of the already sizeable qualified intelligentsia (main group 2) increased. By 1996, almost 20 per cent of the active earners in other towns were in intellectual or administrative occupations (main group 3 or 4). This category of settlement also showed the greatest proportion in manual occupations in the services (main group 5).

The data also show that significant occupational changes took place among the active earners in villages as well. The main direction of change was that the proportion for agriculture (main group 6) fell from 11 to 7 per cent, while the proportion for the services (main group 5) increased from 7 to 15 per cent. There was a significant decline in the proportion of active earners belonging to main group 9, which includes agricultural labourers. Somewhat surprisingly, the proportion of those in industrial, construction and machine-operating jobs (main groups 7 and 8) changed little. Understandably, the role of agricultural, industrial and construction jobs and manual occupations in general rose as the size of settlement (town or village) fell. Main groups 6, 7 and 8 accounted for more than 50 per cent of the active earners in smaller villages.

The changes in the recent period suggest that the so-called industrial working class remains an important constituent of the active earners living in villages. The proportion of those working full time in agriculture has fallen, and in line with the national tendency, the proportion in a service occupation has risen. However, despite the changes mentioned, agricultural activity

remains decisively important in the villages, because many people (irrespective of their economic-activity status) continue to do agricultural work as an auxiliary activity.

To sum up the regional differences of occupational structure, in Transdanubia, there is a noticeable similarity between Western and Central Transdanubia, while the occupational structure of active earners in Southern Transdanubia resembles the pattern found in the more agricultural regions (Northern and Southern Great Plain). Somewhat surprisingly, the structure in the backward region of Northern Hungary resembles that of Central and Western Transdanubia in some respects: a low proportion in agricultural occupations, and a high proportion in intellectual and in industrial, construction and machine-operating jobs. The special position of Central Hungary was discussed earlier.

Looking at the territorial differences within the regions, Central Hungary again needs to be mentioned, because of the essential differences between Budapest and Pest County. The proportion of 'leaders' and the intelligentsia (main groups 1 and 2) was almost twice as high in the capital as it was in Pest County, and the proportions of the other non-manual groups were also higher. More than half the active earners in Budapest (55.3 per cent) are in non-manual occupations, as opposed to little more than a third (34.5 per cent) in Pest County. So, manual workers form a minority in Budapest and a majority in Pest County. The proportion of manual agricultural workers is insignificant in Pest County (2.3 per cent) and negligible in Budapest (0.2 per cent). There is a substantial difference with unskilled manual workers, who represent more than a tenth of the active earners in Pest County (10.4 per cent), but only 5.7 per cent in Budapest.

The proportion of intelligentsia is usually high in the counties whose county seat is also a significant regional centre and traditionally a university town with an appropriate educational and cultural background. That applies to Baranya County (Pécs) in Southern Transdanubia, to Csongrád County (Szeged) in Southern Great Plain, and to Hajdú-Bihar County (Debrecen) in Northern Great Plain. The other non-manual groups are also somewhat over-represented in these counties.

With manual occupations, Somogy County (Southern Transdanubia) is worth mentioning for its relatively high proportion of manual workers in the services, which is certainly connected with its developed tourist trade (Lake Balaton). Vas (Western Transdanubia) and Komárom-Esztergom (Central Transdanubia) are counties where manual workers in industry and construction form a sizeable group. The flow of new direct investment certainly has a bearing in both cases. Borsod-Abaúj-Zemplén County, once the country's most industrialized areas (heavy industry), now has a smaller proportion of active earners engaged in industry and construction than either Vas or Komárom-Esztergom counties.

6. DEVELOPMENTS SINCE 1996

The trends in employment and unemployment since 1996 can be followed mainly from the regular labour-force surveys undertaken by the Central Statistical Office (KSH 1999b). It was mentioned before that the labour-force surveys, although they follow the same methodological principles as the micro-census, produce some different findings, due to the survey system applied. The sample is much smaller – 0.6 per cent of the population between the ages of 15 and 74 in 1996-7 and 0.8-0.9 per cent in 1998 – and institutional households are not included.

These considerations do not alter the main trends. It can be established that the membership of the economically active population stabilized in recent years and has begun to increase slightly. The mean numbers of unemployed and rates of unemployment have fallen steadily: 400,100 and 9.9 per cent in 1996, 348,800 and 8.7 per cent in 1997, and 313,000 and 7.8 per cent in 1998.

The alteration made to the sample in 1998 did not change the underlying trend either. However, the increased size of the sample made it possible to give regional employment and unemployment figures within an acceptable range of accuracy. The appearance of the data for the first quarter of 1999 meant that a year-on comparison could be made with the regional information collected in the first quarter of 1998 (Table 3.11).

The fall in the unemployment rate occurred not only nationally, but in almost every region in 1996-8. The clearly comparable data for the first quarters of 1998 and 1999 confirm that the number of employed increased in every region, while the number of unemployed and the unemployment rate decreased. However, there were different degrees of improvement. The development was especially favourable in Western Transdanubia and Southern Great Plain. The rate of

unemployment in Western Transdanubia fell below 5 per cent in the first quarter of 1999, which made it less than in Central Hungary. The reduction in Southern Great Plain was more than 2 percentage points, so that instead of approaching the national average, it was well below it.

Table 3.11.
A regional breakdown of economic activity among the population aged 15-74

Region	Employed	Unemployed	Economically active	Non-active	Unemployment rate
	(thousands)				%
	1st quarter, 1998				
Central Hungary	1133.8	74.4	1208.2	1011.7	6.2
Central Transdanubia	420.7	34.9	455.6	404.5	7.7
Western Transdanubia	411.7	28.4	440.1	324.7	6.5
Southern Transdanubia	336.5	39.1	375.6	382.3	10.4
Northern Hungary	389.4	60.6	450.0	523.6	13.5
Northern Great Plain	465.5	66.2	531.7	621.9	12.4
Southern Great Plain	483.5	43.0	526.5	507.5	8.2
Hungary	3641.1	346.6	3987.7	3776.2	8.7
	1st quarter, 1999				
Central Hungary	1171.9	66.1	1238.0	974.4	5.3
Central Transdanubia	446.2	30.8	477.0	383.3	6.5
Western Transdanubia	420.5	21.4	441.9	321.3	4.8
Southern Transdanubia	344.1	33.7	377.8	375.8	8.9
Northern Hungary	402.7	55.3	458.0	509.4	12.1
Northern Great Plain	487.2	62.5	549.7	599.8	11.4
Southern Great Plain	492.0	31.9	523.9	504.0	6.1
Hungary	3764.6	301.7	4066.3	3668.0	7.4

The only region in the west of the country where the employment and unemployment figures were worse than the national averages was Southern Transdanubia. Although there was an improvement between the first quarters of 1998 and 1999, the relative position hardly changed.

Northern Hungary has been the region hardest hit by unemployment for several years. The situation in Northern Great Plain is almost as bad, with an unemployment rate hardly less. Unemployment in these two regions has been falling, but the lag behind the national average remains conspicuous.

The more recent information confirms the tendency that has applied since open unemployment appeared: men make up a majority of the unemployed and women a minority. Women accounted for exactly 40 per cent of the unemployed in the first quarter of 1998 and 38 per cent in the first quarter of 1999: their share of the total has fallen further still. The labour-force surveys in the first quarters of 1998 and 1999 confirm that women form a minority of the unemployed in every region.

A comprehensive assessment of the latest trends calls for an examination of the changes in another source of data, besides the labour-force surveys: the list of (registered) unemployed maintained by the National Labour and Methodology Centre (Hungarian initials, OMMK).

The register does not provide a picture of the economically active population or employment, only of changes among the unemployed listed. The number and content of those on the register also differs from the results of the labour-force survey. As in previous years, the number of registered unemployed was higher than the latter figure in 1996-8. However, the general decreasing trend was apparent among the registered unemployed, although the rate of decrease was slower: from 501,000 in 1996 to 470,000 in 1997 and 423,000 in 1998. So the number of registered unemployed fell by a sixth (16.6 per cent) between 1996 and 1998, while the number shown by the labour-force survey fell by 21.8 per cent. (The number of registered unemployed still exceeded 400,000 in the early months of 1999.)

The discrepancy between the two sources has been increasing. Presumably, in spite of the restrictions

on doing so, a higher proportion of the registered unemployed are working, so that they count as employed according to the ILO definition. This factor could also raise the number of registered unemployed who cannot be considered unemployed according to a labour-force survey in line with international recommendations. On the other hand, the labour-force survey may catch unemployed persons who have failed to register for some reason. The essential substantive differences must certainly be considered when the two sources of data are compared.

The more recent information about registered unemployment also confirms that the risk of becoming unemployed shows a strong negative correlation with educational attainment. It emerges that 41 per cent of the registered unemployed have completed the basic eight or fewer grades of primary schooling, which is the same proportion as the 1996 micro-census showed. The two sources show similar proportions of the unemployed completing a vocational training school (36 per cent) as well, and the proportion of a fifth who have completed their secondary education (at grammar school, vocational secondary school or technical college) is also corroborated. The proportion of those with a degree has not increased, despite some expectations to the contrary. It remains at only 2.4 per cent. The problems of the disadvantaged regions are generally compounded by the lower level of educational attainment there.

The latest information confirms the finding from the micro-census that those with a low educational attainment have poor chances of finding a job in the first place. People's position on the labour market strengthens if they have completed a secondary education, while possession of a higher education almost eliminates the risk of becoming unemployed.

Most of the registered unemployed were receiving regular assistance in some form. The basic forms this took in earlier years were earnings-related unemployment benefit and flat-rate unemployment assistance, but this was cut back sharply in 1996, when school-leavers ceased to receive unemployment assistance. More and more recipients of unemployment benefit dropped out after their entitlement period had expired. After that, they only qualify for means-tested, flat-rate income supplement. In 1997 and 1998, these made up the majority of those receiving assistance. It should be added that this trend does not apply to certain regions. In the more developed regions such as Central Hungary, Western Transdanubia and Central Transdanubia, where there is also less unemployment, unemployment benefit remains the more widespread of the two. In the backward regions (Northern Hungary and Northern Great Plain), those receiving income supplement outnumber those receiving unemployment benefit by as much as two to one.

Nationally, about a third of the registered unemployed received unemployment benefit and about 40 per cent income supplement. This means that a little less than three-quarters of the registered unemployed were receiving regular assistance of some kind. The increase in the proportion receiving income supplement significantly increased the sums spent on it. This has led to a time limit being placed on eligibility for income supplement as well, which will cause problems especially in the disadvantaged regions where there are large numbers of long-term unemployed.

References

Kovács, Tibor, (1999), Regions and Regional Differences in Central European Countries. In: Területi statisztika (Regional Statistics), May, Budapest: KSH (Central Statistical Office).

KSH (1999a), Magyarország 1998 (Hungary 1998), Budapest: KSH.

KSH (1999b), KSH gyorstájékoztató: Foglalkoztatottság és munkanélküliség (KSH Interim Report: Employment and Unemployment), data for January-March 1999, Budapest: KSH.

KSH (1999c), Főbb munkaügyi folyamatok (Major Developments on the Labour Market), from 1st to 4th quarter, 1998. In: Labour Report, Budapest: KSH Labour Report.

KSH (1998), Magyarország régiói (Regions of Hungary), Budapest: KSH.

KSH (1995), FEOR, Foglalkozások Egységes Osztályozási Rendszere (Hungarian Standard Classification of Occupations), Budapest: KSH.

CHAPTER FOUR

REGIONAL DIFFERENTIATION OF HUMAN RESOURCES IN THE 1990S

1. INTENSIFYING TERRITORIAL DIFFERENCES AND THE CAUSES AND DIMENSIONS OF THEM

One of the prominent aspects of the transition in the 1990s is that territorial and settlement-type differences have come to the fore, along with local characteristics and divergence of regional and local growth paths. Behind this lie four related groups of factors:

(i) Centralized direction of all social spheres has given way to a democratic, decentralized model. This and the emerging mechanisms of the market economy have enhanced the importance of local and regional characteristics.

(ii) The opening of the country's borders has increased the scope for regions to develop 'horizontal' relations.

(iii) The role of the regions and regionalism in Western European societies acts as a pattern, while the strong regional aspect of the European Union (EU) turns regional thinking into a requirement.

(iv) The change of system brought a strong new regional system of divisions. This generates perceptible social tensions and inequalities of opportunity on an everyday level.

This strengthening of territorial and regional divisions in society can be seen in all the 'transition' countries of East-Central Europe. In Hungary, the process appears in crisis symptoms and in signs of economic dynamism. The most conspicuous of the crisis indicators is the sharp differentiation in unemployment between regions and settlement types (see Chapter Three). The most obvious of the factors associated with economic growth and renewal is the territorial structure apparent in foreign direct investment.

The transition in the 1990s was not a single, uniform process. It can be divided into at least two clear periods, although this cannot be demonstrated here numerically, for want of the requisite statistics. A period of decline, up to 1993-4, was followed by a period of recovery, after 1994-5. Consequently, actual utilization and improvement of human resources becomes characteristic only in the second half of the decade, the main factor being the resumption of economic growth. The first phase was dominated by the signs of crisis that appeared and spread regionally, while the second saw growth becoming the decisive source of regional differences.

There are three decisive dimensions to the regional and settlement-type transformation that occurred in the 1990s:

(i) There was polarization of development between the capital and the provinces. Budapest showed salient development in almost every social and economic factor.

(ii) The western regions of the country were at an increasing advantage over the eastern regions.

(iii) The towns were in a more favourable economic position than the villages.

Connecting the three dimensions yields a new spatial structure. Hungarian regional researchers have analysed these in various ways, but they agree in identifying the three factors (Enyedi, 1996; Nemes Nagy, 1998).

A decisive role in the new, more composite spatial structure is played by geographical position. This can be seen in the accelerated development of the western regions and the Budapest conurbation and the stagnation in the eastern regions. Behind the regional divisions in the economy, there are some discernible effects from the branch structure. The growth in the capital derives mainly from an expansion of business services, while in the western regions, there is a boom in manufacturing taking place. Meanwhile, the main reason for the relative stagnation in the villages is the parlous state of agriculture – again a factor to do with the branch structure.

2. CALCULATING HDI AT COUNTY LEVEL

This section sets out to calculate Human Development Indices for counties and regions, and to observe the changes in them during the 1990s.

There can be no doubt that regional differences in human potential, broadly interpreted, form an active component in this transformation, especially the demographic and educational structures of the population (see Chapter Three). However, it is also clear that these are only some of the elements of the human potential that appeared as a positive characteristic in the transformation. Formal schooling in itself is not a primary growth-producing element. Only certain special aspects of educational attainment have gained in value: entrepreneurship, language knowledge, modern computer skills, etc.

However, it is not only as a basis, as a factor influencing regional processes that human resources need to be considered. It is also worth examining how the spatial economic and social transformation affects human resources in their spatial distribution and level of development they reach.

The transforming regional differences in human development can be conveyed by a combined index, the Human Development Index (HDI), whose method of calculation is explained in detail in Box 4.1. This can be examined for counties, the medium unit of Hungarian public administration (corresponding to the third NUTS level in the EU nomenclature). County HDI values were calculated for 1990 and for 1996-7, so that the trends and changes could be examined as well as the situation.

The HDI, as its name suggests, conveys the development level of human potential, by combining a demographic index of state of health (life expectancy at birth), indices of educational attainment, and an index of personal income. The demographic and educational indices were calculated by the Central Statistical Office (Hungarian initials KSH), while the income index (taxable income per inhabitant) was derived from the unpublished data bases built up by the Finance Ministry and the tax authority since personal income tax was introduced in 1988. The choice of the county as the unit was constrained by the fact that the demographic and educational indices were only available in that aggregate form. (The educational indicators are available broken down by settlement in the 1990 census returns, but the 1996 micro-census only provides reliable data at county level. The KSH only publishes its annual life-expectancy figures at county level.) The income index (aggregated for counties from the settlement-level information available for 1988-97) was chosen rather than the GDP data used by the United Nations because county-level GDP have only been available for Hungary since 1994, so that it would not be possible to calculate the HDI for 1990 if they were used.

The calculation and assessment of the HDI raises several methodological questions that need to be mentioned specifically. The index compiled here shows the development rankings of the territorial units (counties). It identifies regional differences that are scarcely discernible in international (inter-country) comparisons. For instance, in a European or worldwide comparison, it would only be worth noting one strong division within Hungary, between the capital and the provinces. The situation report in this chapter is worth considering above all when the 'internal' emphases and territorial priorities of social policy, including regional policy, are being decided.

Before evaluating the spatial structure that emerges from the combined index, it is worth analysing briefly its several components (see Table 4.1).

Box 4.1. The Human Development Index

The United Nations introduced the Human Development Index (HDI) in the 1990s a new index for assessing the situation of the countries in the world, alongside the income indices (GDP, GNP) used hitherto.

The HDI is calculated simply on a statistical, numerical basis, and departs from traditional practice by not confining its component development indicators to income levels. It is far less exposed to the cyclical fluctuations of the economy, which makes it a relatively stable indication of economic and social potential. The HDI combines life expectancy at birth with indices of educational attainment and level of income. These are combined into a compound index in several stages, using relatively simple mathematical (arithmetical) connections.

The four indicators incorporated are (i) life expectancy at birth (in years), which is designated L, (ii) the proportion of literacy (as a percentage of the population over 10), which is designated A, (iii) the average number of school years completed, which is designated S, and (iv) GDP per capita (in US dollars at pur-chasing-power parity – PPP USD), which is designated J.

Of course, the index does not just apply to countries. It can be used to work out a score for any territorial unit of observation.

The data for each county for each year are marked L(X), A(X), S(X) and J(X). The maximum, minimum and mean values for each index are marked MAX(L), MIN(L), MEA(L), etc. To allow the various indices to be combined, they have to be converted into a standard, non-dimensional form. This is done here by projecting the difference between the maximum and minimum values for each index, i.e. by performing a specific standardization. The compound indices obtained from the component indices and the averages of these could theoretically range between 0 and 1, with the level of 'human development' increasing with the value. The index values actually quantify the excess over the minimum value for each component index (the 'distance' from the minimum), while interpreting the maximum as an upper limit.

The HDI is the arithmetical mean of the three component indices.

(1) The index of life expectancy at birth, where $IND(L)=\frac{L(X)-MIN(L)}{MAX(L)-MIN(L)}$

The component index has been calculated as the arithmetical mean of the county values for men and for women (KSH, 1999).

(2) The index of educational attainment consists of two components: the proportion of literacy and the index of the mean number of years of completed schooling.

$$IND(A)=\frac{A(X)-MIN(A)}{MAX(A)-MIN(A)} \quad \text{and} \quad IND(S)=\frac{S(X)-MIN(S)}{MAX(S)-MIN(S)}$$

The weighted mean of these two indices (with the index of literacy given double weight) gives the compound index of educational attainment IND(T).

$$IND(I)=\frac{2xIND(A)+IND(S)}{3}$$

The educational indices are taken from the 1990 census and 1996 micro-census data.

(3) The adjusted index of personal income has been incorporated into the HDI calculations here using per capita taxable income in this case, because there is no data series for GDP covering the decade. For territorial units with above-average income, the actual figures have been adjusted (CORJ(X) denotes the corrected figures) with square-root discounting and a reducing multiplier for the excess income above the threshold (average).

$CORJ(X) = MEA(J) + k(J(X) - MEA(J))^{1/2}$

where k = 2, if J(X) is greater than MEA(J), but less than twice MEA(J), but $k = \sqrt{2}$, if J(X) is more than twice MEA(J).

With counties with below-average income, the actual income value has been incorporated into the income index. This gives the following relation, with the adjusted income value for the territorial unit with maximum income (in this case Budapest) designated CORJ(MAX):

$$IND(J)=\frac{KORJ(X)-MIN(J)}{KORJ(MAX)-MIN(J)}$$

The mean of the three component indices for each county (unit of observation) yields its HDI:

$$HDI=\frac{(IND(L)+IND(I)+IND(J))}{3}$$

The life-expectancy component and the indices for education show relatively slight differentiation between counties in both years. Life expectancy at birth varied between narrow limits: 70.9-68.1 years in 1990, and 72.2-69.3 years in 1997. Interestingly, the highest value in each case was not from Budapest, but from Győr-Moson-Sopron, the economically most stable and dynamic county. The values, nationally and at county level, indicate improving demographic conditions, mortality rates and life expectancy, although the improvements are small by international standards.

Table 4.1.
The basic data used to calculate the Human Development Index, 1990 and 1996-7

Region, County	L (1990)	L (1997)	A (1990)	A (1996)	S (1990)	S (1996)	J (1990)	J (1997)
Central Hungary								
Budapest	70.0	71.4	99.4	99.7	10.00	10.16	145.95	152.10
Pest	68.6	70.4	98.7	99.0	9.18	9.40	100.07	99.61
Central Transdanubia								
Fejér	69.6	71.1	99.1	99.5	9.31	9.40	104.51	114.60
Komárom-Esztergom	68.4	70.1	99.2	99.5	9.29	9.40	102.83	100.71
Veszprém	70.3	71.5	99.1	99.6	9.31	9.43	97.67	100.37
Western Transdanubia								
Győr-Moson-Sopron	70.9	72.2	99.4	99.7	9.42	9.57	99.25	110.90
Vas	70.0	71.6	99.3	99.6	9.37	9.49	93.73	110.63
Zala	70.2	71.5	98.8	99.5	9.29	9.42	91.24	96.93
Southern Transdanubia								
Baranya	69.2	70.2	98.3	99.3	9.27	9.47	95.83	87.85
Somogy	69.2	70.0	98.1	98.9	9.17	9.33	82.55	80.21
Tolna	69.5	70.5	98.5	98.8	9.18	9.35	91.01	88.53
Northern Hungary								
Borsod-Abaúj-Zemplén	68.1	69.3	98.5	98.8	9.26	9.35	85.57	79.35
Heves	70.2	71.1	98.5	99.2	9.29	9.41	84.37	87.59
Nógrád	69.3	70.0	98.6	98.7	9.18	9.24	86.60	77.94
Northern Great Plain								
Hajdú-Bihar	69.7	70.8	98.3	99.1	9.27	9.43	76.13	78.38
Jász-Kiskun-Szolnok	69.4	70.5	98.4	98.9	9.19	9.29	86.65	80.55
Szabolcs-Szatmár-Bereg	68.3	69.6	97.6	98.6	9.02	9.16	68.29	62.54
Southern Great Plain								
Bács-Kiskun	68.7	70.3	98.5	99.1	9.14	9.31	81.61	75.54
Békés	70.1	71.3	98.9	99.5	9.21	9.36	82.99	79.02
Csongrád	69.6	71.1	99.0	99.5	9.42	9.53	94.45	90.55
Hungary	69.4	70.7	98.8	99.3	9.44	9.58	100.00	100.00

Note: L = life expectancy at birth, in years. A = percentage of population over 10 years old to have completed at least one year of schooling. S = mean number of completed years of schooling, based on the educational attainment, in years. J = taxable income per capita as a percentage of the national mean.

The counties also differ little in their rising indices of educational attainment and schooling. No county in Hungary has an appreciable rate of illiteracy or failure to attend school at all. (Only in Szabolcs-Szatmár-Bereg County was there more than 2 per cent illiteracy. Elsewhere, there are objective medical reasons why the literacy rate fell slightly below 100 per cent.) That remains the case although several social surveys have recorded an increase in functional illiteracy. Similarly, there is no strong polarization of educational attainment, measured in completed years of schooling, which has increased slightly in all counties. (Budapest scores highest for both the educational indices.)

The component index with the greatest territorial dispersion is the index of taxable income. The value

is conspicuously high for Budapest and above average in the western counties. Although the HDI incorporates adjusted incomes with a denser spread of values, the regional differentiation in the income factor gains decisive weight in the compound index. In any case, it is a methodological attribute of the HDI to 'widen' the differences between counties. Let us look at the general picture.

Table 4.2.
The regional and county structure of the HDI in Hungary, 1990 and 1996-7

Region, County	HDI(90)	HDI(96/97)	HDI(96/97-90)
Central Hungary	0.673	0.693	0.020
Budapest	0.899	0.915	0.016
Pest	0.448	0.471	0.023
Central Transdanubia	0.619	0.668	0.049
Fejér	0.656	0.709	0.053
Komárom-Esztergom	0.517	0.562	0.044
Veszprém	0.685	0.733	0.049
Western Transdanubia	0.688	0.785	0.097
Győr-Moson-Sopron	0.818	0.883	0.065
Vas	0.652	0.788	0.135
Zala	0.593	0.684	0.092
Southern Transdanubia	0.413	0.369	-0.044
Baranya	0.452	0.451	-0.001
Somogy	0.324	0.280	-0.043
Tolna	0.462	0.376	-0.086
Northern Hungary	0.396	0.304	-0.092
Borsod-Abaúj-Zemplén	0.261	0.169	-0.092
Heves	0.508	0.524	0.016
Nógrád	0.419	0.218	-0.201
Northern Great Plain	0.266	0.258	-0.008
Hajdú-Bihar	0.359	0.406	0.047
Jász-Kiskun-Szolnok	0.411	0.330	-0.081
Szabolcs-Szatmár-Bereg	0.029	0.039	0.011
Southern Great Plain	0.468	0.491	0.023
Bács-Kiskun	0.295	0.322	0.027
Békés	0.519	0.543	0.024
Csongrád	0.592	0.610	0.018
Hungary	0.584	0.595	0.011

Note: The HDI values are arithmetical means of the requisite data for each county.

Budapest clearly has the highest HDI and Szabolcs-Szatmár-Bereg County the lowest, in the initial and the concluding year (see Table 4.2). So there has been no change at the opposite poles. The advantage of the western regions is also unassailed. Győr-Moson-Sopron, already the leading provincial county in 1990, was followed in each year by five Transdanubian counties. It was also in two western counties (Győr-Moson-Sopron and Vas) whose HDI scores rose to the greatest extent between the two dates. The index of relative development of human potential rose in both constituents of Central Hungary and in all the counties of Central Transdanubia and Western Transdanubia. However, there is a regional dividing line within Transdanubia, because all the counties of Southern Transdanubia fall into the second half of the county table. (Somogy, the Transdanubian county with the least favourable ranking, was 17th in both years. The position of Tolna County underwent an obvious relative deterioration.)

The counties to the east of the Danube that had the highest human potential were Csongrád and Békés, in Southern Great Plain. The counties that are in the worst position and show the worst trends are the counties of Northern Hungary. Borsod-Abaúj-Zemplén ranked 19th in both years and its HDI score deteriorated. The region also includes Nógrád, the county that suf-

fered the greatest relative deterioration, falling four places in the table.

3. THE MAIN TRENDS IN THE HDI

The maps show there is concurrent stability and change in human development. The spatial structure was essentially the same in 1990 (Map 4.1) and 1996-7 (Map 4.2): the capital and the north-western regions had a clear advantage over the eastern and southern regions. It is apparent from the changes (Map 4.3) that the majority of counties hardly changed their ranking or their HDI, while the territories with improving or deteriorating rankings show a regional concentration. The counties along the western border with Austria appreciably improved their positions, as did Fejér County, while the counties whose human potentials deteriorated are found in the north and east.

This marked regional aspect is clear from Table 4.2, which also includes the mean values for the seven 'planning and statistical' regions. The HDI index for Western Transdanubia and Central Transdanubia improved strongly, while the greatest fall was in Northern Hungary. Northern Great Plain and Southern Great Plain moved in opposite directions, with the former deteriorating somewhat and the latter continuing to improve.

The overall movement shows an increase in regional polarization in the 1990s – there is a medium, positive correlation ($r = 0.4$) between the HDI in 1990 and the HDI change between 1990 and 1996-7. A comparison of the initial state (in 1990) and the change in HDI produces characteristic groups of counties that confirm this (Table 4.3).

It is immediately apparent that no county with an HDI above the national average in 1990 suffered a decline in HDI in 1996-7. So the areas with a favourable human potential before the change of system all improved on their initial positions.

The counties that had a below-average HDI in 1990 diverged. Six counties suffered a relative lag and a depression of the social situation, while four counties showed signs of a relative catching-up. The decline affected primarily counties in the northern regions and in Southern Transdanubia, while stability (without a spectacular improvement) was typical of central areas (Pest and Bács-Kiskun counties). It is worth noting that Szabolcs-Szatmár-Bereg County, which still had the lowest HDI, showed some tendency to improve over the period analysed.

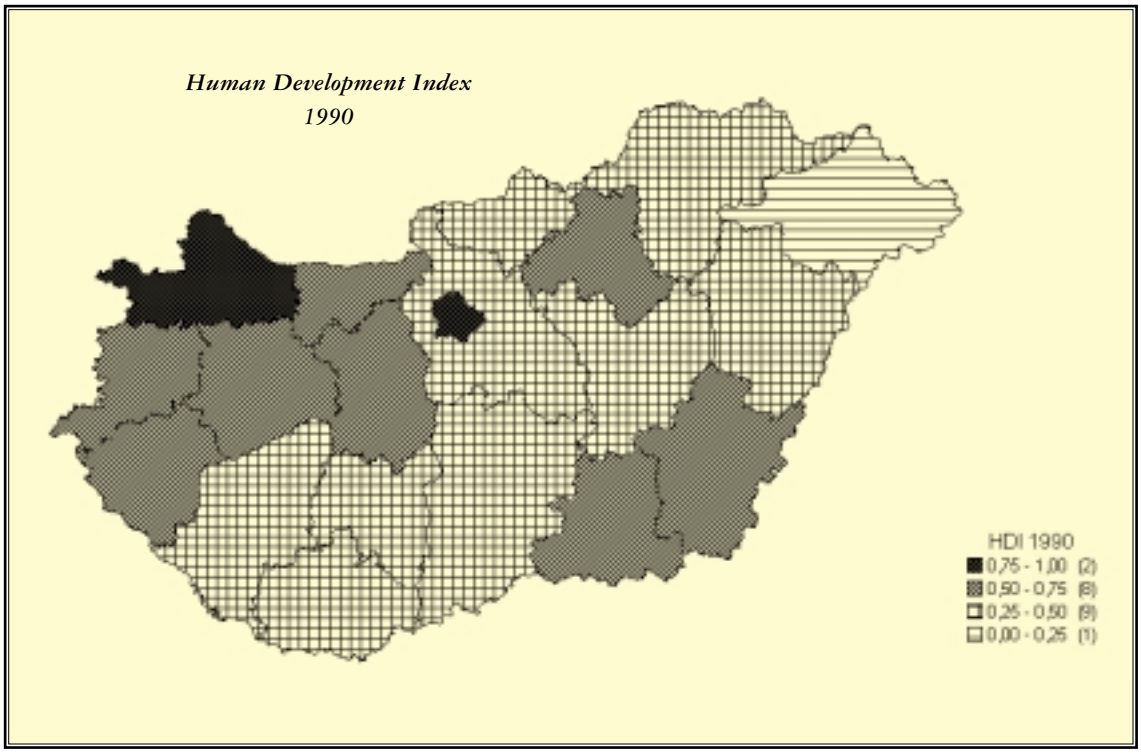
Although these territorial changes of position have been taking place, the regional transformation has still not been accompanied by any appreciable migration between regions. The areas in a relatively favourable situation have not exercised a real attractive (labour-attracting) force on the population in the crisis zones.

The comprehensive regional processes presented here shape and determine the wider residential and workplace environment, in which the roads are naturally open for individuals, communities and districts to forge ahead and catch up. These require less effort and have greater chances of success in regions that are developing fast than they do in the crisis areas.

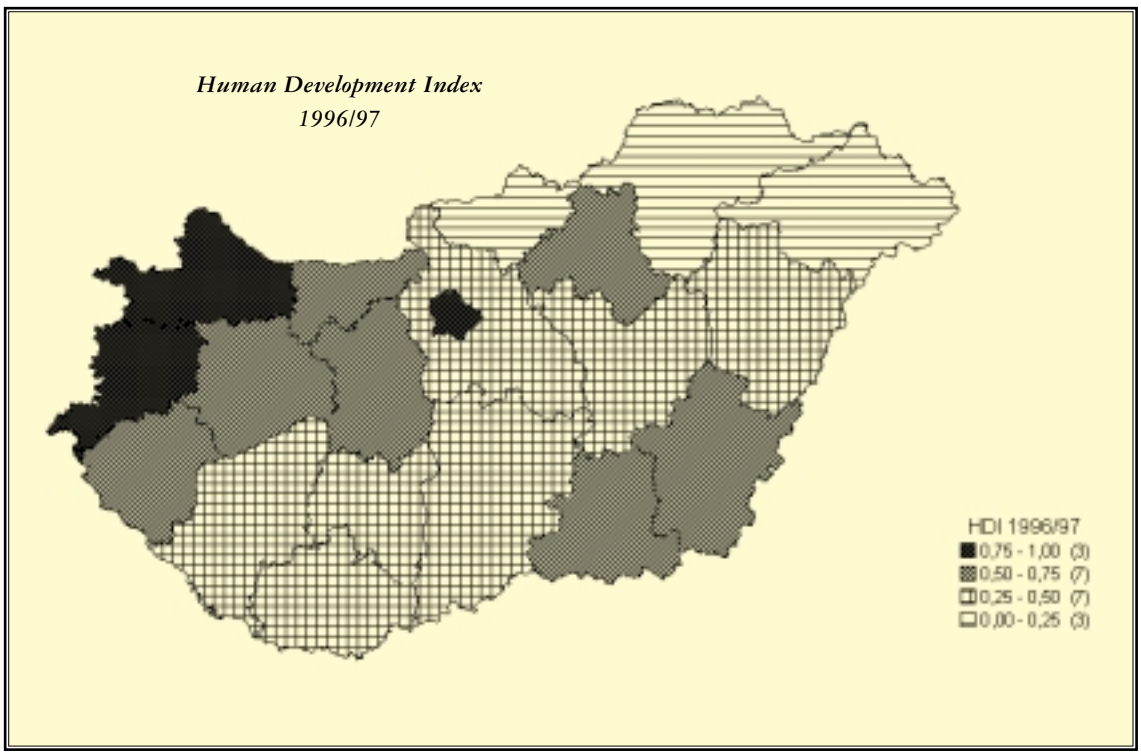
Table 4.3.
Hungarian counties by HDI level in 1990 and the change in HDI in 1990-97

HDI in 1990	Deteriorating relative HDI position in 1990-97	Improving relative HDI position in 1990-97
Above national average		Budapest Békés Csongrád Fejér Győr-Moson-Sopron Heves Komárom-Esztergom Vas Veszprém Zala
Below national average	Baranya, Borsod-Abaúj-Zemplén, Jász-Nagykun-Szolnok Nógrád Somogy Tolna	Bács-Kiskun Hajdú-Bihar Pest Szabolcs-Szatmár-Bereg

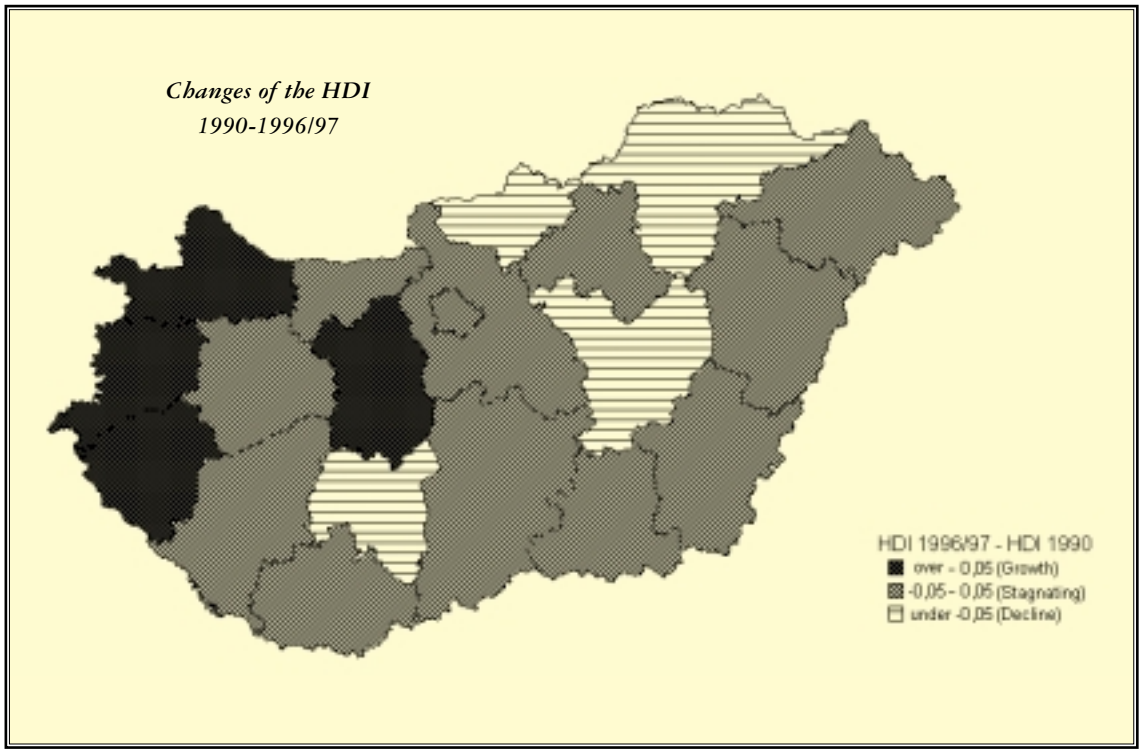
Map 4.1.


Human Development Index
1990
HDI 1990
0,75 - 1,00 (2)
0,50 - 0,75 (8)
0,25 - 0,50 (9)
0,00 - 0,25 (1)

Map 4.2.


Human Development Index
1996/97
HDI 1996/97
0,75 - 1,00 (3)
0,50 - 0,75 (7)
0,25 - 0,50 (7)
0,00 - 0,25 (3)

Map 4.3.



References

Enyedi, Gy. (1996), Regionális folyamatok Magyarországon az átmenet időszakában (Regional Processes in Hungary in the Transition Period), Budapest: Hilscher Rezső Szociálpolitikai Egyesület (Rezső Hilscher Social Policy Association).

KSH (1999), Demográfiai Évkönyv 1998 (Demographic Yearbook 1998), Budapest: Központi Statisztikai Hivatal (Central Statistical Office).

Nemes Nagy, J. (1998), 'Vesztesek – nyertesek – stagnálók' (Losers, Winners, Stagnaters), Társadalmi Szemle (Social Review), No. 8-9, pp. 5-18.

SUMMARY AND CONCLUSIONS

As in previous years, this annual report has concentrated on a few aspects of human development that are worth emphasizing. This approach allows longer-term tendencies to be outlined in these fields, which helps to make the emerging situation more comprehensible. At the same time, the analysis makes use of the most recent available data, to present current developments as well. The purpose is similar in the Appendix to the report. This aims to provide a comprehensive, up-to-the-minute picture, based on the main indicators of almost all the essential determinants of human development (health care, education, employment, natural resources, economic situation, etc.), exclusively in the light of the data.

Generally speaking, there have been no marked changes from the trends outlined last year. Economic growth has continued, but still fails to translate into a general, appreciable improvement in the standard of living. However, the personal-income level has certainly risen to some extent, especially by comparison with the trough reached in the mid-1990s. On the other hand, income inequalities widened further in the late 1990s, as Chapter One explains: the ratio of the bottom to the top decile for net per capita income increased from 7.5 in 1995 to 9.2 in 1997. The economic recovery failed to improve the income situation of many people, who may indeed have fallen irrevocably behind. The figures reflect that the extent and depth of poverty are becoming an ever-graver problem. Chapter One demonstrates that the size and intensity of poverty increased between 1995 and 1997, whichever poverty threshold is applied. The risk of poverty is greatest for households in which the head is unemployed. Almost half (42 per cent) of the households living in income poverty (belonging to the bottom income quintile) suffer poverty in at least three dimensions (for instance, housing poverty or consumption poverty). Furthermore, 3 per cent of households (4-5 per cent of the Hungarian population) suffer deep, clearly cumulative poverty, in which income poverty is accompanied by housing poverty, consumption poverty and poverty in consumer durables. Behind this cumulative poverty lie labour-market problems and disadvantages, which is apparent in the fact that social benefits make up more than half the per capita annual income of these households. Nonetheless, present social policies are proving unable to halt the process by which these households fall irrevocably behind and suffer exclusion from society. Only continuing economic growth can bring a substantial improvement in the longer term.

Chapter Two concentrates on direct labour-market problems and dealt with the trends in labour costs and earnings. Examining the changes in earnings confirms that income differences have been widening. The decile of the employed with the lowest earnings received 3.8 per cent of aggregate earnings in 1992. This proportion dropped to 3.3 per cent in 1998, while the proportion earned by the highest-earning decile increased from 25.4 per cent to 28.5 per cent. Another factor tending to polarize earnings is that the increase rate of gross average earnings in the 1990s has exceeded the increase rate of the minimum wage. The unfavourable trend in the standard of living is exemplified by a 9 per cent fall in the real value of net earnings, between 1994 and 1998. Within this, however, the higher earners suffered a smaller decrease in their net earnings.

Every chapter of last year's report noted an increase in regional differences. This subject has been explored in two chapters, from two points of view. Chapter Three examines regional utilization of human resources, in terms of economic activity and of differences and changes in unemployment by regions and types of settlement. Traditionally, there have been pronounced regional differences in socio-economic relations in Hungary. These have been heightened by the economic transition and the appearance of new manifestations of difference, such as unemployment. Looking at the changes in the last decade, the level of economic activity fell (to different extents) in every region, especially in the years after 1990. The difference between the highest and lowest rates of economic activity did not change essentially between 1980 and 1990. Since 1990, it has more than doubled, from 5 percentage points to over 10. The employment rate is found to exceed the national average in the capital and the county seats, and the rate is relatively high also in other towns with more than 20,000 inhabitants. Economic activity in smaller towns is more or less in line with the national average, but in many cases the position is similar to the one in the villages, where the employment level is lower than the average. The unemployment rate has fallen in the last few years,

nationally and in the various regions, although the regional differences remain great. The chapters dealing with regional differences were unable to break the figures down into smaller territorial units than the counties, but the unemployment registers show there are strong differences within counties as well. The census due to be taken in 2001 will probably provide more abundant information about differences in ILO-definition unemployment between smaller districts as well. It can only be hoped that the increase in employment mentioned in the Introduction, which has been brought about by the creation of large numbers of new jobs, will be aimed towards the areas that are lagging behind and help them to catch up.

Chapter Four presents regional differences and changes in these based on the Human Development Index (HDI), offering HDI estimates for each county. The calculations for 1990 and for 1996-7 again show an increase in regional polarization. The regions whose potential for human development was favourable at the time of the change of system have improved on their initial position. (The HDI values for counties with above-average HDI scores in 1990 did not decline over the decade.) With counties whose initial HDI values were below average, the change in HDI varied. Six counties fell back relatively (Baranya, Borsod-Abaúj-Zemplén, Jász-Nagykun-Szolnok, Nógrád, Somogy and Tolna) and four gained relative ground (Bács-Kiskun, Hajdú-Bihar, Pest and Szabolcs-Szatmár-Bereg). The social depression mainly affects the Northern Hungary and Southern Transdanubia regions. There is relative stability, without a spectacular advance, in a central swathe of the country (Pest and Bács-Kiskun counties). It is not surprising to find the lowest HDI values in the eastern county of Szabolcs-Szatmár-Bereg, although it is worth noting that the index values in the region have begun to improve. (The development programmes launched in some smaller districts, such as the Záhony area have probably made a contribution to this improvement.)

The significant regional differences of socio-economic relations are widely known. Awareness of them also extends to the government, which has tried to alleviate the differences by supporting various general development programmes (such as programmes for smaller districts) and encouraging infrastructural developments (such as road building). Regional development has been regulated by law since 1996 and an EU-compatible institutional system and regional policy is being devised on that basis. It seems that accession to the European Union, and even the preparatory phase before accession, may bring favourable changes in this respect.

The national family-policy concept mentioned in the Introduction seeks to remedy a problem mentioned in the report: the impoverishment of large families. However, it is clear that family policy cannot act as a substitute for devising a comprehensive social policy. The need for this has been voiced in government circles as well, but few specific measures have yet been taken. Last year's report underlined the urgent necessity to devise a strategy against poverty. To the authors' knowledge, there have been no essential steps taken to this end, although the problem of recent years has worsened. There is ample evidence for saying this in this year's report.

The report has also shown that there are serious labour-market tensions behind the development of poverty. Some new ideas have recently been advanced for handling chronic unemployment, but it remains questionable how effective the 'active' (job-creating) measures will be. The international experience is that only quite modest results can be expected at very high cost and with great effort. Meanwhile the restrictions being imposed on income supplement could lead to further impoverishment and permanent social exclusion for this circle of unemployed.

APPENDIX

1. Human Development Index		
Life expectancy at birth (years)	1998	70.9
Adult literacy rate (%)	1996	99.3
Mean years of schooling	1996	11*
Real GDP per capita (PPPUSD)	1996	9300**
	1997	10300

2. Profile of human development		
Life expectancy at birth (years)	1998	70.9
Maternal mortality rate (per 100,000 live births)	1997	15.9
Population per doctor	1997	226
Scientists and technicians (per 1,000 people)	1996	72.4
Enrolment ratio for all levels (%, age 6-22)	1998	70.6
Tertiary full time gross enrolment ratio (%)	1998	19.9
Of which: female (%)	1998	53.2
Daily newspapers (copies per 100 people)	1998	4626
Televisions (per 100 people)	1998	44
Real GDP per capita (PPPUSD)	1997	10300
GDP per capita (USD)	1998	4694

3. Profile of human distress		
Unemployment rate (%)	1998	7.8
Adults with less than upper-secondary education (as %-age 15-64)	1996	63.6
Ratio of income of highest 20% of households to lowest 20%	1998	3.5
Female wages (as % of male wages)	1998	83.0
Injuries from road accidents (per 100,000 people)	1998	274
Homicides by men (per 100,000 males)	1998	-
Nitrogen emission (kg per capita) NOX	1997	19.6
Sulphur emission (kg per capita) SO_2	1997	64.7

** Estimate*

*** Modified data, based on comparative calculations of the year 1996.*

4. **Trends in human development**		
Life expectancy at birth (years)	1960	68.0
	1970	69.2
	1980	69.0
	1990	69.3
	1998	70.9
Tertiary full-time equivalent gross enrolment ratio (%)	1965	13
	1994	14
	1998/99	16
Real GDP per capita (PPPUSD)	1997	10300
GDP per capita (USD)	1998	4694
Total education expenditure (as % of GDP)	1997	5.0
Total health expenditure (as % of GDP)	1996	6.2

5. **Female-male gaps Females as a percentage of males**		
Life expectancy	1998	113.7
Population	1998	109.3
Years of schooling	1995	102*
Secondary enrolment	1997/98	99.7
Upper-secondary graduates	1996	55.8
University full-time enrolment	1997/98	98.2
Natural and applied science enrolment	1996	58.8
Labour force	1998	79.8
Unemployment	1998	65.4
Wages (based on net average earnings of full time employees of firms employing more than 20 persons)	1998	83.0

6. **Status of women**		
Life expectancy at birth (years)	1998	75.18
Average age at first marriage (years)	1998	23.8
Maternal mortality rate (per 100,000 live births)	1997	19.9
Secondary net enrolment	1997/98	84.9
Tertiary natural and applied science enrolment (as % of female tertiary)	1996	33.5
Women in labour force (as of total labour force)	1998	44.4
Administrators and managers (% female)	1996	66.1
Parliament (% of seats occupied by women)	1998	8.3

* *Estimate*

7. Demographic profile		
Estimated population (millions)	1960	10.0
	1970	10.3
	1980	10.7
	1990	10.4
	1997	10.2
	2000	10.1
	2010	9.7
	2020	9.4
Annual population growth rate (%)	1960/70	0.36
	1970/80	0.37
	1980/90	-0.32
	1990/97	-0.28
	1997/2000	-0.36
	2000/10	-0.39
	2010/20	-0.33
Total fertility rate	1997	1.38
Fertility rates over time (as % of 1960)	1996	68.3
Contraceptive prevalence rate (%)	1993	73
Dependency ratio (%)	1997	59.2
Population aged 60 and over (%)	1998	19.5
Life expectancy at age 60 (years) male	1997	14.98
female	1997	19.69

8. Health profile		
Years of life lost to premature death (per 1,000 people)	1997	98.08
Deaths from circulatory system diseases (as % of all cases)	-	-
AIDS cases (per 100,000 people)	1998	0.35
Alcohol consumption (liters per person)	1997	10.4
Tobacco consumption (kg per person)	1997	1.5
Population per doctor	1998	221
Public expenditure on health (as % of total public expenditure)	1996	6.4
Total expenditure on health (as % of GDP)	1996	6.2
Private expenditure on health (as % of total health expenditure)	1996	8.8

9. Education profile		
Enrolments ratio for all levels (%) (age 6-22)	1998	70.6
Upper secondary full-time gross enrolment ratio (%)	1998/99	70.5
Upper secondary technical enrolment (as % of full time upper secondary)	1998	5.9
19-year-olds still in full time education (%)	1996	29.3
Tertiary full time gross enrolment ratio (%)	1998/99	19.9
Tertiary natural and applied science enrolment (as % of all levels)	1996	43.2
Expenditure on tertiary education (as % of all levels)	1998	19.9
Public expenditure per tertiary student (PPPUSD)		-
Total education expenditure (as % of GDP)	1997	5.0
Public expenditure on education (as % of GDP)	1997	4.0

10. Human capital formation		
Mean years of schooling (25+)	1996	11*
Scientists and technicians (per 1,000 people)	1996	72.4
R+D scientists and technicians (per 10,000 people)	1998	32.3
Expenditure on research and development (as % of GDP)	1997	0.74
Upper secondary graduates (as % of population of normal graduate age)	1998/99	52.7
Tertiary graduates (as % of population of normal graduate age)	1996/97	15.0
	1997/98	12.7

11. Employment		
Labour force (as % of total population)	1998	51.7
Percentage of labour force in		
Primary sector	1997	7.9
Secondary sector	1997	33.1
Tertiary sector	1997	59.0
Future labour force replacement ratio	-	-
Earnings per employee annual growth rate (%)	1997/98	3.6
Earnings disparity:		
Ratio of earnings of upper half of labour force	-	-
Percentage of labour force unionized	-	-
Weekly hours of work (per person in manufacturing)	1996	37**
Expenditure on labour market programmes (as % of GDP)	1997	1.09***

12. Unemployment		
Unemployed persons (thousands)	1998	313.0
Unemployment rate	1998	7.8
Unemployment benefits expenditure (as % of total government expenditure)	1997	1.5
Incidence of long-term unemployment (as % of total)	1998	48.7
Regional unemployment disparity		
Unemployment rate (%) - national average	1998	7.8
Worst region		12.1
Best region		5.6
Ratio of unemployment rate of those not completing secondary		
school (16.8%) to rate of those graduating from third level (2.0)	1996	8.4

* *Estimate*
** *Estimate*
*** *Source: Labour Ministry*

13. Military expenditure and resources use imbalances		
Military expenditure (as % of GDP)	1998	1.3
Military expenditure		
(as % of combined education and health expenditure)	1996	15
ODA (Official Development Assistance) disbursed	-	-
Average annual export of non-nuclear arms to developing USD millions	-	-
Percentage share	-	-
Armed forces: Per 1,000 people	1998	6.0
Per teacher	1998	0.34
Per doctor	1998	1.3

14. Natural resources balance sheet		
Land area (thousands of km^2)	1998	93
Population density (people per km^2)	1998	108.9
Arable land and permanent cropland (as % of total land area)	1998	50.6
Permanent grasslands (as % of total land area)	1998	12.3
Forest and wooded lands (as % of land area)	1998	19.0
Irrigated land		
(as % of total land area)	1998	1.0
(as % of agricultural area)	1995	1.5
Internal renewable water resources per capita (1000 m^3 per year)	1997	10.5
Annual freshwater withdrawals (million m^3)	1998	5680

15. National income accounts		
Total GDP (USD billions)	1997	45733
Agricultural production (as % of GDP)	1997	5.2
Industrial production (as % of GDP)	1997	24.0
Services (as % of GDP)	1997	61.4
Consumption private (as % of GDP)	1997	62.2
Government (as % of GDP)	1997	10.5
Gross domestic investment (as % of GDP)	1997	27.9
Gross domestic savings (as % of GDP)	1996	26.8
Tax revenue (as % of GDP)	1996	13.4
Central government expenditure (as % of GDP)	1997	31.6
Exports (as % of GDP)	1997	45.5
Imports (as % of GDP)	1997	46.0

16. Trends in economic performance		
Total GDP (USD billions)	1997	45733
Annual growth rate (%)	1997/96	104.6
GDP per capita annual growth rate (%)	1998/97	105.1
Average annual rate of inflation (%)	1998	114.3
Exports as % of GDP	1997	45.5
Tax revenue (as % of GDP, previous year = 100)	1996	98.9
Direct taxes as % of total taxes	1996	38.4
Overall budget surplus/deficit (as % of GDP)	1997	-1.8

17. Weakening social fabric		
Prisoners (per 100,000 people)	1998	142
Juveniles (age 14-17) (as % of total prisoners)	1998	0.5
Intentional homicides by men (per 100,000)	1998	2.5
Reported rapes (per 100,000 women age 15-59)	1998	10.7
Registered drug addicts (per 100,000 people)	1998	93.3
Asylum applications received (thousands)	1997	0.03
Divorces (as % marriages contracted)	1997	53.3
Births outside marriage (%)	1997	25.0
Single female parent homes (as % of families)	1996	19.7
Suicides by men (per 100,000)	1998	51.0

18. Wealth, poverty and social investment		
Real GDP per capita (PPPUSD)	1997	10300
GDP per capita (USD)	1997	4504
Share of industrial GDP (%)	1997	24.0
Income, share		
Lowest 40 % of households (%)	1998	24.6
Ratio of highest 20 % of lowest 20 %	1998	3.5
Social security benefits expenditure (% of GDP)(in cash)	1996	3.8
Total education expenditure (% of GDP)	1997	5.0
Total health expenditure (% of GDP)	1996	6.2

19. Communication profile		
Radios (per 100 people)	1998	63.1
Televisions (per 100 people)	1998	44.0
Annual cinema attendance's (per person)	1998	1.4
Annual museum attendance's (per person)	1998	1
Registered library users (% of total population)	1997	14.0
Daily newspapers (copies per 100 people)	1998	4626
Books (titles) published (per 100,000 people)	1998	105
Printing and writing paper consumed (metric tons per 1,000 people)	1997	11.77
Letters posted (per capita)	1998	99.3
Telephones (per 100 households)	1998	68.8
International telephone calls (minutes per capita)	-	-
Motor vehicles (motorbikes+passenger cars per 100 households)	1997	45

20. Urbanization		
Urban population (as % of total)	1960	53.8
	1970	58.6
	1980	62.3
	1990	64.1
	1998	65.7
Urban population annual growth rate (%)	1998	99.3
Population in largest city (as % of urban)	1998	28.8
Population in cities of more than 1 million (as % of urban)	1998	28.8
Population in cities of more than 1 million (as % of total)	1998	18.4
Major city with highest population density	1998	Budapest
Population per km^2	1998	3544
Population exposed to 60 + decibels of road traffic noise (%)	-	-

21. Energy		
Energy sources: (%)		
production	1997	45,3
of which: coal		11,9
hydrocarbons		19,3
electricity from nuclear power plan		12,1
electricity from hydroelectric power		0,2
firewood		1,8
other		0,0
imports		54,7
Energy consumption (petajoule)		
industry	1997	409,5
construction		8,0
agriculture, forestry and water management		38,5
transport and communication		44,9
households		372,8

22. Environment and pollution		
Drought-affected area (as % of total area)	1998	0.5
CO_2 emissions of mobile sources (as % of total CO_2 emissions)	1997	16
CO_2 emissions of industry (as % of total CO_2 emissions)	1997	17
Communal (population + services) CO_2 emissions (as % of total CO_2 emissions)	1997	26
Proportion of dwellings supplied with Water		90.6
Sewage	1997	46.0
Gas (pipe)		59.1